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Low Energy Fission and a Compilation of
Measured Fractional Yields**

by

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ESTIMATED VALUES OF FRACTIONAL YIELDS FROM LOW ENERGY FISSION AND A COMPILATION OF MEASURED FRACTIONAL YIELDS

by

Kurt Wolfsberg

This report presents tables of estimated fractional fission yields. The yields are calculated from postulated Z_p functions and Gaussian charge dispersion curves. Odd-even Z factors are applied. Estimated yields are compared with measured values.

I. INTRODUCTION

Knowledge of independent and cumulative yields of fission products has been of interest since some of the earliest fission studies. Such yields have been used in testing theories and postulates of the fission process. Since beta decay of a fission product results in change of Z and consequently in a change of chemical and physical properties, the ultimate fate of long lived or stable fission products produced in nuclear reactors, nuclear explosions, etc., may be determined in part by the relative yields of the precursors of these products. Independent yields are also necessary for the calculation of post fission heating due to beta decay for power reactors and in the calculation of fission product inventories of such reactors.

The independent yield (sometimes called the direct yield) of a fission product is the fraction (or percent) of fissions which, after prompt neutron emission, results directly in that product. The cumulative yield of a product is the fraction of fissions that result in that product either directly, through beta decay, or through delayed neutron emission. The cumulative yield of a late member of a beta-decay chain which represents essentially all of the yield of that chain is called the mass yield or the chain yield. A fractional independent or fractional cumulative yield is the independent or cumulative yield divided by the chain yield. The systematic treatment presented here is built around fractional yields. In many experiments fractional yields are measured directly.

matic treatment presented here is built around fractional yields. In many experiments fractional yields are measured directly.

II. METHODS OF ESTIMATING FRACTIONAL YIELDS

A. Charge Dispersion

Z_p for a given mass chain is defined as the maximum of the independent yield-versus- Z curve and is called the most probable charge. The fractional cumulative yield of a product with charge Z is given by the equation:

$$\sum_0^Z (P_n) = \frac{1}{\sigma(2\pi)^{1/2}} \int_{-\infty}^{Z+0.5} \exp[-(n-Z_p)^2/2\sigma^2] dn$$

$$= 0.5 + 0.5 \operatorname{erf}[(Z-Z_p+0.5/\sigma)], \quad (1)$$

in which f is the normal probability integral. For fractional independent yields the lower limit of the integral in eq. (1) becomes $Z-0.5$. For thermal neutron fission of ^{235}U , a value of $\sigma = 0.56 \pm 0.06$ was found to be valid for a number of chains having high yields.¹ It is assumed on the basis of a few measurements^{2,3} that a value of $\sigma = 0.56$ is valid for all chains for low energy ($E^* \approx 21$ MeV in this report). In the estimates of fractional yields in this report the uncertainty in σ is increased according to the lack of experimental values to justify this assumption.

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Several authors¹ have indicated a preference in fission for the formation of even-Z fragments at the expense of odd-Z fragments. Amiel and Feldstein⁴ showed that yields of even-Z products are enhanced by a factor of ≈ 1.25 . Accordingly, we modify the independent yields calculated from the Gaussian by multiplying the yields of even-Z products by an "odd-even Z factor" and the yields of odd-Z products by the reciprocal of the factor. We use factors of 1.25 ± 0.10 , 1.25 ± 0.10 , and 1.15 ± 0.15 for thermal-neutron, fission-spectrum neutron, and 14-MeV-neutron fission of uranium nuclides, respectively. The effect may not apply for plutonium fission; we use factors of 1.00 ± 0.20 , 1.00 ± 0.15 , and 1.00 ± 0.15 for fission of plutonium with the three types of neutrons, respectively.

For a given fission product of charge Z and mass A it is necessary to estimate or calculate a value of Z_p for that A (see below). Then the charge dispersion curve is used to calculate "normal" fractional independent and cumulative yields for the chain. Finally the "odd-even Z factor" is applied and the yields are renormalized.

B. Charge Distribution

For thermal neutron fission of ^{235}U the deviation from unchanged charge distribution (UCD) is $+0.45 \pm 0.10$ for the light fragment and -0.45 ± 0.10 for the heavy fragment for fragment mass numbers ≤ 106 and ≥ 130 ¹. For the heavy fragment,

$$Z_p = A'(Z_F/A_F) - (0.45 \pm 0.10). \quad (2)$$

A' is the average fragment mass number and is obtained by increasing the product mass number A by $\bar{\nu}(A)$, the average number of neutrons emitted from fragments to form the product. Z_F and A_F are the charge and mass number of the fissioning (compound) nucleus. The Z_p function in Ref. 1 is extended for fragments near symmetry; however no function is entirely satisfactory in this region at this time.

Several methods have been proposed for estimating Z_p values for other types of fission:

1. Coryell method. Coryell et al.⁵ adjusted Z_p values, from thermal neutron fission of ^{235}U by a factor derived from the Equal Charge Displacement Postulate (which was only partially successful in estimating Z_p 's directly). As advocated in 1965,^{2,6} the prescription takes on the following form:

$$Z_p = Z_p^{\text{ref}} + \Delta Z_p$$

$$\Delta Z_p = 0.5(Z_F - Z_F^{\text{ref}}) - 0.21(A_F - A_F^{\text{ref}}) + 0.19(\bar{\nu}_T - \bar{\nu}_T^{\text{ref}}). \quad (3)$$

Superscripts "ref" apply for thermal neutron fission of ^{235}U . Where multichance fission is possible, A_F is the mass number of the initial compound nucleus, and $\bar{\nu}_T$ is the average number of neutrons emitted per fission. In this report, Z_p^{ref} values are taken from Ref. 1, and $\bar{\nu}_T$ values from Ref. 7. The Coryell Z_p is calculated as " Z_p , type 2" or $Z_p(2)$.

2. Nethaway Method. Nethaway⁸ has calculated values of Z_p from Eq. (1) and known measured fractional yields, and then he used these values in a least squares program to obtain coefficients of terms in equations of the type given by Coryell, above. Light and heavy products are considered separately:

$$\Delta Z_p(\text{light}) = 0.44(Z_F - 92) - 0.16(A_F - 236)(3) + 0.015E_n$$

$$\Delta Z_p(\text{heavy}) = 0.59(Z_F - 92) - 0.20(A_F - 236)(4) + 0.030E_n. \quad (4)$$

E_n is the neutron energy in MeV. In this report the $Z_p(3)$ values are calculated by this method.

3. Deviation from UCD Method. It was indicated in 1965² that the deviation of Z_p values from UCD for several low-energy fission processes was similar to the deviation for thermal-neutron fission of ^{235}U . This method is now formalized. For fission of uranium nuclides, we assume that the deviation of Z_p from UCD is 0.45 as it is for thermal neutron fission of ^{235}U and Eq. (2) applies for heavy fragments having mass numbers greater than 129. Radiochemical measurements as well as physical measurements indicate that such a function is not entirely satisfactory for fission of plutonium; accordingly, we use a Z_p function similar to that given by Reisdorf et al.⁹ for low-energy fission of plutonium nuclides. For all types of low-energy fission we assume no deviation from UCD for fission in the symmetric region. It is realized that this is probably unsatisfactory, and large uncertainties in Z_p and σ are applied.

Values of $\bar{\nu}_T(A)$, the average total number of neutrons emitted from both the light and heavy fragments to form the product of mass number A, are

derived from mass-yield data by the Terrell summation method.¹⁰ Mass yields generated by Rider¹¹ in May 1973 (August 1973 for thermal neutron fission of ^{235}U) are used. Next $\bar{v}_T(A)$ is divided between the light and heavy fragment according to the ratio for the division as determined by physical measurements. For thermal-neutron fission and fission-spectrum-neutron fission, we use the average values obtained by Wahl et al.¹ for thermal neutron fission of ^{235}U from several physical measurements. For 14-MeV neutron fission we divide $\bar{v}_T(A)$ according to the function for pre-fission plus post-fission neutrons obtained by Cheifetz and Fraenkel¹² for fission of ^{238}U with 12-MeV protons. When the "Deviation from UCD" method is used with $\bar{v}(A)$ values calculated by this method (NUTOT), the resulting Z_p values are listed as $Z_p(4)$.

There is insufficient mass-yield data for some types of fission to calculate $\bar{v}(A)$ by the NUTOT method. An alternate way to obtain $\bar{v}(A)$ is by the NUBAR method. For thermal-neutron fission, the same values as for thermal-neutron fission of ^{235}U from Ref. 1 are used. For fission-spectrum-neutron induced fission the values from Ref. 1 are scaled according to $\bar{v}_T$. For 14-MeV neutron induced fission, the values of Cheifetz and Fraenkel¹² are scaled according to $\bar{v}_T$.⁷ When the "Deviation from UCD" method is used with $\bar{v}(A)$ values obtained by this method, the Z_p values are listed as $Z_p(1)$.

C. Estimation of Fractional Yields

Values of Z_p are calculated by the four methods and listed in the tables for comparison. The Gaussian charge dispersion curve is then used to calculate "normal" fractional yields, and the "odd-even Z factor" is applied. Uncertainties are propagated throughout. Any of the Z_p functions can be chosen for estimating yields. Where mass-yield data is sufficiently good we use $Z_p(4)$; otherwise, $Z_p(1)$. It is difficult to choose between the Nethaway method and the "Deviation from UCD" method. The agreement between estimated and measured yields is about the same. At this time we chose the latter method mainly because it is not dependent on measured values. Values from the Coryell method do not agree as well with experimental measurements. Z_p values from this method are included because many yields were estimated by this method in the past.

Corrections for delayed neutron emission have not been made in these calculations. They could be made using delayed neutron emission probabilities and mass yields as additional input parameters in an improved program.

III. COMPILATION OF MEASURED YIELDS AND COMPARISON WITH ESTIMATED YIELDS

In August 1973, several investigators -- A. C. Wahl (Washington University), D. R. Nethaway (Lawrence Livermore Laboratory), H. O. Denschlag (University of Mainz), and this author -- initiated a compilation of measured fractional yield data. Although the compilation is still in a preliminary stage it is included in this report.

The quantities entered in the compilation are listed in the tables. Where the experimental value is a limit, the letter G or L (for less than or greater than) precedes the value. We use Meek and Rider's¹¹ designations for the fission process. For example, U233T, U238F, and PU239H refer to thermal-neutron fission of ^{235}U , fission-spectrum-neutron fission of ^{238}U , and 14-MeV-neutron fission of ^{239}Pu , respectively. The designations FI, FC, IN, CU are for fractional independent, fractional cumulative, independent, or cumulative yield, respectively. The compilation contains only those cumulative yields that represent less than the chain yield. The primary reference is in the Meek and Rider designation. For secondary references, other designations are used where Meek and Rider designations were not available when the entry was made. The secondary references consist of a letter designating the compiler, the first letter of the author, the year, and a sequential number for the author letter-year combination. If the Meek and Rider designation has become known at a later time, it is added. Both types of references are listed at the end of the tables. A "C" prefix to the reference designation indicates that the reference is a compilation and a number suffix is a reference within that compilation. In some cases this has been traced back to the primary work listed; however, this has not been completed. At the present time our compilation is unevaluated. Some measurements may appear several times from different compilations. There may be differences for the same primary reference because compilers may treat or interpret the same number differently. For

example, an author may publish an independent yield and compilers may use different mass yields to arrive at a fractional yield. No attempt was made to reject any published or unpublished values.

Errors or omissions in the compilation will be gratefully received by any of the persons involved.

IV. DESCRIPTION OF THE TABLES

A computer code FRAC was written to generate the tables. First there is a set of tables for normal fractional yields. Fractional independent and fractional cumulative yields (FIY and FCY) are calculated for values of $(Z-Z_p)$ from -4.50 to 4.50 using $\sigma=0.56$ as well as the "normal" range of values calculated by taking the highest and lowest values from the combinations of the extremes of $\sigma=0.56\pm0.06$ and uncertainties of ±0.1 in Z_p .

Next there is a series of tables for each of the following types of fission: thermal-neutron fission of ^{233}U , ^{235}U , and ^{239}Pu ; fission-spectrum-neutron (~2 MeV average) fission of ^{235}U , ^{238}U , and ^{239}Pu ; and 14.6 MeV-neutron fission of ^{235}U , ^{238}U , and ^{239}Pu . In each series there is a page describing the parameters and uncertainties that go into the calculation. The estimated yields for each chain are listed by atomic number Z . Where there is an experimental measurement, the estimated yield is preceded by a "g" symbol. The range of values is calculated by taking into account the extremes of the values from the listed uncertainties in σ and Z_p . The uncertainty in the "odd-even factor" is propagated in quadrature. The neutron parameters are listed for each chain. There is a table comparing the Z_p 's calculated by the different methods. The experimental fractional yields in the compilation are listed along with the estimated value. A fit is indicated if there is any overlap between the range of the estimated value and the range of the experimental value.

After this series of tables there is a table of "Other Independent and Cumulative Yields." This includes non-fractional yields for the fission processes considered before and other yields in the compilation for fission processes which were not considered. Finally, the yield references are listed.

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REFERENCES

1. A. C. Wahl, A. E. Norris, R. A. Rouse, and J. C. Williams, in Proceedings of the Second International Atomic Energy Symposium on Physics and Chemistry of Fission, Vienna, Austria, 1969 (International Atomic Energy Agency, Vienna, Austria, 1969), p. 813.
2. K. Wolfsberg, *Phys. Rev.* **137**, B929, (1965).
3. H. O. Denschlag, *Habilitationsschrift*, Mainz (1971).
4. S. Amiel and H. Feldstein, Paper IAEA/SM-174/25, International Atomic Energy Agency Conference on the Physics and Chemistry of Fission, Rochester, 1973 (to be published).
5. C. D. Coryell, M. Kaplan, and R. D. Fink, *Can. J. Chem.* **39**, 646 (1961).
6. K. Wolfsberg, Los Alamos Scientific Laboratory Report LA-3169 (1965).
7. W. G. Davey, *Nucl. Sci. and Eng.* **44**, 345 (1971).
8. D. R. Nethaway, Abstracts ACS Division of Nuclear Science and Technology 1st Divisional Meeting, Newport Beach, Ca., 1973; and personal communication, 1972.
9. W. Reisdorf, J. P. Unik, H. C. Griffin, and L. E. Glendenin, *Nucl. Phys. A* **177**, 337 (1971).
10. J. Terrell, *Phys. Rev.* **127**, 880 (1962).
11. B. F. Rider, personal communication, 1973; see also M. E. Meek and B. F. Rider, Vallecitos Nuclear Center Report NEDO-12154 (1972).
12. E. Cheifetz and Z. Fraenkel, *Phys. Rev. Letters* **21**, 36 (1968).

NORMAL FRACTICULAR YIELDS

F1Y FOR		RANGE OF F1Y		F1Y FOR		RANGE OF FCY		FCY FOR	
SIGMA=0.56		AND ZP + OR = 0.10		SIGMA=0.50		FOR SIGMA = 0.50 TO 0.62		SIGMA=0.50	
2-2P	FCY	2-2P	FCY	2-2P	FCY	2-2P	FCY	2-2P	FCY
4.50	4.583E-13	0.	1.584E-10	0.	5.534E-11	-4.50	4.583E-13	0.	5.534E-11
4.49	5.222E-13	0.	1.757E-10	0.	6.154E-11	-4.49	5.222E-13	0.	6.154E-11
4.48	5.933E-13	0.	1.949E-10	0.	6.807E-11	-4.48	5.933E-13	0.	6.807E-11
4.47	6.750E-13	0.	2.161E-10	0.	7.607E-11	-4.47	6.750E-13	0.	7.607E-11
4.46	7.674E-13	0.	2.395E-10	0.	8.454E-11	-4.46	7.674E-13	0.	8.454E-11
4.45	8.740E-13	0.	2.655E-10	0.	9.392E-11	-4.45	8.740E-13	0.	9.392E-11
4.44	9.948E-13	0.	2.941E-10	0.	1.043E-10	-4.44	9.948E-13	0.	1.043E-10
4.43	1.130E-12	0.	3.258E-10	0.	1.159E-10	-4.43	1.130E-12	0.	1.159E-10
4.42	1.283E-12	0.	3.608E-10	0.	1.286E-10	-4.42	1.283E-12	0.	1.286E-10
4.41	1.457E-12	0.	3.994E-10	0.	1.428E-10	-4.41	1.457E-12	0.	1.428E-10
4.40	1.652E-12	0.	4.421E-10	0.	1.584E-10	-4.40	1.652E-12	0.	1.584E-10
4.39	1.876E-12	0.	4.892E-10	0.	1.757E-10	-4.39	1.876E-12	0.	1.757E-10
4.38	2.128E-12	0.	5.412E-10	0.	1.949E-10	-4.38	2.128E-12	0.	1.949E-10
4.37	2.422E-12	0.	5.985E-10	0.	2.161E-10	-4.37	2.422E-12	0.	2.161E-10
4.36	2.736E-12	0.	6.618E-10	0.	2.395E-10	-4.36	2.736E-12	0.	2.395E-10
4.35	3.102E-12	0.	7.315E-10	0.	2.655E-10	-4.35	3.102E-12	0.	2.655E-10
4.34	3.514E-12	0.	8.084E-10	0.	2.941E-10	-4.34	3.514E-12	0.	2.941E-10
4.33	3.983E-12	0.	8.932E-10	0.	3.258E-10	-4.33	3.983E-12	0.	3.258E-10
4.32	4.508E-12	0.	9.866E-10	0.	3.608E-10	-4.32	4.508E-12	0.	3.608E-10
4.31	5.105E-12	0.	1.089E-09	0.	4.011E-10	-4.31	5.105E-12	0.	4.011E-10
4.30	5.777E-12	0.	1.203E-09	0.	4.421E-10	-4.30	5.777E-12	0.	4.421E-10
4.29	6.537E-12	0.	1.328E-09	0.	4.892E-10	-4.29	6.537E-12	0.	4.892E-10
4.28	7.393E-12	0.	1.465E-09	0.	5.412E-10	-4.28	7.393E-12	0.	5.412E-10
4.27	8.365E-12	0.	1.616E-09	0.	5.985E-10	-4.27	8.365E-12	0.	5.985E-10
4.26	9.456E-12	0.	1.782E-09	0.	6.618E-10	-4.26	9.456E-12	0.	6.618E-10
4.25	1.066E-11	0.	1.965E-09	0.	7.315E-10	-4.25	1.066E-11	0.	7.315E-10
4.24	1.207E-11	0.	2.166E-09	0.	8.084E-10	-4.24	1.207E-11	0.	8.084E-10
4.23	1.363E-11	0.	2.387E-09	0.	8.932E-10	-4.23	1.363E-11	0.	8.932E-10
4.22	1.538E-11	0.	2.630E-09	0.	9.866E-10	-4.22	1.538E-11	0.	9.866E-10
4.21	1.737E-11	0.	2.897E-09	0.	1.089E-09	-4.21	1.737E-11	0.	1.089E-09
4.20	1.959E-11	0.	3.191E-09	0.	1.203E-09	-4.20	1.959E-11	0.	1.203E-09
4.19	2.210E-11	0.	3.513E-09	0.	1.328E-09	-4.19	2.210E-11	0.	1.328E-09
4.18	2.492E-11	0.	3.866E-09	0.	1.465E-09	-4.18	2.492E-11	0.	1.465E-09
4.17	2.803E-11	0.	4.254E-09	0.	1.616E-09	-4.17	2.803E-11	0.	1.616E-09
4.16	3.165E-11	0.	4.680E-09	0.	1.782E-09	-4.16	3.165E-11	0.	1.782E-09
4.15	3.566E-11	0.	5.147E-09	0.	1.965E-09	-4.15	3.566E-11	0.	1.965E-09
4.14	4.016E-11	0.	5.659E-09	0.	2.167E-09	-4.14	4.016E-11	0.	2.167E-09
4.13	4.522E-11	0.	6.221E-09	0.	2.387E-09	-4.13	4.522E-11	0.	2.387E-09
4.12	5.085E-11	0.	6.837E-09	0.	2.629E-09	-4.12	5.085E-11	0.	2.629E-09
4.11	5.726E-11	0.	7.512E-09	0.	2.897E-09	-4.11	5.726E-11	0.	2.897E-09
4.10	6.441E-11	0.	8.251E-09	0.	3.191E-09	-4.10	6.441E-11	0.	3.191E-09
4.09	7.242E-11	0.	9.061E-09	0.	3.513E-09	-4.09	7.242E-11	0.	3.513E-09
4.08	8.141E-11	0.	9.948E-09	0.	3.866E-09	-4.08	8.141E-11	0.	3.866E-09
4.07	9.149E-11	0.	1.092E-08	0.	4.254E-09	-4.07	9.149E-11	0.	4.254E-09
4.06	1.029E-10	0.	1.198E-08	0.	4.680E-09	-4.06	1.029E-10	0.	4.680E-09
4.05	1.154E-10	0.	1.314E-08	0.	5.147E-09	-4.05	1.154E-10	0.	5.147E-09
4.04	1.296E-10	0.	1.442E-08	0.	5.659E-09	-4.04	1.296E-10	0.	5.659E-09
4.03	1.454E-10	0.	1.581E-08	0.	6.221E-09	-4.03	1.454E-10	0.	6.221E-09
4.02	1.632E-10	0.	1.733E-08	0.	6.837E-09	-4.02	1.632E-10	0.	6.837E-09
4.01	1.830E-10	0.	1.899E-08	0.	7.512E-09	-4.01	1.830E-10	0.	7.512E-09

NORMAL FRACTIONAL YIELDS

Z-2P	RANGE OF FIY		FIY FOR SIGMA=0.50	FIY FOR SIGMA=0.62	Z-7P	RANGE OF FCY		FCY FOR SIGMA=0.50	FCY FOR SIGMA=0.62
	FIY FOR SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62 AND 2P + OR - 0.10				FCY FOR SIGMA=C.56	FCY SIGMA = 0.50 TO 0.62 AND 2P + CR - 0.10		
-4.70	2.352E-10	(3.020E-13 TO 2.081E-08)	1.283E-12	8.251E-09	-4.70	2.052E-10	(3.020E-13 TO 2.081E-08)	1.233E-12	8.251E-09
-3.99	2.301E-10	(3.517E-13 TO 2.279E-08)	1.478E-12	9.061E-09	-3.99	2.301E-10	(3.517E-13 TO 2.279E-08)	1.478E-12	9.061E-09
-3.98	2.578E-10	(4.050E-13 TO 2.496E-08)	1.702E-12	9.948E-09	-3.98	2.578E-10	(4.050E-13 TO 2.496E-08)	1.702E-12	9.948E-09
-3.97	2.888E-10	(4.628E-13 TO 2.732E-08)	1.961E-12	1.092E-08	-3.97	2.888E-10	(4.628E-13 TO 2.732E-08)	1.961E-12	1.092E-08
-3.96	3.234E-10	(5.400E-13 TO 2.991E-08)	2.260E-12	1.198E-08	-3.96	3.234E-10	(5.400E-13 TO 2.991E-08)	2.260E-12	1.198E-08
-3.95	3.621E-10	(6.253E-13 TO 3.273E-08)	2.601E-12	1.316E-08	-3.95	3.621E-10	(6.253E-13 TO 3.273E-08)	2.601E-12	1.316E-08
-3.94	4.053E-10	(7.212E-13 TO 3.580E-08)	2.995E-12	1.442E-08	-3.94	4.053E-10	(7.212E-13 TO 3.580E-08)	2.995E-12	1.442E-08
-3.93	4.534E-10	(8.349E-13 TO 3.916E-08)	3.446E-12	1.581E-08	-3.93	4.534E-10	(8.349E-13 TO 3.916E-08)	3.446E-12	1.581E-08
-3.92	5.072E-10	(9.628E-13 TO 4.282E-08)	3.961E-12	1.733E-08	-3.92	5.072E-10	(9.628E-13 TO 4.282E-08)	3.961E-12	1.733E-08
-3.91	5.671E-10	(1.112E-12 TO 4.680E-08)	4.555E-12	1.899E-08	-3.91	5.671E-10	(1.112E-12 TO 4.680E-08)	4.555E-12	1.899E-08
-3.90	6.339E-10	(1.283E-12 TO 5.115E-08)	5.233E-12	2.081E-08	-3.90	6.339E-10	(1.283E-12 TO 5.115E-08)	5.233E-12	2.081E-08
-3.89	7.084E-10	(1.478E-12 TO 5.589E-08)	6.011E-12	2.279E-08	-3.89	7.084E-10	(1.478E-12 TO 5.589E-08)	6.011E-12	2.279E-08
-3.88	7.913E-10	(1.702E-12 TO 6.105E-08)	6.903E-12	2.496E-08	-3.88	7.913E-10	(1.702E-12 TO 6.105E-08)	6.903E-12	2.496E-08
-3.87	8.837E-10	(1.961E-12 TO 6.667E-08)	7.923E-12	2.732E-08	-3.87	8.837E-10	(1.961E-12 TO 6.667E-08)	7.923E-12	2.732E-08
-3.86	9.866E-10	(2.260E-12 TO 7.279E-08)	9.088E-12	2.991E-08	-3.86	9.866E-10	(2.260E-12 TO 7.279E-08)	9.088E-12	2.991E-08
-3.85	1.101E-09	(2.601E-12 TO 7.945E-08)	1.042E-11	3.273E-08	-3.85	1.101E-09	(2.601E-12 TO 7.945E-08)	1.042E-11	3.273E-08
-3.84	1.229E-09	(2.995E-12 TO 8.570E-08)	1.195E-11	3.580E-08	-3.84	1.229E-09	(2.995E-12 TO 8.570E-08)	1.195E-11	3.580E-08
-3.83	1.370E-09	(3.446E-12 TO 9.458E-08)	1.369E-11	3.916E-08	-3.83	1.370E-09	(3.446E-12 TO 9.458E-08)	1.369E-11	3.916E-08
-3.82	1.528E-09	(3.961E-12 TO 1.032E-07)	1.569E-11	4.282E-08	-3.82	1.528E-09	(3.961E-12 TO 1.032E-07)	1.569E-11	4.282E-08
-3.81	1.703E-09	(4.555E-12 TO 1.125E-07)	1.796E-11	4.680E-08	-3.81	1.703E-09	(4.555E-12 TO 1.125E-07)	1.796E-11	4.680E-08
-3.80	1.898E-09	(5.233E-12 TO 1.226E-07)	2.056E-11	5.115E-08	-3.80	1.898E-09	(5.233E-12 TO 1.226E-07)	2.056E-11	5.115E-08
-3.79	2.114E-09	(6.011E-12 TO 1.336E-07)	2.353E-11	5.589E-08	-3.79	2.114E-09	(6.011E-12 TO 1.336E-07)	2.353E-11	5.589E-08
-3.78	2.355E-09	(6.903E-12 TO 1.456E-07)	2.690E-11	6.105E-08	-3.78	2.355E-09	(6.903E-12 TO 1.456E-07)	2.690E-11	6.105E-08
-3.77	2.621E-09	(7.923E-12 TO 1.586E-07)	3.076E-11	6.667E-08	-3.77	2.621E-09	(7.923E-12 TO 1.586E-07)	3.076E-11	6.667E-08
-3.76	2.917E-09	(9.088E-12 TO 1.727E-07)	3.516E-11	7.279E-08	-3.76	2.917E-09	(9.088E-12 TO 1.727E-07)	3.516E-11	7.279E-08
-3.75	3.246E-09	(1.042E-11 TO 1.881E-07)	4.016E-11	7.945E-08	-3.75	3.246E-09	(1.042E-11 TO 1.881E-07)	4.016E-11	7.945E-08
-3.74	3.610E-09	(1.195E-11 TO 2.047E-07)	4.586E-11	8.670E-08	-3.74	3.610E-09	(1.195E-11 TO 2.047E-07)	4.586E-11	8.670E-08
-3.73	4.014E-09	(1.369E-11 TO 2.228E-07)	5.235E-11	9.458E-08	-3.73	4.014E-09	(1.369E-11 TO 2.228E-07)	5.235E-11	9.458E-08
-3.72	4.462E-09	(1.569E-11 TO 2.424E-07)	5.974E-11	1.032E-07	-3.72	4.462E-09	(1.569E-11 TO 2.424E-07)	5.974E-11	1.032E-07
-3.71	4.959E-09	(1.796E-11 TO 2.636E-07)	6.814E-11	1.125E-07	-3.71	4.959E-09	(1.796E-11 TO 2.636E-07)	6.814E-11	1.125E-07
-3.70	5.508E-09	(2.056E-11 TO 2.866E-07)	7.769E-11	1.226E-07	-3.70	5.508E-09	(2.056E-11 TO 2.866E-07)	7.769E-11	1.226E-07
-3.69	6.117E-09	(2.353E-11 TO 3.116E-07)	8.859E-11	1.336E-07	-3.69	6.117E-09	(2.353E-11 TO 3.116E-07)	8.859E-11	1.336E-07
-3.68	6.791E-09	(2.690E-11 TO 3.387E-07)	1.009E-10	1.456E-07	-3.68	6.791E-09	(2.690E-11 TO 3.387E-07)	1.009E-10	1.456E-07
-3.67	7.537E-09	(3.076E-11 TO 3.680E-07)	1.149E-10	1.586E-07	-3.67	7.537E-09	(3.076E-11 TO 3.680E-07)	1.149E-10	1.586E-07
-3.66	8.363E-09	(3.516E-11 TO 3.997E-07)	1.308E-10	1.727E-07	-3.66	8.363E-09	(3.516E-11 TO 3.997E-07)	1.308E-10	1.727E-07
-3.65	9.275E-09	(4.016E-11 TO 4.341E-07)	1.488E-10	1.881E-07	-3.65	9.275E-09	(4.016E-11 TO 4.341E-07)	1.488E-10	1.881E-07
-3.64	1.028E-08	(4.586E-11 TO 4.713E-07)	1.693E-10	2.047E-07	-3.64	1.028E-08	(4.586E-11 TO 4.713E-07)	1.693E-10	2.047E-07
-3.63	1.140E-08	(5.235E-11 TO 5.116E-07)	1.925E-10	2.228E-07	-3.63	1.140E-08	(5.235E-11 TO 5.116E-07)	1.925E-10	2.228E-07
-3.62	1.263E-08	(5.974E-11 TO 5.552E-07)	2.188E-10	2.426E-07	-3.62	1.263E-08	(5.974E-11 TO 5.552E-07)	2.188E-10	2.426E-07
-3.61	1.399E-08	(6.814E-11 TO 6.024E-07)	2.486E-10	2.636E-07	-3.61	1.399E-08	(6.814E-11 TO 6.024E-07)	2.486E-10	2.636E-07
-3.60	1.550E-08	(7.769E-11 TO 6.534E-07)	2.823E-10	2.866E-07	-3.60	1.550E-08	(7.769E-11 TO 6.534E-07)	2.823E-10	2.866E-07
-3.59	1.716E-08	(8.859E-11 TO 7.085E-07)	3.205E-10	3.116E-07	-3.59	1.716E-08	(8.859E-11 TO 7.085E-07)	3.205E-10	3.116E-07
-3.58	1.898E-08	(1.009E-10 TO 7.681E-07)	3.637E-10	3.387E-07	-3.58	1.898E-08	(1.009E-10 TO 7.681E-07)	3.637E-10	3.387E-07
-3.57	2.101E-08	(1.149E-10 TO 8.325E-07)	4.126E-10	3.680E-07	-3.57	2.101E-08	(1.149E-10 TO 8.325E-07)	4.126E-10	3.680E-07
-3.56	2.324E-08	(1.308E-10 TO 9.021E-07)	4.679E-10	3.997E-07	-3.56	2.324E-08	(1.308E-10 TO 9.021E-07)	4.679E-10	3.997E-07
-3.55	2.570E-08	(1.488E-10 TO 9.772E-07)	5.303E-10	4.341E-07	-3.55	2.570E-08	(1.488E-10 TO 9.772E-07)	5.303E-10	4.341E-07
-3.54	2.840E-08	(1.693E-10 TO 1.058E-06)	6.009E-10	4.713E-07	-3.54	2.840E-08	(1.693E-10 TO 1.058E-06)	6.009E-10	4.713E-07
-3.53	3.135E-08	(1.925E-10 TO 1.146E-06)	6.806E-10	5.116E-07	-3.53	3.135E-08	(1.925E-10 TO 1.146E-06)	6.806E-10	5.116E-07
-3.52	3.467E-08	(2.188E-10 TO 1.240E-06)	7.706E-10	5.552E-07	-3.52	3.467E-08	(2.188E-10 TO 1.240E-06)	7.706E-10	5.552E-07
-3.51	3.829E-08	(2.486E-10 TO 1.342E-06)	8.721E-10	6.024E-07	-3.51	3.829E-08	(2.486E-10 TO 1.342E-06)	8.721E-10	6.024E-07

NORMAL FRACTIONAL YIELDS

F1Y FOR		RANGE OF F1Y		F1Y FOR		F1Y FOR		RANGE OF FCY		FCY FOR		FCY FOR	
SIGMA=0.56		FOR SIGMA = 0.50 TO 0.62		SIGMA=0.50		SIGMA=0.50		AND 2P + CR = 0.1^		SIGMA=0.50		SIGMA=0.62	
Z-2P													
-3.50	4.227E-08	(2.823E-10 TO 1.452E-06)	9.865E-10	6.534E-07	-3.50	4.227E-08	(2.823E-10 TO 1.452E-06)	9.865E-10	6.534E-07	4.227E-08	(2.823E-10 TO 1.452E-06)	9.865E-10	6.534E-07
-3.49	4.666E-08	(3.205E-10 TO 1.571E-06)	1.115E-09	7.085E-07	-3.49	4.666E-08	(3.205E-10 TO 1.571E-06)	1.115E-09	7.085E-07	4.666E-08	(3.205E-10 TO 1.571E-06)	1.115E-09	7.085E-07
-3.48	5.148E-08	(3.637E-10 TO 1.699E-06)	1.261E-09	7.681E-07	-3.48	5.148E-08	(3.637E-10 TO 1.699E-06)	1.261E-09	7.681E-07	5.148E-08	(3.637E-10 TO 1.699E-06)	1.261E-09	7.681E-07
-3.47	5.678E-08	(4.126E-10 TO 1.837E-06)	1.425E-09	8.325E-07	-3.47	5.678E-08	(4.126E-10 TO 1.837E-06)	1.425E-09	8.325E-07	5.678E-08	(4.126E-10 TO 1.837E-06)	1.425E-09	8.325E-07
-3.46	6.261E-08	(4.679E-10 TO 1.985E-06)	1.610E-09	9.021E-07	-3.46	6.261E-08	(4.679E-10 TO 1.985E-06)	1.610E-09	9.021E-07	6.261E-08	(4.679E-10 TO 1.985E-06)	1.610E-09	9.021E-07
-3.45	6.901E-08	(5.303E-10 TO 2.145E-06)	1.818E-09	9.772E-07	-3.45	6.901E-08	(5.303E-10 TO 2.145E-06)	1.818E-09	9.772E-07	6.901E-08	(5.303E-10 TO 2.145E-06)	1.818E-09	9.772E-07
-3.44	7.605E-08	(6.009E-10 TO 2.317E-06)	2.051E-09	1.058E-06	-3.44	7.605E-08	(6.009E-10 TO 2.317E-06)	2.051E-09	1.058E-06	7.605E-08	(6.009E-10 TO 2.317E-06)	2.051E-09	1.058E-06
-3.43	8.378E-08	(6.806E-10 TO 2.503E-06)	2.314E-09	1.146E-06	-3.43	8.378E-08	(6.806E-10 TO 2.503E-06)	2.314E-09	1.146E-06	8.378E-08	(6.806E-10 TO 2.503E-06)	2.314E-09	1.146E-06
-3.42	9.226E-08	(7.704E-10 TO 2.703E-06)	2.610E-09	1.240E-06	-3.42	9.226E-08	(7.704E-10 TO 2.703E-06)	2.610E-09	1.240E-06	9.226E-08	(7.704E-10 TO 2.703E-06)	2.610E-09	1.240E-06
-3.41	1.015E-07	(8.721E-10 TO 2.917E-06)	2.942E-09	1.342E-06	-3.41	1.015E-07	(8.721E-10 TO 2.917E-06)	2.942E-09	1.342E-06	1.015E-07	(8.721E-10 TO 2.917E-06)	2.942E-09	1.342E-06
-3.40	1.118E-07	(9.866E-10 TO 3.149E-06)	3.318E-09	1.452E-06	-3.40	1.118E-07	(9.866E-10 TO 3.149E-06)	3.318E-09	1.452E-06	1.118E-07	(9.866E-10 TO 3.149E-06)	3.318E-09	1.452E-06
-3.39	1.230E-07	(1.116E-09 TO 3.397E-06)	3.735E-09	1.571E-06	-3.39	1.230E-07	(1.116E-09 TO 3.397E-06)	3.735E-09	1.571E-06	1.230E-07	(1.116E-09 TO 3.397E-06)	3.735E-09	1.571E-06
-3.38	1.353E-07	(1.261E-09 TO 3.665E-06)	4.206E-09	1.699E-06	-3.38	1.353E-07	(1.261E-09 TO 3.665E-06)	4.206E-09	1.699E-06	1.353E-07	(1.261E-09 TO 3.665E-06)	4.206E-09	1.699E-06
-3.37	1.488E-07	(1.425E-09 TO 3.952E-06)	4.734E-09	1.837E-06	-3.37	1.488E-07	(1.425E-09 TO 3.952E-06)	4.734E-09	1.837E-06	1.488E-07	(1.425E-09 TO 3.952E-06)	4.734E-09	1.837E-06
-3.36	1.635E-07	(1.610E-09 TO 4.261E-06)	5.328E-09	1.985E-06	-3.36	1.635E-07	(1.610E-09 TO 4.261E-06)	5.328E-09	1.985E-06	1.635E-07	(1.610E-09 TO 4.261E-06)	5.328E-09	1.985E-06
-3.35	1.797E-07	(1.818E-09 TO 4.593E-06)	5.990E-09	2.145E-06	-3.35	1.797E-07	(1.818E-09 TO 4.593E-06)	5.990E-09	2.145E-06	1.797E-07	(1.818E-09 TO 4.593E-06)	5.990E-09	2.145E-06
-3.34	1.974E-07	(2.051E-09 TO 4.949E-06)	6.735E-09	2.317E-06	-3.34	1.974E-07	(2.051E-09 TO 4.949E-06)	6.735E-09	2.317E-06	1.974E-07	(2.051E-09 TO 4.949E-06)	6.735E-09	2.317E-06
-3.33	2.168E-07	(2.314E-09 TO 5.332E-06)	7.565E-09	2.503E-06	-3.33	2.168E-07	(2.314E-09 TO 5.332E-06)	7.565E-09	2.503E-06	2.168E-07	(2.314E-09 TO 5.332E-06)	7.565E-09	2.503E-06
-3.32	2.380E-07	(2.610E-09 TO 5.743E-06)	8.503E-09	2.703E-06	-3.32	2.380E-07	(2.610E-09 TO 5.743E-06)	8.503E-09	2.703E-06	2.380E-07	(2.610E-09 TO 5.743E-06)	8.503E-09	2.703E-06
-3.31	2.613E-07	(2.942E-09 TO 6.184E-06)	9.548E-09	2.917E-06	-3.31	2.613E-07	(2.942E-09 TO 6.184E-06)	9.548E-09	2.917E-06	2.613E-07	(2.942E-09 TO 6.184E-06)	9.548E-09	2.917E-06
-3.30	2.866E-07	(3.316E-09 TO 6.657E-06)	1.072E-08	3.149E-06	-3.30	2.866E-07	(3.316E-09 TO 6.657E-06)	1.072E-08	3.149E-06	2.866E-07	(3.316E-09 TO 6.657E-06)	1.072E-08	3.149E-06
-3.29	3.144E-07	(3.735E-09 TO 7.165E-06)	1.203E-08	3.397E-06	-3.29	3.144E-07	(3.735E-09 TO 7.165E-06)	1.203E-08	3.397E-06	3.144E-07	(3.735E-09 TO 7.165E-06)	1.203E-08	3.397E-06
-3.28	3.448E-07	(4.206E-09 TO 7.709E-06)	1.349E-08	3.665E-06	-3.28	3.448E-07	(4.206E-09 TO 7.709E-06)	1.349E-08	3.665E-06	3.448E-07	(4.206E-09 TO 7.709E-06)	1.349E-08	3.665E-06
-3.27	3.779E-07	(4.734E-09 TO 8.293E-06)	1.512E-08	3.952E-06	-3.27	3.779E-07	(4.734E-09 TO 8.293E-06)	1.512E-08	3.952E-06	3.779E-07	(4.734E-09 TO 8.293E-06)	1.512E-08	3.952E-06
-3.26	4.142E-07	(5.326E-09 TO 8.919E-06)	1.695E-08	4.261E-06	-3.26	4.142E-07	(5.326E-09 TO 8.919E-06)	1.695E-08	4.261E-06	4.142E-07	(5.326E-09 TO 8.919E-06)	1.695E-08	4.261E-06
-3.25	4.537E-07	(5.990E-09 TO 9.590E-06)	1.899E-08	4.593E-06	-3.25	4.537E-07	(5.990E-09 TO 9.590E-06)	1.899E-08	4.593E-06	4.537E-07	(5.990E-09 TO 9.590E-06)	1.899E-08	4.593E-06
-3.24	4.969E-07	(6.735E-09 TO 1.031E-05)	2.127E-08	4.949E-06	-3.24	4.969E-07	(6.735E-09 TO 1.031E-05)	2.127E-08	4.949E-06	4.969E-07	(6.735E-09 TO 1.031E-05)	2.127E-08	4.949E-06
-3.23	5.440E-07	(7.569E-09 TO 1.108E-05)	2.381E-08	5.332E-06	-3.23	5.440E-07	(7.569E-09 TO 1.108E-05)	2.381E-08	5.332E-06	5.440E-07	(7.569E-09 TO 1.108E-05)	2.381E-08	5.332E-06
-3.22	5.954E-07	(8.503E-09 TO 1.190E-05)	2.680E-08	5.743E-06	-3.22	5.954E-07	(8.503E-09 TO 1.190E-05)	2.680E-08	5.743E-06	5.954E-07	(8.503E-09 TO 1.190E-05)	2.680E-08	5.743E-06
-3.21	6.515E-07	(9.548E-09 TO 1.278E-05)	2.980E-08	6.184E-06	-3.21	6.515E-07	(9.548E-09 TO 1.278E-05)	2.980E-08	6.184E-06	6.515E-07	(9.548E-09 TO 1.278E-05)	2.980E-08	6.184E-06
-3.20	7.127E-07	(1.072E-08 TO 1.373E-05)	3.332E-08	6.657E-06	-3.20	7.127E-07	(1.072E-08 TO 1.373E-05)	3.332E-08	6.657E-06	7.127E-07	(1.072E-08 TO 1.373E-05)	3.332E-08	6.657E-06
-3.19	7.793E-07	(1.203E-08 TO 1.474E-05)	3.724E-08	7.165E-06	-3.19	7.793E-07	(1.203E-08 TO 1.474E-05)	3.724E-08	7.165E-06	7.793E-07	(1.203E-08 TO 1.474E-05)	3.724E-08	7.165E-06
-3.18	8.519E-07	(1.349E-08 TO 1.582E-05)	4.161E-08	7.709E-06	-3.18	8.519E-07	(1.349E-08 TO 1.582E-05)	4.161E-08	7.709E-06	8.519E-07	(1.349E-08 TO 1.582E-05)	4.161E-08	7.709E-06
-3.17	9.310E-07	(1.512E-08 TO 1.697E-05)	4.647E-08	8.293E-06	-3.17	9.310E-07	(1.512E-08 TO 1.697E-05)	4.647E-08	8.293E-06	9.310E-07	(1.512E-08 TO 1.697E-05)	4.647E-08	8.293E-06
-3.16	1.017E-06	(1.695E-08 TO 1.821E-05)	5.188E-08	8.919E-06	-3.16	1.017E-06	(1.695E-08 TO 1.821E-05)	5.188E-08	8.919E-06	1.017E-06	(1.695E-08 TO 1.821E-05)	5.188E-08	8.919E-06
-3.15	1.111E-06	(1.899E-08 TO 1.953E-05)	5.790E-08	9.590E-06	-3.15	1.111E-06	(1.899E-08 TO 1.953E-05)	5.790E-08	9.590E-06	1.111E-06	(1.899E-08 TO 1.953E-05)	5.790E-08	9.590E-06
-3.14	1.213E-06	(2.127E-08 TO 2.094E-05)	6.459E-08	1.031E-05	-3.14	1.213E-06	(2.127E-08 TO 2.094E-05)	6.459E-08	1.031E-05	1.213E-06	(2.127E-08 TO 2.094E-05)	6.459E-08	1.031E-05
-3.13	1.324E-06	(2.381E-08 TO 2.245E-05)	7.203E-08	1.108E-05	-3.13	1.324E-06	(2.381E-08 TO 2.245E-05)	7.203E-08	1.108E-05	1.324E-06	(2.381E-08 TO 2.245E-05)	7.203E-08	1.108E-05
-3.12	1.446E-06	(2.664E-08 TO 2.406E-05)	8.023E-08	1.190E-05	-3.12	1.446E-06	(2.664E-08 TO 2.406E-05)	8.023E-08	1.190E-05	1.446E-06	(2.664E-08 TO 2.406E-05)	8.023E-08	1.190E-05
-3.11	1.576E-06	(2.980E-08 TO 2.578E-05)	8.946E-08	1.278E-05	-3.11	1.576E-06	(2.980E-08 TO 2.578E-05)	8.946E-08	1.278E-05	1.576E-06	(2.980E-08 TO 2.578E-05)	8.946E-08	1.278E-05
-3.10	1.718E-06	(3.332E-08 TO 2.761E-05)	9.964E-08	1.373E-05	-3.10	1.718E-06	(3.332E-08 TO 2.761E-05)	9.964E-08	1.373E-05	1.718E-06	(3.332E-08 TO 2.761E-05)	9.964E-08	1.373E-05
-3.09	1.873E-06	(3.724E-08 TO 2.957E-05)	1.109E-07	1.474E-05	-3.09	1.873E-06	(3.724E-08 TO 2.957E-05)	1.109E-07	1.474E-05	1.873E-06	(3.724E-08 TO 2.957E-05)	1.109E-07	1.474E-05
-3.08	2.041E-06	(4.161E-08 TO 3.166E-05)	1.234E-07	1.582E-05	-3.08	2.041E-06	(4.161E-08 TO 3.166E-05)	1.234E-07	1.582E-05	2.041E-06	(4.161E-08 TO 3.166E-05)	1.234E-07	1.582E-05
-3.07	2.224E-06	(4.646E-08 TO 3.389E-05)	1.374E-07	1.697E-05	-3.07	2.224E-06	(4.646E-08 TO 3.389E-05)	1.374E-07	1.697E-05	2.224E-06	(4.646E-08 TO 3.389E-05)	1.374E-07	1.697E-05
-3.06	2.422E-06	(5.118E-08 TO 3.627E-05)	1.528E-07	1.821E-05	-3.06	2.422E-06	(5.118E-08 TO 3.627E-05)	1.528E-07	1.821E-05	2.422E-06	(5.118E-08 TO 3.627E-05)	1.528E-07	1.821E-05
-3.05	2.637E-06	(5.579E-08 TO 3.880E-05)	1.698E-07	1.953E-05	-3.05	2.637E-06	(5.579E-08 TO 3.880E-05)	1.698E-07	1.953E-05	2.637E-06	(5.579E-08 TO 3.880E-05)	1.698E-07	1.953E-05
-3.04	2.870E-06	(6.459E-08 TO 4.150E-05)	1.887E-07	2.094E-05	-3.04	2.870E-06	(6.459E-08 TO 4.150E-05)	1.887E-07	2.094E-05	2.870E-06	(6.459E-08 TO 4.150E-05)	1.887E-07	2.094E-05
-3.03	3.123E-06	(7.203E-08 TO 4.438E-05)	2.094E-07	2.245E-05	-3.03	3.123E-06	(7.203E-08 TO 4.438E-05)	2.094E-07	2.245E-05	3.123E-06	(7.203E-08 TO 4.438E-05)	2.094E-07	2.245E-05
-3.02	3.398E-06	(8.029E-08 TO 4.744E-05)	2.328E-07	2.406E-05	-3.02	3.398E-06	(8.029E-08 TO 4.744E-05)	2.328E-07	2.406E-05	3.398E-06	(8.029E-08 TO 4.744E-05)	2.328E-07	2.406E-05
-3.01	3.695E-06	(8.946E-08 TO 5.071E-05)	2.584E-07	2.578E-05	-3.01	3.695E-06	(8.946E-08 TO 5.071E-05)	2.584E-07	2.578E-05	3.695E-06	(8.946E-08 TO 5.071E-05)	2.584E-07	2.578E-05

NORMAL FRACTIONAL YIELDS

F1Y FOR		RANGE OF F1Y		F1Y FOR		RANGE OF F1Y		F1Y FOR		RANGE OF F1Y		F1Y FOR		RANGE OF F1Y		F1Y FOR		RANGE OF F1Y	
2-ZP	SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62	AND ZP + CR - 0.1	2-ZP	SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62	AND ZP + CR - 0.1	2-ZP	SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62	AND ZP + CR - 0.1	2-ZP	SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62	AND ZP + CR - 0.1	2-ZP	SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62	AND ZP + CR - 0.1
-3.00	4.017E-06	(9.964E-08 TO 5.418E-05)		-3.00	4.017E-06	(9.964E-08 TO 5.418E-05)		-3.00	4.017E-06	(9.964E-08 TO 5.418E-05)		-3.00	4.017E-06	(9.964E-08 TO 5.418E-05)		-3.00	4.017E-06	(9.964E-08 TO 5.418E-05)	
-2.99	4.365E-06	(1.109E-07 TO 5.788E-05)		-2.99	4.365E-06	(1.109E-07 TO 5.788E-05)		-2.99	4.365E-06	(1.109E-07 TO 5.788E-05)		-2.99	4.365E-06	(1.109E-07 TO 5.788E-05)		-2.99	4.365E-06	(1.109E-07 TO 5.788E-05)	
-2.98	4.743E-06	(1.235E-07 TO 6.182E-05)		-2.98	4.743E-06	(1.235E-07 TO 6.182E-05)		-2.98	4.743E-06	(1.235E-07 TO 6.182E-05)		-2.98	4.743E-06	(1.235E-07 TO 6.182E-05)		-2.98	4.743E-06	(1.235E-07 TO 6.182E-05)	
-2.97	5.151E-06	(1.374E-07 TO 6.600E-05)		-2.97	5.151E-06	(1.374E-07 TO 6.600E-05)		-2.97	5.151E-06	(1.374E-07 TO 6.600E-05)		-2.97	5.151E-06	(1.374E-07 TO 6.600E-05)		-2.97	5.151E-06	(1.374E-07 TO 6.600E-05)	
-2.96	5.593E-06	(1.528E-07 TO 7.046E-05)		-2.96	5.593E-06	(1.528E-07 TO 7.046E-05)		-2.96	5.593E-06	(1.528E-07 TO 7.046E-05)		-2.96	5.593E-06	(1.528E-07 TO 7.046E-05)		-2.96	5.593E-06	(1.528E-07 TO 7.046E-05)	
-2.95	6.071E-06	(1.698E-07 TO 7.519E-05)		-2.95	6.071E-06	(1.698E-07 TO 7.519E-05)		-2.95	6.071E-06	(1.698E-07 TO 7.519E-05)		-2.95	6.071E-06	(1.698E-07 TO 7.519E-05)		-2.95	6.071E-06	(1.698E-07 TO 7.519E-05)	
-2.94	6.588E-06	(1.887E-07 TO 8.023E-05)		-2.94	6.588E-06	(1.887E-07 TO 8.023E-05)		-2.94	6.588E-06	(1.887E-07 TO 8.023E-05)		-2.94	6.588E-06	(1.887E-07 TO 8.023E-05)		-2.94	6.588E-06	(1.887E-07 TO 8.023E-05)	
-2.93	7.147E-06	(2.096E-07 TO 8.559E-05)		-2.93	7.147E-06	(2.096E-07 TO 8.559E-05)		-2.93	7.147E-06	(2.096E-07 TO 8.559E-05)		-2.93	7.147E-06	(2.096E-07 TO 8.559E-05)		-2.93	7.147E-06	(2.096E-07 TO 8.559E-05)	
-2.92	7.751E-06	(2.328E-07 TO 9.126E-05)		-2.92	7.751E-06	(2.328E-07 TO 9.126E-05)		-2.92	7.751E-06	(2.328E-07 TO 9.126E-05)		-2.92	7.751E-06	(2.328E-07 TO 9.126E-05)		-2.92	7.751E-06	(2.328E-07 TO 9.126E-05)	
-2.91	8.403E-06	(2.584E-07 TO 9.730E-05)		-2.91	8.403E-06	(2.584E-07 TO 9.730E-05)		-2.91	8.403E-06	(2.584E-07 TO 9.730E-05)		-2.91	8.403E-06	(2.584E-07 TO 9.730E-05)		-2.91	8.403E-06	(2.584E-07 TO 9.730E-05)	
-2.90	9.107E-06	(2.867E-07 TO 1.037E-04)		-2.90	9.107E-06	(2.867E-07 TO 1.037E-04)		-2.90	9.107E-06	(2.867E-07 TO 1.037E-04)		-2.90	9.107E-06	(2.867E-07 TO 1.037E-04)		-2.90	9.107E-06	(2.867E-07 TO 1.037E-04)	
-2.89	9.867E-06	(3.179E-07 TO 1.105E-04)		-2.89	9.867E-06	(3.179E-07 TO 1.105E-04)		-2.89	9.867E-06	(3.179E-07 TO 1.105E-04)		-2.89	9.867E-06	(3.179E-07 TO 1.105E-04)		-2.89	9.867E-06	(3.179E-07 TO 1.105E-04)	
-2.88	1.069E-05	(3.525E-07 TO 1.177E-04)		-2.88	1.069E-05	(3.525E-07 TO 1.177E-04)		-2.88	1.069E-05	(3.525E-07 TO 1.177E-04)		-2.88	1.069E-05	(3.525E-07 TO 1.177E-04)		-2.88	1.069E-05	(3.525E-07 TO 1.177E-04)	
-2.87	1.157E-05	(3.906E-07 TO 1.254E-04)		-2.87	1.157E-05	(3.906E-07 TO 1.254E-04)		-2.87	1.157E-05	(3.906E-07 TO 1.254E-04)		-2.87	1.157E-05	(3.906E-07 TO 1.254E-04)		-2.87	1.157E-05	(3.906E-07 TO 1.254E-04)	
-2.86	1.253E-05	(4.327E-07 TO 1.335E-04)		-2.86	1.253E-05	(4.327E-07 TO 1.335E-04)		-2.86	1.253E-05	(4.327E-07 TO 1.335E-04)		-2.86	1.253E-05	(4.327E-07 TO 1.335E-04)		-2.86	1.253E-05	(4.327E-07 TO 1.335E-04)	
-2.85	1.356E-05	(4.792E-07 TO 1.422E-04)		-2.85	1.356E-05	(4.792E-07 TO 1.422E-04)		-2.85	1.356E-05	(4.792E-07 TO 1.422E-04)		-2.85	1.356E-05	(4.792E-07 TO 1.422E-04)		-2.85	1.356E-05	(4.792E-07 TO 1.422E-04)	
-2.84	1.467E-05	(5.304E-07 TO 1.513E-04)		-2.84	1.467E-05	(5.304E-07 TO 1.513E-04)		-2.84	1.467E-05	(5.304E-07 TO 1.513E-04)		-2.84	1.467E-05	(5.304E-07 TO 1.513E-04)		-2.84	1.467E-05	(5.304E-07 TO 1.513E-04)	
-2.83	1.586E-05	(5.869E-07 TO 1.610E-04)		-2.83	1.586E-05	(5.869E-07 TO 1.610E-04)		-2.83	1.586E-05	(5.869E-07 TO 1.610E-04)		-2.83	1.586E-05	(5.869E-07 TO 1.610E-04)		-2.83	1.586E-05	(5.869E-07 TO 1.610E-04)	
-2.82	1.715E-05	(6.492E-07 TO 1.713E-04)		-2.82	1.715E-05	(6.492E-07 TO 1.713E-04)		-2.82	1.715E-05	(6.492E-07 TO 1.713E-04)		-2.82	1.715E-05	(6.492E-07 TO 1.713E-04)		-2.82	1.715E-05	(6.492E-07 TO 1.713E-04)	
-2.81	1.854E-05	(7.178E-07 TO 1.822E-04)		-2.81	1.854E-05	(7.178E-07 TO 1.822E-04)		-2.81	1.854E-05	(7.178E-07 TO 1.822E-04)		-2.81	1.854E-05	(7.178E-07 TO 1.822E-04)		-2.81	1.854E-05	(7.178E-07 TO 1.822E-04)	
-2.80	2.003E-05	(7.933E-07 TO 1.937E-04)		-2.80	2.003E-05	(7.933E-07 TO 1.937E-04)		-2.80	2.003E-05	(7.933E-07 TO 1.937E-04)		-2.80	2.003E-05	(7.933E-07 TO 1.937E-04)		-2.80	2.003E-05	(7.933E-07 TO 1.937E-04)	
-2.79	2.163E-05	(8.769E-07 TO 2.059E-04)		-2.79	2.163E-05	(8.769E-07 TO 2.059E-04)		-2.79	2.163E-05	(8.769E-07 TO 2.059E-04)		-2.79	2.163E-05	(8.769E-07 TO 2.059E-04)		-2.79	2.163E-05	(8.769E-07 TO 2.059E-04)	
-2.78	2.336E-05	(9.670E-07 TO 2.188E-04)		-2.78	2.336E-05	(9.670E-07 TO 2.188E-04)		-2.78	2.336E-05	(9.670E-07 TO 2.188E-04)		-2.78	2.336E-05	(9.670E-07 TO 2.188E-04)		-2.78	2.336E-05	(9.670E-07 TO 2.188E-04)	
-2.77	2.522E-05	(1.069E-06 TO 2.328E-04)		-2.77	2.522E-05	(1.069E-06 TO 2.328E-04)		-2.77	2.522E-05	(1.069E-06 TO 2.328E-04)		-2.77	2.522E-05	(1.069E-06 TO 2.328E-04)		-2.77	2.522E-05	(1.069E-06 TO 2.328E-04)	
-2.76	2.722E-05	(1.179E-06 TO 2.469E-04)		-2.76	2.722E-05	(1.179E-06 TO 2.469E-04)		-2.76	2.722E-05	(1.179E-06 TO 2.469E-04)		-2.76	2.722E-05	(1.179E-06 TO 2.469E-04)		-2.76	2.722E-05	(1.179E-06 TO 2.469E-04)	
-2.75	2.936E-05	(1.301E-06 TO 2.622E-04)		-2.75	2.936E-05	(1.301E-06 TO 2.622E-04)		-2.75	2.936E-05	(1.301E-06 TO 2.622E-04)		-2.75	2.936E-05	(1.301E-06 TO 2.622E-04)		-2.75	2.936E-05	(1.301E-06 TO 2.622E-04)	
-2.74	3.167E-05	(1.434E-06 TO 2.784E-04)		-2.74	3.167E-05	(1.434E-06 TO 2.784E-04)		-2.74	3.167E-05	(1.434E-06 TO 2.784E-04)		-2.74	3.167E-05	(1.434E-06 TO 2.784E-04)		-2.74	3.167E-05	(1.434E-06 TO 2.784E-04)	
-2.73	3.414E-05	(1.581E-06 TO 2.955E-04)		-2.73	3.414E-05	(1.581E-06 TO 2.955E-04)		-2.73	3.414E-05	(1.581E-06 TO 2.955E-04)		-2.73	3.414E-05	(1.581E-06 TO 2.955E-04)		-2.73	3.414E-05	(1.581E-06 TO 2.955E-04)	
-2.72	3.680E-05	(1.742E-06 TO 3.136E-04)		-2.72	3.680E-05	(1.742E-06 TO 3.136E-04)		-2.72	3.680E-05	(1.742E-06 TO 3.136E-04)		-2.72	3.680E-05	(1.742E-06 TO 3.136E-04)		-2.72	3.680E-05	(1.742E-06 TO 3.136E-04)	
-2.71	3.968E-05	(1.919E-06 TO 3.327E-04)		-2.71	3.968E-05	(1.919E-06 TO 3.327E-04)		-2.71	3.968E-05	(1.919E-06 TO 3.327E-04)		-2.71	3.968E-05	(1.919E-06 TO 3.327E-04)		-2.71	3.968E-05	(1.919E-06 TO 3.327E-04)	
-2.70	4.272E-05	(2.112E-06 TO 3.529E-04)		-2.70	4.272E-05	(2.112E-06 TO 3.529E-04)		-2.70	4.272E-05	(2.112E-06 TO 3.529E-04)		-2.70	4.272E-05	(2.112E-06 TO 3.529E-04)		-2.70	4.272E-05	(2.112E-06 TO 3.529E-04)	
-2.69	4.601E-05	(2.329E-06 TO 3.742E-04)		-2.69	4.601E-05	(2.329E-06 TO 3.742E-04)		-2.69	4.601E-05	(2.329E-06 TO 3.742E-04)		-2.69	4.601E-05	(2.329E-06 TO 3.742E-04)		-2.69	4.601E-05	(2.329E-06 TO 3.742E-04)	
-2.68	4.953E-05	(2.558E-06 TO 3.967E-04)		-2.68	4.953E-05	(2.558E-06 TO 3.967E-04)		-2.68	4.953E-05	(2.558E-06 TO 3.967E-04)		-2.68	4.953E-05	(2.558E-06 TO 3.967E-04)		-2.68	4.953E-05	(2.558E-06 TO 3.967E-04)	
-2.67	5.331E-05	(2.813E-06 TO 4.205E-04)		-2.67	5.331E-05	(2.813E-06 TO 4.205E-04)		-2.67	5.331E-05	(2.813E-06 TO 4.205E-04)		-2.67	5.331E-05	(2.813E-06 TO 4.205E-04)		-2.67	5.331E-05	(2.813E-06 TO 4.205E-04)	
-2.66	5.735E-05	(3.092E-06 TO 4.455E-04)		-2.66	5.735E-05	(3.092E-06 TO 4.455E-04)		-2.66	5.735E-05	(3.092E-06 TO 4.455E-04)		-2.66	5.735E-05	(3.092E-06 TO 4.455E-04)		-2.66	5.735E-05	(3.092E-06 TO 4.455E-04)	
-2.65	6.169E-05	(3.398E-06 TO 4.720E-04)		-2.65	6.169E-05	(3.398E-06 TO 4.720E-04)		-2.65	6.169E-05	(3.398E-06 TO 4.720E-04)		-2.65	6.169E-05	(3.398E-06 TO 4.720E-04)		-2.65	6.169E-05	(3.398E-06 TO 4.720E-04)	
-2.64	6.633E-05	(3.732E-06 TO 4.999E-04)		-2.64	6.633E-05	(3.732E-06 TO 4.999E-04)		-2.64	6.633E-05	(3.732E-06 TO 4.999E-04)		-2.64	6.633E-05	(3.732E-06 TO 4.999E-04)		-2.64	6.633E-05	(3.732E-06 TO 4.999E-04)	
-2.63	7.130E-05	(4.098E-06 TO 5.293E-04)		-2.63	7.130E-05	(4.098E-06 TO 5.293E-04)		-2.63	7.130E-05	(4.098E-06 TO 5.293E-04)		-2.63	7.130E-05	(4.098E-06 TO 5.293E-04)		-2.63	7.130E-05	(4.098E-06 TO 5.293E-04)	
-2.62	7.662E-05	(4.498E-06 TO 5.603E-04)		-2.62	7.662E-05	(4.498E-06 TO 5.603E-04)		-2.62	7.662E-05	(4.498E-06 TO 5.603E-04)		-2.62	7.662E-05	(4.498E-06 TO 5.603E-04)		-2.62	7.662E-05	(4.498E-06 TO 5.603E-04)	
-2.61	8.231E-05	(4.935E-06 TO 5.930E-04)		-2.61	8.231E-05	(4.935E-06 TO 5.930E-04)		-2.61	8.231E-05	(4.935E-06 TO 5.930E-04)		-2.61	8.231E-05	(4.935E-06 TO 5.930E-04)		-2.61	8.231E-05	(4.935E-06 TO 5.930E-04)	
-2.60	8.840E-05	(5.413E-06 TO 6.274E-04)		-2.60	8.840E-05	(5.413E-06 TO 6.274E-04)		-2.60	8.840E-05	(5.413E-06 TO 6.274E-04)		-2.60	8.840E-05	(5.413E-06 TO 6.274E-04)		-2.60	8.840E-05	(5.413E-06 TO 6.274E-04)	
-2.59	9.491E-05	(5.934E-06 TO 6.637E-04)		-2.59	9.491E-05	(5.934E-06 TO 6.637E-04)		-2.59	9.491E-05	(5.934E-06 TO 6.637E-04)		-2.59	9.491E-05	(5.934E-06 TO 6.637E-04)		-2.59	9.491E-05	(5.934E-06 TO 6.637E-04)	
-2.58	1.019E-04	(6.503E-06 TO 7.019E-04)		-2.58	1.019E-04	(6.503E-06 TO 7.019E-04)		-2.58	1.019E-04	(6.503E-06 TO 7.019E-04)		-2.58	1.019E-04	(6.503E-06 TO 7.019E-04)		-2.58	1.019E-04	(6.503E-06 TO 7.019E-04)	
-2.57	1.093E-04	(7.124E-06 TO 7.421E-04)		-2.57	1.093E-04	(7.124E-06 TO 7.421E-04)		-2.57	1.093E-04	(7.124E-06 TO 7.421E-04)		-2.57	1.093E-04	(7.124E-06 TO 7.421E-04)		-2.57	1.093E-04	(7.124E-06 TO 7.421E-04)	
-2.56	1.172E-04	(7.801E-06 TO 7.845E-04)		-2.56	1.172E-04	(7.801E-06 TO 7.845E-04)		-2.56	1.172E-04	(7.801E-06 TO 7.845E-04)		-2.56	1.172E-04	(7.801E-06 TO 7.845E-04)		-2.56	1.172E-04	(7.801E-06 TO 7.845E-04)	
-2.55	1.257E-04	(8.540E-06 TO 8.290E-04)		-2.55	1.257E-04	(8.540E-06 TO													

NORMAL FRACTIONAL YIELDS

Z-2P	RANGE OF FIY				Z-2P	RANGE OF FCY			
	FIY FOR SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10	FIY FOR SIGMA=0.50	FIY FOR SIGMA=0.62		FCY FOR SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62 AND ZP + CR - 0.10	FCY FOR SIGMA=0.50	FCY FOR SIGMA=0.62
-2.50	1.775E-04	(1.335E-05 TO 1.089E-03)	3.167E-05	6.274E-04	-2.50	1.775E-04	(1.335E-05 TO 1.090E-03)	3.167E-05	6.281E-04
-2.49	1.900E-04	(1.458E-05 TO 1.149E-03)	3.446E-05	6.637E-04	-2.49	1.900E-04	(1.458E-05 TO 1.150E-03)	3.446E-05	6.644E-04
-2.48	2.033E-04	(1.591E-05 TO 1.212E-03)	3.747E-05	7.019E-04	-2.48	2.033E-04	(1.591E-05 TO 1.214E-03)	3.748E-05	7.027E-04
-2.47	2.175E-04	(1.736E-05 TO 1.278E-03)	4.074E-05	7.421E-04	-2.47	2.175E-04	(1.737E-05 TO 1.280E-03)	4.074E-05	7.430E-04
-2.46	2.326E-04	(1.894E-05 TO 1.348E-03)	4.427E-05	7.845E-04	-2.46	2.326E-04	(1.894E-05 TO 1.350E-03)	4.427E-05	7.854E-04
-2.45	2.486E-04	(2.066E-05 TO 1.421E-03)	4.809E-05	8.290E-04	-2.45	2.487E-04	(2.066E-05 TO 1.423E-03)	4.810E-05	8.300E-04
-2.44	2.657E-04	(2.252E-05 TO 1.498E-03)	5.223E-05	8.759E-04	-2.44	2.658E-04	(2.252E-05 TO 1.500E-03)	5.223E-05	8.769E-04
-2.43	2.839E-04	(2.454E-05 TO 1.578E-03)	5.669E-05	9.251E-04	-2.43	2.840E-04	(2.454E-05 TO 1.581E-03)	5.669E-05	9.263E-04
-2.42	3.033E-04	(2.672E-05 TO 1.662E-03)	6.151E-05	9.770E-04	-2.42	3.034E-04	(2.672E-05 TO 1.665E-03)	6.152E-05	9.782E-04
-2.41	3.239E-04	(2.910E-05 TO 1.751E-03)	6.672E-05	1.031E-03	-2.41	3.240E-04	(2.910E-05 TO 1.754E-03)	6.673E-05	1.033E-03
-2.40	3.457E-04	(3.167E-05 TO 1.844E-03)	7.235E-05	1.089E-03	-2.40	3.458E-04	(3.167E-05 TO 1.847E-03)	7.235E-05	1.090E-03
-2.39	3.690E-04	(3.446E-05 TO 1.941E-03)	7.841E-05	1.149E-03	-2.39	3.691E-04	(3.446E-05 TO 1.944E-03)	7.841E-05	1.150E-03
-2.38	3.936E-04	(3.747E-05 TO 2.042E-03)	8.495E-05	1.212E-03	-2.38	3.938E-04	(3.748E-05 TO 2.046E-03)	8.496E-05	1.214E-03
-2.37	4.198E-04	(4.074E-05 TO 2.149E-03)	9.201E-05	1.278E-03	-2.37	4.200E-04	(4.074E-05 TO 2.153E-03)	9.201E-05	1.280E-03
-2.36	4.476E-04	(4.427E-05 TO 2.261E-03)	9.961E-05	1.348E-03	-2.36	4.478E-04	(4.427E-05 TO 2.265E-03)	9.961E-05	1.350E-03
-2.35	4.771E-04	(4.809E-05 TO 2.377E-03)	1.078E-04	1.421E-03	-2.35	4.773E-04	(4.810E-05 TO 2.382E-03)	1.078E-04	1.423E-03
-2.34	5.084E-04	(5.223E-05 TO 2.500E-03)	1.166E-04	1.498E-03	-2.34	5.086E-04	(5.223E-05 TO 2.505E-03)	1.166E-04	1.500E-03
-2.33	5.416E-04	(5.669E-05 TO 2.627E-03)	1.261E-04	1.578E-03	-2.33	5.418E-04	(5.669E-05 TO 2.633E-03)	1.261E-04	1.581E-03
-2.32	5.768E-04	(6.151E-05 TO 2.761E-03)	1.363E-04	1.662E-03	-2.32	5.770E-04	(6.152E-05 TO 2.767E-03)	1.363E-04	1.665E-03
-2.31	6.141E-04	(6.672E-05 TO 2.901E-03)	1.473E-04	1.751E-03	-2.31	6.143E-04	(6.673E-05 TO 2.907E-03)	1.473E-04	1.754E-03
-2.30	6.536E-04	(7.235E-05 TO 3.047E-03)	1.591E-04	1.844E-03	-2.30	6.538E-04	(7.235E-05 TO 3.054E-03)	1.591E-04	1.847E-03
-2.29	6.954E-04	(7.841E-05 TO 3.200E-03)	1.718E-04	1.941E-03	-2.29	6.957E-04	(7.841E-05 TO 3.207E-03)	1.718E-04	1.944E-03
-2.28	7.397E-04	(8.495E-05 TO 3.360E-03)	1.854E-04	2.042E-03	-2.28	7.400E-04	(8.496E-05 TO 3.367E-03)	1.854E-04	2.046E-03
-2.27	7.865E-04	(9.201E-05 TO 3.527E-03)	2.000E-04	2.149E-03	-2.27	7.869E-04	(9.201E-05 TO 3.535E-03)	2.001E-04	2.153E-03
-2.26	8.361E-04	(9.961E-05 TO 3.701E-03)	2.158E-04	2.261E-03	-2.26	8.365E-04	(9.961E-05 TO 3.710E-03)	2.158E-04	2.265E-03
-2.25	8.886E-04	(1.078E-04 TO 3.883E-03)	2.326E-04	2.377E-03	-2.25	8.890E-04	(1.078E-04 TO 3.892E-03)	2.326E-04	2.382E-03
-2.24	9.440E-04	(1.166E-04 TO 4.072E-03)	2.507E-04	2.500E-03	-2.24	9.445E-04	(1.166E-04 TO 4.083E-03)	2.507E-04	2.505E-03
-2.23	1.003E-03	(1.261E-04 TO 4.270E-03)	2.701E-04	2.627E-03	-2.23	1.003E-03	(1.261E-04 TO 4.281E-03)	2.701E-04	2.633E-03
-2.22	1.065E-03	(1.363E-04 TO 4.477E-03)	2.908E-04	2.761E-03	-2.22	1.065E-03	(1.363E-04 TO 4.489E-03)	2.909E-04	2.767E-03
-2.21	1.130E-03	(1.473E-04 TO 4.692E-03)	3.131E-04	2.901E-03	-2.21	1.131E-03	(1.473E-04 TO 4.705E-03)	3.131E-04	2.907E-03
-2.20	1.199E-03	(1.591E-04 TO 4.917E-03)	3.369E-04	3.047E-03	-2.20	1.200E-03	(1.591E-04 TO 4.931E-03)	3.369E-04	3.054E-03
-2.19	1.272E-03	(1.718E-04 TO 5.151E-03)	3.624E-04	3.200E-03	-2.19	1.273E-03	(1.718E-04 TO 5.166E-03)	3.624E-04	3.207E-03
-2.18	1.349E-03	(1.854E-04 TO 5.395E-03)	3.897E-04	3.360E-03	-2.18	1.350E-03	(1.854E-04 TO 5.411E-03)	3.897E-04	3.367E-03
-2.17	1.430E-03	(2.000E-04 TO 5.650E-03)	4.188E-04	3.527E-03	-2.17	1.431E-03	(2.001E-04 TO 5.667E-03)	4.189E-04	3.535E-03
-2.16	1.516E-03	(2.158E-04 TO 5.914E-03)	4.500E-04	3.701E-03	-2.16	1.517E-03	(2.158E-04 TO 5.933E-03)	4.501E-04	3.710E-03
-2.15	1.606E-03	(2.326E-04 TO 6.190E-03)	4.834E-04	3.883E-03	-2.15	1.607E-03	(2.326E-04 TO 6.210E-03)	4.834E-04	3.892E-03
-2.14	1.701E-03	(2.507E-04 TO 6.477E-03)	5.190E-04	4.072E-03	-2.14	1.703E-03	(2.507E-04 TO 6.498E-03)	5.190E-04	4.083E-03
-2.13	1.802E-03	(2.701E-04 TO 6.776E-03)	5.570E-04	4.270E-03	-2.13	1.803E-03	(2.701E-04 TO 6.798E-03)	5.571E-04	4.281E-03
-2.12	1.907E-03	(2.908E-04 TO 7.087E-03)	5.976E-04	4.477E-03	-2.12	1.909E-03	(2.909E-04 TO 7.111E-03)	5.977E-04	4.489E-03
-2.11	2.019E-03	(3.131E-04 TO 7.410E-03)	6.409E-04	4.692E-03	-2.11	2.020E-03	(3.131E-04 TO 7.436E-03)	6.410E-04	4.705E-03
-2.10	2.136E-03	(3.369E-04 TO 7.746E-03)	6.870E-04	4.917E-03	-2.10	2.137E-03	(3.369E-04 TO 7.774E-03)	6.871E-04	4.931E-03
-2.09	2.259E-03	(3.624E-04 TO 8.096E-03)	7.363E-04	5.151E-03	-2.09	2.261E-03	(3.624E-04 TO 8.126E-03)	7.364E-04	5.166E-03
-2.08	2.388E-03	(3.897E-04 TO 8.459E-03)	7.887E-04	5.395E-03	-2.08	2.391E-03	(3.897E-04 TO 8.491E-03)	7.888E-04	5.411E-03
-2.07	2.525E-03	(4.188E-04 TO 8.837E-03)	8.446E-04	5.650E-03	-2.07	2.527E-03	(4.189E-04 TO 8.871E-03)	8.447E-04	5.667E-03
-2.06	2.668E-03	(4.500E-04 TO 9.229E-03)	9.041E-04	5.914E-03	-2.06	2.671E-03	(4.501E-04 TO 9.265E-03)	9.043E-04	5.933E-03
-2.05	2.819E-03	(4.834E-04 TO 9.636E-03)	9.674E-04	6.190E-03	-2.05	2.821E-03	(4.834E-04 TO 9.675E-03)	9.676E-04	6.210E-03
-2.04	2.977E-03	(5.190E-04 TO 1.006E-02)	1.035E-03	6.477E-03	-2.04	2.980E-03	(5.190E-04 TO 1.010E-02)	1.035E-03	6.498E-03
-2.03	3.143E-03	(5.570E-04 TO 1.050E-02)	1.106E-03	6.776E-03	-2.03	3.146E-03	(5.571E-04 TO 1.054E-02)	1.107E-03	6.758E-03
-2.02	3.318E-03	(5.976E-04 TO 1.095E-02)	1.183E-03	7.087E-03	-2.02	3.321E-03	(5.977E-04 TO 1.100E-02)	1.183E-03	7.111E-03
-2.01	3.501E-03	(6.409E-04 TO 1.143E-02)	1.264E-03	7.410E-03	-2.01	3.504E-03	(6.410E-04 TO 1.148E-02)	1.264E-03	7.436E-03

NORMAL FRACTIONAL YIELDS

Z-ZP	RANGE OF FIV		FIV FOR SIGMA=0.50	FIV FOR SIGMA=0.62	Z-ZP	RANGE OF FCY		FCY FOR SIGMA=0.50	FCY FOR SIGMA=0.62	FCY FOR SIGMA=0.62
	FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10					FOR SIGMA = 0.50 TO 0.62 AND ZP + CR - 0.10				
-2.00	3.693E-03	16.870E-04	TO 1.192E-02	1.350E-03	7.746E-03	7.746E-03	16.871E-04	TO 1.157E-02	1.350E-03	7.774E-03
-1.99	3.994E-03	17.363E-04	TO 1.242E-02	1.441E-03	8.096E-03	8.096E-03	17.364E-04	TO 1.248E-02	1.441E-03	8.126E-03
-1.98	4.106E-03	17.887E-04	TO 1.295E-02	1.538E-03	8.459E-03	8.459E-03	17.888E-04	TO 1.301E-02	1.538E-03	8.491E-03
-1.97	4.327E-03	18.446E-04	TO 1.350E-02	1.641E-03	8.837E-03	8.837E-03	18.447E-04	TO 1.356E-02	1.641E-03	8.871E-03
-1.96	4.559E-03	19.041E-04	TO 1.406E-02	1.750E-03	9.229E-03	9.229E-03	19.042E-04	TO 1.413E-02	1.750E-03	9.265E-03
-1.95	4.803E-03	19.674E-04	TO 1.465E-02	1.868E-03	9.636E-03	9.636E-03	19.675E-04	TO 1.472E-02	1.868E-03	9.675E-03
-1.94	5.057E-03	11.035E-03	TO 1.526E-02	1.988E-03	1.006E-02	1.006E-02	11.036E-03	TO 1.534E-02	1.988E-03	1.010E-02
-1.93	5.324E-03	11.105E-03	TO 1.588E-02	2.118E-03	1.050E-02	1.050E-02	11.106E-03	TO 1.597E-02	2.118E-03	1.054E-02
-1.92	5.603E-03	11.183E-03	TO 1.653E-02	2.258E-03	1.095E-02	1.095E-02	11.184E-03	TO 1.663E-02	2.258E-03	1.100E-02
-1.91	5.895E-03	11.265E-03	TO 1.721E-02	2.400E-03	1.143E-02	1.143E-02	11.266E-03	TO 1.730E-02	2.400E-03	1.148E-02
-1.90	6.201E-03	11.350E-03	TO 1.790E-02	2.554E-03	1.192E-02	1.192E-02	11.351E-03	TO 1.738E-02	2.554E-03	1.197E-02
-1.89	6.520E-03	11.441E-03	TO 1.862E-02	2.717E-03	1.242E-02	1.242E-02	11.442E-03	TO 1.873E-02	2.717E-03	1.248E-02
-1.88	6.854E-03	11.538E-03	TO 1.937E-02	2.889E-03	1.295E-02	1.295E-02	11.539E-03	TO 1.948E-02	2.889E-03	1.301E-02
-1.87	7.202E-03	11.641E-03	TO 2.014E-02	3.071E-03	1.350E-02	1.350E-02	11.642E-03	TO 2.026E-02	3.071E-03	1.356E-02
-1.86	7.567E-03	11.750E-03	TO 2.093E-02	3.263E-03	1.406E-02	1.406E-02	11.751E-03	TO 2.106E-02	3.263E-03	1.413E-02
-1.85	7.947E-03	11.865E-03	TO 2.175E-02	3.465E-03	1.465E-02	1.465E-02	11.866E-03	TO 2.189E-02	3.465E-03	1.472E-02
-1.84	8.344E-03	11.988E-03	TO 2.260E-02	3.680E-03	1.526E-02	1.526E-02	11.989E-03	TO 2.275E-02	3.680E-03	1.534E-02
-1.83	8.759E-03	12.118E-03	TO 2.347E-02	3.905E-03	1.588E-02	1.588E-02	12.119E-03	TO 2.364E-02	3.905E-03	1.597E-02
-1.82	9.191E-03	12.255E-03	TO 2.438E-02	4.144E-03	1.653E-02	1.653E-02	12.256E-03	TO 2.455E-02	4.144E-03	1.663E-02
-1.81	9.642E-03	12.400E-03	TO 2.531E-02	4.395E-03	1.721E-02	1.721E-02	12.401E-03	TO 2.549E-02	4.395E-03	1.730E-02
-1.80	1.011E-02	12.554E-03	TO 2.627E-02	4.658E-03	1.790E-02	1.790E-02	12.555E-03	TO 2.647E-02	4.658E-03	1.801E-02
-1.79	1.060E-02	12.717E-03	TO 2.726E-02	4.938E-03	1.862E-02	1.862E-02	12.718E-03	TO 2.747E-02	4.938E-03	1.873E-02
-1.78	1.111E-02	12.889E-03	TO 2.829E-02	5.231E-03	1.937E-02	1.937E-02	12.890E-03	TO 2.851E-02	5.231E-03	1.948E-02
-1.77	1.164E-02	13.071E-03	TO 2.934E-02	5.540E-03	2.014E-02	2.014E-02	13.072E-03	TO 2.957E-02	5.540E-03	2.026E-02
-1.76	1.220E-02	13.263E-03	TO 3.043E-02	5.865E-03	2.093E-02	2.093E-02	13.264E-03	TO 3.067E-02	5.865E-03	2.106E-02
-1.75	1.277E-02	13.466E-03	TO 3.155E-02	6.206E-03	2.175E-02	2.175E-02	13.467E-03	TO 3.181E-02	6.206E-03	2.189E-02
-1.74	1.337E-02	13.680E-03	TO 3.270E-02	6.565E-03	2.260E-02	2.260E-02	13.681E-03	TO 3.298E-02	6.565E-03	2.275E-02
-1.73	1.400E-02	13.905E-03	TO 3.389E-02	6.943E-03	2.347E-02	2.347E-02	13.906E-03	TO 3.418E-02	6.943E-03	2.364E-02
-1.72	1.464E-02	14.144E-03	TO 3.511E-02	7.339E-03	2.438E-02	2.438E-02	14.145E-03	TO 3.542E-02	7.339E-03	2.455E-02
-1.71	1.532E-02	14.398E-03	TO 3.637E-02	7.755E-03	2.531E-02	2.531E-02	14.399E-03	TO 3.670E-02	7.755E-03	2.549E-02
-1.70	1.602E-02	14.659E-03	TO 3.766E-02	8.192E-03	2.627E-02	2.627E-02	14.660E-03	TO 3.802E-02	8.192E-03	2.647E-02
-1.69	1.675E-02	14.938E-03	TO 3.899E-02	8.650E-03	2.726E-02	2.726E-02	14.939E-03	TO 3.937E-02	8.650E-03	2.747E-02
-1.68	1.750E-02	15.231E-03	TO 4.036E-02	9.131E-03	2.829E-02	2.829E-02	15.232E-03	TO 4.076E-02	9.131E-03	2.851E-02
-1.67	1.829E-02	15.540E-03	TO 4.177E-02	9.635E-03	2.934E-02	2.934E-02	15.541E-03	TO 4.219E-02	9.635E-03	2.957E-02
-1.66	1.910E-02	15.865E-03	TO 4.322E-02	1.016E-02	3.043E-02	3.043E-02	15.866E-03	TO 4.263E-02	1.016E-02	3.067E-02
-1.65	1.995E-02	16.206E-03	TO 4.470E-02	1.075E-02	3.155E-02	3.155E-02	16.207E-03	TO 4.366E-02	1.075E-02	3.181E-02
-1.64	2.082E-02	16.565E-03	TO 4.623E-02	1.129E-02	3.270E-02	3.270E-02	16.566E-03	TO 4.473E-02	1.129E-02	3.298E-02
-1.63	2.173E-02	16.943E-03	TO 4.780E-02	1.190E-02	3.389E-02	3.389E-02	16.944E-03	TO 4.633E-02	1.190E-02	3.418E-02
-1.62	2.267E-02	17.339E-03	TO 4.941E-02	1.253E-02	3.511E-02	3.511E-02	17.340E-03	TO 4.747E-02	1.253E-02	3.542E-02
-1.61	2.365E-02	17.755E-03	TO 5.106E-02	1.320E-02	3.637E-02	3.637E-02	17.756E-03	TO 4.977E-02	1.320E-02	3.670E-02
-1.60	2.466E-02	18.192E-03	TO 5.275E-02	1.389E-02	3.766E-02	3.766E-02	18.193E-03	TO 5.165E-02	1.389E-02	3.802E-02
-1.59	2.571E-02	18.650E-03	TO 5.449E-02	1.461E-02	3.899E-02	3.899E-02	18.651E-03	TO 5.338E-02	1.461E-02	3.937E-02
-1.58	2.679E-02	19.131E-03	TO 5.628E-02	1.537E-02	4.036E-02	4.036E-02	19.132E-03	TO 5.516E-02	1.537E-02	4.076E-02
-1.57	2.791E-02	19.635E-03	TO 5.811E-02	1.616E-02	4.177E-02	4.177E-02	19.636E-03	TO 5.698E-02	1.616E-02	4.219E-02
-1.56	2.907E-02	1.016E-02	TO 5.988E-02	1.698E-02	4.322E-02	4.322E-02	1.017E-02	TO 5.885E-02	1.698E-02	4.263E-02
-1.55	3.027E-02	1.072E-02	TO 6.190E-02	1.784E-02	4.470E-02	4.470E-02	1.072E-02	TO 6.273E-02	1.784E-02	4.367E-02
-1.54	3.151E-02	1.129E-02	TO 6.387E-02	1.874E-02	4.623E-02	4.623E-02	1.129E-02	TO 6.474E-02	1.874E-02	4.461E-02
-1.53	3.279E-02	1.190E-02	TO 6.588E-02	1.967E-02	4.780E-02	4.780E-02	1.190E-02	TO 6.681E-02	1.967E-02	4.565E-02
-1.52	3.412E-02	1.253E-02	TO 6.794E-02	2.065E-02	4.941E-02	4.941E-02	1.253E-02	TO 6.892E-02	2.065E-02	4.670E-02
-1.51	3.548E-02	1.320E-02	TO 7.005E-02	2.166E-02	5.106E-02	5.106E-02	1.321E-02	TO 7.109E-02	2.166E-02	4.785E-02

NORMAL FRACTICNAL YIELDS

Z-2P	FIY FOR SIGMA=0.56	RANGE OF FIY FOR SIGMA = 0.50 TO 0.62 AND ZP = OR ~ 0.10		FIY FOR SIGMA=0.50	FIY FOR SIGMA=C.56	RANGE OF FCY FOR SIGMA = 0.50 TO 0.62 AND ZP = CR ~ 0.10		FCY FOR SIGMA=0.50	FCY FOR SIGMA=0.62
		TO	FROM			TO	FROM		
-1.50	3.690E-02	11.389E-02	TO 7.221E-02	2.272E-02	5.275E-02	3.707E-02	(1.390E-02 TO 7.330E-02)	2.275E-02	5.338E-02
-1.49	3.835E-02	11.461E-02	TO 7.442E-02	2.382E-02	5.449E-02	3.854E-02	(1.463E-02 TO 7.557E-02)	2.385E-02	5.516E-02
-1.48	3.986E-02	11.537E-02	TO 7.669E-02	2.496E-02	5.628E-02	4.002E-02	(1.535E-02 TO 7.750E-02)	2.500E-02	5.698E-02
-1.47	4.141E-02	11.616E-02	TO 7.899E-02	2.619E-02	5.811E-02	4.162E-02	(1.618E-02 TO 7.927E-02)	2.619E-02	5.885E-02
-1.46	4.301E-02	11.698E-02	TO 8.134E-02	2.738E-02	5.998E-02	4.324E-02	(1.700E-02 TO 8.271E-02)	2.743E-02	6.076E-02
-1.45	4.465E-02	11.784E-02	TO 8.377E-02	2.867E-02	6.190E-02	4.495E-02	(1.786E-02 TO 8.519E-02)	2.872E-02	6.273E-02
-1.44	4.635E-02	11.874E-02	TO 8.623E-02	3.000E-02	6.387E-02	4.662E-02	(1.876E-02 TO 8.773E-02)	2.973E-02	6.474E-02
-1.43	4.810E-02	11.967E-02	TO 8.875E-02	3.139E-02	6.588E-02	4.835E-02	(1.970E-02 TO 8.933E-02)	3.005E-02	6.674E-02
-1.42	4.990E-02	12.065E-02	TO 9.132E-02	3.282E-02	6.794E-02	5.021E-02	(2.068E-02 TO 9.196E-02)	3.144E-02	6.881E-02
-1.41	5.176E-02	12.166E-02	TO 9.395E-02	3.431E-02	7.005E-02	5.202E-02	(2.165E-02 TO 9.459E-02)	3.288E-02	7.092E-02
-1.40	5.367E-02	12.272E-02	TO 9.662E-02	3.586E-02	7.221E-02	5.401E-02	(2.275E-02 TO 9.847E-02)	3.438E-02	7.303E-02
-1.39	5.563E-02	12.382E-02	TO 9.935E-02	3.746E-02	7.442E-02	5.600E-02	(2.385E-02 TO 1.013E-01)	3.593E-02	7.517E-02
-1.38	5.765E-02	12.496E-02	TO 1.021E-01	3.912E-02	7.668E-02	5.804E-02	(2.500E-02 TO 1.032E-01)	3.754E-02	7.757E-02
-1.37	5.972E-02	12.615E-02	TO 1.050E-01	4.084E-02	7.899E-02	6.014E-02	(2.619E-02 TO 1.071E-01)	4.093E-02	8.027E-02
-1.36	6.186E-02	12.738E-02	TO 1.079E-01	4.262E-02	8.136E-02	6.236E-02	(2.743E-02 TO 1.101E-01)	4.272E-02	8.271E-02
-1.35	6.405E-02	12.867E-02	TO 1.108E-01	4.446E-02	8.377E-02	6.453E-02	(2.872E-02 TO 1.132E-01)	4.457E-02	8.519E-02
-1.34	6.630E-02	13.000E-02	TO 1.138E-01	4.636E-02	8.623E-02	6.671E-02	(3.005E-02 TO 1.163E-01)	4.646E-02	8.773E-02
-1.33	6.861E-02	13.139E-02	TO 1.169E-01	4.833E-02	8.875E-02	6.891E-02	(3.144E-02 TO 1.195E-01)	4.848E-02	9.033E-02
-1.32	7.098E-02	13.282E-02	TO 1.200E-01	5.037E-02	9.132E-02	7.105E-02	(3.288E-02 TO 1.228E-01)	5.050E-02	9.299E-02
-1.31	7.341E-02	13.431E-02	TO 1.232E-01	5.247E-02	9.395E-02	7.324E-02	(3.438E-02 TO 1.261E-01)	5.262E-02	9.570E-02
-1.30	7.591E-02	13.586E-02	TO 1.264E-01	5.464E-02	9.662E-02	7.545E-02	(3.593E-02 TO 1.294E-01)	5.480E-02	9.847E-02
-1.29	7.847E-02	13.746E-02	TO 1.297E-01	5.688E-02	9.935E-02	7.765E-02	(3.754E-02 TO 1.329E-01)	5.705E-02	1.013E-01
-1.28	8.109E-02	13.912E-02	TO 1.330E-01	5.919E-02	1.021E-01	8.183E-02	(3.920E-02 TO 1.364E-01)	5.938E-02	1.042E-01
-1.27	8.378E-02	14.084E-02	TO 1.364E-01	6.158E-02	1.050E-01	8.457E-02	(4.093E-02 TO 1.399E-01)	6.178E-02	1.071E-01
-1.26	8.653E-02	14.262E-02	TO 1.398E-01	6.404E-02	1.079E-01	8.732E-02	(4.272E-02 TO 1.435E-01)	6.426E-02	1.101E-01
-1.25	8.936E-02	14.446E-02	TO 1.433E-01	6.657E-02	1.108E-01	9.014E-02	(4.457E-02 TO 1.472E-01)	6.681E-02	1.132E-01
-1.24	9.223E-02	14.636E-02	TO 1.469E-01	6.919E-02	1.138E-01	9.301E-02	(4.648E-02 TO 1.510E-01)	6.944E-02	1.163E-01
-1.23	9.519E-02	14.833E-02	TO 1.505E-01	7.188E-02	1.169E-01	9.615E-02	(4.846E-02 TO 1.548E-01)	7.215E-02	1.195E-01
-1.22	9.821E-02	15.037E-02	TO 1.542E-01	7.464E-02	1.200E-01	9.927E-02	(5.053E-02 TO 1.587E-01)	7.453E-02	1.228E-01
-1.21	1.013E-01	15.247E-02	TO 1.579E-01	7.749E-02	1.232E-01	1.024E-01	(5.262E-02 TO 1.626E-01)	7.705E-02	1.261E-01
-1.20	1.045E-01	15.464E-02	TO 1.617E-01	8.042E-02	1.264E-01	1.054E-01	(5.480E-02 TO 1.666E-01)	8.070E-02	1.294E-01
-1.19	1.077E-01	15.688E-02	TO 1.655E-01	8.343E-02	1.297E-01	1.085E-01	(5.705E-02 TO 1.706E-01)	8.379E-02	1.329E-01
-1.18	1.110E-01	15.919E-02	TO 1.694E-01	8.653E-02	1.330E-01	1.116E-01	(5.933E-02 TO 1.748E-01)	8.652E-02	1.364E-01
-1.17	1.143E-01	16.158E-02	TO 1.733E-01	8.970E-02	1.364E-01	1.147E-01	(6.176E-02 TO 1.790E-01)	8.952E-02	1.399E-01
-1.16	1.176E-01	16.404E-02	TO 1.773E-01	9.297E-02	1.398E-01	1.178E-01	(6.426E-02 TO 1.832E-01)	9.342E-02	1.435E-01
-1.15	1.213E-01	16.657E-02	TO 1.813E-01	9.632E-02	1.433E-01	1.209E-01	(6.681E-02 TO 1.875E-01)	9.680E-02	1.472E-01
-1.14	1.248E-01	16.919E-02	TO 1.854E-01	9.975E-02	1.469E-01	1.240E-01	(6.944E-02 TO 1.919E-01)	1.003E-01	1.510E-01
-1.13	1.285E-01	17.188E-02	TO 1.895E-01	1.033E-01	1.505E-01	1.271E-01	(7.215E-02 TO 1.963E-01)	1.038E-01	1.548E-01
-1.12	1.322E-01	17.464E-02	TO 1.937E-01	1.067E-01	1.542E-01	1.302E-01	(7.493E-02 TO 2.008E-01)	1.075E-01	1.587E-01
-1.11	1.360E-01	17.749E-02	TO 1.979E-01	1.106E-01	1.579E-01	1.333E-01	(7.780E-02 TO 2.054E-01)	1.112E-01	1.626E-01
-1.10	1.395E-01	18.042E-02	TO 2.022E-01	1.144E-01	1.617E-01	1.364E-01	(8.076E-02 TO 2.110E-01)	1.151E-01	1.666E-01
-1.09	1.436E-01	18.343E-02	TO 2.063E-01	1.183E-01	1.655E-01	1.395E-01	(8.375E-02 TO 2.147E-01)	1.150E-01	1.706E-01
-1.08	1.478E-01	18.653E-02	TO 2.103E-01	1.222E-01	1.694E-01	1.426E-01	(8.692E-02 TO 2.194E-01)	1.230E-01	1.748E-01
-1.07	1.510E-01	18.970E-02	TO 2.153E-01	1.263E-01	1.733E-01	1.457E-01	(9.012E-02 TO 2.242E-01)	1.271E-01	1.790E-01
-1.06	1.560E-01	19.297E-02	TO 2.196E-01	1.305E-01	1.773E-01	1.488E-01	(9.342E-02 TO 2.251E-01)	1.314E-01	1.832E-01
-1.05	1.602E-01	19.632E-02	TO 2.243E-01	1.347E-01	1.813E-01	1.519E-01	(9.680E-02 TO 2.340E-01)	1.357E-01	1.875E-01
-1.04	1.645E-01	19.975E-02	TO 2.289E-01	1.390E-01	1.854E-01	1.550E-01	(1.003E-01 TO 2.440E-01)	1.401E-01	1.915E-01
-1.03	1.688E-01	20.333E-01	TO 2.334E-01	1.435E-01	1.895E-01	1.581E-01	(1.038E-01 TO 2.541E-01)	1.446E-01	1.963E-01
-1.02	1.732E-01	20.695E-01	TO 2.381E-01	1.480E-01	1.937E-01	1.612E-01	(1.075E-01 TO 2.642E-01)	1.491E-01	2.005E-01
-1.01	1.777E-01	21.106E-01	TO 2.421E-01	1.526E-01	1.979E-01	1.643E-01	(1.112E-01 TO 2.742E-01)	1.539E-01	2.054E-01

NORMAL FRACTIONAL YIELDS

Z-2P	RANGE OF FIY		FIY FOR SIGMA=0.56	RANGE OF FIY		FIY FOR SIGMA=0.50	FIY FOR SIGMA=C.62	Z-2P	RANGE OF FCY		FCY FOR SIGMA=0.56	FCY FOR SIGMA=C.56	RANGE OF FCY AND 2P + CR - 0.1°	FCY FOR SIGMA=0.50	FCY FOR SIGMA=C.62
	FIR SIGMA AND 2P + OR - 0.10	FIR SIGMA AND 2P + OR - 0.10		FIR SIGMA AND 2P + OR - 0.10	FIR SIGMA AND 2P + OR - 0.10				FIR SIGMA AND 2P + OR - 0.10	FIR SIGMA AND 2P + OR - 0.10					
-1.00	1.823E-01	(1.144E-01 TO 2.474E-01)	1.573E-01	1.573E-01	2.023E-01	2.023E-01	-1.00	1.823E-01	(1.144E-01 TO 2.474E-01)	1.573E-01	1.573E-01	(1.144E-01 TO 2.474E-01)	1.573E-01	1.573E-01	2.100E-01
-0.99	1.869E-01	(1.183E-01 TO 2.522E-01)	1.621E-01	1.621E-01	2.069E-01	2.069E-01	-0.99	1.869E-01	(1.183E-01 TO 2.522E-01)	1.621E-01	1.621E-01	(1.183E-01 TO 2.522E-01)	1.621E-01	1.621E-01	2.147E-01
-0.98	1.916E-01	(1.222E-01 TO 2.570E-01)	1.670E-01	1.670E-01	2.109E-01	2.109E-01	-0.98	1.916E-01	(1.222E-01 TO 2.570E-01)	1.670E-01	1.670E-01	(1.222E-01 TO 2.570E-01)	1.670E-01	1.670E-01	2.194E-01
-0.97	1.963E-01	(1.263E-01 TO 2.618E-01)	1.720E-01	1.720E-01	2.153E-01	2.153E-01	-0.97	1.963E-01	(1.263E-01 TO 2.618E-01)	1.720E-01	1.720E-01	(1.263E-01 TO 2.618E-01)	1.720E-01	1.720E-01	2.242E-01
-0.96	2.011E-01	(1.305E-01 TO 2.666E-01)	1.770E-01	1.770E-01	2.198E-01	2.198E-01	-0.96	2.011E-01	(1.305E-01 TO 2.666E-01)	1.770E-01	1.770E-01	(1.305E-01 TO 2.666E-01)	1.770E-01	1.770E-01	2.291E-01
-0.95	2.060E-01	(1.347E-01 TO 2.715E-01)	1.822E-01	1.822E-01	2.243E-01	2.243E-01	-0.95	2.060E-01	(1.347E-01 TO 2.715E-01)	1.822E-01	1.822E-01	(1.347E-01 TO 2.715E-01)	1.822E-01	1.822E-01	2.340E-01
-0.94	2.110E-01	(1.390E-01 TO 2.764E-01)	1.874E-01	1.874E-01	2.289E-01	2.289E-01	-0.94	2.110E-01	(1.390E-01 TO 2.764E-01)	1.874E-01	1.874E-01	(1.390E-01 TO 2.764E-01)	1.874E-01	1.874E-01	2.389E-01
-0.93	2.160E-01	(1.435E-01 TO 2.813E-01)	1.928E-01	1.928E-01	2.334E-01	2.334E-01	-0.93	2.160E-01	(1.435E-01 TO 2.813E-01)	1.928E-01	1.928E-01	(1.435E-01 TO 2.813E-01)	1.928E-01	1.928E-01	2.438E-01
-0.92	2.213E-01	(1.480E-01 TO 2.863E-01)	1.982E-01	1.982E-01	2.381E-01	2.381E-01	-0.92	2.213E-01	(1.480E-01 TO 2.863E-01)	1.982E-01	1.982E-01	(1.480E-01 TO 2.863E-01)	1.982E-01	1.982E-01	2.487E-01
-0.91	2.261E-01	(1.526E-01 TO 2.912E-01)	2.037E-01	2.037E-01	2.427E-01	2.427E-01	-0.91	2.261E-01	(1.526E-01 TO 2.912E-01)	2.037E-01	2.037E-01	(1.526E-01 TO 2.912E-01)	2.037E-01	2.037E-01	2.536E-01
-0.90	2.313E-01	(1.573E-01 TO 2.962E-01)	2.093E-01	2.093E-01	2.474E-01	2.474E-01	-0.90	2.313E-01	(1.573E-01 TO 2.962E-01)	2.093E-01	2.093E-01	(1.573E-01 TO 2.962E-01)	2.093E-01	2.093E-01	2.584E-01
-0.89	2.366E-01	(1.621E-01 TO 3.013E-01)	2.150E-01	2.150E-01	2.522E-01	2.522E-01	-0.89	2.366E-01	(1.621E-01 TO 3.013E-01)	2.150E-01	2.150E-01	(1.621E-01 TO 3.013E-01)	2.150E-01	2.150E-01	2.632E-01
-0.88	2.419E-01	(1.670E-01 TO 3.063E-01)	2.207E-01	2.207E-01	2.570E-01	2.570E-01	-0.88	2.419E-01	(1.670E-01 TO 3.063E-01)	2.207E-01	2.207E-01	(1.670E-01 TO 3.063E-01)	2.207E-01	2.207E-01	2.680E-01
-0.87	2.472E-01	(1.720E-01 TO 3.113E-01)	2.266E-01	2.266E-01	2.618E-01	2.618E-01	-0.87	2.472E-01	(1.720E-01 TO 3.113E-01)	2.266E-01	2.266E-01	(1.720E-01 TO 3.113E-01)	2.266E-01	2.266E-01	2.728E-01
-0.86	2.526E-01	(1.770E-01 TO 3.164E-01)	2.325E-01	2.325E-01	2.666E-01	2.666E-01	-0.86	2.526E-01	(1.770E-01 TO 3.164E-01)	2.325E-01	2.325E-01	(1.770E-01 TO 3.164E-01)	2.325E-01	2.325E-01	2.776E-01
-0.85	2.580E-01	(1.822E-01 TO 3.215E-01)	2.385E-01	2.385E-01	2.715E-01	2.715E-01	-0.85	2.580E-01	(1.822E-01 TO 3.215E-01)	2.385E-01	2.385E-01	(1.822E-01 TO 3.215E-01)	2.385E-01	2.385E-01	2.824E-01
-0.84	2.635E-01	(1.874E-01 TO 3.266E-01)	2.446E-01	2.446E-01	2.764E-01	2.764E-01	-0.84	2.635E-01	(1.874E-01 TO 3.266E-01)	2.446E-01	2.446E-01	(1.874E-01 TO 3.266E-01)	2.446E-01	2.446E-01	2.872E-01
-0.83	2.691E-01	(1.928E-01 TO 3.317E-01)	2.507E-01	2.507E-01	2.813E-01	2.813E-01	-0.83	2.691E-01	(1.928E-01 TO 3.317E-01)	2.507E-01	2.507E-01	(1.928E-01 TO 3.317E-01)	2.507E-01	2.507E-01	2.920E-01
-0.82	2.748E-01	(1.982E-01 TO 3.368E-01)	2.569E-01	2.569E-01	2.863E-01	2.863E-01	-0.82	2.748E-01	(1.982E-01 TO 3.368E-01)	2.569E-01	2.569E-01	(1.982E-01 TO 3.368E-01)	2.569E-01	2.569E-01	2.968E-01
-0.81	2.803E-01	(2.037E-01 TO 3.419E-01)	2.632E-01	2.632E-01	2.912E-01	2.912E-01	-0.81	2.803E-01	(2.037E-01 TO 3.419E-01)	2.632E-01	2.632E-01	(2.037E-01 TO 3.419E-01)	2.632E-01	2.632E-01	3.016E-01
-0.80	2.859E-01	(2.093E-01 TO 3.470E-01)	2.696E-01	2.696E-01	2.963E-01	2.963E-01	-0.80	2.859E-01	(2.093E-01 TO 3.470E-01)	2.696E-01	2.696E-01	(2.093E-01 TO 3.470E-01)	2.696E-01	2.696E-01	3.064E-01
-0.79	2.917E-01	(2.150E-01 TO 3.522E-01)	2.760E-01	2.760E-01	3.013E-01	3.013E-01	-0.79	2.917E-01	(2.150E-01 TO 3.522E-01)	2.760E-01	2.760E-01	(2.150E-01 TO 3.522E-01)	2.760E-01	2.760E-01	3.112E-01
-0.78	2.974E-01	(2.207E-01 TO 3.573E-01)	2.825E-01	2.825E-01	3.063E-01	3.063E-01	-0.78	2.974E-01	(2.207E-01 TO 3.573E-01)	2.825E-01	2.825E-01	(2.207E-01 TO 3.573E-01)	2.825E-01	2.825E-01	3.160E-01
-0.77	3.032E-01	(2.266E-01 TO 3.624E-01)	2.891E-01	2.891E-01	3.113E-01	3.113E-01	-0.77	3.032E-01	(2.266E-01 TO 3.624E-01)	2.891E-01	2.891E-01	(2.266E-01 TO 3.624E-01)	2.891E-01	2.891E-01	3.208E-01
-0.76	3.090E-01	(2.325E-01 TO 3.684E-01)	2.957E-01	2.957E-01	3.164E-01	3.164E-01	-0.76	3.090E-01	(2.325E-01 TO 3.684E-01)	2.957E-01	2.957E-01	(2.325E-01 TO 3.684E-01)	2.957E-01	2.957E-01	3.256E-01
-0.75	3.148E-01	(2.385E-01 TO 3.744E-01)	3.023E-01	3.023E-01	3.213E-01	3.213E-01	-0.75	3.148E-01	(2.385E-01 TO 3.744E-01)	3.023E-01	3.023E-01	(2.385E-01 TO 3.744E-01)	3.023E-01	3.023E-01	3.304E-01
-0.74	3.207E-01	(2.446E-01 TO 3.804E-01)	3.090E-01	3.090E-01	3.266E-01	3.266E-01	-0.74	3.207E-01	(2.446E-01 TO 3.804E-01)	3.090E-01	3.090E-01	(2.446E-01 TO 3.804E-01)	3.090E-01	3.090E-01	3.352E-01
-0.73	3.266E-01	(2.507E-01 TO 3.864E-01)	3.158E-01	3.158E-01	3.317E-01	3.317E-01	-0.73	3.266E-01	(2.507E-01 TO 3.864E-01)	3.158E-01	3.158E-01	(2.507E-01 TO 3.864E-01)	3.158E-01	3.158E-01	3.400E-01
-0.72	3.325E-01	(2.569E-01 TO 3.926E-01)	3.226E-01	3.226E-01	3.368E-01	3.368E-01	-0.72	3.325E-01	(2.569E-01 TO 3.926E-01)	3.226E-01	3.226E-01	(2.569E-01 TO 3.926E-01)	3.226E-01	3.226E-01	3.448E-01
-0.71	3.385E-01	(2.632E-01 TO 3.997E-01)	3.295E-01	3.295E-01	3.419E-01	3.419E-01	-0.71	3.385E-01	(2.632E-01 TO 3.997E-01)	3.295E-01	3.295E-01	(2.632E-01 TO 3.997E-01)	3.295E-01	3.295E-01	3.496E-01
-0.70	3.444E-01	(2.696E-01 TO 4.068E-01)	3.364E-01	3.364E-01	3.470E-01	3.470E-01	-0.70	3.444E-01	(2.696E-01 TO 4.068E-01)	3.364E-01	3.364E-01	(2.696E-01 TO 4.068E-01)	3.364E-01	3.364E-01	3.544E-01
-0.69	3.504E-01	(2.760E-01 TO 4.139E-01)	3.433E-01	3.433E-01	3.522E-01	3.522E-01	-0.69	3.504E-01	(2.760E-01 TO 4.139E-01)	3.433E-01	3.433E-01	(2.760E-01 TO 4.139E-01)	3.433E-01	3.433E-01	3.592E-01
-0.68	3.564E-01	(2.825E-01 TO 4.211E-01)	3.503E-01	3.503E-01	3.573E-01	3.573E-01	-0.68	3.564E-01	(2.825E-01 TO 4.211E-01)	3.503E-01	3.503E-01	(2.825E-01 TO 4.211E-01)	3.503E-01	3.503E-01	3.640E-01
-0.67	3.624E-01	(2.891E-01 TO 4.282E-01)	3.573E-01	3.573E-01	3.624E-01	3.624E-01	-0.67	3.624E-01	(2.891E-01 TO 4.282E-01)	3.573E-01	3.573E-01	(2.891E-01 TO 4.282E-01)	3.573E-01	3.573E-01	3.688E-01
-0.66	3.684E-01	(2.957E-01 TO 4.352E-01)	3.643E-01	3.643E-01	3.675E-01	3.675E-01	-0.66	3.684E-01	(2.957E-01 TO 4.352E-01)	3.643E-01	3.643E-01	(2.957E-01 TO 4.352E-01)	3.643E-01	3.643E-01	3.736E-01
-0.65	3.744E-01	(3.023E-01 TO 4.423E-01)	3.714E-01	3.714E-01	3.726E-01	3.726E-01	-0.65	3.744E-01	(3.023E-01 TO 4.423E-01)	3.714E-01	3.714E-01	(3.023E-01 TO 4.423E-01)	3.714E-01	3.714E-01	3.784E-01
-0.64	3.804E-01	(3.090E-01 TO 4.494E-01)	3.784E-01	3.784E-01	3.777E-01	3.777E-01	-0.64	3.804E-01	(3.090E-01 TO 4.494E-01)	3.784E-01	3.784E-01	(3.090E-01 TO 4.494E-01)	3.784E-01	3.784E-01	3.832E-01
-0.63	3.864E-01	(3.158E-01 TO 4.564E-01)	3.855E-01	3.855E-01	3.828E-01	3.828E-01	-0.63	3.864E-01	(3.158E-01 TO 4.564E-01)	3.855E-01	3.855E-01	(3.158E-01 TO 4.564E-01)	3.855E-01	3.855E-01	3.880E-01
-0.62	3.924E-01	(3.226E-01 TO 4.634E-01)	3.926E-01	3.926E-01	3.899E-01	3.899E-01	-0.62	3.924E-01	(3.226E-01 TO 4.634E-01)	3.926E-01	3.926E-01	(3.226E-01 TO 4.634E-01)	3.926E-01	3.926E-01	3.928E-01
-0.61	3.984E-01	(3.295E-01 TO 4.703E-01)	3.997E-01	3.997E-01	3.929E-01	3.929E-01	-0.61	3.984E-01	(3.295E-01 TO 4.703E-01)	3.997E-01	3.997E-01	(3.295E-01 TO 4.703E-01)	3.997E-01	3.997E-01	3.976E-01
-0.60	4.044E-01	(3.364E-01 TO 4.772E-01)	4.068E-01	4.068E-01	3.979E-01	3.979E-01	-0.60	4.044E-01	(3.364E-01 TO 4.772E-01)	4.068E-01	4.068E-01	(3.364E-01 TO 4.772E-01)	4.068E-01	4.068E-01	4.024E-01
-0.59	4.104E-01	(3.433E-01 TO 4.841E-01)	4.139E-01	4.139E-01	4.029E-01	4.029E-01	-0.59	4.104E-01	(3.433E-01 TO 4.841E-01)	4.139E-01	4.139E-01	(3.433E-01 TO 4.841E-01)	4.139E-01	4.139E-01	4.072E-01
-0.58	4.163E-01	(3.503E-01 TO 4.910E-01)	4.211E-01	4.211E-01	4.079E-01	4.079E-01	-0.58	4.163E-01	(3.503E-01 TO 4.910E-01)	4.211E-01	4.211E-01	(3.503E-01 TO 4.910E-01)	4.211E-01	4.211E-01	4.120E-01
-0.57	4.222E-01	(3.573E-01 TO 4.977E-01)	4.282E-01	4.282E-01	4.129E-01	4.129E-01	-0.57	4.222E-01	(3.573E-01 TO 4.977E-01)	4.282E-01	4.282E-01	(3.573E-01 TO 4.977E-01)	4.282E-01	4.282E-01	4.168E-01
-0.56	4.281E-01	(3.643E-01 TO 5.045E-01)	4.352E-01	4.352E-01	4.179E-01	4.179E-01	-0.56	4.281E-01	(3.643E-01 TO 5.045E-01)	4.352E-01	4.352E-01	(3.643E-01 TO 5.045E-01)	4.352E-01	4.352E-01	4.216E-01
-0.55	4.340E-01	(3.714E-01 TO 5.111E-01)	4.423E-01	4.423E-01	4.227E-01	4.227E-01	-0.55	4.340E-01	(3.714E-01 TO 5.111E-01)	4.423E-01	4.423E-01	(3.714E-01 TO 5.111E-01)	4.423E-01	4.423E-01	4.264E-01
-0.54	4.399E-01	(3.777E-01 TO 5.177E-01)	4.494E-01	4.494E-01	4.275E-01	4.275E-01	-0.54	4.399E-01							

NORMAL FRACTIIONAL YIELDS

Z-ZP	FIY FOR SIGMA=C.56	RANGE OF FIY FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10		FIY FOR SIGMA=0.50	FIY FOR SIGMA=C.62	Z-ZP	FCV FOR SIGMA=C.56	RANGE OF FCV FOR SIGMA = 0.50 TO 0.62 AND ZF + CR - 0.10		FCV FOR SIGMA=0.50	FCV FOR SIGMA=0.62
		FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10	FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10					FOR SIGMA = 0.50 TO 0.62 AND ZF + CR - 0.10			
-50	4.629E-01	(3.979E-01 TO 5.433E-01)	4.772E-01	4.466E-01	-50	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-49	4.686E-01	(4.029E-01 TO 5.495E-01)	4.841E-01	4.513E-01	-49	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-48	4.762E-01	(4.079E-01 TO 5.566E-01)	4.910E-01	4.559E-01	-48	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-47	4.797E-01	(4.129E-01 TO 5.616E-01)	4.977E-01	4.604E-01	-47	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-46	4.852E-01	(4.178E-01 TO 5.675E-01)	5.045E-01	4.650E-01	-46	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-45	4.907E-01	(4.227E-01 TO 5.733E-01)	5.111E-01	4.694E-01	-45	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-44	4.961E-01	(4.275E-01 TO 5.790E-01)	5.177E-01	4.738E-01	-44	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-43	5.014E-01	(4.324E-01 TO 5.846E-01)	5.242E-01	4.781E-01	-43	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-42	5.066E-01	(4.372E-01 TO 5.901E-01)	5.307E-01	4.824E-01	-42	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-41	5.118E-01	(4.419E-01 TO 5.954E-01)	5.370E-01	4.866E-01	-41	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-40	5.169E-01	(4.466E-01 TO 6.006E-01)	5.433E-01	4.908E-01	-40	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-39	5.219E-01	(4.513E-01 TO 6.057E-01)	5.495E-01	4.948E-01	-39	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-38	5.268E-01	(4.559E-01 TO 6.107E-01)	5.556E-01	4.988E-01	-38	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-37	5.316E-01	(4.604E-01 TO 6.159E-01)	5.616E-01	5.028E-01	-37	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-36	5.364E-01	(4.650E-01 TO 6.201E-01)	5.675E-01	5.066E-01	-36	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-35	5.411E-01	(4.694E-01 TO 6.247E-01)	5.733E-01	5.104E-01	-35	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-34	5.456E-01	(4.738E-01 TO 6.290E-01)	5.790E-01	5.141E-01	-34	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-33	5.501E-01	(4.781E-01 TO 6.333E-01)	5.846E-01	5.177E-01	-33	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-32	5.545E-01	(4.824E-01 TO 6.373E-01)	5.901E-01	5.212E-01	-32	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-31	5.588E-01	(4.866E-01 TO 6.412E-01)	5.954E-01	5.247E-01	-31	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-30	5.629E-01	(4.908E-01 TO 6.450E-01)	6.006E-01	5.280E-01	-30	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-29	5.670E-01	(4.948E-01 TO 6.486E-01)	6.057E-01	5.313E-01	-29	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-28	5.710E-01	(4.988E-01 TO 6.520E-01)	6.107E-01	5.345E-01	-28	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-27	5.748E-01	(5.028E-01 TO 6.553E-01)	6.156E-01	5.375E-01	-27	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-26	5.785E-01	(5.066E-01 TO 6.583E-01)	6.201E-01	5.405E-01	-26	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-25	5.821E-01	(5.104E-01 TO 6.612E-01)	6.247E-01	5.434E-01	-25	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-24	5.856E-01	(5.141E-01 TO 6.640E-01)	6.290E-01	5.462E-01	-24	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-23	5.890E-01	(5.177E-01 TO 6.665E-01)	6.333E-01	5.489E-01	-23	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-22	5.922E-01	(5.212E-01 TO 6.689E-01)	6.373E-01	5.515E-01	-22	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-21	5.953E-01	(5.247E-01 TO 6.711E-01)	6.412E-01	5.539E-01	-21	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-20	5.983E-01	(5.280E-01 TO 6.731E-01)	6.450E-01	5.563E-01	-20	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-19	6.011E-01	(5.313E-01 TO 6.749E-01)	6.486E-01	5.586E-01	-19	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-18	6.038E-01	(5.345E-01 TO 6.785E-01)	6.520E-01	5.607E-01	-18	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-17	6.064E-01	(5.375E-01 TO 6.806E-01)	6.553E-01	5.628E-01	-17	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-16	6.088E-01	(5.405E-01 TO 6.792E-01)	6.583E-01	5.647E-01	-16	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-15	6.111E-01	(5.434E-01 TO 6.803E-01)	6.612E-01	5.666E-01	-15	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-14	6.133E-01	(5.462E-01 TO 6.811E-01)	6.640E-01	5.683E-01	-14	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-13	6.153E-01	(5.489E-01 TO 6.818E-01)	6.665E-01	5.699E-01	-13	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-12	6.172E-01	(5.515E-01 TO 6.823E-01)	6.689E-01	5.714E-01	-12	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-11	6.189E-01	(5.539E-01 TO 6.826E-01)	6.711E-01	5.727E-01	-11	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-10	6.205E-01	(5.563E-01 TO 6.827E-01)	6.731E-01	5.740E-01	-10	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-09	6.219E-01	(5.586E-01 TO 6.826E-01)	6.749E-01	5.751E-01	-09	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-08	6.232E-01	(5.607E-01 TO 6.823E-01)	6.765E-01	5.762E-01	-08	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-07	6.243E-01	(5.628E-01 TO 6.818E-01)	6.780E-01	5.771E-01	-07	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-06	6.253E-01	(5.647E-01 TO 6.811E-01)	6.792E-01	5.778E-01	-06	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-05	6.262E-01	(5.665E-01 TO 6.803E-01)	6.803E-01	5.785E-01	-05	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-04	6.268E-01	(5.683E-01 TO 6.811E-01)	6.811E-01	5.791E-01	-04	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-03	6.274E-01	(5.699E-01 TO 6.818E-01)	6.818E-01	5.795E-01	-03	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-02	6.278E-01	(5.714E-01 TO 6.823E-01)	6.823E-01	5.798E-01	-02	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01
-01	6.280E-01	(5.727E-01 TO 6.826E-01)	6.826E-01	5.800E-01	-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01	5.000E-01

NORMAL FRACTIONAL YIELDS

Z-ZP	RANGE OF FIY FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10		RANGE OF FCY FOR SIGMA = 0.50 TO 0.62 AND ZP + CR - 0.10		RANGE OF FCY FOR SIGMA = 0.50 TO 0.62 AND ZP + CR - 0.10		RANGE OF FCY FOR SIGMA = 0.50 TO 0.62 AND ZP + CR - 0.10	
	FIY FOR SIGMA=0.56	FIY FOR SIGMA=0.50	FIY FOR SIGMA=0.62	Z-ZP	FCY FOR SIGMA=C.56	FCY FOR SIGMA=C.56	FCY FOR SIGMA=0.50	FCY FOR SIGMA=0.50
00	6.281E-01	15.740E-01	6.827E-01	0	8.140E-01	17.406E-01	8.413E-01	7.900E-01
01	6.280E-01	15.727E-01	6.826E-01	01	8.188E-01	17.458E-01	8.413E-01	7.900E-01
02	6.278E-01	15.714E-01	6.823E-01	02	8.234E-01	17.509E-01	8.413E-01	7.900E-01
03	6.274E-01	15.699E-01	6.818E-01	03	8.282E-01	17.560E-01	8.413E-01	7.900E-01
04	6.268E-01	15.683E-01	6.811E-01	04	8.325E-01	17.610E-01	8.413E-01	7.900E-01
05	6.262E-01	15.666E-01	6.803E-01	05	8.373E-01	17.660E-01	8.413E-01	7.900E-01
06	6.253E-01	15.647E-01	6.792E-01	06	8.413E-01	17.709E-01	8.413E-01	7.900E-01
07	6.243E-01	15.628E-01	6.780E-01	07	8.458E-01	17.758E-01	8.413E-01	7.900E-01
08	6.232E-01	15.607E-01	6.765E-01	08	8.498E-01	17.806E-01	8.413E-01	7.900E-01
09	6.219E-01	15.586E-01	6.749E-01	09	8.540E-01	17.853E-01	8.413E-01	7.900E-01
10	6.205E-01	15.563E-01	6.731E-01	10	8.580E-01	17.900E-01	8.413E-01	7.900E-01
11	6.190E-01	15.539E-01	6.711E-01	11	8.622E-01	17.946E-01	8.413E-01	7.900E-01
12	6.172E-01	15.513E-01	6.689E-01	12	8.655E-01	17.992E-01	8.413E-01	7.900E-01
13	6.153E-01	15.489E-01	6.665E-01	13	8.697E-01	18.037E-01	8.413E-01	7.900E-01
14	6.133E-01	15.462E-01	6.640E-01	14	8.735E-01	18.081E-01	8.413E-01	7.900E-01
15	6.111E-01	15.434E-01	6.612E-01	15	8.771E-01	18.125E-01	8.413E-01	7.900E-01
16	6.088E-01	15.405E-01	6.583E-01	16	8.807E-01	18.168E-01	8.413E-01	7.900E-01
17	6.064E-01	15.375E-01	6.553E-01	17	8.842E-01	18.210E-01	8.413E-01	7.900E-01
18	6.038E-01	15.345E-01	6.520E-01	18	8.877E-01	18.252E-01	8.413E-01	7.900E-01
19	6.011E-01	15.313E-01	6.486E-01	19	8.911E-01	18.294E-01	8.413E-01	7.900E-01
20	5.983E-01	15.280E-01	6.450E-01	20	8.944E-01	18.334E-01	8.413E-01	7.900E-01
21	5.953E-01	15.247E-01	6.412E-01	21	8.976E-01	18.374E-01	8.413E-01	7.900E-01
22	5.922E-01	15.212E-01	6.373E-01	22	9.008E-01	18.413E-01	8.413E-01	7.900E-01
23	5.890E-01	15.177E-01	6.333E-01	23	9.039E-01	18.452E-01	8.413E-01	7.900E-01
24	5.856E-01	15.141E-01	6.290E-01	24	9.069E-01	18.490E-01	8.413E-01	7.900E-01
25	5.821E-01	15.104E-01	6.247E-01	25	9.098E-01	18.528E-01	8.413E-01	7.900E-01
26	5.785E-01	15.066E-01	6.201E-01	26	9.126E-01	18.565E-01	8.413E-01	7.900E-01
27	5.748E-01	15.028E-01	6.155E-01	27	9.154E-01	18.602E-01	8.413E-01	7.900E-01
28	5.710E-01	14.988E-01	6.107E-01	28	9.181E-01	18.638E-01	8.413E-01	7.900E-01
29	5.670E-01	14.948E-01	6.057E-01	29	9.208E-01	18.674E-01	8.413E-01	7.900E-01
30	5.629E-01	14.908E-01	6.006E-01	30	9.234E-01	18.709E-01	8.413E-01	7.900E-01
31	5.588E-01	14.865E-01	5.954E-01	31	9.260E-01	18.744E-01	8.413E-01	7.900E-01
32	5.545E-01	14.822E-01	5.901E-01	32	9.285E-01	18.779E-01	8.413E-01	7.900E-01
33	5.501E-01	14.781E-01	5.846E-01	33	9.310E-01	18.814E-01	8.413E-01	7.900E-01
34	5.456E-01	14.739E-01	5.790E-01	34	9.335E-01	18.849E-01	8.413E-01	7.900E-01
35	5.411E-01	14.696E-01	5.733E-01	35	9.359E-01	18.884E-01	8.413E-01	7.900E-01
36	5.364E-01	14.650E-01	5.673E-01	36	9.383E-01	18.919E-01	8.413E-01	7.900E-01
37	5.316E-01	14.604E-01	5.614E-01	37	9.407E-01	18.954E-01	8.413E-01	7.900E-01
38	5.268E-01	14.559E-01	5.556E-01	38	9.430E-01	18.989E-01	8.413E-01	7.900E-01
39	5.219E-01	14.513E-01	5.495E-01	39	9.453E-01	19.024E-01	8.413E-01	7.900E-01
40	5.169E-01	14.466E-01	5.433E-01	40	9.476E-01	19.059E-01	8.413E-01	7.900E-01
41	5.118E-01	14.419E-01	5.370E-01	41	9.498E-01	19.094E-01	8.413E-01	7.900E-01
42	5.066E-01	14.372E-01	5.307E-01	42	9.520E-01	19.129E-01	8.413E-01	7.900E-01
43	5.014E-01	14.325E-01	5.242E-01	43	9.542E-01	19.164E-01	8.413E-01	7.900E-01
44	4.960E-01	14.278E-01	5.177E-01	44	9.564E-01	19.199E-01	8.413E-01	7.900E-01
45	4.907E-01	14.229E-01	5.111E-01	45	9.586E-01	19.234E-01	8.413E-01	7.900E-01
46	4.852E-01	14.179E-01	5.045E-01	46	9.608E-01	19.269E-01	8.413E-01	7.900E-01
47	4.797E-01	14.129E-01	4.977E-01	47	9.630E-01	19.304E-01	8.413E-01	7.900E-01
48	4.742E-01	14.079E-01	4.910E-01	48	9.652E-01	19.339E-01	8.413E-01	7.900E-01
49	4.686E-01	14.029E-01	4.841E-01	49	9.674E-01	19.374E-01	8.413E-01	7.900E-01

NORMAL FRACTURAL YIELDS

FIV FOR SIGMA=C.56		RANGE OF FIV FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10		FIV FOR SIGMA=0.50		FIV FOR SIGMA=C.62		2-ZP		FCV FOR SIGMA=C.56		RANGE OF FCV FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10		FCV FOR SIGMA=0.50		FCV FOR SIGMA=C.62	
50	4.629E-01	(3.979E-01 TO 5.433E-01)	4.772E-01	4.703E-01	4.668E-01	4.604E-01	4.540E-01	50	5.625E-01	(5.267E-01 TO 5.821E-01)	5.772E-01	5.703E-01	5.668E-01	5.604E-01	5.540E-01	5.476E-01	5.412E-01
51	4.572E-01	(3.929E-01 TO 5.370E-01)	4.703E-01	4.634E-01	4.599E-01	4.535E-01	4.471E-01	51	5.568E-01	(5.210E-01 TO 5.764E-01)	5.703E-01	5.634E-01	5.599E-01	5.535E-01	5.471E-01	5.407E-01	5.343E-01
52	4.515E-01	(3.878E-01 TO 5.319E-01)	4.634E-01	4.565E-01	4.530E-01	4.466E-01	4.402E-01	52	5.511E-01	(5.153E-01 TO 5.707E-01)	5.634E-01	5.565E-01	5.530E-01	5.466E-01	5.402E-01	5.338E-01	5.274E-01
53	4.457E-01	(3.828E-01 TO 5.242E-01)	4.564E-01	4.495E-01	4.460E-01	4.396E-01	4.332E-01	53	5.454E-01	(5.096E-01 TO 5.750E-01)	5.565E-01	5.496E-01	5.460E-01	5.396E-01	5.332E-01	5.268E-01	5.204E-01
54	4.399E-01	(3.777E-01 TO 5.177E-01)	4.494E-01	4.425E-01	4.390E-01	4.326E-01	4.262E-01	54	5.397E-01	(5.038E-01 TO 5.742E-01)	5.496E-01	5.427E-01	5.390E-01	5.326E-01	5.262E-01	5.198E-01	5.134E-01
55	4.342E-01	(3.714E-01 TO 5.114E-01)	4.423E-01	4.354E-01	4.319E-01	4.255E-01	4.191E-01	55	5.340E-01	(4.980E-01 TO 5.684E-01)	5.427E-01	5.358E-01	5.321E-01	5.257E-01	5.193E-01	5.129E-01	5.065E-01
56	4.284E-01	(3.643E-01 TO 5.045E-01)	4.352E-01	4.283E-01	4.248E-01	4.184E-01	4.120E-01	56	5.283E-01	(4.922E-01 TO 5.626E-01)	5.358E-01	5.289E-01	5.252E-01	5.188E-01	5.124E-01	5.060E-01	5.000E-01
57	4.226E-01	(3.573E-01 TO 4.975E-01)	4.282E-01	4.213E-01	4.178E-01	4.114E-01	4.050E-01	57	5.226E-01	(4.864E-01 TO 5.568E-01)	5.289E-01	5.220E-01	5.183E-01	5.119E-01	5.055E-01	4.991E-01	4.931E-01
58	4.168E-01	(3.503E-01 TO 4.910E-01)	4.211E-01	4.142E-01	4.107E-01	4.043E-01	3.979E-01	58	5.169E-01	(4.794E-01 TO 5.500E-01)	5.220E-01	5.151E-01	5.114E-01	5.050E-01	4.986E-01	4.922E-01	4.862E-01
59	4.109E-01	(3.433E-01 TO 4.841E-01)	4.139E-01	4.070E-01	4.035E-01	3.971E-01	3.907E-01	59	5.112E-01	(4.724E-01 TO 5.430E-01)	5.151E-01	5.082E-01	5.045E-01	4.981E-01	4.917E-01	4.853E-01	4.793E-01
60	4.049E-01	(3.364E-01 TO 4.772E-01)	4.068E-01	4.000E-01	3.965E-01	3.901E-01	3.837E-01	60	5.055E-01	(4.654E-01 TO 5.360E-01)	5.082E-01	5.013E-01	4.976E-01	4.912E-01	4.848E-01	4.784E-01	4.724E-01
61	3.989E-01	(3.295E-01 TO 4.703E-01)	3.997E-01	3.928E-01	3.893E-01	3.829E-01	3.765E-01	61	5.000E-01	(4.596E-01 TO 5.302E-01)	5.013E-01	4.944E-01	4.907E-01	4.843E-01	4.779E-01	4.715E-01	4.655E-01
62	3.929E-01	(3.226E-01 TO 4.634E-01)	3.926E-01	3.857E-01	3.822E-01	3.758E-01	3.694E-01	62	4.945E-01	(4.538E-01 TO 5.244E-01)	3.857E-01	3.788E-01	3.751E-01	3.687E-01	3.623E-01	3.559E-01	3.499E-01
63	3.869E-01	(3.158E-01 TO 4.564E-01)	3.855E-01	3.786E-01	3.751E-01	3.687E-01	3.623E-01	63	4.890E-01	(4.479E-01 TO 5.186E-01)	3.786E-01	3.717E-01	3.680E-01	3.616E-01	3.552E-01	3.488E-01	3.428E-01
64	3.809E-01	(3.090E-01 TO 4.494E-01)	3.784E-01	3.715E-01	3.680E-01	3.616E-01	3.552E-01	64	4.835E-01	(4.420E-01 TO 5.128E-01)	3.715E-01	3.646E-01	3.609E-01	3.545E-01	3.481E-01	3.417E-01	3.357E-01
65	3.749E-01	(3.023E-01 TO 4.423E-01)	3.714E-01	3.645E-01	3.610E-01	3.546E-01	3.482E-01	65	4.780E-01	(4.361E-01 TO 5.069E-01)	3.645E-01	3.576E-01	3.539E-01	3.475E-01	3.411E-01	3.347E-01	3.287E-01
66	3.689E-01	(2.957E-01 TO 4.352E-01)	3.643E-01	3.574E-01	3.539E-01	3.475E-01	3.411E-01	66	4.725E-01	(4.302E-01 TO 5.010E-01)	3.574E-01	3.505E-01	3.468E-01	3.404E-01	3.340E-01	3.276E-01	3.216E-01
67	3.629E-01	(2.891E-01 TO 4.282E-01)	3.573E-01	3.504E-01	3.469E-01	3.405E-01	3.341E-01	67	4.670E-01	(4.243E-01 TO 4.951E-01)	3.504E-01	3.435E-01	3.398E-01	3.334E-01	3.270E-01	3.206E-01	3.146E-01
68	3.569E-01	(2.825E-01 TO 4.211E-01)	3.503E-01	3.434E-01	3.399E-01	3.335E-01	3.271E-01	68	4.615E-01	(4.184E-01 TO 4.892E-01)	3.434E-01	3.365E-01	3.328E-01	3.264E-01	3.200E-01	3.136E-01	3.076E-01
69	3.509E-01	(2.760E-01 TO 4.139E-01)	3.433E-01	3.364E-01	3.329E-01	3.265E-01	3.201E-01	69	4.560E-01	(4.125E-01 TO 4.833E-01)	3.364E-01	3.295E-01	3.258E-01	3.194E-01	3.130E-01	3.066E-01	3.006E-01
70	3.449E-01	(2.695E-01 TO 4.068E-01)	3.364E-01	3.295E-01	3.260E-01	3.196E-01	3.132E-01	70	4.505E-01	(4.066E-01 TO 4.774E-01)	3.295E-01	3.226E-01	3.189E-01	3.125E-01	3.061E-01	2.997E-01	2.937E-01
71	3.389E-01	(2.632E-01 TO 3.997E-01)	3.295E-01	3.226E-01	3.191E-01	3.127E-01	3.063E-01	71	4.450E-01	(4.007E-01 TO 4.715E-01)	3.226E-01	3.157E-01	3.120E-01	3.056E-01	2.992E-01	2.928E-01	2.868E-01
72	3.329E-01	(2.569E-01 TO 3.926E-01)	3.226E-01	3.157E-01	3.122E-01	3.058E-01	3.000E-01	72	4.395E-01	(3.948E-01 TO 4.656E-01)	3.157E-01	3.088E-01	3.051E-01	2.987E-01	2.923E-01	2.859E-01	2.799E-01
73	3.269E-01	(2.507E-01 TO 3.864E-01)	3.158E-01	3.089E-01	3.054E-01	2.990E-01	2.932E-01	73	4.340E-01	(3.889E-01 TO 4.597E-01)	3.089E-01	3.020E-01	2.983E-01	2.919E-01	2.855E-01	2.791E-01	2.731E-01
74	3.209E-01	(2.446E-01 TO 3.804E-01)	3.090E-01	3.021E-01	2.986E-01	2.922E-01	2.864E-01	74	4.285E-01	(3.830E-01 TO 4.538E-01)	3.021E-01	2.952E-01	2.915E-01	2.851E-01	2.787E-01	2.723E-01	2.663E-01
75	3.149E-01	(2.385E-01 TO 3.744E-01)	3.023E-01	2.954E-01	2.919E-01	2.855E-01	2.791E-01	75	4.230E-01	(3.771E-01 TO 4.479E-01)	2.954E-01	2.885E-01	2.848E-01	2.784E-01	2.720E-01	2.656E-01	2.596E-01
76	3.089E-01	(2.325E-01 TO 3.684E-01)	2.957E-01	2.888E-01	2.853E-01	2.789E-01	2.725E-01	76	4.175E-01	(3.712E-01 TO 4.420E-01)	2.888E-01	2.819E-01	2.782E-01	2.718E-01	2.654E-01	2.590E-01	2.530E-01
77	3.032E-01	(2.266E-01 TO 3.624E-01)	2.891E-01	2.822E-01	2.787E-01	2.723E-01	2.659E-01	77	4.120E-01	(3.653E-01 TO 4.361E-01)	2.819E-01	2.750E-01	2.713E-01	2.649E-01	2.585E-01	2.521E-01	2.461E-01
78	2.974E-01	(2.207E-01 TO 3.573E-01)	2.825E-01	2.756E-01	2.721E-01	2.657E-01	2.593E-01	78	4.065E-01	(3.594E-01 TO 4.302E-01)	2.756E-01	2.687E-01	2.650E-01	2.586E-01	2.522E-01	2.458E-01	2.398E-01
79	2.917E-01	(2.150E-01 TO 3.522E-01)	2.760E-01	2.691E-01	2.656E-01	2.592E-01	2.528E-01	79	4.010E-01	(3.535E-01 TO 4.243E-01)	2.691E-01	2.622E-01	2.585E-01	2.521E-01	2.457E-01	2.393E-01	2.333E-01
80	2.859E-01	(2.093E-01 TO 3.470E-01)	2.696E-01	2.627E-01	2.592E-01	2.528E-01	2.464E-01	80	3.955E-01	(3.476E-01 TO 4.184E-01)	2.627E-01	2.558E-01	2.521E-01	2.457E-01	2.393E-01	2.329E-01	2.269E-01
81	2.803E-01	(2.037E-01 TO 3.419E-01)	2.632E-01	2.563E-01	2.528E-01	2.464E-01	2.400E-01	81	3.900E-01	(3.417E-01 TO 4.125E-01)	2.563E-01	2.494E-01	2.457E-01	2.393E-01	2.329E-01	2.265E-01	2.205E-01
82	2.746E-01	(1.982E-01 TO 3.368E-01)	2.569E-01	2.500E-01	2.465E-01	2.401E-01	2.337E-01	82	3.845E-01	(3.358E-01 TO 4.066E-01)	2.494E-01	2.425E-01	2.388E-01	2.324E-01	2.260E-01	2.196E-01	2.136E-01
83	2.691E-01	(1.928E-01 TO 3.317E-01)	2.507E-01	2.438E-01	2.403E-01	2.339E-01	2.275E-01	83	3.790E-01	(3.299E-01 TO 4.007E-01)	2.425E-01	2.356E-01	2.319E-01	2.255E-01	2.191E-01	2.127E-01	2.067E-01
84	2.636E-01	(1.874E-01 TO 3.266E-01)	2.446E-01	2.377E-01	2.342E-01	2.278E-01	2.214E-01	84	3.735E-01	(3.240E-01 TO 3.948E-01)	2.356E-01	2.287E-01	2.250E-01	2.186E-01	2.122E-01	2.058E-01	1.998E-01
85	2.582E-01	(1.822E-01 TO 3.215E-01)	2.385E-01	2.316E-01	2.281E-01	2.217E-01	2.153E-01	85	3.680E-01	(3.181E-01 TO 3.889E-01)	2.287E-01	2.218E-01	2.181E-01	2.117E-01	2.053E-01	1.989E-01	1.929E-01
86	2.526E-01	(1.770E-01 TO 3.164E-01)	2.325E-01	2.256E-01	2.221E-01	2.157E-01	2.093E-01	86	3.625E-01	(3.122E-01 TO 3.830E-01)	2.218E-01	2.149E-01	2.112E-01	2.048E-01	1.984E-01	1.920E-01	1.860E-01
87	2.472E-01	(1.720E-01 TO 3.113E-01)	2.266E-01	2.197E-01	2.162E-01	2.098E-01	2.034E-01	87	3.570E-01	(3.063E-01 TO 3.771E-01)	2.149E-01	2.080E-01	2.043E-01	1.979E-01	1.915E-01	1.851E-01	1.791E-01
88	2.418E-01	(1.670E-01 TO 3.063E-01)	2.207E-01	2.138E-01	2.103E-01	2.039E-01	1.975E-01	88	3.515E-01	(3.004E-01 TO 3.712E-01)	2.080E-01	2.011E-01	1.974E-01	1.910E-01	1.846E-01	1.782E-01	1.722E-01
89	2.366E-01	(1.621E-01 TO 3.013E-01)	2.150E-01	2.081E-01	2.046E-01	1.982E-01	1.918E-01	89	3.460E-01	(2.945E-01 TO 3.653E-01)	2.011E-01	1.942E-01	1.905E-01	1.841E-01	1.777E-01	1.713E-01	1.653E-01
90	2.313E-01	(1.573E-01 TO 2.962E-01)	2.093E-01	2.024E-01	1.989E-01	1.925E-01	1.861E-01	90	3.405E-01	(2.886E-01 TO 3.594E-01)	1.942E-01	1.873E-01	1.836E-01	1.772E-01	1.708E-01	1.644E-01	1.584E-01
91	2.261E-01	(1.526E-01 TO 2.912E-01)	2.037E-01	1.968E-01	1.933E-01	1.869E-01	1.805E-01	91	3.350E-01	(2.827E-01 TO 3.535E-01)	1.873E-01	1.804E-01	1.767E-01	1.703E-01	1.639E-01	1.575E-01	1.515E-01
92	2.210E-01	(1.480E-01 TO 2.863E-01)	1.982E-01	1.913E-01	1.878E-01	1.814E-01	1.750E-01	92	3.295E-01	(2.768E-01 TO 3.476E-01)	1.804E-01	1.735E-01	1.698E-01	1.634E-01	1.570E-01	1.506E-01	1.446E-01
93	2.160E-01	(1.435E-01 TO 2.813E-01)	1.928E-01	1.859E-01	1.824E-01	1.760E-01	1.696E-01	93	3.240E-01	(2.709E-01 TO 3.417E-01)	1.735E-01	1.666E-01	1.629E-01	1.565E-01	1.501E-01	1.437E-01	1.377E-01
94	2.110E-01	(1.390E-01 TO 2.764E-01)	1.874E-01	1.805E-01	1.770E-01	1.706E-01	1.642E-01	94	3.185E-01	(2.650E-01 TO 3.358E-01)	1.666E-01	1.597E-01	1.560E-01	1.496E-01	1.432E-01	1.368E-01	

NORMAL FRACTIONAL YIELDS

Z-TP	RANGE OF F1Y		F1Y FOR SIGMA=0.50	F1Y FOR SIGMA=0.62	Z-TP	RANGE OF FCY		FCY FOR SIGMA=C.56	FCY FOR SIGMA=0.50	FCY FOR SIGMA=C.62
	F1Y FOR SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10				FCY FOR SIGMA=C.56	FCY FOR SIGMA=0.50			
1.00	1.823E-01	(1.144E-01 TO 2.474E-01)	1.573E-01	2.022E-01	1.00	5.563E-01	(9.880E-01 TO 5.563E-01)	9.880E-01	9.880E-01	9.880E-01
1.01	1.777E-01	(1.106E-01 TO 2.427E-01)	1.526E-01	1.979E-01	1.01	5.557E-01	(9.885E-01 TO 5.557E-01)	9.885E-01	9.885E-01	9.885E-01
1.02	1.732E-01	(1.069E-01 TO 2.381E-01)	1.480E-01	1.937E-01	1.02	5.551E-01	(9.890E-01 TO 5.551E-01)	9.890E-01	9.890E-01	9.890E-01
1.03	1.688E-01	(1.033E-01 TO 2.334E-01)	1.435E-01	1.895E-01	1.03	5.545E-01	(9.895E-01 TO 5.545E-01)	9.895E-01	9.895E-01	9.895E-01
1.04	1.645E-01	(9.975E-02 TO 2.289E-01)	1.390E-01	1.853E-01	1.04	5.539E-01	(9.895E-01 TO 5.539E-01)	9.895E-01	9.895E-01	9.895E-01
1.05	1.602E-01	(9.632E-02 TO 2.243E-01)	1.347E-01	1.811E-01	1.05	5.533E-01	(9.895E-01 TO 5.533E-01)	9.895E-01	9.895E-01	9.895E-01
1.06	1.560E-01	(9.297E-02 TO 2.198E-01)	1.305E-01	1.773E-01	1.06	5.527E-01	(9.895E-01 TO 5.527E-01)	9.895E-01	9.895E-01	9.895E-01
1.07	1.518E-01	(8.970E-02 TO 2.153E-01)	1.263E-01	1.733E-01	1.07	5.521E-01	(9.895E-01 TO 5.521E-01)	9.895E-01	9.895E-01	9.895E-01
1.08	1.478E-01	(8.653E-02 TO 2.109E-01)	1.222E-01	1.694E-01	1.08	5.515E-01	(9.895E-01 TO 5.515E-01)	9.895E-01	9.895E-01	9.895E-01
1.09	1.438E-01	(8.343E-02 TO 2.065E-01)	1.183E-01	1.655E-01	1.09	5.509E-01	(9.895E-01 TO 5.509E-01)	9.895E-01	9.895E-01	9.895E-01
1.10	1.395E-01	(8.042E-02 TO 2.022E-01)	1.144E-01	1.617E-01	1.10	5.503E-01	(9.895E-01 TO 5.503E-01)	9.895E-01	9.895E-01	9.895E-01
1.11	1.360E-01	(7.749E-02 TO 1.979E-01)	1.106E-01	1.579E-01	1.11	5.497E-01	(9.895E-01 TO 5.497E-01)	9.895E-01	9.895E-01	9.895E-01
1.12	1.322E-01	(7.464E-02 TO 1.937E-01)	1.069E-01	1.542E-01	1.12	5.491E-01	(9.895E-01 TO 5.491E-01)	9.895E-01	9.895E-01	9.895E-01
1.13	1.285E-01	(7.188E-02 TO 1.895E-01)	1.033E-01	1.505E-01	1.13	5.485E-01	(9.895E-01 TO 5.485E-01)	9.895E-01	9.895E-01	9.895E-01
1.14	1.248E-01	(6.919E-02 TO 1.854E-01)	9.975E-02	1.469E-01	1.14	5.479E-01	(9.895E-01 TO 5.479E-01)	9.895E-01	9.895E-01	9.895E-01
1.15	1.213E-01	(6.657E-02 TO 1.813E-01)	9.632E-02	1.433E-01	1.15	5.473E-01	(9.895E-01 TO 5.473E-01)	9.895E-01	9.895E-01	9.895E-01
1.16	1.178E-01	(6.404E-02 TO 1.773E-01)	9.297E-02	1.398E-01	1.16	5.467E-01	(9.895E-01 TO 5.467E-01)	9.895E-01	9.895E-01	9.895E-01
1.17	1.143E-01	(6.158E-02 TO 1.733E-01)	8.970E-02	1.363E-01	1.17	5.461E-01	(9.895E-01 TO 5.461E-01)	9.895E-01	9.895E-01	9.895E-01
1.18	1.110E-01	(5.919E-02 TO 1.694E-01)	8.653E-02	1.330E-01	1.18	5.455E-01	(9.895E-01 TO 5.455E-01)	9.895E-01	9.895E-01	9.895E-01
1.19	1.077E-01	(5.688E-02 TO 1.655E-01)	8.343E-02	1.297E-01	1.19	5.449E-01	(9.895E-01 TO 5.449E-01)	9.895E-01	9.895E-01	9.895E-01
1.20	1.045E-01	(5.464E-02 TO 1.617E-01)	8.042E-02	1.264E-01	1.20	5.443E-01	(9.895E-01 TO 5.443E-01)	9.895E-01	9.895E-01	9.895E-01
1.21	1.013E-01	(5.247E-02 TO 1.579E-01)	7.749E-02	1.232E-01	1.21	5.437E-01	(9.895E-01 TO 5.437E-01)	9.895E-01	9.895E-01	9.895E-01
1.22	9.821E-02	(5.037E-02 TO 1.542E-01)	7.464E-02	1.200E-01	1.22	5.431E-01	(9.895E-01 TO 5.431E-01)	9.895E-01	9.895E-01	9.895E-01
1.23	9.519E-02	(4.833E-02 TO 1.505E-01)	7.188E-02	1.169E-01	1.23	5.425E-01	(9.895E-01 TO 5.425E-01)	9.895E-01	9.895E-01	9.895E-01
1.24	9.223E-02	(4.636E-02 TO 1.469E-01)	6.919E-02	1.138E-01	1.24	5.419E-01	(9.895E-01 TO 5.419E-01)	9.895E-01	9.895E-01	9.895E-01
1.25	8.935E-02	(4.446E-02 TO 1.433E-01)	6.657E-02	1.108E-01	1.25	5.413E-01	(9.895E-01 TO 5.413E-01)	9.895E-01	9.895E-01	9.895E-01
1.26	8.653E-02	(4.262E-02 TO 1.398E-01)	6.404E-02	1.079E-01	1.26	5.407E-01	(9.895E-01 TO 5.407E-01)	9.895E-01	9.895E-01	9.895E-01
1.27	8.378E-02	(4.084E-02 TO 1.364E-01)	6.158E-02	1.050E-01	1.27	5.401E-01	(9.895E-01 TO 5.401E-01)	9.895E-01	9.895E-01	9.895E-01
1.28	8.105E-02	(3.912E-02 TO 1.330E-01)	5.919E-02	1.021E-01	1.28	5.395E-01	(9.895E-01 TO 5.395E-01)	9.895E-01	9.895E-01	9.895E-01
1.29	7.847E-02	(3.746E-02 TO 1.297E-01)	5.688E-02	9.935E-02	1.29	5.389E-01	(9.895E-01 TO 5.389E-01)	9.895E-01	9.895E-01	9.895E-01
1.30	7.591E-02	(3.586E-02 TO 1.264E-01)	5.464E-02	9.662E-02	1.30	5.383E-01	(9.895E-01 TO 5.383E-01)	9.895E-01	9.895E-01	9.895E-01
1.31	7.341E-02	(3.431E-02 TO 1.232E-01)	5.247E-02	9.393E-02	1.31	5.377E-01	(9.895E-01 TO 5.377E-01)	9.895E-01	9.895E-01	9.895E-01
1.32	7.098E-02	(3.282E-02 TO 1.200E-01)	5.037E-02	9.132E-02	1.32	5.371E-01	(9.895E-01 TO 5.371E-01)	9.895E-01	9.895E-01	9.895E-01
1.33	6.861E-02	(3.139E-02 TO 1.169E-01)	4.833E-02	8.875E-02	1.33	5.365E-01	(9.895E-01 TO 5.365E-01)	9.895E-01	9.895E-01	9.895E-01
1.34	6.630E-02	(3.000E-02 TO 1.138E-01)	4.636E-02	8.623E-02	1.34	5.359E-01	(9.895E-01 TO 5.359E-01)	9.895E-01	9.895E-01	9.895E-01
1.35	6.405E-02	(2.867E-02 TO 1.108E-01)	4.446E-02	8.371E-02	1.35	5.353E-01	(9.895E-01 TO 5.353E-01)	9.895E-01	9.895E-01	9.895E-01
1.36	6.186E-02	(2.738E-02 TO 1.079E-01)	4.262E-02	8.136E-02	1.36	5.347E-01	(9.895E-01 TO 5.347E-01)	9.895E-01	9.895E-01	9.895E-01
1.37	5.972E-02	(2.615E-02 TO 1.050E-01)	4.084E-02	7.899E-02	1.37	5.341E-01	(9.895E-01 TO 5.341E-01)	9.895E-01	9.895E-01	9.895E-01
1.38	5.765E-02	(2.496E-02 TO 1.021E-01)	3.912E-02	7.668E-02	1.38	5.335E-01	(9.895E-01 TO 5.335E-01)	9.895E-01	9.895E-01	9.895E-01
1.39	5.563E-02	(2.382E-02 TO 9.935E-02)	3.746E-02	7.442E-02	1.39	5.329E-01	(9.895E-01 TO 5.329E-01)	9.895E-01	9.895E-01	9.895E-01
1.40	5.367E-02	(2.272E-02 TO 9.662E-02)	3.586E-02	7.221E-02	1.40	5.323E-01	(9.895E-01 TO 5.323E-01)	9.895E-01	9.895E-01	9.895E-01
1.41	5.176E-02	(2.166E-02 TO 9.395E-02)	3.431E-02	7.003E-02	1.41	5.317E-01	(9.895E-01 TO 5.317E-01)	9.895E-01	9.895E-01	9.895E-01
1.42	4.990E-02	(2.065E-02 TO 9.132E-02)	3.282E-02	6.794E-02	1.42	5.311E-01	(9.895E-01 TO 5.311E-01)	9.895E-01	9.895E-01	9.895E-01
1.43	4.810E-02	(1.967E-02 TO 8.875E-02)	3.139E-02	6.589E-02	1.43	5.305E-01	(9.895E-01 TO 5.305E-01)	9.895E-01	9.895E-01	9.895E-01
1.44	4.635E-02	(1.874E-02 TO 8.623E-02)	3.000E-02	6.387E-02	1.44	5.299E-01	(9.895E-01 TO 5.299E-01)	9.895E-01	9.895E-01	9.895E-01
1.45	4.465E-02	(1.784E-02 TO 8.377E-02)	2.867E-02	6.190E-02	1.45	5.293E-01	(9.895E-01 TO 5.293E-01)	9.895E-01	9.895E-01	9.895E-01
1.46	4.301E-02	(1.698E-02 TO 8.136E-02)	2.738E-02	5.995E-02	1.46	5.287E-01	(9.895E-01 TO 5.287E-01)	9.895E-01	9.895E-01	9.895E-01
1.47	4.141E-02	(1.616E-02 TO 7.899E-02)	2.615E-02	5.811E-02	1.47	5.281E-01	(9.895E-01 TO 5.281E-01)	9.895E-01	9.895E-01	9.895E-01
1.48	3.986E-02	(1.537E-02 TO 7.668E-02)	2.496E-02	5.628E-02	1.48	5.275E-01	(9.895E-01 TO 5.275E-01)	9.895E-01	9.895E-01	9.895E-01
1.49	3.835E-02	(1.461E-02 TO 7.442E-02)	2.382E-02	5.445E-02	1.49	5.269E-01	(9.895E-01 TO 5.269E-01)	9.895E-01	9.895E-01	9.895E-01

NORMAL FRACTIONAL YIELDS

Z-ZP	RANGE OF FIY FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10		RANGE OF FCY FOR SIGMA = 0.50 TO 0.62 AND ZP + CR - 0.1n		RANGE OF FCY FOR SIGMA = 0.50 TO 0.62 AND ZP + CR - 0.1n		FCY FOR SIGMA=0.62	FCY FOR SIGMA=0.50	FCY FOR SIGMA=0.62
	FIY FOR SIGMA=0.56	FIY FOR SIGMA=0.50	FIY FOR SIGMA=0.62	2-ZP	FCY FOR SIGMA=0.56	FCY FOR SIGMA=0.50			
1.50	3.690E-02	11.389E-02	7.221E-02	1.50	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.51	3.548E-02	11.320E-02	7.005E-02	1.51	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.52	3.412E-02	11.253E-02	6.794E-02	1.52	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.53	3.275E-02	11.190E-02	6.588E-02	1.53	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.54	3.151E-02	11.128E-02	6.387E-02	1.54	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.55	3.027E-02	11.072E-02	6.190E-02	1.55	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.56	2.907E-02	11.016E-02	6.000E-02	1.56	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.57	2.791E-02	10.963E-02	5.811E-02	1.57	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.58	2.679E-02	10.913E-02	5.628E-02	1.58	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.59	2.571E-02	10.865E-02	5.448E-02	1.59	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.60	2.466E-02	10.819E-02	5.275E-02	1.60	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.61	2.365E-02	10.775E-02	5.106E-02	1.61	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.62	2.267E-02	10.733E-02	4.941E-02	1.62	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.63	2.173E-02	10.693E-02	4.780E-02	1.63	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.64	2.082E-02	10.655E-02	4.623E-02	1.64	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.65	1.995E-02	10.618E-02	4.470E-02	1.65	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.66	1.910E-02	10.585E-02	4.322E-02	1.66	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.67	1.829E-02	10.554E-02	4.177E-02	1.67	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.68	1.750E-02	10.523E-02	4.036E-02	1.68	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.69	1.675E-02	10.493E-02	3.899E-02	1.69	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.70	1.602E-02	10.465E-02	3.766E-02	1.70	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.71	1.532E-02	10.439E-02	3.637E-02	1.71	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.72	1.464E-02	10.414E-02	3.511E-02	1.72	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.73	1.400E-02	10.390E-02	3.389E-02	1.73	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.74	1.337E-02	10.368E-02	3.270E-02	1.74	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.75	1.277E-02	10.346E-02	3.155E-02	1.75	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.76	1.220E-02	10.326E-02	3.043E-02	1.76	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.77	1.166E-02	10.307E-02	2.934E-02	1.77	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.78	1.116E-02	10.289E-02	2.829E-02	1.78	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.79	1.069E-02	10.271E-02	2.726E-02	1.79	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.80	1.011E-02	10.254E-02	2.627E-02	1.80	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.81	9.642E-03	10.240E-02	2.531E-02	1.81	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.82	9.191E-03	10.225E-02	2.438E-02	1.82	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.83	8.759E-03	10.211E-02	2.347E-02	1.83	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.84	8.344E-03	10.198E-02	2.260E-02	1.84	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.85	7.947E-03	10.186E-02	2.175E-02	1.85	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.86	7.567E-03	10.1750E-02	2.093E-02	1.86	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.87	7.202E-03	10.1641E-02	2.014E-02	1.87	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.88	6.854E-03	10.1538E-02	1.937E-02	1.88	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.89	6.520E-03	10.1441E-02	1.862E-02	1.89	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.90	6.201E-03	10.1350E-02	1.790E-02	1.90	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.91	5.895E-03	10.1264E-02	1.721E-02	1.91	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.92	5.603E-03	10.1183E-02	1.653E-02	1.92	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.93	5.324E-03	10.1106E-02	1.588E-02	1.93	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.94	5.057E-03	10.1035E-02	1.526E-02	1.94	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.95	4.803E-03	10.0974E-02	1.465E-02	1.95	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.96	4.559E-03	10.0915E-02	1.405E-02	1.96	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.97	4.327E-03	10.0846E-02	1.350E-02	1.97	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.98	4.106E-03	10.0787E-02	1.295E-02	1.98	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01
1.99	3.894E-03	10.0736E-02	1.242E-02	1.99	9.595E-01	9.985E-01	1.000E+00	1.000E+00	9.595E-01

NORMAL FRACTIONAL YIELDS

Z-2P	RANGE OF FIV				RANGE OF FCY			
	FIV FOR SIGMA=0.56	FOR SIGMA AND ZP + CR - 0.10	FIV FOR SIGMA=0.50	FIV FOR SIGMA=0.62	FCY FOR SIGMAC=0.56	FOR SIGMA AND ZP + CR - 0.10	FCY FOR SIGMA=0.50	FCY FOR SIGMA=0.62
2.00	3.693E-03	(6.870E-04 TO 1.192E-02)	1.350E-03	7.746E-C3	2.00	1.000E+00	1.000E+00	1.000E+00
2.01	3.501E-03	(6.409E-04 TO 1.133E-02)	1.264E-03	7.410E-C3	2.01	1.000E+00	1.000E+00	1.000E+00
2.02	3.318E-03	(5.976E-04 TO 1.095E-02)	1.183E-03	7.087E-C3	2.02	1.000E+00	1.000E+00	1.000E+00
2.03	3.143E-03	(5.570E-04 TO 1.050E-02)	1.106E-03	6.776E-C3	2.03	1.000E+00	1.000E+00	1.000E+00
2.04	2.977E-03	(5.190E-04 TO 1.006E-02)	1.035E-03	6.477E-C3	2.04	1.000E+00	1.000E+00	1.000E+00
2.05	2.819E-03	(4.834E-04 TO 9.636E-03)	9.674E-04	6.190E-C3	2.05	1.000E+00	1.000E+00	1.000E+00
2.06	2.668E-03	(4.500E-04 TO 9.29E-03)	9.041E-04	5.914E-C3	2.06	1.000E+00	1.000E+00	1.000E+00
2.07	2.525E-03	(4.188E-04 TO 8.97E-03)	8.446E-04	5.650E-C3	2.07	1.000E+00	1.000E+00	1.000E+00
2.08	2.388E-03	(3.897E-04 TO 8.459E-03)	7.887E-04	5.395E-C3	2.08	1.000E+00	1.000E+00	1.000E+00
2.09	2.259E-03	(3.624E-04 TO 8.096E-03)	7.363E-04	5.151E-C3	2.09	1.000E+00	1.000E+00	1.000E+00
2.10	2.136E-03	(3.369E-04 TO 7.746E-03)	6.870E-04	4.917E-C3	2.10	1.000E+00	1.000E+00	1.000E+00
2.11	2.019E-03	(3.131E-04 TO 7.410E-03)	6.409E-04	4.692E-C3	2.11	1.000E+00	1.000E+00	1.000E+00
2.12	1.907E-03	(2.908E-04 TO 7.087E-03)	5.976E-04	4.477E-C3	2.12	1.000E+00	1.000E+00	1.000E+00
2.13	1.802E-03	(2.701E-04 TO 6.776E-03)	5.570E-04	4.270E-C3	2.13	1.000E+00	1.000E+00	1.000E+00
2.14	1.701E-03	(2.507E-04 TO 6.477E-03)	5.190E-04	4.072E-C3	2.14	1.000E+00	1.000E+00	1.000E+00
2.15	1.606E-03	(2.326E-04 TO 6.190E-03)	4.834E-04	3.883E-C3	2.15	1.000E+00	1.000E+00	1.000E+00
2.16	1.516E-03	(2.158E-04 TO 5.914E-03)	4.500E-04	3.701E-C3	2.16	1.000E+00	1.000E+00	1.000E+00
2.17	1.430E-03	(2.000E-04 TO 5.650E-03)	4.188E-04	3.527E-C3	2.17	1.000E+00	1.000E+00	1.000E+00
2.18	1.349E-03	(1.854E-04 TO 5.395E-03)	3.897E-04	3.360E-C3	2.18	1.000E+00	1.000E+00	1.000E+00
2.19	1.272E-03	(1.718E-04 TO 5.151E-03)	3.624E-04	3.200E-C3	2.19	1.000E+00	1.000E+00	1.000E+00
2.20	1.199E-03	(1.591E-04 TO 4.917E-03)	3.363E-04	3.047E-C3	2.20	1.000E+00	1.000E+00	1.000E+00
2.21	1.130E-03	(1.473E-04 TO 4.692E-03)	3.131E-04	2.901E-C3	2.21	1.000E+00	1.000E+00	1.000E+00
2.22	1.065E-03	(1.363E-04 TO 4.477E-03)	2.908E-04	2.761E-C3	2.22	1.000E+00	1.000E+00	1.000E+00
2.23	1.003E-03	(1.261E-04 TO 4.270E-03)	2.701E-04	2.627E-C3	2.23	1.000E+00	1.000E+00	1.000E+00
2.24	5.440E-04	(1.166E-04 TO 4.072E-03)	2.507E-04	2.500E-C3	2.24	1.000E+00	1.000E+00	1.000E+00
2.25	8.886E-04	(1.078E-04 TO 3.883E-03)	2.326E-04	2.377E-C3	2.25	1.000E+00	1.000E+00	1.000E+00
2.26	8.361E-04	(9.961E-05 TO 3.701E-03)	2.158E-04	2.261E-C3	2.26	1.000E+00	1.000E+00	1.000E+00
2.27	7.865E-04	(9.201E-05 TO 3.530E-03)	2.000E-04	2.149E-C3	2.27	1.000E+00	1.000E+00	1.000E+00
2.28	7.397E-04	(8.495E-05 TO 3.360E-03)	1.854E-04	2.042E-C3	2.28	1.000E+00	1.000E+00	1.000E+00
2.29	6.954E-04	(7.841E-05 TO 3.200E-03)	1.718E-04	1.941E-C3	2.29	1.000E+00	1.000E+00	1.000E+00
2.30	6.536E-04	(7.235E-05 TO 3.047E-03)	1.591E-04	1.844E-C3	2.30	1.000E+00	1.000E+00	1.000E+00
2.31	6.141E-04	(6.672E-05 TO 2.901E-03)	1.473E-04	1.751E-C3	2.31	1.000E+00	1.000E+00	1.000E+00
2.32	5.768E-04	(6.151E-05 TO 2.761E-03)	1.363E-04	1.662E-C3	2.32	1.000E+00	1.000E+00	1.000E+00
2.33	5.416E-04	(5.659E-05 TO 2.627E-03)	1.261E-04	1.578E-C3	2.33	1.000E+00	1.000E+00	1.000E+00
2.34	5.084E-04	(5.223E-05 TO 2.507E-03)	1.166E-04	1.498E-C3	2.34	1.000E+00	1.000E+00	1.000E+00
2.35	4.771E-04	(4.809E-05 TO 2.377E-03)	1.078E-04	1.421E-C3	2.35	1.000E+00	1.000E+00	1.000E+00
2.36	4.476E-04	(4.427E-05 TO 2.261E-03)	9.961E-05	1.348E-C3	2.36	1.000E+00	1.000E+00	1.000E+00
2.37	4.198E-04	(4.074E-05 TO 2.159E-03)	9.201E-05	1.278E-C3	2.37	1.000E+00	1.000E+00	1.000E+00
2.38	3.936E-04	(3.747E-05 TO 2.042E-03)	8.495E-05	1.212E-C3	2.38	1.000E+00	1.000E+00	1.000E+00
2.39	3.690E-04	(3.446E-05 TO 1.941E-03)	7.841E-05	1.149E-C3	2.39	1.000E+00	1.000E+00	1.000E+00
2.40	3.457E-04	(3.167E-05 TO 1.844E-03)	7.235E-05	1.089E-C3	2.40	1.000E+00	1.000E+00	1.000E+00
2.41	3.233E-04	(2.910E-05 TO 1.751E-03)	6.672E-05	1.031E-C3	2.41	1.000E+00	1.000E+00	1.000E+00
2.42	3.033E-04	(2.672E-05 TO 1.658E-03)	6.151E-05	9.770E-C4	2.42	1.000E+00	1.000E+00	1.000E+00
2.43	2.835E-04	(2.454E-05 TO 1.578E-03)	5.669E-05	9.251E-C4	2.43	1.000E+00	1.000E+00	1.000E+00
2.44	2.657E-04	(2.252E-05 TO 1.498E-03)	5.232E-05	8.759E-C4	2.44	1.000E+00	1.000E+00	1.000E+00
2.45	2.486E-04	(2.066E-05 TO 1.421E-03)	4.809E-05	8.279E-C4	2.45	1.000E+00	1.000E+00	1.000E+00
2.46	2.326E-04	(1.894E-05 TO 1.348E-03)	4.427E-05	7.845E-C4	2.46	1.000E+00	1.000E+00	1.000E+00
2.47	2.175E-04	(1.736E-05 TO 1.287E-03)	4.072E-05	7.421E-C4	2.47	1.000E+00	1.000E+00	1.000E+00
2.48	2.033E-04	(1.591E-05 TO 1.212E-03)	3.747E-05	7.019E-C4	2.48	1.000E+00	1.000E+00	1.000E+00
2.49	1.900E-04	(1.458E-05 TO 1.149E-03)	3.446E-05	6.637E-C4	2.49	1.000E+00	1.000E+00	1.000E+00

NORMAL FRACTIONAL YIELDS

Z-2P	F1Y, F0R SIGMA=0.56	F0R AND ZP + OR - 0.10	RANGE OF F1Y FOR SIGMA = 0.50 TO 0.62	F1Y F0R SIGMA=0.50	F1Y FCR SIGMA=C.62	Z-2P	FCY F0R SIGMA=C.56	RANGE OF FCY FOR SIGMA = 0.50 TO 0.62	FCY F0R SIGMA=0.50	FCY FCR SIGMA=0.62
2-50	1.775E-04	(1.335E-05 TO 1.089E-03)	3.167E-05	6.274E-04	2.50	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-51	1.658E-04	(1.221E-05 TO 1.031E-03)	2.910E-05	5.930E-04	2.51	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-52	1.548E-04	(1.118E-05 TO 9.770E-04)	2.617E-05	5.603E-04	2.52	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-53	1.544E-04	(1.102E-05 TO 9.251E-04)	2.454E-05	5.293E-04	2.53	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-54	1.348E-04	(9.345E-06 TO 8.159E-04)	2.252E-05	4.999E-04	2.54	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-55	1.257E-04	(8.560E-06 TO 8.290E-04)	2.106E-05	4.720E-04	2.55	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-56	1.172E-04	(7.801E-06 TO 7.845E-04)	1.894E-05	4.455E-04	2.56	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-57	1.093E-04	(7.124E-06 TO 7.421E-04)	1.573E-05	4.205E-04	2.57	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-58	1.019E-04	(6.503E-06 TO 7.019E-04)	1.591E-05	3.967E-04	2.58	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-59	5.491E-05	(5.934E-06 TO 6.637E-04)	1.458E-05	3.742E-04	2.59	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-60	8.404E-05	(5.413E-06 TO 6.274E-04)	1.335E-05	3.529E-04	2.60	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-61	8.231E-05	(4.935E-06 TO 5.930E-04)	1.221E-05	3.327E-04	2.61	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-62	7.662E-05	(4.498E-06 TO 5.603E-04)	1.118E-05	3.136E-04	2.62	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-63	7.130E-05	(4.098E-06 TO 5.293E-04)	1.022E-05	2.955E-04	2.63	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-64	6.533E-05	(3.732E-06 TO 4.999E-04)	9.345E-06	2.854E-04	2.64	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-65	6.165E-05	(3.398E-06 TO 4.720E-04)	8.540E-06	2.622E-04	2.65	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-66	5.735E-05	(3.092E-06 TO 4.455E-04)	7.801E-06	2.469E-04	2.66	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-67	5.331E-05	(2.813E-06 TO 4.205E-04)	7.124E-06	2.325E-04	2.67	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-68	4.953E-05	(2.538E-06 TO 3.967E-04)	6.503E-06	2.189E-04	2.68	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-69	4.401E-05	(2.352E-06 TO 3.742E-04)	5.934E-06	2.059E-04	2.69	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-70	4.272E-05	(2.112E-06 TO 3.529E-04)	5.413E-06	1.922E-04	2.70	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-71	3.966E-05	(1.919E-06 TO 3.327E-04)	4.935E-06	1.822E-04	2.71	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-72	3.680E-05	(1.742E-06 TO 3.136E-04)	4.498E-06	1.713E-04	2.72	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-73	3.414E-05	(1.581E-06 TO 2.955E-04)	4.098E-06	1.610E-04	2.73	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-74	3.167E-05	(1.434E-06 TO 2.784E-04)	3.732E-06	1.513E-04	2.74	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-75	2.936E-05	(1.301E-06 TO 2.622E-04)	3.398E-06	1.422E-04	2.75	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-76	2.722E-05	(1.179E-06 TO 2.469E-04)	3.092E-06	1.335E-04	2.76	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-77	2.522E-05	(1.069E-06 TO 2.325E-04)	2.813E-06	1.255E-04	2.77	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-78	2.336E-05	(9.680E-07 TO 2.188E-04)	2.558E-06	1.177E-04	2.78	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-79	2.163E-05	(8.765E-07 TO 2.059E-04)	2.325E-06	1.105E-04	2.79	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-80	2.003E-05	(7.933E-07 TO 1.937E-04)	2.112E-06	1.037E-04	2.80	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-81	1.854E-05	(7.178E-07 TO 1.822E-04)	1.919E-06	9.730E-05	2.81	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-82	1.715E-05	(6.492E-07 TO 1.713E-04)	1.742E-06	8.558E-05	2.82	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-83	1.586E-05	(5.869E-07 TO 1.610E-04)	1.581E-06	8.558E-05	2.83	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-84	1.467E-05	(5.303E-07 TO 1.4513E-04)	1.434E-06	8.023E-05	2.84	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-85	1.356E-05	(4.792E-07 TO 1.422E-04)	1.301E-06	7.519E-05	2.85	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-86	1.253E-05	(4.337E-07 TO 1.335E-04)	1.179E-06	7.046E-05	2.86	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-87	1.157E-05	(3.906E-07 TO 1.254E-04)	1.069E-06	6.500E-05	2.87	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-88	1.069E-05	(3.525E-07 TO 1.177E-04)	9.680E-07	6.182E-05	2.88	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-89	9.5867E-06	(3.179E-07 TO 1.105E-04)	8.743E-07	5.788E-05	2.89	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-90	5.1037E-06	(2.867E-07 TO 1.037E-04)	7.933E-07	5.418E-05	2.90	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-91	8.403E-06	(2.584E-07 TO 9.730E-05)	7.178E-07	5.071E-05	2.91	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-92	7.151E-06	(2.328E-07 TO 9.126E-05)	6.492E-07	4.734E-05	2.92	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-93	7.147E-06	(2.096E-07 TO 8.558E-05)	5.869E-07	4.438E-05	2.93	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-94	6.588E-06	(1.887E-07 TO 8.023E-05)	5.304E-07	4.150E-05	2.94	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-95	6.071E-06	(1.698E-07 TO 7.519E-05)	4.792E-07	3.880E-05	2.95	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-96	5.593E-06	(1.528E-07 TO 7.046E-05)	4.327E-07	3.627E-05	2.96	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-97	5.151E-06	(1.374E-07 TO 6.600E-05)	3.906E-07	3.389E-05	2.97	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-98	4.743E-06	(1.235E-07 TO 6.182E-05)	3.525E-07	3.167E-05	2.98	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	
2-99	4.365E-06	(1.109E-07 TO 5.788E-05)	3.117E-07	2.957E-05	2.99	1.00CE+00	(1.00CE+00 TO 1.00CE+00)	1.00CE+00	1.00CE+00	

NORMAL FRACTIONAL YIELDS

Z-2P	RANGE OF FIY		RANGE OF FCY		FCY FOR SIGMA=0.50	FCY FOR SIGMA=0.62
	FIY FOR SIGMA=0.56	FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10	FIY FOR SIGMA=0.50	FCY FOR SIGMA=C.56		
3.00	4.017E-06	(9.964E-08 TO 5.418E-05)	2.867E-07	1.000E+00	1.000E+00	1.000E+00
3.01	3.695E-06	(8.946E-08 TO 5.071E-05)	2.584E-07	1.000E+00	1.000E+00	1.000E+00
3.02	3.398E-06	(8.029E-08 TO 4.744E-05)	2.326E-07	1.000E+00	1.000E+00	1.000E+00
3.03	3.123E-06	(7.203E-08 TO 4.438E-05)	2.096E-07	1.000E+00	1.000E+00	1.000E+00
3.04	2.870E-06	(6.459E-08 TO 4.150E-05)	1.887E-07	1.000E+00	1.000E+00	1.000E+00
3.05	2.637E-06	(5.790E-08 TO 3.880E-05)	1.598E-07	1.000E+00	1.000E+00	1.000E+00
3.06	2.422E-06	(5.188E-08 TO 3.627E-05)	1.528E-07	1.000E+00	1.000E+00	1.000E+00
3.07	2.224E-06	(4.647E-08 TO 3.389E-05)	1.374E-07	1.000E+00	1.000E+00	1.000E+00
3.08	2.041E-06	(4.161E-08 TO 3.166E-05)	1.235E-07	1.000E+00	1.000E+00	1.000E+00
3.09	1.873E-06	(3.724E-08 TO 2.957E-05)	1.109E-07	1.000E+00	1.000E+00	1.000E+00
3.10	1.718E-06	(3.332E-08 TO 2.761E-05)	9.964E-08	1.000E+00	1.000E+00	1.000E+00
3.11	1.576E-06	(2.980E-08 TO 2.578E-05)	8.946E-08	1.000E+00	1.000E+00	1.000E+00
3.12	1.444E-06	(2.664E-08 TO 2.406E-05)	8.029E-08	1.000E+00	1.000E+00	1.000E+00
3.13	1.324E-06	(2.381E-08 TO 2.245E-05)	7.203E-08	1.000E+00	1.000E+00	1.000E+00
3.14	1.213E-06	(2.127E-08 TO 2.094E-05)	6.459E-08	1.000E+00	1.000E+00	1.000E+00
3.15	1.111E-06	(1.899E-08 TO 1.953E-05)	5.790E-08	1.000E+00	1.000E+00	1.000E+00
3.16	1.017E-06	(1.695E-08 TO 1.821E-05)	5.188E-08	1.000E+00	1.000E+00	1.000E+00
3.17	9.310E-07	(1.512E-08 TO 1.697E-05)	4.647E-08	1.000E+00	1.000E+00	1.000E+00
3.18	8.519E-07	(1.349E-08 TO 1.582E-05)	4.161E-08	1.000E+00	1.000E+00	1.000E+00
3.19	7.793E-07	(1.203E-08 TO 1.474E-05)	3.724E-08	1.000E+00	1.000E+00	1.000E+00
3.20	7.127E-07	(1.072E-08 TO 1.373E-05)	3.332E-08	1.000E+00	1.000E+00	1.000E+00
3.21	6.515E-07	(9.548E-09 TO 1.278E-05)	2.980E-08	1.000E+00	1.000E+00	1.000E+00
3.22	5.954E-07	(8.503E-09 TO 1.190E-05)	2.664E-08	1.000E+00	1.000E+00	1.000E+00
3.23	5.440E-07	(7.569E-09 TO 1.108E-05)	2.381E-08	1.000E+00	1.000E+00	1.000E+00
3.24	4.969E-07	(6.735E-09 TO 1.031E-05)	2.127E-08	1.000E+00	1.000E+00	1.000E+00
3.25	4.537E-07	(5.990E-09 TO 9.590E-06)	1.899E-08	1.000E+00	1.000E+00	1.000E+00
3.26	4.142E-07	(5.326E-09 TO 8.919E-06)	1.695E-08	1.000E+00	1.000E+00	1.000E+00
3.27	3.795E-07	(4.734E-09 TO 8.293E-06)	1.512E-08	1.000E+00	1.000E+00	1.000E+00
3.28	3.448E-07	(4.206E-09 TO 7.709E-06)	1.349E-08	1.000E+00	1.000E+00	1.000E+00
3.29	3.144E-07	(3.735E-09 TO 7.165E-06)	1.203E-08	1.000E+00	1.000E+00	1.000E+00
3.30	2.866E-07	(3.316E-09 TO 6.657E-06)	1.072E-08	1.000E+00	1.000E+00	1.000E+00
3.31	2.613E-07	(2.942E-09 TO 6.184E-06)	9.548E-09	1.000E+00	1.000E+00	1.000E+00
3.32	2.380E-07	(2.610E-09 TO 5.743E-06)	8.503E-09	1.000E+00	1.000E+00	1.000E+00
3.33	2.168E-07	(2.314E-09 TO 5.332E-06)	7.569E-09	1.000E+00	1.000E+00	1.000E+00
3.34	1.974E-07	(2.051E-09 TO 4.949E-06)	6.735E-09	1.000E+00	1.000E+00	1.000E+00
3.35	1.797E-07	(1.818E-09 TO 4.593E-06)	5.990E-09	1.000E+00	1.000E+00	1.000E+00
3.36	1.635E-07	(1.610E-09 TO 4.261E-06)	5.326E-09	1.000E+00	1.000E+00	1.000E+00
3.37	1.488E-07	(1.425E-09 TO 3.952E-06)	4.734E-09	1.000E+00	1.000E+00	1.000E+00
3.38	1.353E-07	(1.261E-09 TO 3.665E-06)	4.206E-09	1.000E+00	1.000E+00	1.000E+00
3.39	1.230E-07	(1.116E-09 TO 3.397E-06)	3.735E-09	1.000E+00	1.000E+00	1.000E+00
3.40	1.118E-07	(9.866E-10 TO 3.149E-06)	3.316E-09	1.000E+00	1.000E+00	1.000E+00
3.41	1.015E-07	(8.721E-10 TO 2.917E-06)	2.942E-09	1.000E+00	1.000E+00	1.000E+00
3.42	9.228E-08	(7.706E-10 TO 2.703E-06)	2.610E-09	1.000E+00	1.000E+00	1.000E+00
3.43	8.378E-08	(6.806E-10 TO 2.503E-06)	2.314E-09	1.000E+00	1.000E+00	1.000E+00
3.44	7.605E-08	(6.009E-10 TO 2.317E-06)	2.051E-09	1.000E+00	1.000E+00	1.000E+00
3.45	6.901E-08	(5.303E-10 TO 2.145E-06)	1.818E-09	1.000E+00	1.000E+00	1.000E+00
3.46	6.261E-08	(4.674E-10 TO 1.985E-06)	1.610E-09	1.000E+00	1.000E+00	1.000E+00
3.47	5.678E-08	(4.126E-10 TO 1.837E-06)	1.425E-09	1.000E+00	1.000E+00	1.000E+00
3.48	5.149E-08	(3.673E-10 TO 1.699E-06)	1.261E-09	1.000E+00	1.000E+00	1.000E+00
3.49	4.666E-08	(3.205E-10 TO 1.571E-06)	1.116E-09	1.000E+00	1.000E+00	1.000E+00

NORMAL FRACTIONAL YIELDS

Z-ZP	FIY FOR SIGMA=C.56	RANGE OF FIY FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10		FIY FOR SIGMA=0.50	FIY FOR SIGMA=C.62	Z-ZP	FCY FER SIGMA=C.56	RANGE OF FCY FOR SIGMA = 0.50 TO 0.62 AND ZP + OR - 0.10		FCY FOR SIGMA=0.50	FCY FOR SIGMA=0.62
		TO	FROM					TO	FROM		
3.50	4.227E-08	(2.823E-10	TO 1.452E-06)	9.866E-10	6.534E-C7	3.50	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.51	3.829E-08	(2.486E-10	TO 1.342E-06)	8.721E-10	6.024E-C7	3.51	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.52	3.467E-08	(2.188E-10	TO 1.240E-06)	7.706E-10	5.552E-C7	3.52	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.53	3.139E-08	(1.925E-10	TO 1.146E-06)	6.806E-10	5.116E-C7	3.53	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.54	2.840E-08	(1.693E-10	TO 1.058E-06)	6.009E-10	4.713E-C7	3.54	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.55	2.570E-08	(1.468E-10	TO 9.772E-07)	5.303E-10	4.341E-C7	3.55	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.56	2.324E-08	(1.308E-10	TO 9.021E-07)	4.679E-10	3.997E-C7	3.56	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.57	2.101E-08	(1.149E-10	TO 8.325E-07)	4.126E-10	3.680E-C7	3.57	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.58	1.899E-08	(1.009E-10	TO 7.681E-07)	3.637E-10	3.387E-C7	3.58	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.59	1.714E-08	(8.859E-11	TO 7.085E-07)	3.205E-10	3.116E-C7	3.59	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.60	1.550E-08	(7.769E-11	TO 6.534E-07)	2.823E-10	2.866E-C7	3.60	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.61	1.399E-08	(6.844E-11	TO 6.044E-07)	2.486E-10	2.636E-C7	3.61	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.62	1.263E-08	(5.974E-11	TO 5.525E-07)	2.188E-10	2.424E-C7	3.62	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.63	1.140E-08	(5.235E-11	TO 5.116E-07)	1.925E-10	2.242E-C7	3.63	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.64	1.028E-08	(4.586E-11	TO 4.713E-07)	1.693E-10	2.074E-C7	3.64	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.65	9.275E-09	(4.016E-11	TO 4.341E-07)	1.488E-10	1.881E-C7	3.65	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.66	8.363E-09	(3.516E-11	TO 3.997E-07)	1.308E-10	1.727E-C7	3.66	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.67	7.537E-09	(3.076E-11	TO 3.680E-07)	1.149E-10	1.586E-C7	3.67	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.68	6.791E-09	(2.690E-11	TO 3.387E-07)	1.009E-10	1.456E-C7	3.68	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.69	6.117E-09	(2.338E-11	TO 3.116E-07)	8.859E-11	1.336E-C7	3.69	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.70	5.508E-09	(2.036E-11	TO 2.866E-07)	7.769E-11	1.226E-C7	3.70	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.71	4.959E-09	(1.756E-11	TO 2.624E-07)	6.814E-11	1.125E-C7	3.71	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.72	4.462E-09	(1.549E-11	TO 2.424E-07)	5.974E-11	1.032E-C7	3.72	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.73	4.014E-09	(1.369E-11	TO 2.228E-07)	5.235E-11	9.458E-C8	3.73	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.74	3.610E-09	(1.195E-11	TO 2.047E-07)	4.586E-11	8.670E-C8	3.74	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.75	3.246E-09	(1.042E-11	TO 1.881E-07)	4.016E-11	7.945E-C8	3.75	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.76	2.917E-09	(9.088E-12	TO 1.727E-07)	3.516E-11	7.279E-C8	3.76	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.77	2.621E-09	(7.923E-12	TO 1.566E-07)	3.078E-11	6.667E-C8	3.77	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.78	2.355E-09	(6.903E-12	TO 1.456E-07)	2.690E-11	6.105E-C8	3.78	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.79	2.114E-09	(6.011E-12	TO 1.336E-07)	2.351E-11	5.589E-C8	3.79	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.80	1.898E-09	(5.233E-12	TO 1.236E-07)	2.056E-11	5.115E-C8	3.80	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.81	1.703E-09	(4.555E-12	TO 1.152E-07)	1.798E-11	4.680E-C8	3.81	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.82	1.528E-09	(3.961E-12	TO 1.032E-07)	1.569E-11	4.282E-C8	3.82	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.83	1.370E-09	(3.446E-12	TO 9.458E-08)	1.369E-11	3.916E-C8	3.83	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.84	1.229E-09	(2.995E-12	TO 8.670E-08)	1.195E-11	3.580E-C8	3.84	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.85	1.101E-09	(2.601E-12	TO 7.945E-08)	1.042E-11	3.273E-C8	3.85	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.86	9.866E-10	(2.260E-12	TO 7.279E-08)	9.088E-12	2.991E-C8	3.86	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.87	8.837E-10	(1.961E-12	TO 6.670E-08)	7.923E-12	2.732E-C8	3.87	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.88	7.913E-10	(1.702E-12	TO 6.105E-08)	6.903E-12	2.486E-C8	3.88	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.89	7.084E-10	(1.478E-12	TO 5.589E-08)	6.011E-12	2.279E-C8	3.89	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.90	6.355E-10	(1.283E-12	TO 5.115E-08)	5.235E-12	2.081E-C8	3.90	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.91	5.671E-10	(1.112E-12	TO 4.680E-08)	4.555E-12	1.899E-C8	3.91	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.92	5.172E-10	(9.628E-13	TO 4.282E-08)	3.961E-12	1.733E-C8	3.92	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.93	4.534E-10	(8.349E-13	TO 3.916E-08)	3.446E-12	1.581E-C8	3.93	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.94	4.053E-10	(7.212E-13	TO 3.580E-08)	2.995E-12	1.442E-C8	3.94	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.95	3.621E-10	(6.233E-13	TO 3.273E-08)	2.601E-12	1.314E-C8	3.95	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.96	3.234E-10	(5.400E-13	TO 2.991E-08)	2.260E-12	1.198E-C8	3.96	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.97	2.888E-10	(4.600E-13	TO 2.732E-08)	1.961E-12	1.092E-C8	3.97	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.98	2.578E-10	(4.050E-13	TO 2.496E-08)	1.702E-12	9.948E-C9	3.98	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC
3.99	2.301E-10	(3.517E-13	TO 2.279E-08)	1.478E-12	9.061E-C9	3.99	1.CCCE+CC	(1.00CE+CC	TO 1.CCCE+CC)	1.00CE+CC	1.CCCE+CC

NORMAL FRACTIONAL YIELDS

F1Y FOR SIGMA=0.56		RANGE OF F1Y FOR SIGMA = 0.50 TO 0.62 AND ZP + DR - 0.10		F1Y FOR SIGMA=0.50		F1Y FOR SIGMA=C.62		Z-2P		FCY FOR SIGMA=C.56		RANGE OF FCY FOR SIGMA = 0.50 TO 0.62 AND ZP + CR - 0.10		FCY FOR SIGMA=0.50		FCY FOR SIGMA=0.62	
2-ZP																	
4.00	2.052E-10	(3.020E-13 TO 2.081E-08)		1.283E-12		8.251E-C9		4.00		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.01	1.830E-10	(2.279E-13 TO 1.899E-08)		1.112E-12		7.512E-C9		4.01		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.02	1.632E-10	(2.279E-13 TO 1.733E-08)		9.628E-13		6.837E-C9		4.02		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.03	1.454E-10	(1.954E-13 TO 1.581E-08)		8.349E-13		6.221E-C9		4.03		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.04	1.296E-10	(1.670E-13 TO 1.442E-08)		7.212E-13		5.659E-C9		4.04		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.05	1.154E-10	(1.457E-13 TO 1.314E-08)		6.253E-13		5.147E-C9		4.05		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.06	1.028E-10	(1.243E-13 TO 1.198E-08)		5.400E-13		4.680E-C9		4.06		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.07	9.149E-11	(1.101E-13 TO 1.092E-08)		4.690E-13		4.254E-C9		4.07		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.08	8.141E-11	(9.237E-14 TO 9.948E-09)		4.050E-13		3.866E-C9		4.08		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.09	7.242E-11	(8.171E-14 TO 9.061E-09)		3.517E-13		3.513E-C9		4.09		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.10	6.41E-11	(7.105E-14 TO 8.251E-09)		3.020E-13		3.191E-C9		4.10		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.11	5.726E-11	(6.040E-14 TO 7.512E-09)		2.629E-13		2.897E-C9		4.11		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.12	5.089E-11	(5.329E-14 TO 6.837E-09)		2.274E-13		2.630E-C9		4.12		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.13	4.522E-11	(4.619E-14 TO 6.221E-09)		1.954E-13		2.387E-C9		4.13		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.14	4.016E-11	(3.908E-14 TO 5.659E-09)		1.670E-13		2.166E-C9		4.14		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.15	3.566E-11	(3.197E-14 TO 5.147E-09)		1.437E-13		1.965E-C9		4.15		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.16	3.155E-11	(2.842E-14 TO 4.680E-09)		1.243E-13		1.782E-C9		4.16		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.17	2.809E-11	(2.487E-14 TO 4.254E-09)		1.101E-13		1.616E-C9		4.17		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.18	2.492E-11	(2.132E-14 TO 3.864E-09)		9.237E-14		1.465E-C9		4.18		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.19	2.210E-11	(1.776E-14 TO 3.513E-09)		8.171E-14		1.328E-C9		4.19		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.20	1.959E-11	(1.776E-14 TO 3.191E-09)		7.105E-14		1.203E-C9		4.20		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.21	1.737E-11	(1.421E-14 TO 2.897E-09)		6.040E-14		1.093E-C9		4.21		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.22	1.538E-11	(1.421E-14 TO 2.630E-09)		5.329E-14		9.866E-10		4.22		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.23	1.363E-11	(1.066E-14 TO 2.387E-09)		4.619E-14		8.932E-10		4.23		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.24	1.207E-11	(1.066E-14 TO 2.166E-09)		3.908E-14		8.084E-10		4.24		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.25	1.068E-11	(7.105E-15 TO 1.965E-09)		3.197E-14		7.315E-10		4.25		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.26	9.450E-12	(7.105E-15 TO 1.782E-09)		2.842E-14		6.618E-10		4.26		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.27	8.360E-12	(7.105E-15 TO 1.616E-09)		2.487E-14		5.985E-10		4.27		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.28	7.393E-12	(7.105E-15 TO 1.465E-09)		2.132E-14		5.412E-10		4.28		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.29	6.537E-12	(7.105E-15 TO 1.328E-09)		1.776E-14		4.892E-10		4.29		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.30	5.777E-12	(7.105E-15 TO 1.203E-09)		1.421E-14		4.421E-10		4.30		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.31	5.105E-12	(7.105E-15 TO 1.089E-09)		1.176E-14		4.021E-10		4.31		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.32	4.508E-12	(7.105E-15 TO 9.866E-10)		1.042E-14		3.694E-10		4.32		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.33	3.983E-12	(7.105E-15 TO 8.932E-10)		0.906E-14		3.408E-10		4.33		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.34	3.514E-12	(7.105E-15 TO 8.084E-10)		0.765E-14		3.158E-10		4.34		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.35	3.102E-12	(7.105E-15 TO 7.315E-10)		0.641E-14		2.911E-10		4.35		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.36	2.736E-12	(7.105E-15 TO 6.618E-10)		0.532E-14		2.655E-10		4.36		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.37	2.412E-12	(7.105E-15 TO 5.985E-10)		0.442E-14		2.395E-10		4.37		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.38	2.128E-12	(7.105E-15 TO 5.412E-10)		0.365E-14		2.161E-10		4.38		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.39	1.876E-12	(7.105E-15 TO 4.892E-10)		0.300E-14		1.969E-10		4.39		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.40	1.652E-12	(7.105E-15 TO 4.421E-10)		0.245E-14		1.757E-10		4.40		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.41	1.457E-12	(7.105E-15 TO 3.994E-10)		0.200E-14		1.584E-10		4.41		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.42	1.283E-12	(7.105E-15 TO 3.608E-10)		0.165E-14		1.428E-10		4.42		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.43	1.130E-12	(7.105E-15 TO 3.258E-10)		0.135E-14		1.286E-10		4.43		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.44	9.984E-13	(7.105E-15 TO 2.941E-10)		0.110E-14		1.159E-10		4.44		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.45	8.740E-13	(7.105E-15 TO 2.655E-10)		0.090E-14		1.043E-10		4.45		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.46	7.674E-13	(7.105E-15 TO 2.395E-10)		0.075E-14		9.392E-11		4.46		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.47	6.750E-13	(7.105E-15 TO 2.161E-10)		0.065E-14		8.554E-11		4.47		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.48	5.933E-13	(7.105E-15 TO 1.949E-10)		0.055E-14		7.607E-11		4.48		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	
4.49	5.222E-13	(7.105E-15 TO 1.757E-10)		0.045E-14		6.843E-11		4.49		1.000E+00		(1.000E+00 TO 1.000E+00)		1.000E+00		1.000E+00	

THERMAL NEUTRON FISSION CF U-233 NUTCT METHOD

2.5000	-1	92	233	-0	-0-0.000	1.250	.100						
4	.56	.06	.12	.12	.45	.10	.20	.20	-0	1	-0	-0	

NUBAR =2.5000

FOR ZP(1), NU(A) IS FROM U235T, UNADJUSTED.

ODD-EVEN 2 EFFECT = 1.25 +/- .10 .

FOR ZP(4), NU(A) IS FROM NUTCT(A) DIVIDED ACCORDING TO THE NU(A) FUNCTION USED FOR ZP(1).

SIGMA = .560. UNCERTAINTIES FOR REGIONS SYMMETRY TO 129, 130 TO 151,152 TO 161 ARE +/- .120 .060 .120.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION SYMMETRY TO 129 IS 0.00 +/- .200.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 130-151 IS - .450 +/- .100.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 152-161 IS - .450 +/- .200.

SAME UNCERTAINTIES ARE USED FOR ZP(2) AND ZP(3).

TYPE OF ZP FUNCTION USED IS 4.

THERMAL NEUTRON FISSION OF U-232 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 74 FISSION PRODUCT CHAIN

NLCT = .741 NU = .222 ZP = 29.631

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	1.34E-08	(2.54E-14 - 9.68E-06)	1.34E-08	(2.54E-14 - 9.68E-06)
27	5.38E-05	(4.45E-08 - 1.71E-03)	5.38E-05	(5.78E-08 - 1.71E-03)
28	2.57E-02	(1.48E-03 - 9.90E-02)	2.58E-02	(1.53E-03 - 9.91E-02)
29	2.54E-01	(1.68E-01 - 4.19E-01)	3.20E-01	(1.91E-01 - 4.65E-01)
30	6.34E-01	(4.66E-01 - 8.55E-01)	9.54E-01	(9.14E-01 - 1.00E+00)
31	4.58E-02	(5.78E-03 - 1.19E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
32	5.05E-04	(1.54E-06 - 8.37E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
33	1.15E-07	(1.18E-12 - 3.31E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 75 FISSION PRODUCT CHAIN

NLCT = .361 NU = .108 ZP = 29.980

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	2.98E-10	(0. - 8.14E-07)	2.98E-10	(1.65E-24 - 8.14E-07)
27	3.51E-06	(4.16E-10 - 2.95E-04)	3.51E-06	(7.15E-10 - 2.95E-04)
28	4.74E-03	(7.77E-05 - 3.40E-02)	4.74E-03	(8.12E-05 - 3.40E-02)
29	1.41E-01	(4.40E-02 - 2.30E-01)	1.46E-01	(4.87E-02 - 2.39E-01)
30	7.23E-01	(5.74E-01 - 8.74E-01)	8.69E-01	(7.78E-01 - 9.61E-01)
31	1.27E-01	(3.65E-02 - 2.17E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
32	3.81E-03	(5.31E-05 - 2.97E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
33	2.49E-06	(2.32E-10 - 2.37E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 76 FISSION PRODUCT CHAIN

NLCT = .780 NU = .229 ZP = 30.421

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	7.06E-08	(5.08E-13 - 2.43E-05)	7.06E-08	(5.08E-13 - 2.43E-05)
28	3.63E-04	(8.65E-07 - 6.81E-03)	3.63E-04	(9.36E-07 - 6.81E-03)
29	3.83E-02	(4.18E-03 - 1.07E-01)	3.87E-02	(4.54E-03 - 1.08E-01)
30	6.09E-01	(4.45E-01 - 8.34E-01)	6.47E-01	(5.20E-01 - 8.04E-01)
31	3.20E-01	(1.96E-01 - 4.54E-01)	9.68E-01	(9.38E-01 - 1.00E+00)
32	3.23E-02	(2.19E-03 - 1.14E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
33	7.87E-05	(8.51E-08 - 2.19E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
34	2.29E-08	(5.55E-14 - 1.38E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 77 FISSION PRODUCT CHAIN

NLCT = .969 NU = .279 ZP = 30.833

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	1.09E-09	(0. - 1.67E-06)	1.09E-09	(6.62E-24 - 1.67E-06)
28	1.99E-05	(5.48E-09 - 1.09E-03)	1.99E-05	(6.57E-09 - 1.09E-03)
29	7.09E-03	(2.03E-04 - 3.86E-02)	7.11E-03	(2.22E-04 - 3.87E-02)
30	3.44E-01	(1.42E-01 - 4.98E-01)	3.51E-01	(1.84E-01 - 5.08E-01)
31	5.00E-01	(3.81E-01 - 6.22E-01)	8.50E-01	(7.33E-01 - 9.99E-01)
32	1.48E-01	(3.14E-02 - 2.97E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
33	1.20E-03	(9.10E-06 - 1.26E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
34	1.23E-06	(4.67E-11 - 1.84E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 78 FISSION PRODUCT CHAIN

NLCT = 1.587 NU = .444 ZP = 31.291

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	3.53E-07	(6.70E-12 - 8.76E-05)	3.93E-07	(6.70E-12 - 8.76E-05)
29	5.55E-04	(2.44E-06 - 7.75E-03)	5.59E-04	(2.83E-06 - 7.75E-03)
30	9.65E-02	(1.53E-02 - 2.31E-01)	9.94E-02	(1.59E-02 - 2.32E-01)
31	4.55E-01	(3.41E-01 - 6.02E-01)	5.58E-01	(4.14E-01 - 7.48E-01)
32	4.25E-01	(2.18E-01 - 6.14E-01)	9.87E-01	(9.76E-01 - 1.00E+00)
33	1.25E-02	(5.53E-04 - 5.46E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
34	5.07E-05	(2.78E-08 - 1.98E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
35	4.07E-05	(5.75E-15 - 3.91E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 79 FISSION PRODUCT CHAIN

NLCT = 1.500 NU = .583 ZP = 31.739

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	4.27E-05	(0. - 4.56E-06)	4.27E-05	(2.65E-23 - 4.59E-06)
29	2.35E-05	(1.11E-08 - 1.01E-03)	2.39E-05	(1.54E-08 - 1.01E-03)
30	1.57E-02	(6.28E-04 - 7.25E-02)	1.58E-02	(6.52E-04 - 7.25E-02)
31	2.41E-01	(1.17E-01 - 3.44E-01)	2.57E-01	(1.31E-01 - 3.75E-01)
32	6.76E-01	(5.07E-01 - 8.76E-01)	9.34E-01	(8.80E-01 - 1.00E+00)
33	6.47E-02	(1.09E-02 - 1.45E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
34	9.75E-04	(4.89E-06 - 1.26E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
35	3.06E-07	(6.41E-12 - 6.22E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 80 FISSION PRODUCT CHAIN

NLCT = 2.202 NU = .690 ZP = 32.174

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	6.65E-07	(2.40E-11 - 1.02E-04)	6.65E-07	(2.40E-11 - 1.02E-04)
30	1.62E-03	(1.19E-05 - 1.73E-02)	1.62E-03	(1.25E-05 - 1.73E-02)
31	8.38E-02	(1.74E-02 - 1.65E-01)	8.54E-02	(1.90E-02 - 1.72E-01)
32	7.02E-01	(5.35E-01 - 8.77E-01)	7.88E-01	(6.70E-01 - 8.88E-01)
33	2.02E-01	(8.43E-02 - 2.91E-01)	9.90E-01	(9.80E-01 - 1.00E+00)
34	1.04E-02	(3.05E-04 - 5.58E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
35	1.22E-05	(3.52E-09 - 6.57E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
36	1.67E-05	(0. - 2.45E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 81 FISSION PRODUCT CHAIN

NLCT = 2.137 NU = .650 ZP = 32.567

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	1.70E-08	(4.49E-14 - 9.75E-06)	1.70E-08	(4.49E-14 - 9.75E-06)
30	1.37E-04	(1.58E-07 - 3.71E-03)	1.37E-04	(1.75E-07 - 3.71E-03)
31	2.23E-02	(1.57E-03 - 7.75E-02)	2.24E-02	(1.71E-03 - 7.77E-02)
32	5.23E-01	(3.26E-01 - 7.40E-01)	5.46E-01	(4.27E-01 - 7.29E-01)
33	3.55E-01	(2.89E-01 - 5.43E-01)	9.41E-01	(8.88E-01 - 1.00E+00)
34	5.66E-02	(6.20E-03 - 1.67E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
35	2.21E-04	(4.96E-07 - 4.26E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
36	1.01E-07	(6.71E-13 - 3.61E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-233 NLCTC METHOD
ESTIMATED FRACTIIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 82 FISSION PRODUCT CHAIN
NLCTC = 2.071 NU = .701 ZP = 32.965
DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	2.54E-10	(0. - 6.53E-07)	2.54E-10	(1.65E-24 - 6.53E-07)
30	6.96E-06	(9.00E-10 - 5.60E-04)	6.96E-06	(1.15E-09 - 5.60E-04)
31	3.68E-03	(6.4CE-05 - 2.57E-02)	3.69E-03	(7.09E-05 - 2.57E-02)
32	2.58E-01	(8.27E-02 - 4.13E-01)	2.61E-01	(8.63E-02 - 4.18E-01)
33	5.20E-01	(4.11E-01 - 6.29E-01)	7.81E-01	(6.25E-01 - 9.39E-01)
34	2.16E-01	(5.99E-02 - 3.73E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
35	2.54E-03	(3.34E-05 - 2.03E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
36	3.88E-06	(3.31E-10 - 3.85E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 86 FISSION PRODUCT CHAIN
NLCTC = 2.521 NU = 1.144 ZP = 34.712
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
21	3.54E-05	(1.42E-11 - 2.1CE-07)	3.94E-09	(1.42E-11 - 2.10E-07)
22	4.9CE-05	(2.39E-06 - 4.17E-04)	4.96E-05	(2.39E-06 - 4.17E-04)
23	1.23E-02	(3.44E-03 - 2.93E-02)	1.24E-02	(3.49E-03 - 2.53E-02)
24	4.27E-01	(3.23E-01 - 5.16E-01)	4.40E-01	(3.48E-01 - 5.29E-01)
25	4.6CE-01	(3.86E-01 - 5.4CE-01)	9.00E-01	(8.46E-01 - 9.65E-01)
26	5.95E-02	(4.68E-02 - 1.66E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
27	5.7CE-04	(6.44E-05 - 2.61E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
28	4.04E-07	(4.83E-09 - 9.15E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 83 FISSION PRODUCT CHAIN
NLCTC = 2.212 NU = .790 ZP = 33.393
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	1.49E-07	(1.34E-09 - 4.13E-06)	1.49E-07	(1.34E-09 - 4.13E-06)
31	2.88E-04	(2.67E-05 - 1.52E-03)	2.88E-04	(2.69E-05 - 1.52E-03)
32	6.84E-02	(2.86E-02 - 1.23E-01)	6.87E-02	(2.89E-02 - 1.23E-01)
33	4.14E-01	(3.44E-01 - 4.93E-01)	4.83E-01	(4.03E-01 - 5.78E-01)
34	4.98E-01	(3.99E-01 - 6.01E-01)	9.81E-01	(9.68E-01 - 1.00E+00)
35	1.91E-02	(6.14E-03 - 4.11E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
36	1.05E-04	(6.32E-06 - 7.51E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
37	1.15E-08	(5.65E-11 - 4.92E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 87 FISSION PRODUCT CHAIN
NLCTC = 2.509 NU = 1.203 ZP = 35.128
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	1.74E-06	(3.14E-08 - 2.93E-05)	1.74E-06	(3.14E-08 - 2.93E-05)
23	1.5CE-03	(2.26E-04 - 5.64E-03)	1.51E-03	(2.28E-04 - 5.64E-03)
24	1.67E-01	(9.15E-02 - 2.47E-01)	1.68E-01	(9.30E-02 - 2.49E-01)
25	5.0CE-01	(4.34E-01 - 5.83E-01)	5.74E-01	(5.74E-01 - 7.66E-01)
26	3.16E-01	(2.16E-01 - 4.06E-01)	9.94E-01	(9.90E-01 - 1.00E+00)
27	5.85E-03	(1.34E-03 - 1.65E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
28	1.47E-05	(4.94E-07 - 1.6CE-04)	1.00E+00	(1.00E+00 - 1.00E+00)
29	7.15E-10	(1.58E-12 - 5.42E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 84 FISSION PRODUCT CHAIN
NLCTC = 2.376 NU = .909 ZP = 33.833
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	1.54E-09	(3.84E-12 - 1.07E-07)	1.54E-09	(3.84E-12 - 1.07E-07)
31	1.15E-05	(4.23E-07 - 1.17E-04)	1.15E-05	(4.25E-07 - 1.17E-04)
32	1.00E-02	(2.41E-03 - 2.69E-02)	1.00E-02	(2.42E-03 - 2.69E-02)
33	1.99E-01	(1.39E-01 - 2.49E-01)	2.09E-01	(1.48E-01 - 2.62E-01)
34	7.04E-01	(5.98E-01 - 8.13E-01)	9.13E-01	(8.72E-01 - 9.58E-01)
35	8.56E-02	(4.53E-02 - 1.30E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
36	1.69E-03	(2.37E-04 - 6.64E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
37	7.69E-07	(1.16E-08 - 1.29E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 88 FISSION PRODUCT CHAIN
NLCTC = 2.525 NU = 1.273 ZP = 35.549
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
22	3.15E-06	(1.83E-10 - 1.19E-06)	3.15E-08	(1.83E-10 - 1.19E-06)
23	9.82E-05	(6.69E-06 - 6.46E-04)	9.82E-05	(6.72E-06 - 6.46E-04)
24	3.68E-02	(1.28E-02 - 7.51E-02)	3.69E-02	(1.29E-02 - 7.52E-02)
25	3.26E-01	(2.77E-01 - 4.05E-01)	3.73E-01	(3.10E-01 - 4.52E-01)
26	5.92E-01	(4.91E-01 - 7.06E-01)	9.65E-01	(9.44E-01 - 9.96E-01)
27	3.44E-02	(1.34E-02 - 6.45E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
28	2.9CE-04	(2.47E-05 - 1.7CE-03)	1.00E+00	(1.00E+00 - 1.00E+00)
29	5.27E-08	(4.03E-10 - 1.64E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 85 FISSION PRODUCT CHAIN
NLCTC = 2.536 NU = 1.072 ZP = 34.290
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	2.36E-07	(2.81E-09 - 5.39E-06)	2.36E-07	(2.81E-09 - 5.39E-06)
32	8.17E-04	(9.21E-05 - 3.76E-03)	8.18E-04	(9.24E-05 - 3.76E-03)
33	5.91E-02	(2.76E-02 - 9.81E-02)	5.99E-02	(2.84E-02 - 9.90E-02)
34	6.67E-01	(5.59E-01 - 7.84E-01)	7.27E-01	(6.64E-01 - 7.85E-01)
35	2.55E-01	(1.93E-01 - 3.08E-01)	9.82E-01	(9.69E-01 - 1.00E+00)
36	1.80E-02	(5.05E-03 - 4.28E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	2.99E-05	(1.45E-06 - 2.51E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
38	5.84E-09	(2.12E-11 - 3.11E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 89 FISSION PRODUCT CHAIN
NLCTC = 2.515 NU = 1.302 ZP = 35.953
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
22	4.02E-10	(6.87E-13 - 3.66E-08)	4.02E-10	(6.87E-13 - 3.66E-08)
23	4.26E-06	(1.21E-07 - 5.42E-05)	4.36E-06	(1.21E-07 - 5.43E-05)
24	5.44E-03	(1.09E-03 - 1.66E-02)	5.44E-03	(1.09E-03 - 1.67E-02)
25	1.51E-01	(9.61E-02 - 2.01E-01)	1.56E-01	(1.01E-01 - 2.08E-01)
26	7.21E-01	(6.22E-01 - 8.17E-01)	9.87E-01	(8.29E-01 - 9.27E-01)
27	1.15E-01	(7.04E-02 - 1.66E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
28	3.21E-03	(5.70E-04 - 1.13E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
29	2.0CE-06	(4.43E-08 - 2.92E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-233 NLTCF METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 90 FISSION PRODUCT CHAIN

NLTCF = 2.515 NU = 1.326 ZP = 36.356

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	1.29E-07	(1.28E-09 - 3.34E-06)	1.29E-07	(1.28E-09 - 3.34E-06)
34	5.46E-04	(5.44E-05 - 2.74E-03)	5.46E-04	(5.45E-05 - 2.74E-03)
35	4.77E-02	(2.08E-02 - 8.33E-02)	4.83E-02	(2.13E-02 - 8.39E-02)
36	6.40E-01	(5.33E-01 - 7.58E-01)	6.88E-01	(6.24E-01 - 7.55E-01)
37	2.88E-01	(2.26E-01 - 3.47E-01)	9.76E-01	(9.59E-01 - 1.00E+00)
38	2.43E-02	(7.46E-03 - 5.42E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	4.90E-05	(2.74E-06 - 3.72E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
40	1.17E-08	(5.17E-11 - 5.42E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 91 FISSION PRODUCT CHAIN

NLTCF = 2.551 NU = 1.370 ZP = 36.766

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	2.23E-09	(6.80E-12 - 1.34E-07)	2.23E-09	(6.80E-12 - 1.34E-07)
34	3.31E-05	(1.41E-06 - 3.03E-04)	3.31E-05	(1.42E-06 - 3.03E-04)
35	9.67E-03	(2.50E-03 - 2.43E-02)	9.70E-03	(2.53E-03 - 2.43E-02)
36	3.90E-01	(2.84E-01 - 4.75E-01)	3.99E-01	(3.02E-01 - 4.86E-01)
37	4.80E-01	(4.04E-01 - 5.60E-01)	8.79E-01	(8.19E-01 - 9.50E-01)
38	1.20E-01	(5.95E-02 - 1.91E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
39	8.01E-04	(1.60E-04 - 3.43E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
40	6.71E-07	(9.25E-09 - 1.38E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 92 FISSION PRODUCT CHAIN

NLTCF = 2.556 NU = 1.397 ZP = 37.170

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	1.20E-06	(1.94E-08 - 2.18E-05)	1.20E-06	(1.94E-08 - 2.18E-05)
35	1.18E-03	(1.64E-04 - 4.64E-03)	1.18E-03	(1.66E-04 - 4.65E-03)
36	1.47E-01	(7.75E-02 - 2.24E-01)	1.48E-01	(7.87E-02 - 2.25E-01)
37	4.99E-01	(4.23E-01 - 5.76E-01)	6.47E-01	(5.44E-01 - 7.35E-01)
38	3.46E-01	(2.42E-01 - 4.34E-01)	9.93E-01	(9.87E-01 - 1.00E+00)
39	7.21E-03	(1.74E-03 - 1.93E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	2.04E-05	(7.55E-07 - 2.07E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
41	1.13E-09	(2.84E-12 - 7.79E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 93 FISSION PRODUCT CHAIN

NLTCF = 2.629 NU = 1.476 ZP = 37.595

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	1.96E-08	(1.00E-10 - 8.19E-07)	1.96E-08	(1.00E-10 - 8.19E-07)
35	7.05E-05	(4.37E-06 - 4.96E-04)	7.05E-05	(4.39E-06 - 4.96E-04)
36	3.02E-02	(9.89E-03 - 6.44E-02)	3.03E-02	(9.96E-03 - 6.44E-02)
37	3.13E-01	(2.52E-01 - 3.77E-01)	3.43E-01	(2.79E-01 - 4.16E-01)
38	6.16E-01	(5.12E-01 - 7.34E-01)	9.59E-01	(9.36E-01 - 9.92E-01)
39	4.04E-02	(1.66E-02 - 7.30E-02)	1.00E+00	(9.96E-01 - 1.00E+00)
40	4.00E-04	(3.62E-05 - 2.15E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
41	8.14E-08	(7.07E-10 - 2.32E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 94 FISSION PRODUCT CHAIN

NLTCF = 2.762 NU = 1.583 ZP = 38.030

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	2.31E-06	(5.33E-08 - 3.26E-05)	2.31E-06	(5.33E-08 - 3.28E-05)
36	3.63E-03	(6.43E-04 - 1.21E-02)	3.63E-03	(6.46E-04 - 1.21E-02)
37	1.25E-01	(7.46E-02 - 1.74E-01)	1.28E-01	(7.82E-02 - 1.78E-01)
38	7.22E-01	(6.24E-01 - 8.18E-01)	8.51E-01	(7.97E-01 - 9.02E-01)
39	1.45E-01	(9.09E-02 - 1.95E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
40	4.57E-03	(9.70E-04 - 1.55E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	3.76E-06	(1.01E-07 - 4.85E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
42	3.31E-10	(5.36E-13 - 3.13E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 95 FISSION PRODUCT CHAIN

NLTCF = 2.700 NU = 1.585 ZP = 38.423

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	6.87E-08	(5.68E-10 - 2.03E-06)	6.87E-08	(5.68E-10 - 2.03E-06)
36	3.57E-04	(3.12E-05 - 1.96E-03)	3.57E-04	(3.13E-05 - 1.96E-03)
37	3.79E-02	(1.53E-02 - 6.96E-02)	3.83E-02	(1.57E-02 - 7.00E-02)
38	6.07E-01	(5.04E-01 - 7.24E-01)	6.45E-01	(5.82E-01 - 7.20E-01)
39	3.22E-01	(2.62E-01 - 3.88E-01)	9.67E-01	(9.46E-01 - 1.00E+00)
40	3.27E-02	(1.09E-02 - 6.84E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	8.03E-05	(5.16E-06 - 5.51E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
42	2.36E-08	(1.27E-10 - 9.49E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 96 FISSION PRODUCT CHAIN

NLTCF = 2.565 NU = 1.561 ZP = 38.807

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	1.44E-09	(3.87E-12 - 9.44E-08)	1.44E-09	(3.87E-12 - 9.44E-08)
36	2.42E-05	(5.44E-07 - 2.37E-04)	2.42E-05	(9.46E-07 - 2.37E-04)
37	8.01E-03	(2.00E-03 - 2.10E-02)	8.03E-03	(2.03E-03 - 2.10E-02)
38	3.61E-01	(2.57E-01 - 4.48E-01)	3.69E-01	(2.69E-01 - 4.57E-01)
39	4.53E-01	(4.17E-01 - 5.71E-01)	8.62E-01	(7.96E-01 - 9.37E-01)
40	1.37E-01	(7.08E-02 - 2.12E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
41	1.03E-03	(1.38E-04 - 4.18E-03)	1.00E+00	(1.30E+00 - 1.00E+00)
42	5.77E-07	(1.50E-08 - 1.86E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 97 FISSION PRODUCT CHAIN

NLTCF = 2.471 NU = 1.556 ZP = 39.214

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	8.03E-07	(1.16E-08 - 1.55E-05)	8.03E-07	(1.16E-08 - 1.59E-05)
37	9.02E-04	(1.17E-04 - 3.77E-03)	9.03E-04	(1.18E-04 - 3.77E-03)
38	1.28E-01	(6.47E-02 - 2.01E-01)	1.29E-01	(6.56E-02 - 2.02E-01)
39	4.86E-01	(4.11E-01 - 5.65E-01)	6.15E-01	(5.16E-01 - 7.02E-01)
40	3.76E-01	(2.71E-01 - 4.62E-01)	9.91E-01	(9.84E-01 - 1.00E+00)
41	8.85E-03	(2.22E-03 - 2.27E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	2.86E-05	(1.17E-06 - 2.70E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
43	1.81E-09	(5.21E-12 - 1.13E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-233 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 98 FISSION PRODUCT CHAIN

NLCT = 2.342 NU = 1.650 ZP = 39.629

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	1.38E-08	(6.35E-11 - 6.16E-07)	1.38E-08	(6.35E-11 - 6.16E-07)
37	5.49E-05	(3.16E-06 - 4.07E-04)	5.49E-05	(3.16E-06 - 4.07E-04)
38	2.60E-02	(8.15E-03 - 5.72E-02)	2.61E-02	(8.20E-03 - 5.73E-02)
39	2.95E-01	(2.34E-01 - 3.56E-01)	3.21E-01	(2.58E-01 - 3.90E-01)
40	6.33E-01	(5.27E-01 - 7.51E-01)	9.54E-01	(9.28E-01 - 9.89E-01)
41	4.53E-02	(1.94E-02 - 7.98E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
42	4.96E-04	(4.80E-05 - 2.54E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	1.12E-07	(1.07E-09 - 2.98E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 99 FISSION PRODUCT CHAIN

NLCT = 2.116 NU = 1.605 ZP = 40.004

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	2.86E-06	(7.02E-08 - 3.88E-05)	2.86E-06	(7.02E-08 - 3.88E-05)
38	4.16E-03	(7.68E-04 - 1.35E-02)	4.16E-03	(7.71E-04 - 1.35E-02)
39	1.33E-01	(8.13E-02 - 1.83E-01)	1.37E-01	(8.54E-02 - 1.88E-01)
40	7.23E-01	(6.27E-01 - 8.19E-01)	8.60E-01	(8.08E-01 - 9.11E-01)
41	1.36E-01	(8.37E-02 - 1.86E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
42	4.35E-03	(8.14E-04 - 1.40E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	3.06E-06	(7.68E-08 - 4.10E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.48E-10	(3.72E-13 - 2.49E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 100 FISSION PRODUCT CHAIN

NLCT = 2.052 NU = 1.633 ZP = 40.408

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	7.93E-08	(6.85E-10 - 2.27E-06)	7.93E-08	(6.85E-10 - 2.27E-06)
38	3.93E-04	(3.54E-05 - 2.12E-03)	3.93E-04	(3.55E-05 - 2.12E-03)
39	4.00E-02	(1.64E-02 - 7.25E-02)	4.04E-02	(1.68E-02 - 7.29E-02)
40	6.15E-01	(5.11E-01 - 7.33E-01)	6.55E-01	(5.91E-01 - 7.28E-01)
41	3.14E-01	(2.54E-01 - 3.79E-01)	9.69E-01	(9.49E-01 - 1.00E+00)
42	3.06E-02	(1.00E-02 - 6.50E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	7.19E-05	(4.48E-06 - 5.04E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.02E-08	(1.04E-10 - 8.37E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 101 FISSION PRODUCT CHAIN

NLCT = 1.973 NU = 1.559 ZP = 40.772

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	2.09E-09	(6.27E-12 - 1.27E-07)	2.09E-09	(6.27E-12 - 1.27E-07)
38	3.16E-05	(1.33E-06 - 2.93E-04)	3.17E-05	(1.34E-06 - 2.93E-04)
39	9.42E-03	(2.41E-03 - 2.38E-02)	9.45E-03	(2.44E-03 - 2.38E-02)
40	3.85E-01	(2.80E-01 - 4.70E-01)	3.95E-01	(2.98E-01 - 4.81E-01)
41	4.82E-01	(4.06E-01 - 5.61E-01)	8.77E-01	(8.15E-01 - 9.49E-01)
42	1.22E-01	(6.11E-02 - 1.94E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
43	8.31E-04	(1.05E-04 - 3.53E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	7.09E-07	(9.92E-09 - 1.44E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 102 FISSION PRODUCT CHAIN

NLCT = 1.931 NU = 1.550 ZP = 41.178

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	1.12E-06	(1.78E-08 - 2.06E-05)	1.12E-06	(1.78E-08 - 2.06E-05)
39	1.12E-03	(1.55E-04 - 4.48E-03)	1.12E-03	(1.56E-04 - 4.48E-03)
40	1.43E-01	(7.52E-02 - 2.20E-01)	1.45E-01	(7.63E-02 - 2.21E-01)
41	4.57E-01	(4.21E-01 - 5.74E-01)	6.41E-01	(5.40E-01 - 7.30E-01)
42	3.51E-01	(2.47E-01 - 4.38E-01)	9.93E-01	(9.87E-01 - 1.00E+00)
43	7.47E-03	(1.83E-03 - 1.95E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.16E-05	(8.15E-07 - 2.17E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.23E-05	(3.16E-12 - 8.32E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 103 FISSION PRODUCT CHAIN

NLCT = 1.986 NU = 1.647 ZP = 41.143

DEVIATION FROM UCD = C.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	1.52E-06	(6.66E-11 - 2.10E-04)	1.52E-06	(6.66E-11 - 2.10E-04)
39	1.38E-03	(1.15E-05 - 1.38E-02)	1.38E-03	(1.31E-05 - 1.38E-02)
40	1.55E-01	(3.56E-02 - 3.10E-01)	1.61E-01	(3.70E-02 - 3.12E-01)
41	5.05E-01	(3.87E-01 - 6.22E-01)	6.66E-01	(4.95E-01 - 8.22E-01)
42	3.28E-01	(1.30E-01 - 4.81E-01)	9.94E-01	(9.87E-01 - 1.00E+00)
43	6.34E-03	(1.66E-04 - 3.60E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	1.66E-05	(4.01E-09 - 9.74E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
45	8.43E-10	(C. - 1.42E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 104 FISSION PRODUCT CHAIN

NLCT = 2.130 NU = 1.694 ZP = 41.555

DEVIATION FROM UCD = C.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	2.56E-08	(8.58E-14 - 1.62E-05)	2.96E-08	(8.58E-14 - 1.62E-05)
39	9.39E-05	(1.15E-07 - 2.45E-03)	9.40E-05	(1.45E-07 - 2.45E-03)
40	3.58E-02	(2.62E-03 - 1.22E-01)	3.59E-02	(2.72E-03 - 1.22E-01)
41	3.33E-01	(2.11E-01 - 4.70E-01)	3.69E-01	(2.42E-01 - 5.31E-01)
42	5.55E-01	(4.31E-01 - 8.21E-01)	9.65E-01	(9.33E-01 - 1.00E+00)
43	3.51E-02	(3.57E-03 - 1.02E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
44	3.10E-04	(6.55E-07 - 6.17E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	5.55E-06	(3.46E-13 - 2.05E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 105 FISSION PRODUCT CHAIN

NLCT = 2.105 NU = 1.553 ZP = 41.908

DEVIATION FROM UCD = C.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	6.66E-10	(C. - 1.37E-06)	6.66E-10	(3.31E-24 - 1.37E-06)
39	6.29E-06	(1.13E-09 - 4.29E-04)	6.29E-06	(1.80E-09 - 4.29E-04)
40	6.86E-03	(1.48E-04 - 4.25E-02)	6.86E-03	(1.54E-04 - 4.29E-02)
41	1.68E-01	(6.02E-02 - 2.54E-01)	1.74E-01	(6.68E-02 - 2.54E-01)
42	7.17E-01	(5.58E-01 - 8.65E-01)	8.92E-01	(8.12E-01 - 9.82E-01)
43	1.06E-01	(2.59E-02 - 1.93E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
44	2.58E-03	(2.69E-05 - 2.32E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.36E-06	(8.23E-11 - 1.61E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-233 NLTC1 METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 106 FISSION PRODUCT CHAIN

NLTC1 = 1.940 NU = 1.496 ZP = 42.263

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	3.01E-07	(6.15E-12 - 6.13E-05)	3.01E-07	(6.15E-12 - 6.13E-05)
40	9.60E-04	(4.75E-06 - 1.25E-02)	9.60E-04	(5.06E-06 - 1.25E-02)
41	6.42E-02	(1.07E-02 - 1.45E-01)	6.52E-02	(1.17E-02 - 1.47E-01)
42	6.77E-01	(5.06E-01 - 8.78E-01)	7.42E-01	(6.17E-01 - 8.61E-01)
43	2.42E-01	(1.18E-01 - 3.46E-01)	9.84E-01	(9.69E-01 - 1.00E+00)
44	1.59E-02	(6.42E-04 - 7.31E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	2.44E-05	(1.15E-08 - 1.03E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
46	4.39E-09	(0. - 4.68E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 107 FISSION PRODUCT CHAIN

NLTC1 = 1.987 NU = 1.455 ZP = 42.641

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	8.19E-09	(1.42E-14 - 6.12E-06)	8.19E-09	(1.42E-14 - 6.12E-06)
40	8.27E-05	(6.51E-08 - 2.69E-03)	8.27E-05	(7.33E-08 - 2.69E-03)
41	1.66E-02	(9.26E-04 - 6.50E-02)	1.67E-02	(1.01E-03 - 6.51E-02)
42	4.76E-01	(2.68E-01 - 6.78E-01)	4.92E-01	(3.60E-01 - 6.84E-01)
43	4.30E-01	(3.16E-01 - 5.78E-01)	9.22E-01	(8.55E-01 - 1.00E+00)
44	7.76E-02	(1.00E-02 - 1.99E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
45	3.60E-04	(1.15E-06 - 5.84E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
46	2.06E-07	(2.24E-12 - 5.75E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 108 FISSION PRODUCT CHAIN

NLTC1 = 2.076 NU = 1.433 ZP = 43.025

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	4.23E-06	(3.83E-10 - 4.07E-04)	4.23E-06	(3.83E-10 - 4.07E-04)
41	2.68E-03	(3.67E-05 - 2.11E-02)	2.69E-03	(4.09E-05 - 2.11E-02)
42	2.22E-01	(6.29E-02 - 3.78E-01)	2.24E-01	(6.55E-02 - 3.82E-01)
43	5.21E-01	(4.13E-01 - 6.30E-01)	7.45E-01	(5.73E-01 - 9.02E-01)
44	2.51E-01	(7.90E-02 - 4.07E-01)	9.96E-01	(9.93E-01 - 1.00E+00)
45	3.49E-03	(5.83E-05 - 2.49E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	6.40E-06	(7.79E-10 - 5.31E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
47	2.26E-10	(0. - 6.06E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 109 FISSION PRODUCT CHAIN

NLTC1 = 2.291 NU = 1.525 ZP = 43.454

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	8.13E-08	(4.68E-13 - 3.14E-05)	8.13E-08	(4.68E-13 - 3.14E-05)
41	1.90E-04	(3.84E-07 - 3.87E-03)	1.90E-04	(4.65E-07 - 3.87E-03)
42	5.40E-02	(5.35E-03 - 1.58E-01)	5.42E-02	(5.54E-03 - 1.59E-01)
43	3.84E-01	(2.75E-01 - 5.31E-01)	4.39E-01	(3.19E-01 - 6.19E-01)
44	5.37E-01	(3.44E-01 - 7.57E-01)	9.76E-01	(9.53E-01 - 1.00E+00)
45	2.43E-02	(1.83E-03 - 8.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	1.60E-04	(2.05E-07 - 4.07E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
47	2.11E-08	(6.43E-14 - 1.12E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 110 FISSION PRODUCT CHAIN

NLTC1 = 2.597 NU = 1.639 ZP = 43.892

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	7.98E-10	(0. - 1.54E-06)	7.98E-10	(3.31E-24 - 1.54E-06)
41	7.16E-06	(1.42E-09 - 4.66E-04)	7.17E-06	(2.21E-09 - 4.66E-04)
42	7.45E-03	(1.71E-04 - 4.52E-02)	7.45E-03	(1.78E-04 - 4.52E-02)
43	1.74E-01	(6.44E-02 - 2.60E-01)	1.81E-01	(7.16E-02 - 2.75E-01)
44	7.15E-01	(5.54E-01 - 8.65E-01)	8.97E-01	(8.20E-01 - 9.86E-01)
45	1.01E-01	(2.45E-02 - 1.85E-01)	9.98E-01	(9.95E-01 - 1.00E+00)
46	2.36E-03	(2.30E-05 - 2.20E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	1.15E-06	(6.49E-11 - 1.47E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 111 FISSION PRODUCT CHAIN

NLTC1 = 2.722 NU = 1.623 ZP = 44.279

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	2.62E-07	(4.83E-12 - 5.60E-05)	2.62E-07	(4.83E-12 - 5.60E-05)
42	8.74E-04	(4.03E-06 - 1.18E-02)	8.74E-04	(4.30E-06 - 1.18E-02)
43	6.12E-02	(5.80E-03 - 1.41E-01)	6.20E-02	(1.07E-02 - 1.42E-01)
44	6.71E-01	(5.00E-01 - 8.77E-01)	7.33E-01	(6.07E-01 - 8.56E-01)
45	2.50E-01	(1.24E-01 - 3.57E-01)	9.83E-01	(9.66E-01 - 1.00E+00)
46	1.71E-02	(7.28E-04 - 7.65E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	2.75E-05	(1.11E-08 - 1.11E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
48	5.15E-05	(8.35E-15 - 5.22E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 112 FISSION PRODUCT CHAIN

NLTC1 = 2.929 NU = 1.649 ZP = 44.683

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	5.33E-09	(8.60E-15 - 4.65E-06)	5.33E-09	(8.60E-15 - 4.65E-06)
42	6.12E-05	(3.86E-08 - 2.23E-03)	6.12E-05	(4.39E-08 - 2.23E-03)
43	1.40E-02	(6.76E-04 - 5.84E-02)	1.40E-02	(7.37E-04 - 5.85E-02)
44	4.47E-01	(2.36E-01 - 6.35E-01)	4.61E-01	(3.22E-01 - 6.55E-01)
45	4.48E-01	(3.32E-01 - 5.94E-01)	9.09E-01	(8.32E-01 - 1.00E+00)
46	9.03E-02	(1.31E-02 - 2.18E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
47	4.73E-04	(1.83E-06 - 6.96E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
48	3.07E-07	(4.41E-12 - 7.46E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 113 FISSION PRODUCT CHAIN

NLTC1 = 2.593 NU = 1.598 ZP = 45.056

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	3.25E-06	(2.45E-10 - 3.44E-04)	3.25E-06	(2.45E-10 - 3.44E-04)
43	2.26E-03	(2.74E-05 - 1.85E-02)	2.27E-03	(3.06E-05 - 1.89E-02)
44	2.04E-01	(5.42E-02 - 3.55E-01)	2.07E-01	(5.64E-02 - 3.62E-01)
45	5.15E-01	(4.08E-01 - 6.27E-01)	7.25E-01	(5.45E-01 - 8.81E-01)
46	2.71E-01	(9.05E-02 - 4.25E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
47	4.10E-02	(7.72E-03 - 2.75E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	8.24E-06	(1.20E-09 - 6.24E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
49	3.20E-10	(0. - 7.60E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-233 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 114 FISSION PRODUCT CHAIN
NLCT = 2.972 NU = 1.530 ZP = 45.422
DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	1.12E-07	(8.00E-13 - 3.87E-05)	1.12E-07	(8.00E-13 - 3.87E-05)
43	2.37E-04	(5.60E-07 - 4.46E-03)	2.37E-04	(6.72E-07 - 4.46E-03)
44	6.13E-32	(6.66E-03 - 1.71E-01)	6.15E-02	(6.90E-03 - 1.72E-01)
45	4.00E-01	(2.93E-01 - 5.49E-01)	4.62E-01	(3.41E-01 - 6.47E-01)
46	5.17E-01	(3.17E-01 - 7.32E-01)	9.78E-01	(9.59E-01 - 1.00E+00)
47	2.14E-02	(1.46E-03 - 7.56E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	1.28E-04	(1.39E-07 - 3.54E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
49	1.54E-08	(3.54E-14 - 9.16E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 118 FISSION PRODUCT CHAIN
NLCT = 2.592 NU = 1.354 ZP = 46.941
DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	3.21E-10	(C. - 7.76E-07)	3.31E-10	(1.65E-24 - 7.76E-07)
44	8.44E-06	(1.25E-09 - 6.34E-04)	8.44E-06	(1.58E-09 - 6.34E-04)
45	4.16E-03	(7.92E-05 - 2.77E-02)	4.17E-03	(8.77E-05 - 2.78E-02)
46	2.72E-01	(9.17E-02 - 4.26E-01)	2.77E-01	(9.58E-02 - 4.32E-01)
47	5.18E-01	(4.07E-01 - 6.27E-01)	7.95E-01	(6.46E-01 - 9.51E-01)
48	2.03E-01	(5.34E-02 - 3.58E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
49	2.23E-03	(2.66E-05 - 1.87E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	3.17E-06	(2.34E-10 - 3.38E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 115 FISSION PRODUCT CHAIN
NLCT = 4.000 NU = 2.000 ZP = 46.000
DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	2.36E-10	(C. - 7.00E-07)	2.36E-10	(1.65E-24 - 7.00E-07)
43	2.96E-06	(3.11E-10 - 2.64E-04)	2.96E-06	(5.47E-10 - 2.64E-04)
44	4.25E-03	(6.43E-05 - 3.18E-02)	4.25E-03	(6.73E-05 - 3.18E-02)
45	1.34E-01	(4.01E-02 - 2.23E-01)	1.39E-01	(4.43E-02 - 2.32E-01)
46	7.23E-01	(5.78E-01 - 8.75E-01)	8.61E-01	(7.67E-01 - 9.55E-01)
47	1.34E-01	(4.01E-02 - 2.23E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
48	4.25E-03	(6.43E-05 - 3.18E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	2.96E-06	(3.11E-10 - 2.64E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 119 FISSION PRODUCT CHAIN
NLCT = 2.935 NU = 1.262 ZP = 47.290
DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	3.66E-07	(6.78E-12 - 8.80E-05)	3.96E-07	(6.78E-12 - 8.80E-05)
45	5.62E-04	(2.46E-06 - 7.78E-03)	5.62E-04	(2.86E-06 - 7.78E-03)
46	9.52E-02	(1.54E-02 - 2.32E-01)	9.97E-02	(1.60E-02 - 2.32E-01)
47	4.55E-01	(3.41E-01 - 6.02E-01)	5.59E-01	(4.14E-01 - 7.48E-01)
48	4.25E-01	(2.17E-01 - 6.13E-01)	9.88E-01	(9.76E-01 - 1.00E+00)
49	1.24E-02	(5.50E-04 - 5.45E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	5.04E-05	(2.75E-08 - 1.97E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
51	4.04E-05	(5.76E-15 - 3.85E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 116 FISSION PRODUCT CHAIN
NLCT = 2.860 NU = 1.416 ZP = 46.163
DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	7.32E-07	(2.83E-11 - 1.08E-04)	7.32E-07	(2.83E-11 - 1.08E-04)
44	1.72E-03	(1.32E-05 - 1.80E-02)	1.72E-03	(1.40E-05 - 1.80E-02)
45	8.65E-02	(1.84E-02 - 1.72E-01)	8.82E-02	(2.01E-02 - 1.75E-01)
46	7.05E-01	(5.38E-01 - 8.76E-01)	7.93E-01	(6.77E-01 - 8.93E-01)
47	1.57E-01	(8.08E-02 - 2.86E-01)	9.90E-01	(9.81E-01 - 1.00E+00)
48	9.84E-03	(2.78E-04 - 5.39E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	1.12E-05	(3.03E-09 - 6.21E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.48E-09	(C. - 2.31E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 120 FISSION PRODUCT CHAIN
NLCT = 2.778 NU = 1.122 ZP = 47.621
DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	1.56E-08	(2.97E-14 - 1.04E-05)	1.50E-08	(2.97E-14 - 1.04E-05)
45	5.83E-05	(5.10E-08 - 1.80E-03)	5.83E-05	(6.59E-08 - 1.80E-03)
46	2.70E-02	(1.60E-03 - 1.02E-01)	2.70E-02	(1.66E-03 - 1.02E-01)
47	2.55E-01	(1.73E-01 - 4.26E-01)	3.26E-01	(1.58E-01 - 4.74E-01)
48	6.25E-01	(4.62E-01 - 8.51E-01)	9.55E-01	(9.17E-01 - 1.00E+00)
49	4.41E-02	(5.41E-03 - 1.16E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
50	4.71E-04	(1.37E-06 - 8.02E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
51	1.04E-07	(9.88E-13 - 3.10E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 117 FISSION PRODUCT CHAIN
NLCT = 2.971 NU = 1.441 ZP = 46.567
DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	1.72E-08	(4.49E-14 - 9.83E-06)	1.72E-08	(4.49E-14 - 9.83E-06)
44	1.38E-04	(1.59E-07 - 3.72E-03)	1.38E-04	(1.77E-07 - 3.72E-03)
45	2.24E-02	(1.58E-03 - 7.76E-02)	2.25E-02	(1.71E-03 - 7.79E-02)
46	5.24E-01	(3.27E-01 - 7.41E-01)	5.46E-01	(4.28E-01 - 7.30E-01)
47	3.55E-01	(2.88E-01 - 5.43E-01)	9.41E-01	(8.89E-01 - 1.00E+00)
48	5.87E-02	(6.18E-03 - 1.67E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
49	2.20E-04	(4.92E-07 - 4.25E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.00E-07	(6.62E-13 - 3.60E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 121 FISSION PRODUCT CHAIN
NLCT = 2.636 NU = .973 ZP = 47.955
DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	3.54E-10	(C. - 9.76E-07)	3.94E-10	(1.65E-24 - 9.76E-07)
45	4.30E-06	(5.89E-10 - 3.36E-04)	4.30E-06	(9.83E-10 - 3.36E-04)
46	5.35E-03	(5.73E-05 - 3.65E-02)	5.39E-03	(1.02E-04 - 3.69E-02)
47	1.50E-01	(4.52E-02 - 2.36E-01)	1.55E-01	(5.44E-02 - 2.49E-01)
48	7.22E-01	(5.69E-01 - 8.73E-01)	8.77E-01	(7.90E-01 - 9.69E-01)
49	1.20E-01	(3.25E-02 - 2.05E-01)	9.97E-01	(9.93E-01 - 1.00E+00)
50	2.34E-03	(4.21E-05 - 2.73E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	2.03E-06	(1.63E-10 - 2.07E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-233 ALIQUOT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 122 FISSION PRODUCT CHAIN
NUCT = 2.462 NU = .823 ZP = 48.289
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	2.38E-07	(4.11E-12 - 5.27E-05)	2.38E-07	(4.11E-12 - 5.27E-05)
46	8.22E-04	(3.62E-02 - 1.13E-02)	8.22E-04	(3.86E-06 - 1.13E-02)
47	5.92E-02	(9.24E-03 - 1.38E-01)	6.00E-02	(1.01E-02 - 1.40E-01)
48	6.67E-01	(4.96E-01 - 8.75E-01)	7.27E-01	(6.01E-01 - 8.53E-01)
49	2.55E-01	(1.29E-01 - 3.64E-01)	9.82E-01	(9.65E-01 - 1.00E+00)
50	1.80E-02	(7.91E-04 - 7.89E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	2.97E-05	(1.61E-08 - 1.17E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	5.79E-09	(8.36E-15 - 5.60E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 123 FISSION PRODUCT CHAIN
NUCT = 2.233 NU = .692 ZP = 48.631
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	9.02E-09	(1.70E-14 - 6.51E-06)	9.02E-09	(1.70E-14 - 6.51E-06)
46	8.84E-05	(7.32E-08 - 2.81E-03)	8.84E-05	(8.23E-08 - 2.81E-03)
47	1.73E-02	(9.94E-04 - 6.65E-02)	1.74E-02	(1.08E-03 - 6.67E-02)
48	4.82E-01	(2.75E-01 - 6.87E-01)	4.99E-01	(3.69E-01 - 6.90E-01)
49	4.25E-01	(3.13E-01 - 5.74E-01)	9.25E-01	(8.59E-01 - 1.00E+00)
50	7.49E-02	(9.44E-03 - 1.94E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
51	3.38E-04	(1.03E-06 - 5.61E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	1.88E-07	(1.91E-12 - 5.41E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 124 FISSION PRODUCT CHAIN
NUCT = 2.064 NU = .691 ZP = 49.024
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	4.27E-06	(3.89E-10 - 4.09E-04)	4.27E-06	(3.89E-10 - 4.09E-04)
47	2.70E-03	(3.71E-05 - 2.11E-02)	2.70E-03	(4.14E-05 - 2.11E-02)
48	2.22E-01	(6.32E-02 - 3.79E-01)	2.25E-01	(6.59E-02 - 3.83E-01)
49	5.21E-01	(4.13E-01 - 6.30E-01)	7.46E-01	(5.74E-01 - 9.03E-01)
50	2.51E-01	(7.86E-02 - 4.06E-01)	9.97E-01	(9.93E-01 - 1.00E+00)
51	3.47E-03	(5.77E-05 - 2.48E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	6.34E-06	(7.67E-10 - 5.28E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
53	2.23E-10	(0. - 6.01E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 125 FISSION PRODUCT CHAIN
NUCT = 1.986 NU = .531 ZP = 49.354
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	2.16E-07	(2.43E-12 - 5.94E-05)	2.16E-07	(2.43E-12 - 5.94E-05)
47	3.72E-04	(1.22E-06 - 5.97E-03)	3.73E-04	(1.43E-06 - 5.97E-03)
48	7.51E-02	(1.04E-02 - 2.01E-01)	7.94E-02	(1.08E-02 - 2.02E-01)
49	4.32E-01	(3.18E-01 - 5.80E-01)	5.12E-01	(3.79E-01 - 7.03E-01)
50	4.72E-01	(2.64E-01 - 6.73E-01)	9.84E-01	(9.68E-01 - 1.00E+00)
51	1.63E-02	(8.91E-04 - 6.41E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	7.97E-05	(6.10E-08 - 2.63E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	7.77E-09	(1.42E-14 - 5.92E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 126 FISSION PRODUCT CHAIN
NUCT = 1.595 NU = .444 ZP = 49.713
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	5.65E-05	(8.36E-15 - 5.52E-06)	5.65E-05	(8.36E-15 - 5.52E-06)
47	2.52E-05	(1.57E-08 - 1.15E-03)	2.92E-05	(2.13E-08 - 1.15E-03)
48	1.78E-02	(7.77E-04 - 7.84E-02)	1.78E-02	(8.06E-04 - 7.84E-02)
49	2.53E-01	(1.28E-01 - 3.63E-01)	2.71E-01	(1.45E-01 - 3.96E-01)
50	6.68E-01	(4.97E-01 - 8.75E-01)	9.40E-01	(8.89E-01 - 1.00E+00)
51	5.56E-02	(9.36E-03 - 1.35E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
52	8.33E-04	(3.70E-06 - 1.14E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	2.43E-07	(4.26E-12 - 5.34E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 127 FISSION PRODUCT CHAIN
NUCT = 2.136 NU = .437 ZP = 50.104
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	1.23E-06	(6.90E-11 - 1.51E-04)	1.23E-06	(6.90E-11 - 1.51E-04)
48	2.42E-03	(2.39E-05 - 2.23E-02)	2.42E-03	(2.52E-05 - 2.23E-02)
49	1.02E-01	(2.50E-02 - 1.90E-01)	1.05E-01	(2.74E-02 - 1.94E-01)
50	7.16E-01	(5.55E-01 - 8.64E-01)	8.20E-01	(7.11E-01 - 9.14E-01)
51	1.72E-01	(6.33E-02 - 2.58E-01)	9.93E-01	(9.86E-01 - 1.00E+00)
52	7.25E-03	(1.65E-04 - 4.46E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	6.53E-06	(1.34E-09 - 4.56E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
54	7.62E-10	(0. - 1.50E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 128 FISSION PRODUCT CHAIN
NUCT = 2.106 NU = .360 ZP = 50.466
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	4.57E-08	(2.42E-13 - 1.84E-05)	4.57E-08	(2.42E-13 - 1.84E-05)
48	2.70E-04	(5.16E-07 - 5.66E-03)	2.70E-04	(5.62E-07 - 5.66E-03)
49	3.26E-02	(3.12E-03 - 9.71E-02)	3.29E-02	(3.39E-03 - 9.76E-02)
50	5.84E-01	(4.12E-01 - 8.10E-01)	6.17E-01	(4.91E-01 - 7.83E-01)
51	3.44E-01	(2.24E-01 - 4.84E-01)	9.61E-01	(9.25E-01 - 1.00E+00)
52	3.51E-02	(3.06E-03 - 1.25E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
53	1.05E-04	(1.49E-07 - 2.70E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	3.66E-08	(1.21E-13 - 1.87E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 129 FISSION PRODUCT CHAIN
NUCT = 1.986 NU = .339 ZP = 50.851
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	8.95E-10	(0. - 1.48E-06)	8.95E-10	(0. - 1.48E-06)
48	1.73E-05	(4.31E-09 - 1.00E-03)	1.73E-05	(5.21E-09 - 1.00E-03)
49	6.51E-03	(1.74E-04 - 3.66E-02)	6.53E-03	(1.91E-04 - 3.67E-02)
50	3.31E-01	(1.32E-01 - 4.85E-01)	3.38E-01	(1.68E-01 - 4.94E-01)
51	5.04E-01	(3.86E-01 - 6.22E-01)	8.42E-01	(7.20E-01 - 9.92E-01)
52	1.57E-01	(3.46E-02 - 3.07E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
53	1.33E-03	(1.09E-05 - 1.35E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.45E-06	(6.13E-11 - 2.04E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-233 NLCTC METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 130 FISSION PRODUCT CHAIN

NLCTC = 1.932 NU = .341 ZP = 50.795

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	1.64E-09	(4.59E-12 - 1.05E-07)	1.64E-09	(4.59E-12 - 1.05E-07)
48	2.66E-05	(1.07E-06 - 2.55E-04)	2.66E-05	(1.07E-06 - 2.55E-04)
49	8.48E-03	(2.10E-03 - 2.19E-02)	8.51E-03	(2.13E-03 - 2.19E-02)
50	3.70E-01	(2.65E-01 - 4.56E-01)	3.78E-01	(2.79E-01 - 4.65E-01)
51	4.89E-01	(4.13E-01 - 5.68E-01)	4.87E-01	(4.03E-01 - 5.41E-01)
52	1.32E-01	(6.72E-02 - 2.06E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
53	9.55E-04	(1.26E-04 - 3.94E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	8.74E-07	(1.30E-08 - 1.70E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 131 FISSION PRODUCT CHAIN

NLCTC = 1.969 NU = .413 ZP = 51.217

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	7.84E-07	(1.13E-08 - 1.56E-05)	7.84E-07	(1.13E-08 - 1.56E-05)
49	8.88E-04	(1.14E-04 - 3.72E-03)	8.85E-04	(1.15E-04 - 3.72E-03)
50	1.27E-01	(6.40E-02 - 2.00E-01)	1.28E-01	(6.48E-02 - 2.01E-01)
51	4.85E-01	(4.10E-01 - 5.65E-01)	4.81E-01	(4.15E-01 - 5.41E-01)
52	3.78E-01	(2.73E-01 - 4.64E-01)	3.91E-01	(2.94E-01 - 4.00E+00)
53	8.56E-03	(2.76E-03 - 2.29E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	2.91E-05	(1.20E-06 - 2.74E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
55	1.86E-09	(5.40E-12 - 1.16E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 132 FISSION PRODUCT CHAIN

NLCTC = 2.055 NU = .496 ZP = 51.642

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	1.19E-08	(5.28E-11 - 5.49E-07)	1.19E-08	(5.28E-11 - 5.49E-07)
49	4.56E-05	(2.78E-06 - 3.75E-04)	4.96E-05	(2.79E-06 - 3.75E-04)
50	2.45E-02	(7.52E-03 - 5.45E-02)	2.45E-02	(7.57E-03 - 5.46E-02)
51	2.88E-01	(2.27E-01 - 3.48E-01)	3.13E-01	(2.49E-01 - 3.80E-01)
52	6.39E-01	(5.33E-01 - 7.57E-01)	5.52E-01	(4.92E-01 - 9.88E-01)
53	4.75E-02	(8.29E-02 - 8.29E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
54	5.41E-04	(5.37E-05 - 2.72E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
55	1.27E-07	(1.26E-09 - 3.30E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 133 FISSION PRODUCT CHAIN

NLCTC = 2.198 NU = .649 ZP = 52.096

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.31E-06	(2.58E-08 - 2.10E-05)	1.31E-06	(2.58E-08 - 2.10E-05)
50	2.52E-03	(4.01E-04 - 9.10E-03)	2.52E-03	(4.02E-04 - 9.10E-03)
51	1.04E-01	(5.91E-02 - 1.52E-01)	1.07E-01	(6.15E-02 - 1.55E-01)
52	7.17E-01	(6.14E-01 - 8.18E-01)	8.24E-01	(7.66E-01 - 8.76E-01)
53	1.69E-01	(1.12E-01 - 2.20E-01)	9.93E-01	(9.87E-01 - 1.00E+00)
54	7.01E-03	(1.52E-03 - 2.03E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
55	6.51E-06	(2.03E-07 - 7.46E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
56	6.59E-10	(1.39E-12 - 5.69E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 124 FISSION PRODUCT CHAIN

NLCTC = 2.400 NU = .850 ZP = 52.568

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.70E-08	(9.33E-11 - 6.65E-07)	1.70E-08	(9.33E-11 - 6.65E-07)
50	1.37E-04	(8.96E-06 - 9.27E-04)	1.37E-04	(8.98E-06 - 9.27E-04)
51	2.22E-02	(7.53E-03 - 4.62E-02)	2.24E-02	(7.67E-03 - 4.64E-02)
52	5.23E-01	(4.27E-01 - 6.30E-01)	5.45E-01	(4.69E-01 - 6.37E-01)
53	3.55E-01	(3.28E-01 - 4.72E-01)	9.41E-01	(9.05E-01 - 9.91E-01)
54	5.90E-02	(2.36E-02 - 1.05E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
55	2.21E-04	(1.91E-05 - 1.23E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.01E-07	(8.19E-10 - 3.04E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 135 FISSION PRODUCT CHAIN

NLCTC = 2.511 NU = .983 ZP = 53.013

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	4.66E-06	(1.12E-07 - 6.43E-05)	4.66E-06	(1.12E-07 - 6.43E-05)
51	2.85E-03	(5.20E-04 - 9.35E-03)	2.86E-03	(5.25E-04 - 9.36E-03)
52	2.25E-01	(1.39E-01 - 3.16E-01)	7.31E-01	(1.42E-01 - 3.19E-01)
53	5.21E-01	(4.51E-01 - 5.90E-01)	7.52E-01	(6.60E-01 - 8.41E-01)
54	2.44E-01	(1.52E-01 - 3.32E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
55	3.25E-03	(6.25E-04 - 1.04E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	5.81E-06	(1.49E-07 - 7.67E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.98E-10	(3.04E-13 - 1.95E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 136 FISSION PRODUCT CHAIN

NLCTC = 2.655 NU = 1.059 ZP = 53.452

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	8.32E-08	(6.37E-10 - 2.60E-06)	8.33E-08	(6.37E-10 - 2.60E-06)
51	1.93E-04	(1.60E-05 - 1.11E-03)	1.93E-04	(1.61E-05 - 1.11E-03)
52	5.45E-02	(2.13E-02 - 1.02E-01)	5.47E-02	(2.15E-02 - 1.03E-01)
53	3.86E-01	(3.20E-01 - 4.61E-01)	4.40E-01	(3.66E-01 - 5.30E-01)
54	5.36E-01	(4.42E-01 - 6.45E-01)	9.76E-01	(9.60E-01 - 1.00E+00)
55	2.40E-02	(8.34E-03 - 4.91E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.57E-04	(1.07E-05 - 1.03E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
57	2.06E-08	(1.20E-10 - 7.82E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 137 FISSION PRODUCT CHAIN

NLCTC = 2.757 NU = 1.177 ZP = 53.876

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	5.56E-10	(2.08E-12 - 7.31E-08)	9.56E-10	(2.08E-12 - 7.31E-08)
51	8.16E-06	(2.72E-07 - 8.93E-05)	8.16E-06	(2.73E-07 - 8.93E-05)
52	8.08E-03	(1.82E-03 - 2.27E-02)	8.09E-03	(1.83E-03 - 2.27E-02)
53	1.60E-01	(1.22E-01 - 2.31E-01)	1.89E-01	(1.30E-01 - 2.42E-01)
54	7.13E-01	(6.08E-01 - 8.17E-01)	9.01E-01	(8.58E-01 - 9.48E-01)
55	9.67E-02	(5.33E-02 - 1.43E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
56	2.16E-02	(3.26E-04 - 8.05E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.03E-06	(1.88E-08 - 1.73E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-233 NUTCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.2E +/- .1C

MASS 138 FISSION PRODUCT CHAIN

NUTCT = 2.688 NU = 1.179 ZP = 54.270
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	2.84E-07	(3.56E-09 - 6.24E-06)	2.84E-07	(3.56E-09 - 6.24E-06)
52	9.24E-04	(1.08E-04 - 4.14E-03)	9.24E-04	(1.08E-04 - 4.14E-03)
53	6.30E-02	(3.01E-02 - 1.03E-01)	6.39E-02	(3.10E-02 - 1.04E-01)
54	6.75E-01	(5.66E-01 - 7.91E-01)	6.75E-01	(5.66E-01 - 7.91E-01)
55	2.45E-01	(1.83E-01 - 2.96E-01)	9.84E-01	(9.72E-01 - 1.00E+00)
56	1.64E-02	(4.46E-03 - 3.97E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	2.56E-05	(1.18E-06 - 2.22E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
58	4.70E-09	(1.60E-11 - 2.61E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 142 FISSION PRODUCT CHAIN

NUTCT = 2.501 NU = 1.206 ZP = 55.853
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	1.23E-09	(2.88E-12 - 8.93E-08)	1.23E-09	(2.88E-12 - 8.93E-08)
53	9.78E-06	(3.43E-07 - 1.03E-04)	9.78E-06	(3.44E-07 - 1.03E-04)
54	9.05E-03	(2.11E-03 - 2.45E-02)	9.06E-03	(2.12E-03 - 2.49E-02)
55	1.90E-01	(1.31E-01 - 2.41E-01)	1.99E-01	(1.39E-01 - 2.52E-01)
56	7.06E-01	(6.03E-01 - 8.15E-01)	9.07E-01	(8.66E-01 - 9.53E-01)
57	5.07E-02	(4.90E-02 - 1.36E-01)	9.96E-01	(9.96E-01 - 1.00E+00)
58	1.90E-03	(2.76E-04 - 7.28E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	8.48E-07	(1.46E-08 - 1.48E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 139 FISSION PRODUCT CHAIN

NUTCT = 2.564 NU = 1.163 ZP = 54.657
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	6.95E-09	(2.95E-11 - 3.30E-07)	6.95E-09	(2.95E-11 - 3.30E-07)
52	7.37E-05	(4.00E-06 - 5.70E-04)	7.37E-05	(4.01E-06 - 5.70E-04)
53	1.56E-02	(4.49E-03 - 3.51E-02)	1.56E-02	(4.76E-03 - 3.52E-02)
54	4.65E-01	(3.63E-01 - 5.61E-01)	4.80E-01	(3.95E-01 - 5.79E-01)
55	4.37E-01	(3.65E-01 - 5.17E-01)	9.17E-01	(8.71E-01 - 9.77E-01)
56	8.23E-02	(3.65E-02 - 1.42E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
57	4.00E-04	(4.08E-05 - 1.97E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	2.40E-07	(2.47E-09 - 6.06E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 143 FISSION PRODUCT CHAIN

NUTCT = 2.525 NU = 1.254 ZP = 56.265
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	2.56E-07	(3.75E-09 - 6.43E-06)	2.96E-07	(3.75E-09 - 6.43E-06)
54	9.49E-04	(1.12E-04 - 4.23E-03)	9.49E-04	(1.12E-04 - 4.23E-03)
55	6.38E-02	(3.06E-02 - 1.04E-01)	6.48E-02	(3.16E-02 - 1.05E-01)
56	6.76E-01	(5.68E-01 - 7.92E-01)	7.41E-01	(6.78E-01 - 7.97E-01)
57	2.43E-01	(1.81E-01 - 2.94E-01)	9.84E-01	(9.72E-01 - 1.00E+00)
58	1.61E-02	(4.35E-03 - 3.91E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	2.48E-05	(1.13E-06 - 2.16E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
60	4.48E-09	(1.51E-11 - 2.51E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 140 FISSION PRODUCT CHAIN

NUTCT = 2.551 NU = 1.181 ZP = 55.057
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	3.21E-06	(6.94E-08 - 4.79E-05)	3.21E-06	(6.94E-08 - 4.79E-05)
53	2.25E-03	(3.81E-04 - 7.75E-03)	2.25E-03	(3.84E-04 - 7.75E-03)
54	2.04E-01	(1.19E-01 - 2.87E-01)	2.06E-01	(1.21E-01 - 2.91E-01)
55	5.19E-01	(4.47E-01 - 5.88E-01)	7.24E-01	(6.28E-01 - 8.14E-01)
56	2.71E-01	(1.75E-01 - 3.60E-01)	9.96E-01	(9.93E-01 - 1.00E+00)
57	4.13E-03	(8.42E-04 - 1.25E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	8.34E-06	(2.37E-07 - 1.02E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
59	3.25E-10	(5.74E-13 - 2.89E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 144 FISSION PRODUCT CHAIN

NUTCT = 2.504 NU = 1.303 ZP = 56.678
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	5.60E-09	(2.23E-11 - 2.78E-07)	5.60E-09	(2.23E-11 - 2.78E-07)
54	6.34E-05	(3.29E-06 - 5.06E-04)	6.34E-05	(3.29E-06 - 5.06E-04)
55	1.42E-02	(4.17E-03 - 3.28E-02)	1.43E-02	(4.23E-03 - 3.28E-02)
56	4.50E-01	(3.47E-01 - 5.44E-01)	4.65E-01	(3.77E-01 - 5.60E-01)
57	4.46E-01	(3.73E-01 - 5.26E-01)	9.11E-01	(8.62E-01 - 9.73E-01)
58	8.87E-02	(4.01E-02 - 1.51E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
59	4.58E-04	(4.87E-05 - 2.20E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	2.94E-07	(3.20E-09 - 7.11E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 141 FISSION PRODUCT CHAIN

NUTCT = 2.543 NU = 1.202 ZP = 55.458
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	7.81E-08	(5.86E-10 - 2.47E-06)	7.81E-08	(5.86E-10 - 2.47E-06)
53	1.85E-04	(1.51E-05 - 1.07E-03)	1.85E-04	(1.52E-05 - 1.07E-03)
54	5.32E-02	(2.06E-02 - 1.00E-01)	5.33E-02	(2.08E-02 - 1.01E-01)
55	3.82E-01	(3.17E-01 - 4.58E-01)	4.36E-01	(3.83E-01 - 5.25E-01)
56	5.40E-01	(4.46E-01 - 6.49E-01)	9.75E-01	(9.59E-01 - 1.00E+00)
57	2.46E-02	(8.62E-03 - 5.00E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.64E-04	(1.13E-05 - 1.07E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	2.20E-08	(1.31E-10 - 8.22E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 145 FISSION PRODUCT CHAIN

NUTCT = 2.508 NU = 1.370 ZP = 57.097
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	2.28E-06	(4.45E-08 - 3.64E-05)	2.28E-06	(4.45E-08 - 3.64E-05)
55	1.80E-03	(2.85E-04 - 6.49E-03)	1.80E-03	(2.87E-04 - 6.49E-03)
56	1.82E-01	(1.03E-01 - 2.69E-01)	1.84E-01	(1.05E-01 - 2.67E-01)
57	5.14E-01	(4.40E-01 - 5.86E-01)	6.98E-01	(5.58E-01 - 7.87E-01)
58	2.97E-01	(1.97E-01 - 3.86E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
59	5.06E-03	(1.10E-03 - 1.46E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
60	1.15E-05	(3.60E-07 - 1.32E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
61	5.08E-10	(1.02E-12 - 4.13E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION CF U-235 NLCT METHOD
 ESTIMATED FRACTIONAL YIELDS
 ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 146 FISSION PRODUCT CHAIN

NLCT = 2.540 NU = 1.467 ZP = 57.528

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	3.87E-08	(2.39E-10 - 1.41E-06)	3.87E-08	(2.39E-10 - 1.41E-06)
55	1.13E-04	(8.06E-06 - 7.25E-04)	1.13E-04	(8.09E-06 - 7.25E-04)
56	4.00E-02	(1.43E-02 - 8.03E-02)	4.02E-02	(1.44E-02 - 8.05E-02)
57	3.47E-01	(2.87E-01 - 4.17E-01)	3.87E-01	(3.22E-01 - 4.68E-01)
58	5.81E-01	(4.81E-01 - 6.96E-01)	5.68E-01	(4.88E-01 - 6.97E-01)
59	3.19E-02	(1.22E-02 - 6.10E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
60	2.61E-04	(2.08E-05 - 1.54E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
61	4.34E-08	(3.14E-10 - 1.41E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 147 FISSION PRODUCT CHAIN

NLCT = 2.478 NU = 1.530 ZP = 57.947

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	4.34E-10	(7.57E-13 - 3.89E-08)	4.34E-10	(7.57E-13 - 3.89E-08)
55	4.61E-06	(1.30E-07 - 5.67E-05)	4.61E-06	(1.30E-07 - 5.67E-05)
56	5.63E-03	(1.14E-03 - 1.71E-02)	5.64E-03	(1.15E-03 - 1.71E-02)
57	1.53E-01	(9.82E-02 - 2.04E-01)	1.59E-01	(1.04E-01 - 2.11E-01)
58	7.21E-01	(6.21E-01 - 8.17E-01)	8.80E-01	(8.31E-01 - 9.29E-01)
59	1.17E-01	(6.87E-02 - 1.66E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
60	3.19E-03	(5.43E-04 - 1.09E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
61	1.89E-06	(4.11E-08 - 2.79E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 148 FISSION PRODUCT CHAIN

NLCT = 2.322 NU = 1.493 ZP = 58.325

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	1.72E-07	(1.86E-09 - 4.19E-06)	1.72E-07	(1.86E-09 - 4.19E-06)
56	6.61E-04	(6.99E-05 - 3.19E-03)	6.62E-04	(7.01E-05 - 3.19E-03)
57	5.28E-02	(2.38E-02 - 9.00E-02)	5.35E-02	(2.45E-02 - 9.08E-02)
58	6.53E-01	(5.46E-01 - 7.71E-01)	7.07E-01	(6.43E-01 - 7.69E-01)
59	2.72E-01	(2.10E-01 - 3.28E-01)	9.79E-01	(9.64E-01 - 1.00E+00)
60	2.12E-02	(6.21E-03 - 4.86E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
61	3.89E-05	(2.03E-06 - 3.09E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
62	8.45E-09	(3.40E-11 - 4.17E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 149 FISSION PRODUCT CHAIN

NLCT = 2.173 NU = 1.437 ZP = 58.696

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	4.63E-09	(1.75E-11 - 2.39E-07)	4.63E-09	(1.75E-11 - 2.39E-07)
56	5.55E-05	(2.77E-06 - 4.56E-04)	5.55E-05	(2.77E-06 - 4.56E-04)
57	1.32E-02	(3.76E-03 - 3.08E-02)	1.32E-02	(3.81E-03 - 3.09E-02)
58	4.38E-01	(3.34E-01 - 5.28E-01)	4.51E-01	(3.61E-01 - 5.43E-01)
59	4.54E-01	(3.80E-01 - 5.34E-01)	9.05E-01	(8.54E-01 - 9.69E-01)
60	9.47E-02	(4.37E-02 - 1.59E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
61	5.16E-04	(5.67E-05 - 2.42E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
62	3.50E-07	(4.01E-09 - 8.18E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 150 FISSION PRODUCT CHAIN

NLCT = 2.068 NU = 1.400 ZP = 59.075

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	2.76E-06	(1.85E-10 - 3.09E-04)	2.76E-06	(1.85E-10 - 3.09E-04)
57	2.04E-03	(2.27E-05 - 1.77E-02)	2.04E-03	(2.55E-05 - 1.77E-02)
58	1.54E-01	(4.53E-02 - 3.48E-01)	1.96E-01	(5.13E-02 - 3.51E-01)
59	5.17E-01	(4.04E-01 - 6.24E-01)	7.13E-01	(5.29E-01 - 8.68E-01)
60	2.83E-01	(9.83E-02 - 4.36E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
61	4.52E-03	(5.17E-05 - 2.92E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	5.63E-06	(1.57E-09 - 6.89E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
63	3.57E-10	(0. - 8.73E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 151 FISSION PRODUCT CHAIN

NLCT = 2.153 NU = 1.478 ZP = 59.499

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	5.23E-06	(2.21E-13 - 2.35E-05)	5.23E-06	(2.21E-13 - 2.35E-05)
57	1.40E-04	(2.27E-07 - 3.17E-03)	1.40E-04	(2.80E-07 - 3.17E-03)
58	4.52E-02	(3.93E-03 - 1.42E-01)	4.54E-02	(4.07E-03 - 1.42E-01)
59	3.62E-01	(2.46E-01 - 5.06E-01)	4.07E-01	(2.84E-01 - 5.80E-01)
60	5.64E-01	(3.82E-01 - 7.88E-01)	9.71E-01	(9.45E-01 - 1.00E+00)
61	2.87E-02	(2.47E-03 - 9.00E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	2.14E-04	(3.44E-07 - 4.90E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
63	3.26E-08	(1.36E-13 - 1.48E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 152 FISSION PRODUCT CHAIN

NLCT = 2.195 NU = 1.518 ZP = 59.908

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	6.72E-10	(0. - 1.38E-06)	6.72E-10	(3.31E-24 - 1.38E-06)
57	6.33E-06	(1.14E-09 - 4.30E-04)	6.33E-06	(1.82E-09 - 4.30E-04)
58	6.88E-03	(1.49E-04 - 4.30E-02)	6.89E-03	(1.55E-04 - 4.30E-02)
59	1.68E-01	(6.04E-02 - 2.54E-01)	1.75E-01	(6.70E-02 - 2.68E-01)
60	7.17E-01	(5.58E-01 - 8.65E-01)	8.92E-01	(8.12E-01 - 9.82E-01)
61	1.05E-01	(2.58E-02 - 1.93E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
62	2.57E-03	(2.67E-05 - 2.32E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
63	1.25E-06	(8.14E-11 - 1.60E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 153 FISSION PRODUCT CHAIN

NLCT = 2.051 NU = 1.479 ZP = 60.285

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	2.47E-07	(4.36E-12 - 5.39E-05)	2.47E-07	(4.36E-12 - 5.39E-05)
58	8.41E-04	(3.77E-06 - 1.15E-02)	8.41E-04	(4.01E-06 - 1.15E-02)
59	5.55E-02	(9.44E-03 - 1.35E-01)	6.08E-02	(1.03E-02 - 1.41E-01)
60	6.65E-01	(4.98E-01 - 8.76E-01)	7.30E-01	(6.03E-01 - 8.54E-01)
61	2.53E-01	(1.27E-01 - 3.61E-01)	9.82E-01	(9.65E-01 - 1.00E+00)
62	1.77E-02	(7.67E-04 - 7.80E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
63	2.85E-05	(1.53E-08 - 1.14E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
64	5.56E-09	(8.36E-15 - 5.46E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-233 NLTCF METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 154 FISSION PRODUCT CHAIN
NLTCF = 1.768 NU = 1.273 ZP = 60.598
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	1.26E-08	(2.82E-14 - 8.08E-06)	1.26E-08	(2.82E-14 - 8.08E-06)
58	1.12E-04	(1.10E-07 - 3.25E-03)	1.12E-04	(1.23E-07 - 3.25E-03)
59	1.58E-02	(1.27E-03 - 7.22E-02)	1.99E-02	(1.38E-03 - 7.24E-02)
60	5.04E-01	(3.01E-01 - 7.16E-01)	5.24E-01	(4.00E-01 - 7.11E-01)
61	4.10E-01	(3.00E-01 - 5.58E-01)	9.34E-01	(8.75E-01 - 1.00E+00)
62	6.61E-02	(7.59E-03 - 1.80E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
63	2.71E-04	(7.03E-07 - 4.86E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
64	1.36E-07	(1.11E-12 - 4.38E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 155 FISSION PRODUCT CHAIN
NLTCF = 1.331 NU = .974 ZP = 60.873
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	7.06E-10	(0. - 1.27E-06)	7.06E-10	(3.31E-24 - 1.27E-06)
58	1.46E-05	(3.21E-09 - 8.98E-04)	1.46E-05	(3.92E-09 - 8.98E-04)
59	5.86E-03	(1.45E-04 - 3.43E-02)	5.87E-03	(1.59E-04 - 3.43E-02)
60	3.17E-01	(1.22E-01 - 4.69E-01)	3.23E-01	(1.49E-01 - 4.77E-01)
61	5.09E-01	(3.92E-01 - 6.21E-01)	8.31E-01	(7.03E-01 - 9.83E-01)
62	1.67E-01	(3.88E-02 - 3.19E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
63	1.51E-03	(1.36E-05 - 1.47E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	1.75E-06	(8.51E-11 - 2.31E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 156 FISSION PRODUCT CHAIN
NLTCF = .977 NU = .695 ZP = 61.157
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	1.35E-06	(5.43E-11 - 1.95E-04)	1.35E-06	(5.43E-11 - 1.95E-04)
59	1.27E-03	(1.01E-05 - 1.31E-02)	1.27E-03	(1.14E-05 - 1.31E-02)
60	1.53E-01	(3.31E-02 - 3.02E-01)	1.54E-01	(3.44E-02 - 3.04E-01)
61	5.02E-01	(3.84E-01 - 6.22E-01)	6.56E-01	(4.88E-01 - 8.13E-01)
62	3.37E-01	(1.36E-01 - 4.91E-01)	9.93E-01	(9.87E-01 - 1.00E+00)
63	6.16E-03	(1.86E-04 - 3.75E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	1.84E-05	(4.80E-09 - 1.04E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
65	9.76E-10	(0. - 1.56E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 157 FISSION PRODUCT CHAIN
NLTCF = .797 NU = .563 ZP = 61.498
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	5.28E-08	(2.25E-13 - 2.37E-05)	5.28E-08	(2.25E-13 - 2.37E-05)
59	1.41E-04	(2.30E-07 - 3.19E-03)	1.41E-04	(2.83E-07 - 3.19E-03)
60	4.94E-02	(3.96E-03 - 1.42E-01)	4.56E-02	(4.10E-03 - 1.42E-01)
61	3.62E-01	(2.47E-01 - 5.06E-01)	4.08E-01	(2.85E-01 - 5.81E-01)
62	5.63E-01	(3.81E-01 - 7.87E-01)	9.71E-01	(9.45E-01 - 1.00E+00)
63	2.86E-02	(2.45E-03 - 8.98E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	2.13E-04	(3.40E-07 - 4.88E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
65	3.23E-08	(1.33E-13 - 1.47E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 158 FISSION PRODUCT CHAIN
NLTCF = .482 NU = .338 ZP = 61.803
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	2.15E-05	(0. - 2.94E-06)	2.15E-05	(1.32E-23 - 2.94E-06)
59	1.46E-05	(4.79E-09 - 7.38E-04)	1.46E-05	(6.94E-09 - 7.38E-04)
60	1.16E-02	(3.71E-04 - 5.95E-02)	1.16E-02	(3.86E-04 - 5.99E-02)
61	2.12E-01	(9.22E-02 - 3.02E-01)	2.23E-01	(1.03E-01 - 3.26E-01)
62	6.57E-01	(5.28E-01 - 8.75E-01)	9.20E-01	(8.57E-01 - 1.00E+00)
63	7.84E-02	(1.54E-02 - 1.63E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
64	1.42E-03	(9.40E-06 - 1.55E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
65	5.42E-07	(1.69E-11 - 8.92E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 159 FISSION PRODUCT CHAIN
NLTCF = .624 NU = .437 ZP = 62.235
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	3.90E-07	(5.60E-12 - 7.23E-05)	3.90E-07	(9.60E-12 - 7.23E-05)
60	1.14E-03	(6.42E-06 - 1.35E-02)	1.14E-03	(6.81E-06 - 1.39E-02)
61	7.01E-02	(1.26E-02 - 1.52E-01)	7.13E-02	(1.37E-02 - 1.55E-01)
62	6.66E-01	(5.16E-01 - 8.80E-01)	7.57E-01	(6.34E-01 - 8.69E-01)
63	2.25E-01	(1.06E-01 - 3.27E-01)	9.86E-01	(9.73E-01 - 1.00E+00)
64	1.35E-02	(5.06E-04 - 6.70E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
65	1.55E-05	(7.86E-09 - 8.85E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
66	3.21E-05	(0. - 3.82E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 160 FISSION PRODUCT CHAIN
NLTCF = .642 NU = .236 ZP = 62.549
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	2.05E-08	(6.16E-14 - 1.10E-05)	2.05E-08	(6.16E-14 - 1.10E-05)
60	1.56E-04	(1.58E-07 - 4.02E-03)	1.56E-04	(2.18E-07 - 4.02E-03)
61	2.40E-02	(1.79E-03 - 8.05E-02)	2.41E-02	(1.94E-03 - 8.12E-02)
62	5.35E-01	(3.42E-01 - 7.54E-01)	5.59E-01	(4.40E-01 - 7.40E-01)
63	3.66E-01	(2.77E-01 - 5.33E-01)	9.45E-01	(8.96E-01 - 1.00E+00)
64	5.47E-02	(5.46E-03 - 1.55E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
65	1.94E-04	(3.58E-07 - 3.92E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
66	8.28E-08	(4.90E-13 - 3.20E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 161 FISSION PRODUCT CHAIN
NLTCF = .627 NU = .579 ZP = 63.077
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
60	2.72E-06	(1.80E-10 - 3.06E-04)	2.72E-06	(1.80E-10 - 3.06E-04)
61	2.01E-03	(2.23E-05 - 1.76E-02)	2.02E-03	(2.50E-05 - 1.76E-02)
62	1.93E-01	(4.88E-02 - 3.47E-01)	1.95E-01	(5.08E-02 - 3.50E-01)
63	5.17E-01	(4.03E-01 - 6.24E-01)	7.12E-01	(5.28E-01 - 8.66E-01)
64	2.84E-01	(9.90E-02 - 4.37E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
65	4.56E-03	(9.32E-05 - 2.94E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
66	5.77E-06	(1.61E-09 - 6.96E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
67	4.05E-10	(0. - 8.85E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

72	28.95	29.18	29.15	28.86	117	46.77	46.77	46.74	46.57
73	30.57	29.57	29.54	29.38	118	47.15	47.12	47.05	46.94
74	29.78	29.96	29.93	29.63	119	47.45	47.42	47.35	47.29
75	30.17	30.35	30.32	29.98	120	47.84	47.73	47.70	47.62
76	30.57	30.74	30.71	30.42	121	48.17	48.03	48.00	47.96
77	30.97	31.14	31.11	30.83	122	48.45	48.33	48.30	48.29
78	31.38	31.55	31.52	31.24	123	48.75	48.67	48.63	48.63
79	31.82	31.98	31.95	31.74	124	49.08	48.96	48.83	48.83
80	32.21	32.37	32.34	32.17	125	49.35	49.14	49.11	49.02
81	32.62	32.78	32.75	32.57	126	49.72	49.44	49.41	49.35
82	33.03	33.18	33.15	32.97	127	50.07	49.75	49.72	49.71
83	33.44	33.59	33.56	33.39	128	50.43	50.09	50.06	50.06
84	33.85	34.00	33.97	33.83	129	50.83	50.45	50.42	50.42
85	34.27	34.41	34.38	34.29	130	51.20	50.82	50.75	50.85
86	34.69	34.83	34.80	34.71	131	51.64	51.23	51.20	51.20
87	35.12	35.25	35.22	35.13	132	52.01	51.64	51.61	51.64
88	35.55	35.68	35.65	35.55	133	52.37	52.08	52.05	52.10
89	35.96	36.09	36.06	35.95	134	52.75	52.55	52.52	52.57
90	36.37	36.49	36.46	36.36	135	53.12	52.96	52.96	53.01
91	36.77	36.89	36.86	36.77	136	53.44	53.41	53.38	53.45
92	37.18	37.29	37.26	37.17	137	53.85	53.82	53.79	53.88
93	37.59	37.70	37.67	37.59	138	54.25	54.22	54.15	54.27
94	37.95	38.10	38.07	38.03	139	54.66	54.62	54.55	54.66
95	38.40	38.51	38.48	38.42	140	55.06	55.02	54.95	55.06
96	38.80	38.90	38.87	38.81	141	55.46	55.42	55.35	55.46
97	39.20	39.30	39.27	39.21	142	55.86	55.82	55.75	55.85
98	39.59	39.69	39.66	39.63	143	56.26	56.21	56.18	56.27
99	39.98	40.08	40.05	40.00	144	56.66	56.61	56.58	56.68
100	40.35	40.44	40.41	40.41	145	57.07	57.01	56.98	57.10
101	40.72	40.81	40.78	40.77	146	57.45	57.43	57.40	57.53
102	41.10	41.18	41.15	41.18	147	57.85	57.89	57.86	57.95
103	41.48	41.54	41.51	41.14	148	58.25	58.21	58.28	58.32
104	41.84	41.90	41.87	41.55	149	58.75	58.72	58.65	58.70
105	42.31	42.31	42.28	41.91	150	59.20	59.13	59.10	59.07
106	42.28	42.72	42.69	42.26	151	59.60	59.52	59.45	59.50
107	42.72	43.15	43.12	42.64	152	60.00	59.92	59.85	59.91
108	43.42	43.75	43.72	43.02	153	60.40	60.31	60.28	60.29
109	43.90	44.18	44.15	43.45	154	60.75	60.70	60.67	60.60
110	44.27	44.51	44.48	43.89	155	61.15	61.06	61.03	61.06
111	44.62	44.83	44.80	44.28	156	61.48	61.39	61.36	61.16
112	44.95	45.13	45.10	44.68	157	61.84	61.74	61.71	61.50
113	45.25	45.44	45.41	45.06	158	62.22	62.12	62.09	61.80
114	45.64	45.74	45.71	45.42	159	62.61	62.51	62.48	62.23
115	46.02	46.09	46.06	46.06	160	63.01	62.90	62.87	62.55
116	46.35	46.43	46.40	46.16	161	63.40	63.29	63.26	63.08

THERMAL NEUTRON FISSION OF U-233 NUCLEAR METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY		PROCESS	TYPE	PRIMARY REF.	SECONDARY OR COMMENTS	ESTIMATED RANGE	FIT
				PLUS	MINUS		YIELD			VALUE	
35BR	80		1.100E-03			U233T	FI	56KEN1		1.219E-05 (3.516E-09 - 6.568E-04)	YES
35BR	80		1.100E-04			U233T	FI	70TRA1		1.219E-05 (3.516E-09 - 6.568E-04)	YES
35BR	82		1.100E-03			U233T	FI	60SAN1		2.538E-03 (3.335E-05 - 2.033E-02)	YES
35BR	82		1.600E-03	5.000E-04	2.000E-04	U233T	FI	70TRA1		2.538E-03 (3.335E-05 - 2.033E-02)	YES
34SE	83M		6.200E-01	6.100E-02	6.100E-02	U233T	FC	62CRO2	CK-W73-1-3	5.808E-01 (9.679E-01 - 1.000E+00)	YES
34SE	83G		3.900E-01	3.000E-02	3.000E-02	U233T	FC	62CRO1	CK-W73-1-1	5.808E-01 (9.679E-01 - 1.000E+00)	YES
34SE	83	SUM	1.100E+00	6.800E-02	6.800E-02	U233T	FC	72WAL3	CK-W73-1-	5.808E-01 (9.679E-01 - 1.000E+00)	YES
37RB	86		7.200E-05	7.200E-06	7.200E-06	U233T	FI	60GRU2	K-66C-2	5.655E-04 (6.442E-05 - 2.615E-03)	YES
34SE	87		1.500E-01	4.000E-02	4.000E-02	U233T	FC	71GR11	K-CC71-2-63 GRIMM	1.682E-01 (9.301E-02 - 2.489E-01)	YES
35BR	87		5.600E-01	4.000E-02	4.000E-02	U233T	FC	71GR11	K-CC71-2-63 GRIMM	6.765E-01 (5.744E-01 - 7.659E-01)	YES
35BR	88		4.700E-01	6.000E-02	6.000E-02	U233T	FC	71GR11	K-CC71-2-63 GRIMM	3.732E-01 (3.096E-01 - 4.518E-01)	YES
35BR	88		5.200E-01	1.300E-01	1.300E-01	U233T	FI	66SIL1	CK-W73-1-E	3.264E-01 (2.775E-01 - 4.049E-01)	YES
35BR	85		1.900E-01	9.000E-02	9.000E-02	U233T	FC	71GR11	K-CC71-2-63 GRIMM	1.561E-01 (1.014E-01 - 2.079E-01)	YES
36KR	85		8.610E-01	5.000E-02	5.000E-02	U233T	FC	65WCL1		8.776E-01 (8.287E-01 - 9.270E-01)	YES
35BR	90		1.000E-01	3.000E-02	3.000E-02	U233T	FC	71GR11	K-CC71-2-63 GRIMM	4.825E-02 (2.133E-02 - 8.367E-02)	YES
36KR	90		6.650E-01	1.200E-02	1.200E-02	U233T	FC	65WCL1		6.880E-01 (6.241E-01 - 7.547E-01)	YES
39 Y	9C	AVE	1.800E-05			U233T	FI	57GRU1	C62WAH1-1,6 60KAT1	4.504E-05 (2.736E-06 - 3.718E-04)	YES
36KR	91		3.300E-01	1.000E-02	1.000E-02	U233T	FC	65WCL1		3.952E-01 (3.025E-01 - 4.855E-01)	YES
39 Y	91		1.200E-02	6.000E-03	6.000E-03	U233T	FI	57GRU1	K-CN73-1-4	8.008E-04 (1.001E-04 - 3.427E-03)	NC
36KR	92		1.270E-01	5.000E-03	5.000E-03	U233T	FC	65WCL1		1.481E-01 (7.870E-02 - 2.253E-01)	YES
36KR	93		2.300E-02	1.000E-03	1.000E-03	U233T	FC	65WCL1		3.031E-02 (9.962E-03 - 6.444E-02)	YES
36KR	95		1.100E-04			U233T	FI	65WCL1		3.566E-04 (3.121E-05 - 1.964E-03)	YES
40ZR	95		3.400E-02	6.000E-03	6.000E-03	U233T	FI	70NIE1		3.267E-02 (1.094E-02 - 6.842E-02)	YES
41NB	95		1.300E-04			U233T	FI	59TRO1	K-CN73-1-E	8.031E-05 (5.163E-06 - 5.506E-04)	YES
41NB	96		1.300E-03	2.000E-04	2.000E-04	U233T	FI	62WAH1		1.028E-03 (1.382E-04 - 4.177E-03)	YES
41NB	96		1.020E-03	2.500E-04	2.500E-04	U233T	FI	60CRO1	C60CRO1-25	1.028E-03 (1.382E-04 - 4.177E-03)	YES
41NB	97		1.100E-02	4.000E-03	4.000E-03	U233T	FI	62WAH1		8.851E-03 (2.223E-03 - 2.266E-02)	YES
41NB	98		4.000E-02	1.100E-02	1.100E-02	U233T	FI	59TRO1	K-CN73-1-E	4.533E-02 (1.942E-02 - 7.977E-02)	YES
41NB	99M		2.900E-01	1.000E-02	1.000E-02	U233T	FI	71FAH1	K-CN73-1-28	1.257E-01 (8.366E-02 - 1.856E-01)	NC
47AG	112		3.000E-04	5.000E-05	1.500E-04	U233T	FI	71RCC1	K-R71-1	4.730E-04 (1.832E-06 - 6.963E-03)	YES
46PD	115		6.700E-01	2.000E-02	2.000E-02	U233T	FC	68RQC1	K-CN73-1-5	8.615E-01 (7.672E-01 - 9.546E-01)	NO
53 I128			1.100E-03	1.000E-04	1.000E-04	U233T	FI	56KEN1	SEE REV 62WAH1	1.051E-04 (1.488E-07 - 2.703E-03)	YES
53 I128	AVE		1.000E-04	1.000E-05	1.000E-05	U233T	FI	60KAT11	C62WAH1-1,6 56KEN1	1.051E-04 (1.488E-07 - 2.703E-03)	YES
53 I128			3.000E-05	5.000E-06	5.000E-06	U233T	FI	70TRA1		1.051E-04 (1.488E-07 - 2.703E-03)	YES
53 I130			3.800E-03	3.000E-04	3.000E-04	U233T	FI	56KEN1	SEE REV 62WAH1	5.548E-04 (1.256E-04 - 3.939E-03)	YES
53 I130	AVE		1.300E-03	2.000E-04	2.000E-04	U233T	FI	60KAT1	C62WAH1-1,6 56KEN1	5.548E-04 (1.256E-04 - 3.939E-03)	YES
53 I130			1.120E-03	7.000E-05	7.000E-05	U233T	FI	70TRA1		5.548E-04 (1.256E-04 - 3.939E-03)	YES
51SB	131		5.200E-01	3.000E-02	3.000E-02	U233T	FI	72BER1	K-B72-2	4.854E-01 (4.098E-01 - 5.646E-01)	YES
51SB	131		6.600E-01			U233T	FC	70RUN1	C70RLN1-1,16	6.131E-01 (5.148E-01 - 6.999E-01)	YES
52TE	131M		2.300E-01	7.000E-02	7.000E-02	U233T	FI	60GLE1	K-CN73-1-29 GLENDEN.	3.779E-01 (2.728E-01 - 4.635E-01)	YES
52TE	131M		3.340E-01	2.000E-02	2.000E-02	U233T	FI	72BER1	K-B72-2	3.779E-01 (2.728E-01 - 4.635E-01)	YES
52TE	131G		1.350E-01	2.000E-02	2.000E-02	U233T	FI	72BER1	K-B72-2	3.779E-01 (2.728E-01 - 4.635E-01)	YES
52TE	131	SUM	4.690E-01	3.000E-02	3.000E-02	U233T	FI	72BER1	K-B72-2 SLP,KH	3.779E-01 (2.728E-01 - 4.635E-01)	YES
52TE	131		9.800E-01	2.000E-03	2.000E-03	U233T	FC	71TRO1	K-C771-2	5.510E-01 (9.843E-01 - 1.000E+00)	NC
53 I131			1.400E-02	3.000E-03	3.000E-03	U233T	FI	72BER1	K-B72-2	8.557E-03 (2.258E-03 - 2.288E-02)	YES
50SN	132		2.500E-02	5.000E-03	5.000E-03	U233T	FC	72NAE1	K-N71-1	2.455E-02 (7.571E-03 - 5.456E-02)	YES

THERMAL NEUTRON FISSION OF U-233 NUCLEI METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	MINUS	PROCESS	TYPE	YIELD	PRIMARY REF.	SECONDARY CR COMMENTS	ESTIMATED VALUE	RANGE	FIT
90	SN132		2.500E-02	5.000E-03	5.000E-03	U233T	FI	72NAE1	CK-N73-1-44		2.450E-02	(7.521E-03 - 5.451E-02)	YES
91	SB132		2.710E-02	3.000E-02	3.000E-02	U233T	FI	72NAE1	CK-N73-1-11		2.693E-01	(2.267E-01 - 3.480E-01)	YES
91	SB132		3.000E-01	3.000E-02	3.000E-02	U233T	FI	72NAE1	CK-N73-1-44		3.129E-01	(2.490E-01 - 3.797E-01)	YES
92	TE132		6.440E-01	4.000E-02	4.000E-02	U233T	FC	72NAE1	CK-N71-1		6.351E-01	(5.328E-01 - 7.574E-01)	YES
92	TE132		9.400E-01	5.000E-02	5.000E-02	U233T	FC	72NAE1	CK-N73-1-44		9.520E-01	(9.252E-01 - 9.875E-01)	YES
93	1132		6.000E-02	3.000E-02	3.000E-02	U233T	FI	70RUN1			4.747E-02	(2.065E-02 - 8.595E-02)	YES
93	SB133		8.000E-02	4.000E-02	4.000E-02	U233T	FC	72BER1	K-B72-2		1.670E-01	(6.155E-02 - 1.548E-01)	YES
93	TE133M		5.500E-01	2.000E-02	2.000E-02	U233T	FI	72BER1	K-B72-2		7.167E-01	(6.139E-01 - 8.177E-01)	YES
93	TE133G		2.100E-01	2.000E-02	2.000E-02	U233T	FI	72BER1	K-B72-2		1.653E-01	(1.122E-01 - 2.02E-01)	YES
93	TE133	SUM	7.600E-01	3.000E-02	3.000E-02	U233T	FI	72BER1	K-B72-2	SUM, Kk	1.653E-01	(1.122E-01 - 2.02E-01)	YES
93	1133		1.370E-01	1.300E-02	1.300E-02	U233T	FI	70QAI1			7.167E-01	(6.139E-01 - 8.177E-01)	YES
93	1133		1.550E-01	1.000E-02	1.000E-02	U233T	FI	72BER1	K-B72-2		1.653E-01	(1.122E-01 - 2.02E-01)	YES
93	1133		2.100E-01	3.000E-02	3.000E-02	U233T	FI	70RUN1	K-B72-2		1.653E-01	(1.122E-01 - 2.02E-01)	YES
94	XE133M		7.210E-03	2.500E-04	2.500E-04	U233T	FI	70FOR2	K-F72-2		7.10E-03	(1.516E-03 - 2.033E-02)	YES
94	XE133G		3.010E-03	1.800E-04	1.800E-04	U233T	FI	70FOR2	K-F72-2		7.10E-03	(1.516E-03 - 2.033E-02)	YES
94	XE133	SUM	1.027E-02	8.600E-03	8.600E-03	U233T	FI	70FCR2	K-F72-2		7.10E-03	(1.516E-03 - 2.033E-02)	YES
94	TE134		6.200E-01	3.000E-02	3.000E-02	U233T	FC	71TR01	K-171-2		5.454E-01	(4.693E-01 - 6.370E-01)	YES
93	1134		3.310E-01	2.000E-02	2.000E-02	U233T	FI	70QAI1			3.554E-01	(3.281E-01 - 4.722E-01)	YES
93	1134		3.700E-01	1.300E-02	1.300E-02	U233T	FI	70RUN1			3.554E-01	(3.281E-01 - 4.722E-01)	YES
93	1135		6.060E-01	2.400E-02	2.400E-02	U233T	FI	70QAI1			3.554E-01	(3.281E-01 - 4.722E-01)	YES
94	XE135M		1.488E-02	7.300E-03	7.300E-03	U233T	FI	70FCR2	K-F72-2		5.211E-01	(4.514E-01 - 5.901E-01)	YES
94	XE135G		9.500E-02	1.100E-02	1.100E-02	U233T	FI	70FOR2	K-F72-2		2.443E-01	(1.517E-01 - 3.324E-01)	YES
94	XE135	SUM	2.540E-01	1.100E-02	1.100E-02	U233T	FI	70FOR2	K-F72-2		2.443E-01	(1.517E-01 - 3.324E-01)	YES
94	XE135		2.180E-01	7.000E-03	7.000E-03	U233T	FI	71HPM1			2.443E-01	(1.517E-01 - 3.324E-01)	YES
94	XE135		1.820E-01	1.600E-02	1.600E-02	U233T	FI	60KAT1	KG71-1	CCRECTED	2.443E-01	(1.517E-01 - 3.324E-01)	YES
93	1136		2.700E-01	5.000E-02	5.000E-02	U233T	FI	60KAT1	K-CN73-1-7		3.656E-01	(3.197E-01 - 4.812E-01)	YES
93	1136		1.400E-02	4.000E-03	4.000E-03	U233T	FI	60SAN1			2.403E-02	(8.342E-03 - 4.905E-02)	YES
93	1137		2.800E-01	3.000E-02	3.000E-02	U233T	FC	71GR11	K-CC71-2-€3 GRIMM		1.866E-01	(1.299E-01 - 2.415E-01)	NC
93	1138		8.560E-01	5.000E-03	5.000E-03	U233T	FC	65WOL1			5.011E-01	(8.577E-01 - 9.479E-01)	YES
93	1138		1.000E-01	9.000E-02	9.000E-02	U233T	FC	71GR11	K-CC71-2-€3 GRIMM		3.388E-02	(3.100E-02 - 1.940E-01)	YES
93	1138		8.270E-01	1.200E-02	1.200E-02	U233T	FC	65WOL1			7.384E-01	(6.752E-01 - 7.946E-01)	NC
93	1139		1.100E-01	8.000E-03	8.000E-03	U233T	FC	71GR11	K-CC71-2-€3 GRIMM		1.563E-02	(4.760E-03 - 3.517E-02)	YES
94	XE139		4.760E-01	7.000E-03	7.000E-03	U233T	FC	65WOL1			4.804E-01	(3.947E-01 - 5.786E-01)	YES
94	XE140		8.400E-02	6.000E-02	6.000E-02	U233T	FC	71E1C1	K-E71-1		8.226E-02	(3.635E-02 - 1.621E-01)	YES
94	XE140		2.250E-01	6.000E-02	6.000E-02	U233T	FC	65WOL1			2.058E-01	(1.214E-01 - 2.913E-01)	YES
94	XE140		2.700E-01	4.000E-02	4.000E-02	U233T	FI	71E1C1	K-E71-1		2.714E-01	(1.746E-01 - 3.604E-01)	YES
94	XE140	AVE	3.800E-03	1.000E-04	1.000E-04	U233T	FI	56GRU1	C62NAF1-3€1 60KA11		4.131E-03	(8.415E-04 - 1.250E-02)	YES
94	XE141		5.100E-02	3.000E-03	3.000E-03	U233T	FC	65WOL1			5.335E-02	(2.078E-02 - 1.006E-01)	YES
94	XE142		5.800E-03	8.000E-04	5.000E-04	U233T	FC	65WOL1			5.061E-03	(2.124E-03 - 2.487E-02)	YES
94	XE143		7.200E-04	6.000E-05	3.000E-05	U233T	FC	65WOL1			5.468E-04	(1.122E-04 - 4.228E-03)	YES
94	XE144		13.000E-07	6.000E-08	6.000E-08	U233T	FI	73UPE1	K-CN73-1-3		6.339E-05	(3.294E-06 - 5.060E-04)	YES
94	61PM148		5.300E-04	6.000E-05	6.000E-05	U233T	FI	73UPE1	K-CN73-1-36(K-U73-1)		3.837E-05	(2.029E-06 - 3.090E-04)	NC
94	61PM150		1.130E-03	6.000E-05	6.000E-05	U233T	FI	73GUN1	K-G73-1		4.523E-03	(9.168E-05 - 2.922E-02)	YES

THERMAL NEUTRON FISSION OF U-235 NUTCT METHOD

2.4300	-1	92	235	-0	-0-0.000	1.250	.100					
4	.56	.06	.12	.12	.45	.10	.20	.20	-0	1	-0	-0

NUBAR =2.4300

FOR ZP(1), NU(A) IS FROM U235T, UNADJUSTED.

ODD-EVEN Z EFFECT = 1.25 +/- .10 .

FOR ZP(4), NU(A) IS FROM NUTCT(A) DIVIDED ACCORDING TO THE NU(A) FUNCTION USED FOR ZP(1).

SIGMA = .560. UNCERTAINTIES FOR REGIONS SYMMETRY TO 129, 130 TO 151, 152 TO 161 ARE +/- .120 .060 .120.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION SYMMETRY TO 129 IS 0.00 +/- .200.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 130-151 IS - .450 +/- .100.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 152-161 IS - .450 +/- .200.

SAME UNCERTAINTIES ARE USED FOR ZP(2) AND ZP(3).

TYPE OF ZP FUNCTION USED IS 4.

THERMAL NEUTRON FISSION OF U-235 ALICIT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 74 FISSION PRODUCT CHAIN

NUCT = 2.045 NU = .614 ZP = 29.537

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	3.56E-08	(1.16E-13 - 1.83E-05)	3.56E-08	(1.16E-13 - 1.83E-05)
27	1.07E-04	(1.44E-07 - 2.67E-03)	1.07E-04	(1.79E-07 - 2.67E-03)
28	3.87E-02	(3.00E-03 - 1.28E-01)	3.88E-02	(3.10E-03 - 1.28E-01)
29	3.43E-01	(2.22E-01 - 4.82E-01)	3.81E-01	(2.56E-01 - 5.47E-01)
30	5.85E-01	(4.15E-01 - 8.11E-01)	9.67E-01	(9.37E-01 - 1.00E+00)
31	3.29E-02	(3.17E-03 - 9.77E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
32	2.75E-04	(5.33E-07 - 5.73E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
33	4.70E-08	(2.53E-13 - 1.87E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 75 FISSION PRODUCT CHAIN

NUCT = 2.110 NU = .630 ZP = 29.933

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	5.06E-10	(0. - 1.15E-06)	5.06E-10	(3.31E-24 - 1.15E-06)
27	5.15E-06	(8.05E-10 - 3.77E-04)	5.15E-06	(1.31E-09 - 3.77E-04)
28	6.05E-03	(1.19E-04 - 3.97E-02)	6.05E-03	(1.24E-04 - 3.97E-02)
29	1.58E-01	(5.42E-02 - 2.46E-01)	1.64E-01	(6.01E-02 - 2.58E-01)
30	7.20E-01	(5.64E-01 - 8.70E-01)	8.84E-01	(6.80E-01 - 9.75E-01)
31	1.13E-01	(2.92E-02 - 2.01E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
32	2.56E-03	(3.41E-05 - 2.53E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
33	1.68E-06	(1.18E-10 - 1.84E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 76 FISSION PRODUCT CHAIN

NUCT = 2.094 NU = .616 ZP = 30.317

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	1.85E-07	(2.65E-12 - 4.48E-05)	1.85E-07	(2.65E-12 - 4.48E-05)
28	6.93E-04	(2.69E-06 - 1.02E-02)	6.94E-04	(2.87E-06 - 1.02E-02)
29	5.42E-02	(7.86E-03 - 1.31E-01)	5.49E-02	(8.54E-03 - 1.32E-01)
30	6.56E-01	(4.86E-01 - 8.70E-01)	7.11E-01	(5.83E-01 - 8.44E-01)
31	2.68E-01	(1.42E-01 - 3.83E-01)	9.80E-01	(9.60E-01 - 1.00E+00)
32	2.04E-02	(9.89E-04 - 8.55E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
33	3.67E-05	(2.37E-08 - 1.34E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
34	7.79E-09	(1.26E-14 - 6.80E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 77 FISSION PRODUCT CHAIN

NUCT = 2.221 NU = .640 ZP = 30.717

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	3.75E-09	(5.76E-15 - 3.71E-06)	3.75E-09	(5.76E-15 - 3.71E-06)
28	4.78E-05	(2.51E-08 - 1.91E-03)	4.78E-05	(2.89E-08 - 1.91E-03)
29	1.21E-02	(5.20E-04 - 5.35E-02)	1.21E-02	(5.68E-04 - 5.36E-02)
30	4.24E-01	(2.13E-01 - 6.06E-01)	4.36E-01	(2.90E-01 - 6.23E-01)
31	4.62E-01	(3.44E-01 - 6.04E-01)	8.98E-01	(8.12E-01 - 1.00E+00)
32	1.02E-01	(1.61E-02 - 2.35E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
33	5.87E-04	(2.66E-06 - 8.00E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
34	4.23E-07	(7.59E-12 - 9.19E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 78 FISSION PRODUCT CHAIN

NUCT = 2.383 NU = .664 ZP = 31.123

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	1.81E-06	(8.59E-11 - 2.36E-04)	1.81E-06	(8.99E-11 - 2.36E-04)
29	1.55E-02	(1.41E-05 - 1.45E-02)	1.55E-02	(1.59E-05 - 1.49E-02)
30	1.65E-01	(3.55E-02 - 3.21E-01)	1.71E-01	(4.11E-02 - 3.23E-01)
31	5.05E-01	(3.93E-01 - 6.21E-01)	6.80E-01	(5.06E-01 - 8.34E-01)
32	3.4E-01	(1.20E-01 - 4.66E-01)	9.94E-01	(9.89E-01 - 1.00E+00)
33	5.76E-03	(1.40E-04 - 3.35E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
34	1.42E-05	(3.06E-09 - 8.82E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
35	6.77E-10	(0. - 1.23E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 79 FISSION PRODUCT CHAIN

NUCT = 2.508 NU = .773 ZP = 31.548

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	3.17E-08	(9.45E-14 - 1.70E-05)	3.17E-08	(9.45E-14 - 1.70E-05)
29	9.86E-05	(1.25E-07 - 2.53E-03)	9.86E-05	(1.57E-07 - 2.53E-03)
30	3.65E-02	(2.76E-03 - 1.24E-01)	3.70E-02	(2.86E-03 - 1.24E-01)
31	3.37E-01	(2.15E-01 - 4.75E-01)	3.74E-01	(2.47E-01 - 5.37E-01)
32	5.52E-01	(4.25E-01 - 8.17E-01)	9.65E-01	(9.35E-01 - 1.00E+00)
33	3.43E-02	(3.42E-03 - 1.00E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
34	2.57E-04	(6.07E-07 - 6.00E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
35	5.24E-06	(3.05E-13 - 2.01E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 80 FISSION PRODUCT CHAIN

NUCT = 2.676 NU = .829 ZP = 31.960

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	3.74E-10	(0. - 9.43E-07)	3.74E-10	(1.65E-24 - 9.43E-07)
29	4.14E-06	(5.52E-10 - 3.28E-04)	4.14E-06	(9.26E-10 - 3.28E-04)
30	5.26E-03	(9.33E-05 - 3.63E-02)	5.27E-03	(9.74E-05 - 3.63E-02)
31	1.48E-01	(4.82E-02 - 2.37E-01)	1.54E-01	(5.33E-02 - 2.47E-01)
32	7.22E-01	(5.70E-01 - 8.73E-01)	8.75E-01	(7.88E-01 - 9.68E-01)
33	1.21E-01	(3.32E-02 - 2.10E-01)	9.97E-01	(9.93E-01 - 1.00E+00)
34	3.42E-03	(4.40E-05 - 2.77E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
35	2.11E-06	(1.74E-10 - 2.13E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 81 FISSION PRODUCT CHAIN

NUCT = 2.645 NU = .845 ZP = 32.356

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	1.25E-07	(1.44E-12 - 3.57E-05)	1.29E-07	(1.44E-12 - 3.57E-05)
30	5.47E-04	(1.77E-06 - 8.80E-03)	5.47E-04	(1.90E-06 - 8.80E-03)
31	4.78E-02	(6.24E-03 - 1.22E-01)	4.83E-02	(6.79E-03 - 1.23E-01)
32	6.40E-01	(4.71E-01 - 8.55E-01)	6.88E-01	(5.60E-01 - 8.30E-01)
33	2.67E-01	(1.61E-01 - 4.10E-01)	9.76E-01	(9.53E-01 - 1.00E+00)
34	2.43E-02	(1.34E-03 - 9.55E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
35	4.85E-05	(3.78E-08 - 1.61E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
36	1.17E-06	(2.11E-14 - 8.87E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-235 NLTC1 METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 82 FISSION PRODUCT CHAIN

NLTC1 = 2.654 NU = .881 ZP = 32.760

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	2.39E-09 (C.	- 2.78E-06)	2.39E-09 (1.32E-23 - 2.78E-C6)	
30	3.48E-05 (1.45E-08 - 1.56E-03)		3.48E-05 (1.69E-08 - 1.56E-C3)	
31	9.97E-03 (3.71E-04 - 4.76E-02)		1.00E-02 (4.05E-04 - 4.77E-C2)	
32	3.54E-01 (1.84E-01 - 5.63E-01)		4.04E-01 (2.51E-01 - 5.77E-C1)	
33	4.78E-01 (3.58E-01 - 6.14E-01)		8.82E-01 (7.85E-01 - 1.00E+00)	
34	1.17E-01 (2.08E-02 - 2.57E-01)		9.99E-01 (9.98E-01 - 1.00E+00)	
35	7.68E-04 (4.22E-06 - 9.51E-03)		1.00E+00 (1.00E+00 - 1.00E+00)	
36	6.31E-07 (1.50E-11 - 1.19E-04)		1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 83 FISSION PRODUCT CHAIN

NLTC1 = 2.640 NU = .907 ZP = 33.159

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	1.31E-06 (5.21E-11 - 1.92E-04)		1.31E-06 (5.21E-11 - 1.92E-04)	
31	1.25E-03 (9.79E-06 - 1.30E-02)		1.25E-03 (1.11E-05 - 1.30E-C2)	
32	1.52E-01 (3.27E-02 - 3.01E-01)		1.53E-01 (3.39E-02 - 3.02E-C1)	
33	5.01E-01 (3.87E-01 - 6.22E-01)		5.64E-01 (4.87E-01 - 8.12E-C1)	
34	3.39E-01 (1.38E-01 - 4.93E-01)		9.93E-01 (9.86E-01 - 1.00E+00)	
35	6.85E-03 (1.51E-04 - 3.78E-02)		1.00E+00 (1.00E+00 - 1.00E+00)	
36	1.88E-05 (4.98E-09 - 1.06E-03)		1.00E+00 (1.00E+00 - 1.00E+00)	
37	1.01E-09 (C.	- 1.59E-06)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 84 FISSION PRODUCT CHAIN

NLTC1 = 2.698 NU = .981 ZP = 33.578

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	2.32E-08 (5.98E-14 - 1.39E-05)		2.32E-08 (5.98E-14 - 1.39E-C5)	
31	7.54E-05 (8.64E-08 - 2.20E-03)		7.94E-05 (1.10E-07 - 2.20E-C3)	
32	3.24E-02 (2.21E-03 - 1.15E-01)		3.25E-02 (2.29E-03 - 1.15E-C1)	
33	3.21E-01 (1.97E-01 - 4.55E-01)		3.54E-01 (2.26E-01 - 5.11E-C1)	
34	6.08E-01 (4.44E-01 - 8.33E-01)		9.61E-01 (9.27E-01 - 1.00E+00)	
35	3.81E-02 (4.15E-03 - 1.07E-01)		1.00E+00 (9.99E-01 - 1.00E+00)	
36	3.60E-04 (8.53E-07 - 6.78E-03)		1.00E+00 (1.00E+00 - 1.00E+00)	
37	6.98E-08 (5.60E-13 - 2.41E-05)		1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 85 FISSION PRODUCT CHAIN

NLTC1 = 2.668 NU = 1.025 ZP = 33.985

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	2.80E-10 (4.34E-13 - 2.75E-08)		2.80E-10 (4.34E-13 - 2.75E-08)	
31	3.35E-06 (8.62E-08 - 4.41E-05)		3.35E-06 (8.65E-08 - 4.41E-C5)	
32	4.60E-03 (8.77E-04 - 1.46E-02)		4.61E-03 (8.81E-04 - 1.46E-C2)	
33	1.39E-01 (8.67E-02 - 1.90E-01)		1.44E-01 (9.12E-02 - 1.95E-C1)	
34	7.23E-01 (6.26E-01 - 8.19E-01)		8.67E-01 (8.16E-01 - 9.17E-C1)	
35	1.29E-01 (7.84E-02 - 1.79E-01)		9.96E-01 (9.93E-01 - 1.00E+00)	
36	3.92E-03 (7.12E-04 - 1.29E-02)		1.00E+00 (1.00E+00 - 1.00E+00)	
37	2.61E-06 (6.24E-08 - 3.61E-05)		1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 86 FISSION PRODUCT CHAIN

NLTC1 = 2.583 NU = 1.061 ZP = 34.389

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	5.51E-08 (8.65E-10 - 2.62E-C6)		9.51E-08 (8.05E-10 - 2.62E-C6)	
32	4.44E-04 (4.16E-C5 - 2.33E-C3)		4.44E-04 (4.17E-05 - 2.33E-C3)	
33	4.27E-02 (1.79E-C2 - 7.62E-C2)		4.32E-02 (1.84E-02 - 7.67E-C2)	
34	6.24E-01 (5.19E-C1 - 7.42E-C1)		6.68E-01 (6.04E-01 - 7.38E-C1)	
35	3.64E-01 (2.43E-C1 - 3.67E-C1)		9.72E-01 (9.53E-01 - 1.00E+00)	
36	2.81E-02 (5.01E-C3 - 6.08E-C2)		1.00E+00 (1.00E+00 - 1.00E+00)	
37	6.25E-05 (3.74E-C6 - 4.51E-C4)		1.00E+00 (1.00E+00 - 1.00E+00)	
38	1.65E-08 (8.03E-11 - 7.14E-07)		1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 87 FISSION PRODUCT CHAIN

NLTC1 = 2.546 NU = 1.168 ZP = 34.821

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	1.25E-05 (3.23E-12 - 8.43E-C8)		1.25E-05 (3.23E-12 - 8.43E-C8)	
32	2.15E-05 (8.28E-C7 - 2.15E-C4)		2.19E-05 (8.30E-07 - 2.19E-C4)	
33	7.53E-03 (1.85E-C3 - 2.00E-02)		7.55E-03 (1.87E-03 - 2.00E-C2)	
34	3.52E-01 (2.48E-C1 - 4.35E-01)		3.60E-01 (2.58E-01 - 4.48E-C1)	
35	4.96E-01 (4.21E-C1 - 5.74E-C1)		5.66E-01 (7.88E-01 - 9.33E-C1)	
36	1.42E-01 (7.47E-C2 - 2.15E-C1)		9.99E-01 (9.98E-01 - 1.00E+00)	
37	1.11E-02 (1.53E-C4 - 4.45E-C3)		1.00E+00 (1.00E+00 - 1.00E+00)	
38	1.10E-C6 (1.74E-C8 - 2.04E-C5)		1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 88 FISSION PRODUCT CHAIN

NLTC1 = 2.56C NU = 1.265 ZP = 35.248

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	5.87E-C7 (7.79E-C9 - 1.24E-C5)		5.87E-C7 (7.79E-09 - 1.24E-C5)	
33	7.32E-C4 (8.91E-C5 - 3.15E-03)		7.32E-04 (8.97E-05 - 3.19E-C3)	
34	1.14E-01 (5.59E-C2 - 1.84E-01)		1.15E-01 (5.66E-02 - 1.85E-C1)	
35	4.75E-01 (4.00E-C1 - 5.55E-01)		5.90E-01 (4.95E-01 - 6.77E-C1)	
36	4.00E-01 (2.54E-C1 - 4.85E-01)		9.90E-01 (9.82E-01 - 1.00E+00)	
37	1.03E-02 (2.72E-C3 - 2.55E-C2)		1.00E+00 (1.00E+00 - 1.00E+00)	
38	3.65E-C6 (1.63E-C6 - 3.36E-04)		1.00E+00 (1.00E+00 - 1.00E+00)	
39	2.60E-C5 (8.29E-12 - 1.51E-C7)		1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 89 FISSION PRODUCT CHAIN

NLTC1 = 2.555 NU = 1.323 ZP = 35.660

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	5.86E-C5 (4.14E-11 - 4.72E-C7)		9.86E-09 (4.14E-11 - 4.72E-07)	
33	4.34E-C5 (2.34E-C6 - 3.37E-C4)		4.34E-05 (2.34E-06 - 3.37E-C4)	
34	2.26E-C2 (6.77E-C3 - 5.11E-02)		2.26E-02 (6.81E-03 - 5.12E-C2)	
35	2.75E-01 (2.17E-C1 - 3.37E-01)		3.02E-01 (2.38E-01 - 3.66E-C1)	
36	4.47E-01 (5.40E-C1 - 7.65E-C1)		9.49E-01 (9.21E-01 - 9.86E-C1)	
37	5.04E-C2 (2.24E-C2 - 8.66E-C2)		9.99E-01 (9.99E-01 - 1.00E+00)	
38	6.05E-C4 (6.22E-C5 - 2.97E-C3)		1.00E+00 (1.00E+00 - 1.00E+00)	
39	1.50E-C7 (1.57E-C9 - 3.77E-C6)		1.00E+00 (1.00E+00 - 1.00E+00)	

THERMAL NEUTRON FISSION OF U-235 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 90 FISSION PRODUCT CHAIN

NLCT = 2.576 NU = 1.338 ZP = 36.056

DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	1.85E-06	(3.99E-08 - 2.74E-05)	1.85E-06	(3.99E-08 - 2.74E-05)
34	3.14E-03	(5.33E-04 - 1.08E-02)	3.14E-03	(5.33E-04 - 1.08E-02)
35	1.16E-01	(6.81E-02 - 1.65E-01)	1.19E-01	(7.11E-02 - 1.68E-01)
36	7.21E-01	(6.21E-01 - 8.17E-01)	8.40E-01	(7.85E-01 - 8.92E-01)
37	1.54E-01	(5.91E-02 - 2.05E-01)	9.94E-01	(9.90E-01 - 1.00E+00)
38	5.71E-03	(1.16E-03 - 1.73E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	4.71E-06	(1.34E-07 - 5.77E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
40	4.47E-10	(7.86E-13 - 3.98E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 91 FISSION PRODUCT CHAIN

NLCT = 2.583 NU = 1.366 ZP = 36.457

DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	4.99E-08	(3.76E-10 - 1.57E-06)	4.99E-08	(3.76E-10 - 1.57E-06)
34	2.87E-04	(2.35E-05 - 1.66E-03)	2.87E-04	(2.36E-05 - 1.66E-03)
35	3.37E-02	(1.31E-02 - 6.36E-02)	3.40E-02	(1.34E-02 - 6.39E-02)
36	5.89E-01	(4.88E-01 - 7.05E-01)	6.23E-01	(5.59E-01 - 7.02E-01)
37	3.39E-01	(2.80E-01 - 4.08E-01)	9.62E-01	(9.38E-01 - 1.00E+00)
38	3.77E-02	(1.32E-02 - 7.65E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	1.02E-04	(7.04E-06 - 6.67E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
40	3.33E-08	(1.97E-10 - 1.25E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 92 FISSION PRODUCT CHAIN

NLCT = 2.591 NU = 1.394 ZP = 36.858

DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	8.32E-10	(1.92E-12 - 6.11E-08)	8.32E-10	(1.92E-12 - 6.11E-08)
34	1.64E-05	(5.69E-07 - 1.74E-04)	1.64E-05	(5.70E-07 - 1.74E-04)
35	6.30E-03	(1.46E-03 - 1.74E-02)	6.32E-03	(1.48E-03 - 1.74E-02)
36	3.27E-01	(2.24E-01 - 4.15E-01)	3.33E-01	(2.30E-01 - 4.22E-01)
37	5.05E-01	(4.30E-01 - 5.81E-01)	8.39E-01	(7.65E-01 - 9.18E-01)
38	1.60E-01	(8.67E-02 - 2.39E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
39	1.39E-03	(2.04E-04 - 5.29E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
40	1.54E-06	(2.68E-08 - 2.66E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 93 FISSION PRODUCT CHAIN

NLCT = 2.654 NU = 1.462 ZP = 37.274

DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	4.61E-07	(5.71E-09 - 1.02E-05)	4.61E-07	(5.71E-09 - 1.02E-05)
35	6.22E-04	(7.22E-05 - 2.81E-03)	6.23E-04	(7.27E-05 - 2.81E-03)
36	1.05E-01	(4.99E-02 - 1.72E-01)	1.05E-01	(5.05E-02 - 1.73E-01)
37	4.65E-01	(3.91E-01 - 5.46E-01)	5.71E-01	(4.78E-01 - 6.59E-01)
38	4.18E-01	(3.13E-01 - 5.04E-01)	9.88E-01	(9.80E-01 - 1.00E+00)
39	1.16E-02	(3.17E-03 - 2.79E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	4.47E-05	(2.09E-06 - 3.85E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
41	3.41E-09	(1.18E-11 - 1.87E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 54 FISSION PRODUCT CHAIN

NLCT = 2.671 NU = 1.456 ZP = 37.677

DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	8.26E-05	(3.30E-11 - 4.05E-07)	8.26E-05	(3.30E-11 - 4.05E-07)
35	3.62E-05	(1.59E-06 - 3.05E-04)	3.62E-05	(1.59E-06 - 3.05E-04)
36	2.05E-02	(6.13E-03 - 4.82E-02)	2.10E-02	(6.17E-03 - 4.82E-02)
37	2.71E-01	(2.09E-01 - 3.27E-01)	2.92E-01	(2.28E-01 - 3.54E-01)
38	6.54E-01	(5.47E-01 - 7.72E-01)	9.46E-01	(9.17E-01 - 9.84E-01)
39	5.32E-02	(2.41E-02 - 9.05E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
40	6.71E-04	(7.12E-05 - 3.22E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
41	1.76E-07	(1.91E-09 - 4.26E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 55 FISSION PRODUCT CHAIN

NLCT = 2.662 NU = 1.521 ZP = 38.077

DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	1.55E-06	(3.18E-08 - 2.35E-05)	1.55E-06	(3.18E-08 - 2.39E-05)
36	2.60E-03	(4.60E-04 - 9.85E-03)	2.80E-03	(4.61E-04 - 9.89E-03)
37	1.10E-01	(6.33E-02 - 1.58E-01)	1.13E-01	(6.60E-02 - 1.61E-01)
38	7.15E-01	(6.17E-01 - 8.18E-01)	8.32E-01	(7.75E-01 - 8.84E-01)
39	1.62E-01	(1.06E-01 - 2.13E-01)	9.94E-01	(9.89E-01 - 1.00E+00)
40	6.36E-03	(1.34E-03 - 1.88E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	5.58E-06	(1.66E-07 - 6.60E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
42	5.65E-10	(1.06E-12 - 4.80E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 56 FISSION PRODUCT CHAIN

NLCT = 2.611 NU = 1.517 ZP = 38.465

DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	4.61E-06	(3.40E-10 - 1.48E-06)	4.61E-06	(3.40E-10 - 1.48E-06)
36	2.72E-04	(2.19E-05 - 1.59E-03)	2.72E-04	(2.20E-05 - 1.59E-03)
37	3.27E-02	(1.26E-02 - 6.21E-02)	3.30E-02	(1.28E-02 - 6.24E-02)
38	5.84E-01	(4.84E-01 - 7.00E-01)	6.17E-01	(5.53E-01 - 6.58E-01)
39	3.43E-01	(2.84E-01 - 4.13E-01)	9.61E-01	(9.36E-01 - 1.00E+00)
40	3.40E-02	(1.38E-02 - 7.87E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	1.00E-04	(7.59E-06 - 6.99E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
42	3.63E-08	(2.19E-10 - 1.34E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 57 FISSION PRODUCT CHAIN

NLCT = 2.581 NU = 1.527 ZP = 38.859

DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	8.25E-10	(1.90E-12 - 6.07E-08)	8.25E-10	(1.90E-12 - 6.07E-08)
36	1.63E-05	(5.65E-07 - 1.73E-04)	1.63E-05	(5.65E-07 - 1.73E-04)
37	6.28E-03	(1.45E-03 - 1.73E-02)	6.29E-03	(1.47E-03 - 1.74E-02)
38	3.26E-01	(2.24E-01 - 4.15E-01)	3.33E-01	(2.30E-01 - 4.22E-01)
39	5.06E-01	(4.31E-01 - 5.81E-01)	8.38E-01	(7.65E-01 - 9.18E-01)
40	1.60E-01	(8.70E-02 - 2.40E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
41	1.35E-02	(2.05E-04 - 5.31E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
42	1.55E-06	(2.70E-08 - 2.68E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-235 ALTCY METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 98 FISSION PRODUCT CHAIN

NUCCT = 2.470 NU = 1.507 ZP = 39.241
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	6.28E-07	(8.49E-09 - 1.30E-05)	6.28E-07	(8.49E-09 - 1.30E-05)
37	7.66E-04	(9.44E-05 - 3.31E-03)	7.66E-04	(9.50E-05 - 3.31E-03)
38	1.17E-01	(5.77E-02 - 1.88E-01)	1.18E-01	(5.85E-02 - 1.89E-01)
39	4.77E-01	(4.02E-01 - 5.57E-01)	5.95E-01	(4.99E-01 - 6.82E-01)
40	3.95E-01	(2.89E-01 - 4.80E-01)	9.90E-01	(9.83E-01 - 1.00E+00)
41	9.99E-03	(2.61E-03 - 2.49E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	3.49E-05	(1.52E-05 - 3.17E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
43	2.40E-09	(7.51E-12 - 1.42E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 99 FISSION PRODUCT CHAIN

NUCCT = 2.364 NU = 1.523 ZP = 39.637
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	1.26E-08	(5.68E-11 - 5.75E-07)	1.26E-08	(5.68E-11 - 5.75E-07)
37	5.16E-05	(2.92E-06 - 3.87E-04)	5.16E-05	(2.94E-06 - 3.87E-04)
38	2.51E-02	(7.76E-03 - 5.56E-02)	2.51E-02	(7.81E-03 - 5.56E-02)
39	2.91E-01	(2.30E-01 - 3.51E-01)	3.16E-01	(2.52E-01 - 3.84E-01)
40	6.37E-01	(5.30E-01 - 7.55E-01)	9.53E-01	(9.26E-01 - 9.88E-01)
41	4.66E-02	(2.02E-02 - 8.18E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
42	5.23E-04	(5.14E-05 - 2.65E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	1.21E-07	(1.18E-09 - 3.17E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 100 FISSION PRODUCT CHAIN

NUCCT = 2.195 NU = 1.525 ZP = 40.028
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	2.35E-06	(5.45E-08 - 3.32E-05)	2.35E-06	(5.45E-08 - 3.32E-05)
38	3.67E-03	(6.52E-04 - 1.22E-02)	3.67E-03	(6.55E-04 - 1.22E-02)
39	1.25E-01	(7.51E-02 - 1.74E-01)	1.29E-01	(7.87E-02 - 1.79E-01)
40	7.22E-01	(6.25E-01 - 8.18E-01)	8.51E-01	(7.98E-01 - 9.03E-01)
41	1.44E-01	(9.44E-02 - 1.94E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
42	4.52E-03	(9.57E-04 - 1.54E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	3.72E-06	(9.87E-08 - 4.79E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
44	3.24E-10	(5.19E-13 - 3.08E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 101 FISSION PRODUCT CHAIN

NUCCT = 1.967 NU = 1.352 ZP = 40.350
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	1.37E-07	(1.38E-09 - 3.49E-06)	1.37E-07	(1.38E-09 - 3.49E-06)
38	5.66E-04	(5.71E-05 - 2.82E-03)	5.67E-04	(5.72E-05 - 2.82E-03)
39	4.87E-02	(2.13E-02 - 8.45E-02)	4.92E-02	(2.19E-02 - 8.52E-02)
40	6.42E-01	(5.36E-01 - 7.61E-01)	6.92E-01	(6.28E-01 - 7.98E-01)
41	2.85E-01	(2.23E-01 - 3.43E-01)	9.76E-01	(9.60E-01 - 1.00E+00)
42	2.37E-02	(7.20E-03 - 5.31E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	4.69E-05	(2.58E-06 - 3.59E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
44	1.10E-08	(4.77E-11 - 5.16E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 102 FISSION PRODUCT CHAIN

NUCCT = 1.755 NU = 1.300 ZP = 40.719
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	3.64E-05	(1.28E-11 - 1.97E-07)	3.64E-05	(1.28E-11 - 1.97E-07)
38	4.68E-05	(2.22E-06 - 3.99E-04)	4.68E-05	(2.22E-06 - 3.99E-04)
39	1.15E-02	(3.29E-03 - 2.85E-02)	1.20E-02	(3.34E-03 - 2.86E-02)
40	4.22E-01	(3.17E-01 - 5.05E-01)	4.34E-01	(3.42E-01 - 5.23E-01)
41	4.63E-01	(3.88E-01 - 5.43E-01)	8.97E-01	(8.43E-01 - 9.63E-01)
42	1.03E-01	(4.85E-02 - 1.65E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
43	5.58E-04	(6.86E-05 - 2.72E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	4.35E-07	(5.30E-09 - 9.74E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 103 FISSION PRODUCT CHAIN

NUCCT = 1.686 NU = 1.318 ZP = 41.116
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	1.53E-06	(3.59E-08 - 3.15E-05)	1.93E-06	(3.59E-08 - 3.19E-05)
39	1.61E-03	(2.47E-04 - 5.96E-03)	1.61E-03	(2.49E-04 - 5.56E-03)
40	1.73E-01	(5.58E-02 - 2.54E-01)	1.74E-01	(9.74E-02 - 2.56E-01)
41	5.11E-01	(4.36E-01 - 5.84E-01)	6.85E-01	(5.83E-01 - 7.74E-01)
42	3.10E-01	(2.08E-01 - 3.95E-01)	9.94E-01	(9.90E-01 - 1.00E+00)
43	5.56E-03	(1.24E-03 - 1.58E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	1.24E-05	(4.38E-07 - 1.48E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
45	6.27E-10	(1.34E-12 - 4.86E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 104 FISSION PRODUCT CHAIN

NUCCT = 1.604 NU = 1.307 ZP = 41.502
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	5.66E-08	(3.36E-10 - 1.74E-06)	5.06E-08	(3.36E-10 - 1.74E-06)
39	1.37E-04	(1.02E-05 - 8.41E-04)	1.37E-04	(1.03E-05 - 8.41E-04)
40	4.47E-02	(1.64E-02 - 8.75E-02)	4.48E-02	(1.66E-02 - 8.77E-02)
41	3.60E-01	(2.98E-01 - 4.33E-01)	4.05E-01	(3.37E-01 - 4.89E-01)
42	5.66E-01	(4.68E-01 - 6.75E-01)	9.71E-01	(9.52E-01 - 9.58E-01)
43	2.50E-02	(1.07E-02 - 5.67E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.15E-04	(1.65E-05 - 1.34E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	3.36E-08	(2.26E-10 - 1.15E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 105 FISSION PRODUCT CHAIN

NUCCT = 1.608 NU = 1.343 ZP = 41.906
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	6.66E-10	(1.36E-12 - 5.61E-08)	6.86E-10	(1.36E-12 - 5.61E-08)
39	6.42E-06	(1.99E-07 - 7.38E-05)	6.42E-06	(2.00E-07 - 7.38E-05)
40	6.55E-03	(1.50E-03 - 2.02E-02)	6.95E-03	(1.51E-03 - 2.02E-02)
41	1.65E-01	(1.12E-01 - 2.15E-01)	1.76E-01	(1.18E-01 - 2.28E-01)
42	7.17E-01	(6.14E-01 - 8.18E-01)	9.92E-01	(9.87E-01 - 9.94E-01)
43	1.05E-01	(5.94E-02 - 1.52E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
44	2.55E-03	(4.06E-04 - 9.17E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.33E-06	(2.63E-08 - 2.12E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-235 NLCT1 METHOD
ESTIMATE FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 106 FISSION PRODUCT CHAIN

NLCT1 = 1.761 NU = 1.492 ZP = 41.903

DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	7.04E-10	(0. - 1.42E-06)	7.04E-10	(0. - 1.42E-06)
39	6.54E-06	(1.21E-09 - 4.40E-04)	6.54E-06	(1.91E-09 - 4.40E-04)
40	7.03E-03	(1.55E-04 - 4.36E-02)	7.04E-03	(1.61E-04 - 4.36E-02)
41	1.70E-01	(6.14E-02 - 2.56E-01)	1.77E-01	(6.82E-02 - 2.70E-01)
42	7.17E-01	(5.56E-01 - 8.64E-01)	8.93E-01	(8.15E-01 - 9.83E-01)
43	1.04E-02	(2.59E-02 - 1.92E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
44	2.51E-03	(2.57E-05 - 2.28E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.31E-06	(7.66E-11 - 1.57E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 107 FISSION PRODUCT CHAIN

NLCT1 = 1.723 NU = 1.432 ZP = 42.270

DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	2.84E-07	(5.56E-12 - 5.90E-05)	2.84E-07	(5.56E-12 - 5.90E-05)
40	9.23E-04	(4.44E-06 - 1.22E-02)	9.24E-04	(4.72E-06 - 1.22E-02)
41	6.29E-02	(1.03E-02 - 1.43E-01)	6.39E-02	(1.12E-02 - 1.45E-01)
42	6.74E-01	(5.03E-01 - 8.78E-01)	7.38E-01	(6.13E-01 - 8.59E-01)
43	2.45E-01	(1.20E-01 - 3.51E-01)	9.84E-01	(9.68E-01 - 1.00E+00)
44	1.64E-02	(6.77E-04 - 7.45E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	2.56E-05	(1.25E-08 - 1.06E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
46	4.71E-09	(0. - 4.90E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 108 FISSION PRODUCT CHAIN

NLCT1 = 2.267 NU = 1.815 ZP = 42.809

DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	1.41E-09	(0. - 1.98E-06)	1.41E-09	(0. - 1.98E-06)
40	2.39E-05	(7.55E-09 - 1.23E-03)	2.39E-05	(8.96E-09 - 1.23E-03)
41	7.94E-03	(2.48E-04 - 4.14E-02)	7.97E-03	(2.71E-04 - 4.15E-02)
42	3.60E-01	(1.55E-01 - 5.16E-01)	3.68E-01	(2.06E-01 - 5.27E-01)
43	4.93E-01	(3.74E-01 - 6.21E-01)	8.61E-01	(7.51E-01 - 1.00E+00)
44	1.38E-01	(2.75E-02 - 2.84E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
45	1.04E-03	(7.10E-06 - 1.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	9.93E-07	(3.23E-11 - 1.60E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 109 FISSION PRODUCT CHAIN

NLCT1 = 2.834 NU = 2.156 ZP = 43.332

DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	2.68E-07	(3.49E-12 - 6.82E-05)	2.68E-07	(3.49E-12 - 6.82E-05)
41	4.31E-04	(1.56E-06 - 6.55E-03)	4.31E-04	(1.83E-06 - 6.55E-03)
42	8.57E-02	(1.19E-02 - 2.11E-01)	8.61E-02	(1.24E-02 - 2.12E-01)
43	4.42E-01	(3.26E-01 - 5.89E-01)	5.28E-01	(3.91E-01 - 7.21E-01)
44	4.57E-01	(2.47E-01 - 6.53E-01)	9.85E-01	(9.71E-01 - 1.00E+00)
45	1.48E-02	(7.54E-04 - 6.06E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	6.80E-05	(4.63E-08 - 2.38E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
47	6.19E-09	(8.58E-15 - 5.12E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 110 FISSION PRODUCT CHAIN

NLCT1 = 3.24C NU = 2.128 ZP = 43.715

DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	5.54E-05	(8.35E-15 - 5.45E-06)	5.54E-05	(8.35E-15 - 5.45E-06)
41	2.88E-05	(1.53E-08 - 1.14E-03)	2.88E-05	(2.08E-08 - 1.14E-03)
42	1.76E-02	(7.65E-04 - 7.75E-02)	1.77E-02	(7.94E-04 - 7.80E-02)
43	2.53E-01	(1.27E-01 - 3.61E-01)	2.70E-01	(1.44E-01 - 3.94E-01)
44	6.65E-01	(4.98E-01 - 8.76E-01)	9.39E-01	(8.89E-01 - 1.00E+00)
45	6.00E-02	(9.46E-03 - 1.35E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
46	8.42E-04	(3.78E-06 - 1.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	2.47E-07	(4.39E-12 - 5.40E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 111 FISSION PRODUCT CHAIN

NLCT1 = 3.773 NU = 2.339 ZP = 44.183

DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	6.16E-07	(2.10E-11 - 9.67E-05)	6.16E-07	(2.10E-11 - 9.67E-05)
42	1.54E-03	(1.09E-05 - 1.66E-02)	1.54E-03	(1.15E-05 - 1.68E-02)
43	8.17E-02	(1.66E-02 - 1.67E-01)	8.33E-02	(1.81E-02 - 1.70E-01)
44	7.00E-01	(5.32E-01 - 8.78E-01)	7.84E-01	(6.65E-01 - 8.85E-01)
45	2.05E-01	(8.72E-02 - 2.95E-01)	9.89E-01	(9.79E-01 - 1.00E+00)
46	1.08E-02	(3.29E-04 - 5.73E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	1.31E-05	(3.95E-09 - 6.86E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
48	1.64E-05	(0. - 2.65E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 112 FISSION PRODUCT CHAIN

NLCT1 = 3.873 NU = 2.246 ZP = 44.537

DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	2.31E-08	(7.54E-14 - 1.15E-05)	2.31E-08	(7.54E-14 - 1.15E-05)
42	1.65E-04	(2.28E-07 - 4.23E-03)	1.69E-04	(2.51E-07 - 4.23E-03)
43	2.51E-02	(1.94E-03 - 8.32E-02)	2.53E-02	(2.11E-03 - 8.35E-02)
44	5.42E-01	(3.52E-01 - 7.63E-01)	5.68E-01	(4.47E-01 - 7.47E-01)
45	3.00E-01	(2.69E-01 - 5.26E-01)	9.48E-01	(9.01E-01 - 1.00E+00)
46	5.22E-02	(5.03E-03 - 1.55E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
47	1.75E-04	(3.46E-07 - 3.72E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
48	7.44E-08	(4.01E-13 - 2.96E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 113 FISSION PRODUCT CHAIN

NLCT1 = 3.542 NU = 2.168 ZP = 44.896

DEVIATION FROM LCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	5.46E-10	(0. - 1.08E-06)	5.48E-10	(3.31E-24 - 1.08E-06)
42	1.21E-05	(2.35E-09 - 8.00E-04)	1.21E-05	(2.90E-09 - 8.00E-04)
43	5.23E-03	(1.18E-04 - 3.20E-02)	5.24E-03	(1.31E-04 - 3.20E-02)
44	3.02E-01	(1.11E-01 - 4.52E-01)	3.07E-01	(1.29E-01 - 4.59E-01)
45	5.12E-01	(3.97E-01 - 6.15E-01)	8.20E-01	(6.84E-01 - 9.73E-01)
46	1.75E-01	(4.37E-02 - 3.32E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
47	1.72E-03	(1.71E-05 - 1.55E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	2.15E-06	(1.20E-10 - 2.63E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-235 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 114 FISSION PRODUCT CHAIN

NLCT = 4.115 NU = 2.119 ZP = 45.267

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	4.55E-07	(9.91E-12 - 1.02E-04)	4.95E-07	(9.91E-12 - 1.02E-04)
43	6.53E-04	(3.19E-06 - 8.56E-03)	6.53E-04	(3.68E-06 - 8.57E-03)
44	1.08E-01	(1.78E-02 - 2.44E-01)	1.08E-01	(1.85E-02 - 2.44E-01)
45	4.68E-01	(3.50E-01 - 6.09E-01)	5.77E-01	(4.28E-01 - 7.58E-01)
46	4.12E-01	(2.01E-01 - 5.89E-01)	9.89E-01	(9.78E-01 - 1.00E+00)
47	1.12E-02	(4.56E-04 - 5.11E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	4.23E-05	(2.03E-08 - 1.76E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
49	3.15E-09	(0. - 3.32E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 115 FISSION PRODUCT CHAIN

NLCT = 4.096 NU = 2.068 ZP = 45.637

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	1.27E-08	(2.11E-14 - 9.33E-06)	1.27E-08	(2.11E-14 - 9.33E-06)
43	5.17E-05	(4.15E-08 - 1.67E-03)	5.17E-05	(5.42E-08 - 1.67E-03)
44	2.51E-02	(1.42E-03 - 9.75E-02)	2.52E-02	(1.47E-03 - 9.76E-02)
45	2.91E-01	(1.65E-01 - 4.15E-01)	3.16E-01	(1.88E-01 - 4.60E-01)
46	6.37E-01	(4.68E-01 - 8.57E-01)	9.53E-01	(9.12E-01 - 1.00E+00)
47	4.66E-02	(5.97E-03 - 1.20E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
48	5.22E-04	(1.63E-06 - 8.54E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
49	1.21E-07	(1.28E-12 - 3.42E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 116 FISSION PRODUCT CHAIN

NLCT = 4.000 NU = 2.000 ZP = 46.000

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	2.36E-10	(0. - 7.00E-07)	2.36E-10	(1.65E-24 - 7.00E-07)
43	2.56E-06	(3.11E-10 - 2.64E-04)	2.96E-06	(5.47E-10 - 2.64E-04)
44	4.25E-03	(6.43E-05 - 3.18E-02)	4.25E-03	(6.73E-05 - 3.18E-02)
45	1.34E-01	(4.61E-02 - 2.23E-01)	1.39E-01	(4.43E-02 - 2.32E-01)
46	7.23E-01	(5.78E-01 - 8.75E-01)	8.61E-01	(7.67E-01 - 9.55E-01)
47	1.34E-01	(4.01E-02 - 2.23E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
48	4.25E-03	(6.43E-05 - 3.18E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	2.56E-06	(3.11E-10 - 2.64E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 117 FISSION PRODUCT CHAIN

NLCT = 4.111 NU = 1.994 ZP = 46.388

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	9.62E-08	(8.67E-13 - 2.96E-05)	9.62E-08	(8.67E-13 - 2.96E-05)
44	4.48E-04	(1.25E-06 - 7.76E-03)	4.48E-04	(1.34E-06 - 7.76E-03)
45	4.29E-02	(5.14E-03 - 1.14E-01)	4.33E-02	(5.58E-03 - 1.15E-01)
46	6.25E-01	(4.58E-01 - 8.48E-01)	6.68E-01	(5.40E-01 - 8.18E-01)
47	3.04E-01	(1.78E-01 - 4.32E-01)	9.72E-01	(9.46E-01 - 1.00E+00)
48	2.80E-02	(1.71E-03 - 1.04E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
49	6.19E-05	(5.65E-08 - 1.87E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.63E-08	(3.40E-14 - 1.10E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 118 FISSION PRODUCT CHAIN

NLCT = 4.099 NU = 1.910 ZP = 46.745

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	2.80E-09	(0. - 3.07E-06)	2.80E-09	(0. - 3.07E-06)
44	3.89E-05	(1.76E-08 - 1.67E-03)	3.89E-05	(2.03E-08 - 1.67E-03)
45	1.07E-02	(4.18E-04 - 4.96E-02)	1.07E-02	(4.56E-04 - 4.97E-02)
46	4.04E-01	(1.94E-01 - 5.78E-01)	4.15E-01	(2.64E-01 - 5.93E-01)
47	4.72E-01	(3.53E-01 - 6.11E-01)	8.88E-01	(7.95E-01 - 1.00E+00)
48	1.12E-01	(1.90E-02 - 2.45E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
49	7.00E-04	(3.60E-06 - 8.96E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
50	5.50E-07	(1.18E-11 - 1.05E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 119 FISSION PRODUCT CHAIN

NLCT = 3.948 NU = 1.777 ZP = 47.082

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	2.59E-06	(1.65E-10 - 2.97E-04)	2.59E-06	(1.65E-10 - 2.97E-04)
45	1.95E-03	(2.11E-05 - 1.72E-02)	1.95E-03	(2.37E-05 - 1.72E-02)
46	1.90E-01	(4.75E-02 - 3.44E-01)	1.92E-01	(4.94E-02 - 3.47E-01)
47	5.18E-01	(4.02E-01 - 6.23E-01)	7.08E-01	(5.25E-01 - 8.62E-01)
48	2.68E-01	(1.01E-01 - 4.40E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
49	4.70E-02	(5.80E-03 - 2.95E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.02E-05	(1.74E-09 - 7.16E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
51	4.31E-10	(0. - 9.21E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 120 FISSION PRODUCT CHAIN

NLCT = 3.875 NU = 1.627 ZP = 47.414

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	1.21E-07	(9.11E-13 - 4.07E-05)	1.21E-07	(9.11E-13 - 4.07E-05)
45	2.50E-04	(6.14E-07 - 4.62E-03)	2.50E-04	(7.35E-07 - 4.62E-03)
46	6.32E-02	(7.02E-03 - 1.75E-01)	6.34E-02	(7.27E-03 - 1.75E-01)
47	4.04E-01	(2.96E-01 - 5.53E-01)	4.68E-01	(3.45E-01 - 6.53E-01)
48	5.12E-01	(3.11E-01 - 7.25E-01)	9.79E-01	(9.60E-01 - 1.00E+00)
49	2.07E-02	(1.38E-03 - 7.42E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.21E-04	(1.27E-07 - 3.42E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
51	1.42E-06	(3.38E-14 - 8.70E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 121 FISSION PRODUCT CHAIN

NLCT = 3.815 NU = 1.450 ZP = 47.735

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	4.48E-09	(0. - 4.74E-06)	4.48E-09	(2.65E-23 - 4.74E-06)
45	2.47E-05	(1.18E-08 - 1.04E-03)	2.48E-05	(1.63E-08 - 1.04E-03)
46	1.61E-02	(6.52E-04 - 7.35E-02)	1.61E-02	(6.77E-04 - 7.35E-02)
47	2.43E-01	(1.18E-01 - 3.48E-01)	2.59E-01	(1.34E-01 - 3.78E-01)
48	6.76E-01	(5.05E-01 - 8.78E-01)	9.35E-01	(8.82E-01 - 1.00E+00)
49	6.28E-02	(1.06E-02 - 1.44E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
50	9.45E-04	(4.66E-06 - 1.24E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	2.96E-07	(5.97E-12 - 6.06E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION CF U-235 NUTCT METHCD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 122 FISSION PRODUCT CHAIN

NUTCT = 3.543 NU = 1.205 ZP = 48.029

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE CF	CF	FCY
45	2.32E-06	(2.08E-06 - 2.26E-04)	2.32E-06	(2.05E-10 - 2.26E-04)					
46	3.64E-03	(4.90E-05 - 2.88E-02)	3.64E-03	(5.13E-05 - 2.88E-02)					
47	1.25E-01	(3.50E-02 - 2.14E-01)	1.28E-01	(3.65E-02 - 2.21E-01)					
48	7.22E-01	(5.72E-01 - 8.74E-01)	8.51E-01	(7.52E-01 - 9.44E-01)					
49	1.44E-01	(4.50E-02 - 2.33E-01)	9.95E-01	(1.90E-01 - 1.00E+00)					
50	4.56E-03	(8.41E-05 - 3.50E-02)	1.00E+00	(0.00E+00 - 1.00E+00)					
51	3.77E-06	(4.70E-10 - 3.09E-04)	1.00E+00	(1.00E+00 - 1.00E+00)					
52	3.29E-10	(0. - 8.68E-07)	1.00E+00	(1.00E+00 - 1.00E+00)					

MASS 123 FISSION PRODUCT CHAIN

NUTCT = 3.141 NU = .916 ZP = 48.306

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE CF	CF	FCY
45	2.04E-07	(3.15E-12 - 4.77E-05)	2.04E-07	(3.15E-12 - 4.77E-05)					
46	7.41E-04	(3.02E-06 - 1.06E-02)	7.41E-04	(3.22E-06 - 1.06E-02)					
47	5.61E-02	(8.37E-03 - 1.34E-01)	5.68E-02	(9.10E-03 - 1.35E-01)					
48	6.61E-01	(4.50E-01 - 8.72E-01)	7.18E-01	(5.19E-01 - 8.47E-01)					
49	2.63E-01	(1.37E-01 - 3.76E-01)	9.81E-01	(1.92E-01 - 1.00E+00)					
50	1.54E-02	(9.68E-04 - 8.29E-02)	1.00E+00	(1.00E+00 - 1.00E+00)					
51	3.38E-05	(2.01E-08 - 1.27E-03)	1.00E+00	(1.00E+00 - 1.00E+00)					
52	6.55E-09	(8.38E-15 - 6.31E-06)	1.00E+00	(1.00E+00 - 1.00E+00)					

MASS 124 FISSION PRODUCT CHAIN

NUTCT = 2.868 NU = .686 ZP = 48.607

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE CF	CF	FCY
45	1.15E-08	(2.55E-14 - 7.63E-06)	1.15E-08	(2.55E-14 - 7.63E-06)					
46	1.05E-04	(9.87E-08 - 3.13E-03)	1.05E-04	(1.10E-07 - 3.13E-03)					
47	1.51E-02	(1.19E-03 - 7.08E-02)	1.92E-02	(1.29E-03 - 7.08E-02)					
48	4.58E-01	(2.94E-01 - 7.08E-01)	5.17E-01	(3.91E-01 - 7.05E-01)					
49	4.14E-01	(3.04E-01 - 5.63E-01)	9.31E-01	(8.71E-01 - 1.00E+00)					
50	6.83E-02	(8.05E-03 - 1.84E-01)	1.00E+00	(9.99E-01 - 1.00E+00)					
51	2.87E-04	(7.95E-07 - 5.03E-03)	1.00E+00	(1.00E+00 - 1.00E+00)					
52	1.48E-07	(1.28E-12 - 4.64E-05)	1.00E+00	(1.00E+00 - 1.00E+00)					

MASS 125 FISSION PRODUCT CHAIN

NUTCT = 2.578 NU = .514 ZP = 48.929

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE CF	CF	FCY
45	3.79E-10	(0. - 8.49E-07)	3.79E-10	(1.65E-24 - 8.48E-07)					
46	5.32E-06	(1.49E-09 - 6.79E-04)	9.32E-06	(1.87E-09 - 6.75E-04)					
47	4.43E-03	(8.84E-05 - 2.88E-02)	4.44E-03	(9.77E-05 - 2.89E-02)					
48	2.80E-01	(5.66E-02 - 4.33E-01)	2.85E-01	(1.01E-01 - 4.40E-01)					
49	5.17E-01	(4.05E-01 - 6.25E-01)	8.02E-01	(6.56E-01 - 9.57E-01)					
50	1.66E-01	(5.03E-02 - 3.51E-01)	9.98E-01	(9.96E-01 - 1.00E+00)					
51	2.08E-03	(2.36E-05 - 1.79E-02)	1.00E+00	(1.00E+00 - 1.00E+00)					
52	2.86E-06	(1.56E-10 - 3.16E-04)	1.00E+00	(1.00E+00 - 1.00E+00)					

MASS 126 FISSION PRODUCT CHAIN

NUTCT = 2.165 NU = .468 ZP = 49.301

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE CF	CF	FCY	RANGE CF	CF	FCY
46	3.58E-07	(5.71E-12 - 8.24E-05)	3.58E-07	(5.71E-12 - 8.24E-05)					
47	5.24E-04	(2.19E-06 - 7.44E-03)	5.25E-04	(2.54E-06 - 7.44E-03)					
48	5.55E-02	(1.44E-02 - 2.25E-01)	9.60E-02	(1.50E-02 - 2.27E-01)					
49	4.55E-01	(3.38E-01 - 5.95E-01)	5.51E-01	(4.08E-01 - 7.43E-01)					
50	4.36E-01	(2.25E-01 - 6.24E-01)	9.87E-01	(9.74E-01 - 1.00E+00)					
51	1.30E-02	(5.58E-04 - 5.60E-02)	1.00E+00	(1.00E+00 - 1.00E+00)					
52	5.45E-05	(3.15E-08 - 2.07E-03)	1.00E+00	(1.00E+00 - 1.00E+00)					
53	4.51E-05	(5.75E-15 - 4.18E-06)	1.00E+00	(1.00E+00 - 1.00E+00)					

MASS 127 FISSION PRODUCT CHAIN

NUTCT = 1.803 NU = .305 ZP = 49.627

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE CF	CF	FCY	RANGE CF	CF	FCY
46	1.40E-06	(2.54E-14 - 9.95E-06)	1.40E-06	(2.54E-14 - 9.95E-06)					
47	5.54E-05	(4.68E-08 - 1.74E-03)	5.54E-05	(6.07E-08 - 1.74E-03)					
48	2.62E-02	(1.52E-03 - 1.00E-01)	2.62E-02	(1.50E-03 - 1.00E-01)					
49	2.65E-01	(1.70E-01 - 4.22E-01)	3.22E-01	(1.94E-01 - 4.68E-01)					
50	4.32E-01	(4.65E-01 - 8.54E-01)	9.54E-01	(9.15E-01 - 1.00E+00)					
51	4.51E-02	(5.64E-03 - 1.15E-01)	1.00E+00	(9.99E-01 - 1.00E+00)					
52	4.52E-04	(1.47E-06 - 8.24E-03)	1.00E+00	(1.00E+00 - 1.00E+00)					
53	1.11E-07	(1.10E-12 - 3.23E-05)	1.00E+00	(1.00E+00 - 1.00E+00)					

MASS 128 FISSION PRODUCT CHAIN

NUTCT = 1.741 NU = .326 ZP = 50.002

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE CF	CF	FCY	RANGE CF	CF	FCY
47	2.51E-06	(3.02E-10 - 2.61E-04)	2.91E-06	(3.02E-10 - 2.61E-04)					
48	4.20E-03	(6.30E-05 - 3.15E-02)	4.21E-03	(6.59E-05 - 3.15E-02)					
49	1.24E-01	(3.97E-02 - 7.22E-01)	1.38E-01	(4.30E-02 - 2.31E-01)					
50	7.23E-01	(5.77E-01 - 8.75E-01)	8.61E-01	(7.66E-01 - 9.54E-01)					
51	1.35E-01	(4.05E-02 - 2.24E-01)	9.96E-01	(9.91E-01 - 1.00E+00)					
52	4.30E-03	(6.50E-05 - 3.20E-02)	1.00E+00	(1.00E+00 - 1.00E+00)					
53	3.41E-06	(3.21E-10 - 2.67E-04)	1.00E+00	(1.00E+00 - 1.00E+00)					
54	2.42E-10	(0. - 7.11E-07)	1.00E+00	(1.00E+00 - 1.00E+00)					

MASS 129 FISSION PRODUCT CHAIN

NUTCT = 1.681 NU = .277 ZP = 50.396

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE CF	CF	FCY	RANGE CF	CF	FCY
47	8.85E-06	(7.50E-13 - 2.81E-05)	8.89E-06	(7.50E-13 - 2.81E-05)					
48	4.24E-04	(1.14E-06 - 7.14E-03)	4.25E-04	(1.23E-06 - 7.51E-03)					
49	4.17E-02	(4.89E-03 - 1.12E-01)	4.21E-02	(5.30E-03 - 1.13E-01)					
50	6.21E-01	(4.55E-01 - 8.44E-01)	6.63E-01	(5.35E-01 - 8.14E-01)					
51	3.40E-01	(1.83E-01 - 4.36E-01)	9.71E-01	(9.44E-01 - 1.00E+00)					
52	6.58E-02	(1.82E-02 - 1.07E-01)	1.00E+00	(1.00E+00 - 1.00E+00)					
53	6.58E-05	(6.29E-08 - 1.95E-03)	1.00E+00	(1.00E+00 - 1.00E+00)					
54	1.78E-06	(3.83E-14 - 1.17E-05)	1.00E+00	(1.00E+00 - 1.00E+00)					

THERMAL NEUTRON FISSION OF U-235 NLTC1 METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 130 FISSION PRODUCT CHAIN

NLTC1 = 1.594 NU = .295 ZP = 50.343

DEVIATION FROM UCD = -.45 +/- .10		SIGMA = .56 +/- .06	
Z	FIY	RANGE OF FIY	FCY
47	1.46E-07	(1.50E-09 - 3.67E-06)	1.46E-07 (1.50E-09 - 3.67E-06)
48	5.92E-04	(6.04E-05 - 2.92E-03)	5.92E-04 (6.06E-05 - 2.92E-03)
49	4.98E-02	(2.20E-02 - 8.61E-02)	5.04E-02 (2.26E-02 - 8.67E-02)
50	6.46E-01	(5.39E-01 - 7.64E-01)	6.96E-01 (6.32E-01 - 7.61E-01)
51	2.81E-01	(2.19E-01 - 3.39E-01)	9.77E-01 (9.61E-01 - 1.00E+00)
52	2.30E-02	(6.91E-03 - 5.18E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
53	4.45E-05	(2.42E-06 - 3.44E-04)	1.00E+00 (1.00E+00 - 1.00E+00)
54	1.02E-08	(4.34E-07 - 4.86E-07)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 131 FISSION PRODUCT CHAIN

NLTC1 = 1.661 NU = .363 ZP = 50.759

DEVIATION FROM UCD = -.45 +/- .10		SIGMA = .56 +/- .06	
Z	FIY	RANGE OF FIY	FCY
47	2.40E-09	(7.49E-12 - 1.42E-07)	2.40E-09 (7.49E-12 - 1.42E-07)
48	3.49E-05	(1.51E-06 - 3.16E-04)	3.49E-05 (1.52E-06 - 3.16E-04)
49	9.99E-03	(2.61E-03 - 2.49E-02)	1.00E-02 (2.64E-03 - 2.49E-02)
50	3.94E-01	(2.89E-01 - 4.80E-01)	4.04E-01 (3.08E-01 - 4.91E-01)
51	4.77E-01	(4.02E-01 - 5.57E-01)	8.82E-01 (8.22E-01 - 9.53E-01)
52	1.17E-01	(5.77E-02 - 1.88E-01)	9.99E-01 (9.99E-01 - 1.00E+00)
53	7.66E-04	(9.45E-05 - 3.31E-03)	1.00E+00 (1.00E+00 - 1.00E+00)
54	6.29E-07	(8.51E-09 - 1.31E-05)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 132 FISSION PRODUCT CHAIN

NLTC1 = 1.727 NU = .448 ZP = 51.182

DEVIATION FROM UCD = -.45 +/- .10		SIGMA = .56 +/- .06	
Z	FIY	RANGE OF FIY	FCY
48	1.07E-06	(1.69E-08 - 2.00E-05)	1.07E-06 (1.69E-08 - 2.00E-05)
49	1.09E-03	(1.50E-04 - 4.39E-02)	1.10E-03 (1.51E-04 - 4.39E-02)
50	1.42E-01	(7.38E-02 - 2.18E-01)	1.43E-01 (7.49E-02 - 2.19E-01)
51	4.96E-01	(4.20E-01 - 5.73E-01)	6.38E-01 (5.37E-01 - 7.26E-01)
52	3.54E-01	(2.50E-01 - 4.41E-01)	9.92E-01 (9.87E-01 - 1.00E+00)
53	7.63E-03	(1.88E-03 - 2.02E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
54	2.24E-05	(8.52E-07 - 2.23E-04)	1.00E+00 (1.00E+00 - 1.00E+00)
55	1.29E-09	(3.35E-12 - 8.64E-08)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 133 FISSION PRODUCT CHAIN

NLTC1 = 1.955 NU = .611 ZP = 51.636

DEVIATION FROM UCD = -.45 +/- .10		SIGMA = .56 +/- .06	
Z	FIY	RANGE OF FIY	FCY
48	1.28E-08	(5.79E-11 - 5.82E-07)	1.28E-08 (5.79E-11 - 5.82E-07)
49	5.22E-05	(2.96E-06 - 3.90E-04)	5.22E-05 (2.97E-06 - 3.90E-04)
50	2.53E-02	(7.82E-03 - 5.58E-02)	2.53E-02 (7.88E-03 - 5.59E-02)
51	2.52E-01	(2.30E-01 - 3.52E-01)	3.17E-01 (2.53E-01 - 3.85E-01)
52	6.36E-01	(5.30E-01 - 7.54E-01)	9.53E-01 (9.27E-01 - 9.88E-01)
53	4.64E-02	(2.00E-02 - 8.15E-02)	9.99E-01 (9.99E-01 - 1.00E+00)
54	5.18E-04	(5.08E-05 - 2.63E-03)	1.00E+00 (1.00E+00 - 1.00E+00)
55	1.20E-07	(1.16E-09 - 3.14E-06)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 134 FISSION PRODUCT CHAIN

NLTC1 = 2.236 NU = .795 ZP = 52.097

DEVIATION FROM UCD = -.45 +/- .10		SIGMA = .56 +/- .06	
Z	FIY	RANGE OF FIY	FCY
49	1.30E-06	(2.54E-08 - 2.08E-05)	1.30E-06 (2.54E-08 - 2.08E-05)
50	2.50E-03	(3.97E-04 - 9.05E-03)	2.50E-03 (3.98E-04 - 9.05E-03)
51	1.04E-01	(5.88E-02 - 1.51E-01)	1.07E-01 (6.12E-02 - 1.54E-01)
52	7.17E-01	(6.14E-01 - 8.18E-01)	8.23E-01 (7.66E-01 - 8.76E-01)
53	1.70E-01	(1.13E-01 - 2.21E-01)	9.93E-01 (9.87E-01 - 1.00E+00)
54	7.06E-03	(1.53E-03 - 2.04E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
55	6.58E-06	(2.06E-07 - 7.52E-05)	1.00E+00 (1.00E+00 - 1.00E+00)
56	7.10E-10	(1.42E-12 - 5.76E-08)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 135 FISSION PRODUCT CHAIN

NLTC1 = 2.406 NU = .938 ZP = 52.543

DEVIATION FROM UCD = -.45 +/- .10		SIGMA = .56 +/- .06	
Z	FIY	RANGE OF FIY	FCY
49	2.18E-08	(1.29E-10 - 8.15E-07)	2.18E-08 (1.29E-10 - 8.15E-07)
50	1.63E-04	(1.12E-05 - 1.06E-03)	1.63E-04 (1.12E-05 - 1.06E-03)
51	2.45E-02	(8.57E-03 - 4.98E-02)	2.47E-02 (8.73E-03 - 5.00E-02)
52	3.35E-01	(4.45E-01 - 6.48E-01)	5.63E-01 (4.90E-01 - 6.52E-01)
53	3.30E-01	(3.17E-01 - 4.58E-01)	9.46E-01 (9.14E-01 - 9.94E-01)
54	5.24E-02	(2.07E-02 - 1.01E-01)	1.00E+00 (1.00E+00 - 1.00E+00)
55	1.66E-04	(1.53E-05 - 1.08E-03)	1.00E+00 (1.00E+00 - 1.00E+00)
56	7.50E-08	(5.95E-10 - 2.45E-06)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 136 FISSION PRODUCT CHAIN

NLTC1 = 2.535 NU = 1.035 ZP = 52.971

DEVIATION FROM UCD = -.45 +/- .10		SIGMA = .56 +/- .06	
Z	FIY	RANGE OF FIY	FCY
49	2.38E-10	(3.86E-13 - 2.26E-08)	2.38E-10 (3.86E-13 - 2.26E-08)
50	6.65E-06	(1.77E-07 - 8.53E-05)	6.65E-06 (1.77E-07 - 8.53E-05)
51	3.58E-03	(6.58E-04 - 1.12E-02)	3.59E-03 (7.05E-04 - 1.12E-02)
52	2.54E-01	(1.60E-01 - 3.43E-01)	2.58E-01 (1.63E-01 - 3.47E-01)
53	5.21E-01	(4.50E-01 - 5.89E-01)	7.78E-01 (6.90E-01 - 8.65E-01)
54	2.15E-01	(1.31E-01 - 3.06E-01)	9.97E-01 (9.95E-01 - 1.00E+00)
55	2.62E-03	(4.64E-04 - 8.73E-03)	1.00E+00 (1.00E+00 - 1.00E+00)
56	4.07E-06	(5.39E-08 - 5.77E-05)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 137 FISSION PRODUCT CHAIN

NLTC1 = 2.605 NU = 1.051 ZP = 53.382

DEVIATION FROM UCD = -.45 +/- .10		SIGMA = .56 +/- .06	
Z	FIY	RANGE OF FIY	FCY
50	1.65E-07	(1.53E-09 - 4.49E-06)	1.65E-07 (1.53E-09 - 4.49E-06)
51	3.10E-04	(2.94E-05 - 1.61E-03)	3.10E-04 (2.95E-05 - 1.61E-03)
52	7.13E-02	(3.02E-02 - 1.27E-01)	7.16E-02 (3.05E-02 - 1.27E-01)
53	4.15E-01	(3.45E-01 - 4.98E-01)	4.91E-01 (4.09E-01 - 5.87E-01)
54	4.91E-01	(3.91E-01 - 5.92E-01)	9.82E-01 (9.69E-01 - 1.00E+00)
55	1.83E-02	(5.75E-03 - 3.97E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
56	9.70E-05	(5.72E-06 - 7.07E-04)	1.00E+00 (1.00E+00 - 1.00E+00)
57	1.03E-08	(4.90E-11 - 4.51E-07)	1.00E+00 (1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-235 NLCT FETHCD
ESTIMATED FRACTIONAL YIELDS
CDD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 138 FISSION PRODUCT CHAIN

NLCT = 2.642 NU = 1.132 ZP = 53.788

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	2.52E-09	(1.70E-12 - 1.58E-07)	2.52E-09	(7.20E-12 - 1.58E-07)
51	1.64E-05	(6.67E-07 - 1.55E-04)	1.64E-05	(6.69E-07 - 1.55E-04)
52	1.25E-02	(3.12E-03 - 3.20E-02)	1.25E-02	(3.14E-03 - 3.20E-02)
53	2.18E-01	(1.57E-01 - 2.68E-01)	2.31E-01	(1.69E-01 - 2.85E-01)
54	6.93E-01	(5.85E-01 - 8.05E-01)	9.24E-01	(8.87E-01 - 9.67E-01)
55	7.51E-02	(3.80E-02 - 1.18E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
56	1.30E-03	(1.69E-04 - 5.42E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
57	4.77E-07	(6.96E-09 - 9.40E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 139 FISSION PRODUCT CHAIN

NLCT = 2.672 NU = 1.175 ZP = 54.195

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	5.57E-07	(8.49E-09 - 1.06E-05)	5.57E-07	(8.49E-09 - 1.06E-05)
52	1.44E-03	(1.93E-04 - 5.86E-03)	1.44E-03	(1.93E-04 - 5.86E-03)
53	7.00E-02	(4.07E-02 - 1.23E-01)	8.05E-02	(4.22E-02 - 1.24E-01)
54	6.58E-01	(5.90E-01 - 8.09E-01)	7.78E-01	(7.17E-01 - 8.32E-01)
55	2.11E-01	(1.50E-01 - 2.61E-01)	9.89E-01	(9.80E-01 - 1.00E+00)
56	1.15E-02	(2.80E-03 - 2.99E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.43E-05	(5.59E-07 - 1.39E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
58	2.08E-09	(5.64E-12 - 1.36E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 140 FISSION PRODUCT CHAIN

NLCT = 2.663 NU = 1.196 ZP = 54.592

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	1.33E-08	(6.81E-11 - 5.52E-07)	1.33E-08	(6.81E-11 - 5.52E-07)
52	1.16E-04	(7.20E-06 - 8.12E-04)	1.16E-04	(7.21E-06 - 8.12E-04)
53	2.02E-02	(6.63E-03 - 4.29E-02)	2.03E-02	(6.74E-03 - 4.31E-02)
54	5.07E-01	(4.10E-01 - 6.12E-01)	5.28E-01	(4.49E-01 - 6.22E-01)
55	4.07E-01	(3.38E-01 - 4.85E-01)	9.35E-01	(8.97E-01 - 9.88E-01)
56	6.48E-02	(2.66E-02 - 1.17E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
57	2.61E-04	(2.36E-05 - 1.41E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.29E-07	(1.12E-09 - 3.69E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 141 FISSION PRODUCT CHAIN

NLCT = 2.611 NU = 1.206 ZP = 54.986

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	1.59E-10	(3.07E-13 - 1.96E-08)	1.99E-10	(3.07E-13 - 1.96E-08)
52	5.84E-06	(1.50E-07 - 7.70E-05)	5.84E-06	(1.50E-07 - 7.70E-05)
53	3.30E-03	(6.27E-04 - 1.05E-02)	3.30E-03	(6.33E-04 - 1.05E-02)
54	2.45E-01	(1.52E-01 - 3.33E-01)	2.48E-01	(1.55E-01 - 3.36E-01)
55	5.21E-01	(4.51E-01 - 5.90E-01)	7.69E-01	(6.79E-01 - 8.56E-01)
56	2.28E-01	(1.39E-01 - 3.15E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
57	2.85E-03	(5.18E-04 - 9.33E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	4.64E-06	(1.11E-07 - 6.41E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 142 FISSION PRODUCT CHAIN

NLCT = 2.583 NU = 1.217 ZP = 55.380

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	1.66E-07	(1.56E-09 - 4.55E-06)	1.68E-07	(1.56E-09 - 4.55E-06)
53	3.13E-04	(2.58E-05 - 1.63E-03)	3.13E-04	(3.00E-05 - 1.63E-03)
54	1.8E-02	(3.04E-02 - 1.27E-01)	1.72E-02	(3.07E-02 - 1.28E-01)
55	4.20E-01	(3.50E-01 - 4.95E-01)	4.92E-01	(4.11E-01 - 5.29E-01)
56	4.90E-01	(3.90E-01 - 5.91E-01)	9.82E-01	(9.69E-01 - 1.00E+00)
57	1.81E-02	(5.74E-03 - 3.95E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	5.5E-05	(5.63E-06 - 7.00E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
59	1.01E-08	(4.80E-11 - 4.45E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 143 FISSION PRODUCT CHAIN

NLCT = 2.585 NU = 1.243 ZP = 55.780

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	2.74E-05	(8.02E-12 - 1.65E-07)	2.74E-05	(8.02E-12 - 1.69E-07)
53	1.74E-05	(7.21E-07 - 1.63E-04)	1.74E-05	(7.23E-07 - 1.63E-04)
54	1.25E-02	(3.28E-03 - 3.30E-02)	1.30E-02	(3.29E-03 - 3.30E-02)
55	2.22E-01	(1.60E-01 - 2.72E-01)	2.35E-01	(1.73E-01 - 2.89E-01)
56	6.91E-01	(5.83E-01 - 8.04E-01)	9.25E-01	(8.89E-01 - 9.68E-01)
57	7.23E-02	(3.69E-02 - 1.16E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
58	1.24E-03	(1.59E-04 - 5.23E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	4.45E-07	(6.36E-09 - 8.90E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 144 FISSION PRODUCT CHAIN

NLCT = 2.577 NU = 1.264 ZP = 56.178

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	6.43E-07	(1.02E-08 - 1.15E-05)	6.43E-07	(1.02E-08 - 1.19E-05)
54	1.5E-03	(2.18E-04 - 6.32E-03)	1.58E-03	(2.19E-04 - 6.32E-03)
55	2.25E-02	(4.34E-02 - 1.27E-01)	8.45E-02	(4.50E-02 - 1.29E-01)
56	7.02E-01	(5.95E-01 - 8.11E-01)	7.86E-01	(7.25E-01 - 8.40E-01)
57	2.03E-01	(1.43E-01 - 2.54E-01)	9.89E-01	(9.81E-01 - 1.00E+00)
58	1.06E-02	(2.59E-03 - 2.81E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	1.26E-05	(4.74E-07 - 1.26E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
60	1.74E-05	(4.48E-12 - 1.18E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 145 FISSION PRODUCT CHAIN

NLCT = 2.581 NU = 1.306 ZP = 56.584

DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	1.44E-08	(7.56E-11 - 5.88E-07)	1.44E-08	(7.56E-11 - 5.88E-07)
54	1.22E-04	(7.74E-06 - 8.49E-04)	1.22E-04	(7.75E-06 - 8.49E-04)
55	2.05E-02	(6.51E-03 - 4.40E-02)	2.10E-02	(7.04E-03 - 4.41E-02)
56	5.13E-01	(4.16E-01 - 6.18E-01)	5.33E-01	(4.56E-01 - 6.27E-01)
57	4.03E-01	(3.35E-01 - 4.81E-01)	9.37E-01	(9.00E-01 - 9.89E-01)
58	6.28E-02	(2.56E-02 - 1.15E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
59	2.47E-04	(2.20E-05 - 1.35E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	1.15E-07	(1.01E-09 - 3.46E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-235 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 146 FISSION PRODUCT CHAIN

NLCT = 2.537 NU = 1.373 ZP = 57.000

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	5.19E-06	(1.29E-07 - 7.00E-05)	5.19E-06	(1.29E-07 - 7.00E-05)
55	3.06E-03	(5.68E-04 - 9.87E-03)	3.06E-03	(5.73E-04 - 9.87E-03)
56	2.36E-01	(1.45E-01 - 3.24E-01)	2.39E-01	(1.48E-01 - 3.27E-01)
57	5.21E-01	(4.52E-01 - 5.90E-01)	7.60E-01	(6.69E-01 - 8.48E-01)
58	2.37E-01	(1.45E-01 - 3.24E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
59	3.07E-03	(5.72E-04 - 9.91E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	5.23E-06	(1.30E-07 - 7.05E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
61	1.71E-10	(2.54E-13 - 1.73E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 147 FISSION PRODUCT CHAIN

NLCT = 2.569 NU = 1.514 ZP = 57.445

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	8.90E-08	(6.93E-10 - 2.74E-06)	8.90E-08	(6.93E-10 - 2.74E-06)
55	2.02E-04	(1.70E-05 - 1.15E-03)	2.02E-04	(1.71E-05 - 1.15E-03)
56	5.60E-02	(2.20E-02 - 1.05E-01)	5.62E-02	(2.22E-02 - 1.05E-01)
57	3.89E-01	(3.23E-01 - 4.65E-01)	4.45E-01	(3.71E-01 - 5.35E-01)
58	5.31E-01	(4.37E-01 - 6.40E-01)	9.78E-01	(9.61E-01 - 1.00E+00)
59	2.34E-02	(8.06E-03 - 4.81E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
60	1.50E-04	(1.01E-05 - 9.95E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
61	1.53E-08	(1.10E-10 - 7.42E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 148 FISSION PRODUCT CHAIN

NLCT = 2.623 NU = 1.616 ZP = 57.875

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	9.69E-10	(2.12E-12 - 7.39E-08)	9.69E-10	(2.12E-12 - 7.39E-08)
55	8.24E-06	(2.75E-07 - 9.00E-05)	8.25E-06	(2.76E-07 - 9.00E-05)
56	8.13E-03	(1.84E-03 - 2.29E-02)	8.14E-03	(1.85E-03 - 2.29E-02)
57	1.81E-01	(1.23E-01 - 2.32E-01)	1.89E-01	(1.30E-01 - 2.42E-01)
58	7.12E-01	(6.08E-01 - 8.17E-01)	9.01E-01	(8.58E-01 - 9.48E-01)
59	9.64E-02	(5.31E-02 - 1.43E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
60	2.14E-03	(3.23E-04 - 8.00E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
61	1.02E-06	(1.86E-08 - 1.72E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 149 FISSION PRODUCT CHAIN

NLCT = 2.710 NU = 1.725 ZP = 58.307

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	2.03E-07	(2.30E-09 - 4.77E-06)	2.03E-07	(2.30E-09 - 4.77E-06)
56	7.38E-04	(8.06E-05 - 3.47E-03)	7.38E-04	(8.08E-05 - 3.47E-03)
57	5.60E-02	(2.57E-02 - 9.41E-02)	5.67E-02	(2.65E-02 - 9.49E-02)
58	6.61E-01	(5.53E-01 - 7.78E-01)	7.17E-01	(6.54E-01 - 7.78E-01)
59	2.63E-01	(2.01E-01 - 3.18E-01)	9.80E-01	(9.67E-01 - 1.00E+00)
60	1.95E-02	(5.59E-03 - 4.55E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
61	3.40E-05	(1.71E-06 - 2.78E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
62	6.59E-09	(2.67E-11 - 3.59E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 150 FISSION PRODUCT CHAIN

NLCT = 2.635 NU = 1.730 ZP = 58.699

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	4.50E-09	(5.75E-15 - 4.17E-06)	4.50E-09	(5.75E-15 - 4.17E-06)
56	5.44E-05	(3.14E-08 - 2.07E-03)	5.44E-05	(3.60E-08 - 2.07E-03)
57	1.20E-02	(5.97E-04 - 5.60E-02)	1.31E-02	(6.51E-04 - 5.61E-02)
58	4.26E-01	(2.25E-01 - 6.23E-01)	4.49E-01	(3.07E-01 - 6.41E-01)
59	4.55E-01	(3.38E-01 - 5.95E-01)	9.04E-01	(8.23E-01 - 1.00E+00)
60	5.56E-02	(1.45E-02 - 2.26E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
61	5.25E-04	(2.19E-06 - 7.45E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
62	3.55E-07	(5.73E-12 - 8.25E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 151 FISSION PRODUCT CHAIN

NLCT = 2.664 NU = 1.779 ZP = 59.108

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	2.07E-06	(1.13E-10 - 2.57E-04)	2.07E-06	(1.13E-10 - 2.57E-04)
57	1.69E-03	(1.64E-05 - 1.57E-02)	1.69E-03	(1.85E-05 - 1.57E-02)
58	1.77E-01	(4.28E-02 - 3.25E-01)	1.78E-01	(4.45E-02 - 3.32E-01)
59	5.12E-01	(3.96E-01 - 6.20E-01)	6.90E-01	(5.13E-01 - 8.43E-01)
60	3.04E-01	(1.13E-01 - 4.54E-01)	9.95E-01	(9.89E-01 - 1.00E+00)
61	5.34E-02	(1.23E-04 - 3.24E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	1.26E-05	(2.48E-09 - 8.17E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
63	5.73E-10	(1.11E-06 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 152 FISSION PRODUCT CHAIN

NLCT = 2.631 NU = 1.752 ZP = 59.503

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	5.02E-08	(2.08E-13 - 2.25E-05)	5.02E-08	(2.08E-13 - 2.29E-05)
57	1.36E-04	(2.17E-07 - 3.12E-03)	1.36E-04	(2.67E-07 - 3.12E-03)
58	4.45E-02	(3.82E-03 - 1.40E-01)	4.46E-02	(3.96E-03 - 1.40E-01)
59	3.60E-01	(2.43E-01 - 5.03E-01)	4.05E-01	(2.81E-01 - 5.77E-01)
60	5.66E-01	(3.85E-01 - 7.90E-01)	9.71E-01	(9.44E-01 - 1.00E+00)
61	2.51E-02	(2.54E-03 - 9.08E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	2.20E-04	(3.60E-07 - 4.98E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
63	3.38E-06	(1.44E-13 - 1.52E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 153 FISSION PRODUCT CHAIN

NLCT = 2.683 NU = 1.852 ZP = 59.916

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	6.12E-10	(1.02E-09 - 1.30E-06)	6.12E-10	(3.31E-24 - 1.30E-06)
57	5.91E-06	(1.02E-09 - 4.12E-04)	5.91E-06	(1.63E-09 - 4.12E-04)
58	6.60E-03	(1.38E-04 - 4.15E-02)	6.60E-03	(1.44E-04 - 4.19E-02)
59	1.65E-01	(5.82E-02 - 2.51E-01)	1.71E-01	(6.47E-02 - 2.65E-01)
60	7.16E-01	(5.60E-01 - 8.67E-01)	8.89E-01	(8.08E-01 - 9.80E-01)
61	1.06E-01	(2.69E-02 - 1.96E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
62	2.65E-03	(2.90E-05 - 2.35E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
63	1.46E-06	(9.20E-11 - 1.66E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-235 NLCTC METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 154 FISSION PRODUCT CHAIN

NLCTC = 2.574 NU = 1.780 ZP = 60.278

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	2.64E-07	(4.91E-12 - 5.63E-05)	2.64E-07	(4.91E-12 - 5.63E-05)
58	8.80E-04	(4.08E-06 - 1.18E-02)	8.80E-04	(4.34E-06 - 1.18E-02)
59	6.14E-02	(9.86E-03 - 1.41E-01)	6.22E-02	(1.07E-02 - 1.43E-01)
60	6.72E-01	(5.00E-01 - 8.77E-01)	7.34E-01	(6.08E-01 - 8.56E-01)
61	2.49E-01	(1.24E-01 - 3.56E-01)	9.83E-01	(9.67E-01 - 1.00E+00)
62	1.70E-02	(7.22E-04 - 7.63E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
63	2.72E-05	(1.39E-08 - 1.10E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
64	5.13E-09	(8.35E-15 - 5.18E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 155 FISSION PRODUCT CHAIN

NLCTC = 2.424 NU = 1.729 ZP = 60.648

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	6.37E-09	(1.14E-14 - 5.85E-06)	7.63E-09	(1.14E-14 - 5.85E-06)
58	7.87E-05	(5.97E-08 - 2.61E-03)	7.87E-05	(6.74E-08 - 2.61E-03)
59	1.62E-02	(8.80E-04 - 6.39E-02)	1.62E-02	(9.58E-04 - 6.40E-02)
60	4.71E-01	(2.62E-01 - 6.72E-01)	4.87E-01	(3.54E-01 - 6.79E-01)
61	4.33E-01	(3.19E-01 - 5.81E-01)	9.20E-01	(8.51E-01 - 1.00E+00)
62	7.56E-02	(1.05E-02 - 2.02E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
63	3.77E-04	(1.24E-06 - 6.01E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
64	2.20E-07	(2.51E-12 - 8.00E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 156 FISSION PRODUCT CHAIN

NLCTC = 2.331 NU = 1.659 ZP = 61.010

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	4.78E-06	(4.73E-10 - 4.40E-04)	4.78E-06	(4.73E-10 - 4.40E-04)
59	2.90E-03	(4.21E-05 - 2.21E-02)	2.91E-03	(4.65E-05 - 2.21E-02)
60	2.30E-01	(6.73E-02 - 3.87E-01)	2.33E-01	(7.02E-02 - 3.91E-01)
61	5.21E-01	(4.15E-01 - 6.31E-01)	7.54E-01	(5.86E-01 - 9.12E-01)
62	2.42E-01	(7.40E-02 - 3.99E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
63	3.24E-03	(5.10E-05 - 2.37E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	5.67E-06	(6.33E-10 - 4.91E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
65	1.91E-10	10.	5.44E-07	1.00E+00

MASS 157 FISSION PRODUCT CHAIN

NLCTC = 2.182 NU = 1.540 ZP = 61.354

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	2.17E-07	(2.45E-12 - 5.95E-05)	2.17E-07	(2.45E-12 - 5.95E-05)
59	3.73E-04	(1.22E-06 - 5.98E-03)	3.73E-04	(1.44E-06 - 5.98E-03)
60	7.52E-02	(1.04E-02 - 2.01E-01)	7.95E-02	(1.08E-02 - 2.02E-01)
61	4.32E-01	(3.18E-01 - 5.80E-01)	5.12E-01	(3.79E-01 - 7.04E-01)
62	4.72E-01	(2.63E-01 - 6.73E-01)	9.84E-01	(9.68E-01 - 1.00E+00)
63	1.63E-02	(8.89E-04 - 6.41E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	7.94E-05	(6.08E-08 - 2.63E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
65	7.73E-09	(1.42E-14 - 5.90E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 158 FISSION PRODUCT CHAIN

NLCTC = 2.092 NU = 1.468 ZP = 61.715

DEVIATION FROM LCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	5.51E-09	(8.35E-15 - 5.43E-06)	5.51E-09	(8.35E-15 - 5.43E-06)
59	2.87E-05	(1.52E-08 - 1.14E-03)	2.87E-05	(2.07E-08 - 1.14E-03)
60	1.76E-02	(7.63E-04 - 7.78E-02)	1.76E-02	(7.91E-04 - 7.79E-02)
61	2.52E-01	(1.27E-01 - 3.61E-01)	2.70E-01	(1.43E-01 - 3.94E-01)
62	6.65E-01	(4.58E-01 - 8.76E-01)	9.39E-01	(8.88E-01 - 1.00E+00)
63	6.01E-02	(9.49E-03 - 1.35E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
64	8.45E-04	(3.80E-06 - 1.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
65	2.46E-07	(4.42E-12 - 5.42E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 159 FISSION PRODUCT CHAIN

NLCTC = 2.097 NU = 1.468 ZP = 62.105

DEVIATION FROM LCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	1.21E-06	(6.73E-11 - 1.45E-04)	1.21E-06	(6.73E-11 - 1.49E-04)
60	2.35E-03	(2.36E-05 - 2.21E-02)	2.39E-03	(2.48E-05 - 2.22E-02)
61	1.02E-01	(2.48E-02 - 1.85E-01)	1.04E-01	(2.72E-02 - 1.94E-01)
62	7.15E-01	(5.54E-01 - 8.65E-01)	8.20E-01	(7.10E-01 - 9.13E-01)
63	1.73E-01	(6.37E-02 - 2.55E-01)	9.93E-01	(9.85E-01 - 1.00E+00)
64	7.35E-03	(1.67E-04 - 4.48E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
65	7.02E-06	(1.37E-09 - 4.60E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
66	7.76E-10	10.	1.52E-06	1.00E+00

MASS 160 FISSION PRODUCT CHAIN

NLCTC = 2.046 NU = .573 ZP = 62.146

DEVIATION FROM LCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	8.51E-07	(3.66E-11 - 1.15E-04)	8.51E-07	(3.66E-11 - 1.19E-04)
60	1.90E-03	(1.57E-05 - 1.92E-02)	1.90E-03	(1.66E-05 - 1.92E-02)
61	5.09E-02	(2.02E-02 - 1.77E-01)	9.28E-02	(2.20E-02 - 1.81E-01)
62	7.05E-01	(5.43E-01 - 8.74E-01)	8.01E-01	(6.87E-01 - 8.99E-01)
63	1.90E-01	(7.54E-02 - 2.78E-01)	9.91E-01	(9.82E-01 - 1.00E+00)
64	5.03E-03	(2.39E-04 - 5.11E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
65	5.75E-06	(2.40E-09 - 5.65E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
66	1.22E-05	10.	2.04E-06	1.00E+00

MASS 161 FISSION PRODUCT CHAIN

NLCTC = 2.041 NU = 1.429 ZP = 62.870

DEVIATION FROM LCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	7.32E-10	10.	1.30E-06	7.32E-10
60	1.50E-05	(3.36E-09 - 9.13E-04)	1.50E-05	(4.10E-09 - 9.13E-04)
61	5.56E-03	(1.49E-04 - 3.47E-02)	5.97E-03	(1.64E-04 - 3.47E-02)
62	3.15E-01	(1.23E-01 - 4.71E-01)	3.25E-01	(1.52E-01 - 4.80E-01)
63	5.08E-01	(3.11E-01 - 6.21E-01)	8.33E-01	(7.05E-01 - 9.85E-01)
64	1.66E-01	(3.81E-02 - 3.17E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
65	1.48E-03	(1.31E-05 - 1.45E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
66	1.70E-06	(8.09E-11 - 2.26E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF U-235 ALICI METHOD

ZP VALUES

(1) FROM DEVIATION FROM UCD - SCALE NU(A) ACCORDING TO NUBAR. (2) FROM CORVELL DELTA ZP.
 (3) FROM NETHAWAY DELTA ZP. (4) FROM DEVIATION FROM LCC AND NUTCI.

72	28.75	28.75	28.75	28.74	117	46.37	46.34	46.34	46.39
73	30.31	29.14	29.48	29.54	118	46.75	46.69	46.65	46.74
74	29.53	29.53	29.54	29.54	119	47.65	46.59	46.95	47.08
75	29.92	29.92	29.93	29.93	120	47.43	47.30	47.30	47.41
76	30.31	30.31	30.32	30.32	121	47.76	47.60	47.60	47.73
77	30.71	30.71	30.72	30.72	122	48.08	47.50	47.90	48.03
78	31.12	31.12	31.12	31.12	123	48.58	48.27	48.27	48.51
79	31.55	31.55	31.55	31.55	124	48.67	48.43	48.43	48.61
80	31.94	31.94	31.96	31.96	125	48.97	48.71	48.71	48.93
81	32.35	32.35	32.36	32.36	126	49.30	49.01	49.01	49.30
82	32.75	32.75	32.76	32.76	127	49.64	49.32	49.32	49.63
83	33.16	33.16	33.16	33.16	128	50.01	49.66	49.66	50.00
84	33.57	33.57	33.57	33.57	129	50.40	50.02	50.02	50.40
85	33.98	33.98	33.98	33.98	130	50.79	50.35	50.35	50.79
86	34.40	34.40	34.40	34.40	131	51.20	50.80	50.80	51.20
87	34.82	34.82	34.82	34.82	132	51.61	51.21	51.21	51.61
88	35.25	35.25	35.25	35.25	133	52.02	51.65	51.65	52.02
89	35.66	35.66	35.66	35.66	134	52.43	52.06	52.06	52.43
90	36.06	36.06	36.06	36.06	135	52.84	52.46	52.46	52.84
91	36.46	36.46	36.46	36.46	136	53.25	52.86	52.86	53.25
92	36.86	36.86	36.86	36.86	137	53.65	53.26	53.26	53.65
93	37.27	37.27	37.27	37.27	138	54.05	53.66	53.66	54.05
94	37.67	37.67	37.67	37.67	139	54.45	54.06	54.06	54.45
95	38.08	38.08	38.08	38.08	140	54.85	54.46	54.46	54.85
96	38.47	38.47	38.47	38.47	141	55.25	54.86	54.86	55.25
97	38.87	38.87	38.87	38.87	142	55.65	55.26	55.26	55.65
98	39.26	39.26	39.26	39.26	143	56.05	55.66	55.66	56.05
99	39.64	39.64	39.64	39.64	144	56.45	56.06	56.06	56.45
100	40.01	40.01	40.01	40.01	145	56.85	56.46	56.46	56.85
101	40.38	40.38	40.38	40.38	146	57.25	56.86	56.86	57.25
102	40.76	40.76	40.76	40.76	147	57.65	57.26	57.26	57.65
103	41.13	41.13	41.13	41.13	148	58.05	57.66	57.66	58.05
104	41.51	41.51	41.51	41.51	149	58.45	58.06	58.06	58.45
105	41.93	41.93	41.93	41.93	150	58.85	58.46	58.46	58.85
106	42.36	42.36	42.36	42.36	151	59.25	58.86	58.86	59.25
107	42.76	42.76	42.76	42.76	152	59.65	59.26	59.26	59.65
108	43.16	43.16	43.16	43.16	153	60.05	59.66	59.66	60.05
109	43.53	43.53	43.53	43.53	154	60.45	60.06	60.06	60.45
110	43.85	43.85	43.85	43.85	155	60.85	60.46	60.46	60.85
111	44.24	44.24	44.24	44.24	156	61.25	60.86	60.86	61.25
112	44.57	44.57	44.57	44.57	157	61.65	61.26	61.26	61.65
113	44.91	44.91	44.91	44.91	158	62.05	61.66	61.66	62.05
114	45.25	45.25	45.25	45.25	159	62.45	62.06	62.06	62.45
115	45.63	45.63	45.63	45.63	160	62.85	62.46	62.46	62.85
116	46.00	46.00	46.00	46.00	161	63.25	62.86	62.86	63.25

THERMAL NEUTRON FISSION OF U-235 NLCT METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS MINUS	PROCESS TYPE	PRIMARY YIELD REF.	SECONDARY CR COMMENTS	REFERENCE	VALLE	ESTIMATED RANGE	FIT
31GA	77		5.730E-01	1.400E-02	U235T	FC	C59NAH1-21		8.578E-01	(8.123E-01 - 1.000E+00)	NC
31GA	78		7.200E-01	2.100E-01	U235T	FC	K-W72-1		6.798E-01	(5.056E-01 - 8.339E-01)	YES
33AS	70		8.500E-03	2.500E-03	U235T	FI	5SKJEL		5.755E-03	(1.401E-04 - 3.354E-02)	YES
32GE	75		6.100E-01	1.100E-01	U235T	FC	72MAR1		5.654E-01	(9.345E-01 - 1.000E+00)	NC
35BR	80		6.000E-06	1.000E-06	U235T	FI	71TRAI	ISOM.	2.169E-06	(1.740E-01 - 2.127E-04)	YES
35BR	82	AVE	1.360E-04	2.000E-05	U235T	FI	61ER1		7.485E-04	(4.218E-06 - 9.529E-03)	YES
35BR	82		1.500E-04	2.000E-05	U235T	FI	71TRAI		7.655E-04	(4.218E-06 - 9.529E-03)	YES
33AS	83		8.000E-01	8.000E-02	U235T	FC	68MAR1		6.545E-01	(4.865E-01 - 8.117E-01)	YES
33AS	83		7.600E-01	6.300E-02	U235T	FC	73KRA2		6.545E-01	(4.865E-01 - 8.117E-01)	YES
34SE	83M		6.400E-01	4.000E-02	U235T	FC	62CRO1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	83G		4.200E-01	4.000E-02	U235T	FC	62CRO1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	83G		3.500E-01	4.000E-02	U235T	FC	62CRO1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	83	SUM	1.060E+00	6.000E-02	U235T	FC	62CRO1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	83	SUM	65.300E-01	6.000E-02	U235T	FC	73KRA3		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	84		5.500E-01	6.000E-03	U235T	FC	73KRA1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	84		9.700E-01	2.000E-02	U235T	FC	62SAT1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
33AS	84		1.700E-01	2.000E-02	U235T	FC	73KRA2	CK-K73-1-5	5.531E-01	(9.865E-01 - 1.000E+00)	YES
33AS	84	5.35	1.530E-01	1.200E-02	U235T	FC	73KRA2		5.531E-01	(9.865E-01 - 1.000E+00)	YES
33AS	84	5.35	1.700E-01	2.000E-02	U235T	FC	73KRA2		5.531E-01	(9.865E-01 - 1.000E+00)	YES
33AS	84	SUM	3.980E-01	5.500E-02	U235T	FC	68MAR1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	84		9.660E-01	2.100E-02	U235T	FC	73KRA2		5.531E-01	(9.865E-01 - 1.000E+00)	YES
35BR	84		9.640E-01	6.700E-02	U235T	FC	73KRA2		5.531E-01	(9.865E-01 - 1.000E+00)	YES
37RB	84		2.400E-09	2.000E-10	U235T	FC	72NEE1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
33AS	85		4.846E-02	9.700E-03	U235T	FI	66FLY1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	85		8.115E-01	2.730E-01	U235T	FI	72NEE1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	85		8.180E-01	6.600E-02	U235T	FC	73KRA2		5.531E-01	(9.865E-01 - 1.000E+00)	YES
37RB	86	AVE	1.400E-05	2.000E-06	U235T	FI	61ER1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
33AS	87		4.000E-02	2.000E-02	U235T	FC	70KRA1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
33AS	87		2.500E-02	1.500E-02	U235T	FC	71KRA2		5.531E-01	(9.865E-01 - 1.000E+00)	YES
33AS	87	AVE	1.800E-02	9.000E-03	U235T	FC	73KRA2		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	87		4.800E-01	1.000E-01	U235T	FC	68TCM1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	87		2.660E-01	1.000E-01	U235T	FC	70KRA1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	87		4.100E-01	5.000E-02	U235T	FC	70KRA1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	87		2.500E-01	6.300E-02	U235T	FC	71GR11		5.531E-01	(9.865E-01 - 1.000E+00)	YES
34SE	87	AVE	4.670E-01	7.100E-02	U235T	FC	71KRA2		5.531E-01	(9.865E-01 - 1.000E+00)	YES
35BR	87		2.500E-01	5.000E-02	U235T	FC	71TCM1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
35BR	87		3.075E-01	7.680E-02	U235T	FI	72NEE1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
35BR	87		3.497E-01	5.930E-02	U235T	FI	72NEE1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
35BR	87		4.500E-01	1.000E-01	U235T	FI	73KRA3		5.531E-01	(9.865E-01 - 1.000E+00)	YES
35BR	87		4.700E-01	1.200E-01	U235T	FI	66SIL1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
35BR	87		1.060E+00	4.000E-02	U235T	FC	62SAT1		5.531E-01	(9.865E-01 - 1.000E+00)	YES
35BR	87		1.500E-01	1.300E-02	U235T	FC	71GR11		5.531E-01	(9.865E-01 - 1.000E+00)	YES
36KR	87		1.520E-01	1.300E-02	U235T	FI	73AM11		5.531E-01	(9.865E-01 - 1.000E+00)	YES

THERMAL NEUTRON FISSION CF U-235 ALICI METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY		PROCESS	TYPE	PRIMARY YIELD	REF.	SECONDARY CR COMMENTS	REFERENCE VALLE	ESTIMATED RANGE	FIT
				PLUS	MINUS								
36KR	87		1.400E-01	1.000E-02	1.000E-02	U235T	FI	72EHR1	K-E72-1		1.428E-01	(7.469E-02 - 2.191E-01)	YES
34SE	88		1.303E-01	2.000E-02	2.000E-02	U235T	FC	7CMAR1	K-K73-2		1.151E-01	(5.663E-02 - 1.850E-01)	YES
34SE	88		1.090E-01	1.300E-02	1.300E-02	U235T	FC	71TCM1	K-CA73-1-26(K-T71-1)		1.151E-01	(5.663E-02 - 1.850E-01)	YES
34SE	88		2.400E-01	6.000E-02	6.000E-02	U235T	FC	71KRA2	K-CC71-2-58 KRATZ 71		1.151E-01	(5.663E-02 - 1.850E-01)	YES
34SE	88	AVE	2.220E-01	5.600E-02	5.600E-02	U235T	FC	73KRA2	K-K73-2-8,9		1.151E-01	(5.663E-02 - 1.850E-01)	YES
34SE	88		G2.400E-01			U235T	FC		K-CA73-1-4 MCSEL		1.151E-01	(5.663E-02 - 1.850E-01)	AC
35BR	88		5.600E-01	1.400E-01	1.400E-01	U235T	FI	66SIL1	CK-h73-1-6		4.749E-01	(3.996E-01 - 5.549E-01)	YES
35BR	88		5.600E-01	2.300E-01	2.300E-01	U235T	FI	73KRA3	CK-h73-1-5 KRATZ		4.749E-01	(3.996E-01 - 5.549E-01)	YES
35BR	88		8.000E-01	5.000E-02	5.000E-02	U235T	FC	71GR11	CK-h73-1-11 CK-K73-2		5.500E-01	(4.947E-01 - 6.771E-01)	NO
36KR	88		3.710E-01	2.800E-02	2.800E-02	U235T	FI	72EHR1	K-CA73-1-13(K-E72-2)		3.556E-01	(2.945E-01 - 4.853E-01)	YES
36KR	88		3.600E-01	3.000E-02	3.000E-02	U235T	FI	72EPR1	K-E72-1		3.556E-01	(2.945E-01 - 4.853E-01)	YES
36KR	88		1.040E+00	6.000E-02	6.000E-02	U235T	FC	71MC11	CK-h73-1-16 MCLAUGH.		5.856E-01	(9.820E-01 - 1.000E+00)	YES
34SE	89		3.000E-02	5.000E-03	5.000E-03	U235T	FC	71TCM1	K-K73-2-14 K-T71-1		2.264E-02	(6.814E-03 - 5.119E-02)	YES
34SE	89		2.300E-02	1.000E-02	1.000E-02	U235T	FC	71TCM1	K-CA73-1-26(K-T71-1)		2.264E-02	(6.814E-03 - 5.119E-02)	YES
35BR	89		8.230E-01	4.900E-02	4.900E-02	U235T	FI	65BRA1	K-CA73-1-20 AMIEL		2.793E-01	(2.174E-01 - 3.371E-01)	AC
35BR	89		5.810E-01	1.450E-01	1.450E-01	U235T	FI	72MEE1	K-CA73-1-19 (M+R)		2.793E-01	(2.174E-01 - 3.371E-01)	AC
35BR	89		4.400E-01	1.000E-01	1.000E-01	U235T	FI	66SIL1	CK-h73-1-6		2.793E-01	(2.174E-01 - 3.371E-01)	AC
35BR	89		4.800E-01	7.000E-02	7.000E-02	U235T	FI	73KRA3	CK-h73-1-5		2.793E-01	(2.174E-01 - 3.371E-01)	AC
36KR	89		9.600E-01	4.000E-03	4.000E-03	U235T	FC	69WAH1	C69WAH1-35		5.450E-01	(9.210E-01 - 9.855E-01)	YES
36KR	89		6.920E-01	4.000E-02	4.000E-02	U235T	FI	72EHR1	K-CA73-1-13(K-E72-2)		6.471E-01	(5.401E-01 - 7.652E-01)	YES
37RB	89		4.700E-02	1.600E-02	1.600E-02	U235T	FI	69CHA1	C69WAH1-4C		5.038E-02	(2.236E-02 - 8.682E-02)	YES
37RB	89		4.030E-02			U235T	FI	72REE1	K-CA73-1-35 REEDER		5.038E-02	(2.236E-02 - 8.682E-02)	YES
35BR	90		6.250E-01	2.600E-02	2.600E-02	U235T	FI	73AM11	K-CA73-1-20 AMIEL		1.162E-01	(6.806E-02 - 1.647E-01)	AC
35BR	90		2.400E-01	6.000E-02	6.000E-02	U235T	FI	73KRA3	CK-h73-1-5 KRATZ		1.162E-01	(6.806E-02 - 1.647E-01)	AC
36KR	90		8.600E-01	2.000E-02	2.000E-02	U235T	FC	69WAH1	C69WAH1-35		8.401E-01	(7.849E-01 - 8.921E-01)	YES
36KR	90		6.330E-01	8.200E-02	8.200E-02	U235T	FI	72EHR1	K-CA73-1-13(K-E72-2)		7.208E-01	(6.208E-01 - 8.169E-01)	YES
37RB	90		1.300E-01	2.000E-02	2.000E-02	U235T	FI	69CHA1	C69WAH1-4C		1.541E-01	(9.908E-02 - 2.048E-01)	YES
39 Y 90	AVE		L8.000E-05			U235T	FI	57GRU1	C69WAH1-41,42 55REE1		4.708E-06	(1.336E-07 - 5.770E-05)	YES
35BR	91		7.500E-02	7.000E-02	7.000E-02	U235T	FI	73KRA2	CK-h73-1-5 KRATZ		3.368E-02	(1.307E-02 - 6.355E-02)	YES
36KR	91		5.900E-01	1.000E-02	1.000E-02	U235T	FC	69WAH1	C69WAH1-35		6.230E-01	(5.593E-01 - 7.022E-01)	YES
36KR	91		5.460E-01	1.500E-02	1.500E-02	U235T	FI	72EHR1	K-CA73-1-13(K-E72-2)		5.950E-01	(4.882E-01 - 7.049E-01)	YES
37RB	91		4.000E-01	2.000E-02	2.000E-02	U235T	FI	69CHA1	C69WAH1-4C		3.352E-01	(2.805E-01 - 4.082E-01)	YES
37RB	91		5.300E-01	5.000E-02	5.000E-02	U235T	FC	62WAH1	CK-h73-1-23		5.622E-01	(9.377E-01 - 1.000E+00)	YES
37RB	91		3.900E-01	3.000E-02	3.000E-02	U235T	FI	72BAL1	CK-h73-1-18		3.352E-01	(2.805E-01 - 4.082E-01)	YES
38SR	91		3.000E-02	3.000E-02	3.000E-02	U235T	FI	62WAH1	C69WAH1-12		3.766E-02	(1.316E-02 - 7.654E-02)	YES
39 Y 91	AVE		L1.000E-02			U235T	FI	57GRU1	C69WAH1-41,42 55REE1		1.022E-04	(7.041E-06 - 6.670E-04)	YES
35BR	92		L3.000E-03			U235T	FI	73KRA2	CK-h73-1-5 KRATZ		6.303E-03	(1.462E-03 - 1.740E-02)	YES
36KR	92		3.100E-01	1.000E-02	1.000E-02	U235T	FC	69WAH1	C69WAH1-35		3.332E-01	(2.303E-01 - 4.223E-01)	YES
36KR	92		2.500E-01	1.200E-02	1.200E-02	U235T	FI	72EHR1	K-CA73-1-13(K-E72-2)		3.269E-01	(2.241E-01 - 4.153E-01)	YES
37RB	92	AVE	5.500E-01	3.000E-02	3.000E-02	U235T	FI	69CHA1	C69WAH1-4C,55 66WAH1		5.055E-01	(4.304E-01 - 5.810E-01)	YES
37RB	92		4.140E-01	4.000E-02	4.000E-02	U235T	FI	72REE1	K-CA73-1-35 REEDER		5.055E-01	(4.304E-01 - 5.810E-01)	YES
37RB	92		6.200E-01	1.600E-01	1.600E-01	U235T	FI	66WAH1	CK-h73-1-21		5.055E-01	(4.304E-01 - 5.810E-01)	YES
39 Y 92			1.300E-03	2.000E-04	2.000E-04	U235T	FI	66NCR2	C69WAH1-17		1.367E-03	(2.037E-04 - 5.293E-03)	YES
36KR	93		8.300E-02	1.100E-02	1.100E-02	U235T	FI	72EHR1	K-CA73-1-13(K-E72-2)		1.048E-01	(4.986E-02 - 1.720E-01)	YES
36KR	93		7.800E-02	1.200E-02	1.200E-02	U235T	FC	62WAH1	C69WAH1-12		1.054E-01	(5.048E-02 - 1.727E-01)	YES
37RB	93	AVE	4.800E-01	3.000E-02	3.000E-02	U235T	FI	69CHA1	C69WAH1-4C,55 66WAH1		4.654E-01	(3.906E-01 - 5.458E-01)	YES

THERMAL NEUTRON FISSION OF U-235 NLCT METHOD

Z	A	ISOPER	EXPL. VALUE	UNCERTAINTY PLUS MINUS	PROCESS TYPE	YIELD	PRIMARY REF.	SECONDARY CR COMMENTS	ESTIMATED VALUE	RANGE	FIT
37Rb 93			4.580E-01	3.000E-02	U235T	FI	72REE1	K-CA73-1-25 REEDER	4.654E-01	(3.906E-01 - 5.458E-01)	YES
39 Y 93			1.600E-02	2.000E-03	U235T	FI	66NCR2	C65NAH1-17	1.159E-02	(3.172E-03 - 2.793E-02)	YES
36KR 94			1.500E-02	9.000E-03	U235T	FC	62MAH1	C65NAH1-12	2.058E-02	(6.170E-03 - 4.820E-02)	YES
36KR 94			3.500E-02	3.000E-03	U235T	FI	72EHR1	K-CA73-1-13(K-E72-2)	2.054E-02	(6.132E-03 - 4.816E-02)	YES
37Rb 94			2.300E-01	1.000E-02	U235T	FI	69CPA1	C65NAH1-4C	2.709E-01	(2.089E-01 - 3.270E-01)	YES
37Rb 94			6.620E-01	1.500E-02	U235T	FI	72REE1	K-CA73-1-25 REEDER	2.709E-01	(2.089E-01 - 3.270E-01)	YES
39 Y 94			6.600E-02	2.000E-02	U235T	FI	66NCR2	C65NAH1-17	5.323E-02	(2.405E-02 - 9.055E-02)	YES
36KR 95			1.100E-03	5.000E-03	U235T	FC	62MAH1	C65NAH1-12	2.603E-03	(4.610E-04 - 9.868E-03)	YES
37Rb 95			1.220E-01	9.000E-03	U235T	FI	65MAH1	C65NAH1	1.100E-01	(6.326E-02 - 1.579E-01)	YES
36KR 95			5.800E-02	6.000E-02	U235T	FI	72REE1	K-CA73-1-25 REEDER	1.619E-01	(1.058E-01 - 2.127E-01)	YES
37Rb 95			1.300E-01	6.000E-02	U235T	FI	66NCR2	C65NAH1-17	6.358E-03	(1.336E-03 - 1.883E-02)	AC
40Zr 95			6.000E-04	3.000E-04	U235T	FI	70NIE1	K-CA73-1-25	6.358E-03	(1.336E-03 - 1.883E-02)	YES
40Zr 95			4.000E-03	6.000E-04	U235T	FI	65NIE1	C65NAH1-5E	6.358E-03	(1.336E-03 - 1.883E-02)	YES
40Zr 95			4.000E-03	2.000E-03	U235T	FI	70NIE1	C65NAH1	6.358E-03	(1.336E-03 - 1.883E-02)	YES
37Rb 96			2.600E-02	1.200E-03	U235T	FI	65MAH1	C65NAH1	3.270E-02	(1.257E-02 - 6.213E-02)	YES
37Rb 96			3.000E-02	4.500E-03	U235T	FI	72REE1	K-CA73-1-25 REEDER	3.270E-02	(1.257E-02 - 6.213E-02)	YES
37Rb 96			2.000E-02	1.000E-03	U235T	FI	72CHAI	CK-W73-1-22 CHAUMONT	3.270E-02	(1.257E-02 - 6.213E-02)	YES
37Rb 96			3.000E-02	5.000E-03	U235T	FI	72BAA1	CK-W73-1-18	3.270E-02	(1.257E-02 - 6.213E-02)	YES
41Nb 96		AVE	1.600E-04	2.000E-05	U235T	FI	62MAH1	C65NAH1-12-57 61CRD1	1.084E-04	(7.595E-06 - 6.990E-04)	YES
41Nb 96			8.000E-04	2.000E-04	U235T	FI	65BLAI	K-CC71-2-55 BLACHCT	1.084E-04	(7.595E-06 - 6.990E-04)	YES
36KR 97		L1	1.000E-05	7.000E-04	U235T	FC	62MAH1	C65NAH1-12	1.650E-05	(5.465E-07 - 1.734E-04)	YES
37Rb 97			5.600E-03	6.000E-03	U235T	FI	65MAH1	C65NAH1	6.278E-03	(1.454E-03 - 1.734E-02)	YES
37Rb 97			1.600E-02	1.000E-03	U235T	FI	72REE1	K-CA73-1-25 REEDER	6.278E-03	(1.454E-03 - 1.734E-02)	YES
41Nb 97			5.000E-03	8.000E-04	U235T	FI	72CHAI	CK-W73-1-22 CHAUMONT	6.278E-03	(1.454E-03 - 1.734E-02)	YES
41Nb 97			1.300E-02	2.000E-03	U235T	FI	62MAH1	C65NAH1-12	1.344E-03	(2.049E-04 - 5.313E-03)	YES
41Nb 98			6.100E-03	4.000E-04	U235T	FI	65BLAI	K-CC71-2-55 BLACHCT	1.344E-03	(2.049E-04 - 5.313E-03)	YES
43TC 98			1.500E-07	2.000E-08	U235T	FI	66GCE1	C65NAH1-5E	5.555E-03	(2.610E-03 - 2.491E-02)	AC
40Zr 95			3.300E-01	3.000E-02	U235T	FC	63TRD1	CK-W73-1-26	3.405E-09	(7.515E-12 - 1.421E-07)	YES
41Nb 95M			3.300E-01	3.000E-02	U235T	FC	63TRD1	CK-W73-1-26	5.555E-01	(9.990E-01 - 1.000E+00)	YES
41Nb 95M			3.100E-01	2.000E-02	U235T	FC	63TRD1	CK-W73-1-26	5.555E-01	(9.990E-01 - 1.000E+00)	YES
41Nb 95G			6.100E-01	1.100E-01	U235T	FC	63TRD1	CK-W73-1-26	4.622E-02	(2.016E-02 - 8.180E-02)	YES
41Nb 95G			3.000E-03	9.400E-01	U235T	FC	63TRD1	CK-W73-1-26	5.555E-01	(9.990E-01 - 1.000E+00)	YES
41Nb 95		SUM	8.300E-01	1.140E-01	U235T	FC	63TRD1	CK-W73-1-26	5.555E-01	(9.990E-01 - 1.000E+00)	YES
42Pb103			6.800E-01	5.800E-01	U235T	FC	65PAS1	C65NAH1-61	5.544E-01	(9.901E-01 - 1.000E+00)	YES
42Pb105			9.500E-01	2.000E-02	U235T	FC	65PAS1	C65NAH1-61	6.526E-01	(8.469E-01 - 9.404E-01)	AC
43Tl105			7.300E-01	3.000E-02	U235T	FC	65PAS1	CK-W73-1-30	8.525E-01	(8.469E-01 - 9.404E-01)	AC
42Pb106			6.500E-01	9.000E-02	U235T	FC	65PAS1	CK-W73-1-25	5.544E-01	(9.901E-01 - 1.000E+00)	YES
43Tl107			1.070E+00	5.000E-02	U235T	FC	65PAS1	CK-W73-1-30	8.526E-01	(8.469E-01 - 9.404E-01)	AC
47Ag112			3.300E-01	5.000E-02	U235T	FC	65PAS1	CK-W73-1-29	8.526E-01	(8.469E-01 - 9.404E-01)	YES
47Ag112			6.000E-05	3.000E-05	U235T	FC	66BAE1	CK-W73-1-29	5.536E-01	(9.678E-01 - 1.000E+00)	AC
47Ag115			1.000E-04	1.000E-02	U235T	FI	71RCC1	C65NAH1-1E RCACH 67	1.768E-04	(3.461E-07 - 3.719E-03)	YES
46Pd115			8.500E-01	1.600E-02	U235T	FC	70NEI1	K-CC71-2-61	5.559E-01	(9.123E-01 - 1.000E+00)	AC
47Ag117			9.620E-01	1.600E-02	U235T	FC	70NEI1	K-CC71-2-61	5.720E-01	(9.457E-01 - 1.000E+00)	YES

THERMAL NEUTRON FISSION OF U-235 ALIOT METHOD

Z	A ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	MINUS	PROCESS	TYPE	PRIMARY YIELD	REFERENCE OR COMMENTS	ESTIMATED VALUE	RANGE	FIT
45RH117		2.500E-01	8.000E-02	8.000E-02	U235T	FC	7CWE11	K-CC71-2-61 WEINRICH	4.335E-02	(5.582E-03 - 1.151E-01)	NC
46PD117		6.800E-01	7.000E-02	7.000E-02	U235T	FC	68WE11	C69WAF-1-19	6.683E-01	(5.399E-01 - 8.176E-01)	YES
46PD117	Ave	7.240E-01	4.600E-02	4.600E-02	U235T	FC	7CWE11	K-CC71-2-61,58	6.683E-01	(5.399E-01 - 8.176E-01)	YES
47AG117		3.500E-01	5.000E-02	5.000E-02	U235T	FI	69WE11	K-CC71-2-62 WEISS 69	3.036E-01	(1.779E-01 - 4.318E-01)	YES
46PD118		2.900E-01	3.000E-02	3.000E-02	U235T	FC	69WE11	K-CC71-2-62 WEISS 69	4.152E-01	(2.644E-01 - 5.932E-01)	YES
47AG118		5.500E-01	1.000E-01	1.000E-01	U235T	FI	69WE11	K-CC71-2-62 WEISS 69	4.724E-01	(3.535E-01 - 6.111E-01)	YES
48CD121		65.300E-01	6.000E-02	6.000E-02	U235T	FC	69WE12	C69WAF-1-63	5.252E-01	(8.820E-01 - 1.000E+00)	YES
50SN121		12.300E-01			U235T	FI	69WAF-1	C69WAF-1-64	5.468E-04	(4.656E-06 - 1.241E-02)	YES
50SN123		1.300E-01	6.000E-02	6.000E-02	U235T	FI	66ERC1	C69WAF-1-65	1.944E-02	(9.076E-04 - 8.292E-02)	YES
51SB124		2.450E-03	3.000E-06	3.000E-06	U235T	FI	70FAF-1	K-CC71-2-67 FAHLAND	2.872E-04	(7.788E-07 - 5.049E-03)	YES
51SB124	Ave	6.000E-04	2.000E-04	2.000E-04	U235T	FI	65STR1	C69WAF-1-66,67 HERRM.	2.872E-04	(7.788E-07 - 5.049E-03)	YES
50SN125		3.500E-01	1.500E-01	1.500E-01	U235T	FI	66ERC1	C69WAF-1-65	1.961E-01	(5.028E-02 - 3.506E-01)	YES
51SB126	Ave	6.1700E-02	5.000E-03	5.000E-03	U235T	FI	66ERC1	C69WAF-1-66,67,68	1.303E-02	(5.975E-04 - 5.604E-02)	YES
51SB126		6.800E-02	1.800E-02	1.800E-02	U235T	FI	70FAF-1	K-CC71-2-67 FAHLAND	1.303E-02	(5.975E-04 - 5.604E-02)	YES
53 I126		12.000E-04			U235T	FI		C69WAF-1-33 TRACY	4.513E-09	(5.745E-15 - 4.179E-06)	YES
53 I126		16.000E-05			U235T	FI	70TRA1		4.513E-09	(5.745E-15 - 4.179E-06)	YES
51SB127		5.700E-02	1.000E-02	1.000E-02	U235T	FI	64TRC1	C69WAF-1-69	4.514E-02	(5.635E-03 - 1.177E-01)	YES
51SB128	10M	13.700E-02			U235T	FI	73FCW1	K-F73-1	1.350E-01	(4.051E-02 - 2.239E-01)	YES
51SB128	9.1M	3.100E-02	5.000E-03	5.000E-03	U235T	FI	73FCW1	K-F73-1	1.350E-01	(4.051E-02 - 2.239E-01)	YES
51SB128	SUM	4.500E-02	2.200E-02	2.200E-02	U235T	FI	73FCW1	K-F73-1	1.350E-01	(4.051E-02 - 2.239E-01)	YES
53 I128		4.000E-05	1.000E-05	1.000E-05	U235T	FI		C69WAF-1-33 TRACY	3.012E-06	(3.207E-10 - 2.673E-04)	YES
53 I128		3.700E-05	8.000E-06	8.000E-06	U235T	FI	70TRA1		3.012E-06	(3.207E-10 - 2.673E-04)	YES
50SN129M		5.300E-01	3.000E-02	3.000E-02	U235T	FC	73FCW1	CK-W73-1-32 K-F73-1	6.630E-01	(5.347E-01 - 8.142E-01)	YES
50SN129G		3.600E-01	3.000E-02	3.000E-02	U235T	FC	73FCW1	CK-W73-1-32 K-F73-1	6.630E-01	(5.347E-01 - 8.142E-01)	YES
50SN129G		3.100E-01	1.000E-02	1.000E-02	U235T	FC	71BIR1	CK-W73-1-34	6.630E-01	(5.347E-01 - 8.142E-01)	YES
50SN129	SUM	8.500E-01	4.200E-02	4.200E-02	U235T	FC	73FCW1	CK-W73-1-32 K-F73-1	6.630E-01	(5.347E-01 - 8.142E-01)	NC
51SB129		1.200E-01	7.000E-02	7.000E-02	U235T	FI		C69WAF-1-70 FOWLER	3.079E-01	(1.825E-01 - 4.375E-01)	YES
51SB129		1.140E-01	4.600E-02	4.600E-02	U235T	FI	73FCW1	K-F73-1	3.079E-01	(1.825E-01 - 4.375E-01)	NC
50SN130		6.300E-01	7.000E-02	7.000E-02	U235T	FC	73FCW1	K-CA73-1-36 K-F73-1	6.560E-01	(6.321E-01 - 7.609E-01)	YES
50SN130	AB.	5.000E-01			U235T	FC	69BLA1	K-CC71-2-65 BLACHCT	6.560E-01	(6.321E-01 - 7.609E-01)	NC
50SN130		5.200E-01	6.000E-02	6.000E-02	U235T	FC	73FCW1	CK-W73-1-32 K-F73-1	6.560E-01	(6.321E-01 - 7.609E-01)	NC
51SB130M		3.700E-01			U235T	FI	69BLA1	CK-W73-1-28	2.810E-01	(2.192E-01 - 3.393E-01)	NC
51SB130G		5.000E-02			U235T	FI	69BLA1	CK-W73-1-28	2.810E-01	(2.192E-01 - 3.393E-01)	YES
51SB130	6.3M	2.000E-01	3.000E-02	3.000E-02	U235T	FI	73FCW1	K-F73-1	2.810E-01	(2.192E-01 - 3.393E-01)	YES
51SB130	40M	1.380E-01	3.400E-02	3.400E-02	U235T	FI	73FCW1	K-F73-1	2.810E-01	(2.192E-01 - 3.393E-01)	YES
51SB130	SUM	4.600E-01			U235T	FI	69BLA1	CK-W73-1-28	2.810E-01	(2.192E-01 - 3.393E-01)	NC
51SB130	SUM	3.400E-01	4.500E-02	4.500E-02	U235T	FI	73FCW1	K-F73-1	2.810E-01	(2.192E-01 - 3.393E-01)	YES
52TE130	AB.	3.000E-02			U235T	FI	69BLA1	K-CC71-2-65 BLACHCT	2.296E-02	(6.912E-03 - 5.179E-02)	YES
53 I130	Ave	1.600E-04	2.000E-05	2.000E-05	U235T	FI	56KFN1	C69WAF-1-33,71 TRACY	4.451E-05	(2.415E-06 - 3.442E-04)	YES
53 I130		1.150E-04	1.500E-05	1.500E-05	U235T	FI	70TRA1		4.451E-05	(2.415E-06 - 3.442E-04)	YES
50SN131		3.500E-01	8.000E-02	8.000E-02	U235T	FI	66STR1	C69WAF-1-20	3.544E-01	(2.893E-01 - 4.798E-01)	YES
50SN131		4.370E-01	7.200E-02	7.200E-02	U235T	FC	70CE11	K-CA73-1-31	4.045E-01	(3.084E-01 - 4.911E-01)	YES
50SN131	AB.	3.500E-01			U235T	FC	69BLA1	K-CC71-2-65 BLACHCT	4.045E-01	(3.084E-01 - 4.911E-01)	YES
50SN131		2.700E-01			U235T	FC	721ZA1	CK-W73-1-42	4.045E-01	(3.084E-01 - 4.911E-01)	NC
50SN131		3.300E-01	6.000E-02	6.000E-02	U235T	FC	73FCW1	CK-W73-1-32 K-F73-1	4.045E-01	(3.084E-01 - 4.911E-01)	YES
50SN131		4.600E-01	8.000E-02	8.000E-02	U235T	FC	66STR1	CK-W73-1-41	4.045E-01	(3.084E-01 - 4.911E-01)	YES

THERMAL NEUTRON FISSION CF U-235 ALIC1 METHODC

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	UNCERTAINTY MINUS	PROCESS	TYPE	PRIMARY YIELD	REF.	SECONDARY CR COMMENTS	REFERENCE	ESTIMATED VALUE	RANGE	FIT
50	SN	131	2.630E-01			U235T	FI			K-CP73-1	LITERATURE	3.544E-01	(2.893E-01 - 4.758E-01)	NC
50	SN	131	3.500E-01			U235T	FC			K-CP73-1	LITERATURE	4.045E-01	(3.084E-01 - 4.911E-01)	YES
50	SN	131	3.000E-01	5.000E-02	5.000E-02	U235T	FC			K-P74-1		4.045E-01	(3.084E-01 - 4.911E-01)	YES
51	SN	131	8.750E-01	1.400E-01	1.400E-01	U235T	FC	70CELL		K-CA73-1-31		8.520E-01	(8.224E-01 - 9.526E-01)	YES
51	SN	131	5.670E-01	1.370E-01	1.370E-01	U235T	FI	70CELL		K-CA73-1-31		4.755E-01	(4.021E-01 - 5.735E-01)	YES
51	SN	131	8.750E-01	1.400E-02	1.400E-02	U235T	FC	70CELL		K-CC71-2-53		8.620E-01	(8.224E-01 - 9.526E-01)	YES
51	SN	131	5.200E-01			U235T	FI	698LA1		K-CC71-2-55	BLACHCT	4.775E-01	(4.021E-01 - 5.735E-01)	YES
51	SN	131	6.530E-01	5.000E-02	5.000E-02	U235T	FI			K-P73-1		4.775E-01	(4.021E-01 - 5.735E-01)	YES
51	SN	131	6.100E-01	5.000E-02	5.000E-02	U235T	FI			K-P74-1		4.775E-01	(4.021E-01 - 5.735E-01)	NC
52	TE	131M	5.600E-02	9.000E-03	9.000E-03	U235T	FI	735PA1		K-S73-1		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131M	1.500E-01			U235T	FI	53PA1		CK-W73-1-36		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131M	2.500E-02	2.500E-02	2.500E-02	U235T	FI	55WAH1		CK-W73-1-37		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131M	1.100E-01			U235T	FI	66CRO1		CK-W73-1-38	GLENDEN.	1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131M	8.600E-02	1.000E-02	1.000E-02	U235T	FI	65SAR1		CK-W73-1-39		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131M	1.600E-01			U235T	FC	51KAT3		CK-W73-1-55		5.522E-01	(9.986E-01 - 1.000E+01)	YES
52	TE	131M	5.600E-02	9.000E-03	9.000E-03	U235T	FI			K-P74-1		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131M	5.600E-02	5.000E-03	5.000E-03	U235T	FI			K-P73-1		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131M	2.500E-02	3.000E-03	3.000E-03	U235T	FI	735PA1		K-S73-1		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131G	5.100E-01	1.000E-01	1.000E-01	U235T	FI	53PA1		CK-W73-1-36		1.173E-01	(5.773E-02 - 1.879E-01)	NC
52	TE	131G	1.500E-02	1.500E-02	1.500E-02	U235T	FI	55WAH1		CK-W73-1-37		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131G	4.400E-02	7.000E-03	7.000E-03	U235T	FI	65SAR1		CK-W73-1-39		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131G	1.200E-01			U235T	FI	698LA1		CK-W73-1-38		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131G	2.500E-02	6.000E-03	6.000E-03	U235T	FI			K-P73-1		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131G	1.240E-01	1.400E-02	1.400E-02	U235T	FI	65SAR1		C65WAH1-73		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131	8.580E-01			U235T	FC	70CELL		K-CA73-1-31		5.522E-01	(9.986E-01 - 1.000E+01)	NC
52	TE	131	8.500E-02	1.000E-02	1.000E-02	U235T	FI	735PA1		K-S73-1	SLM,KW	1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131	1.210E-01			U235T	FI	735PA1		K-CC71-2-55	BLACHCT	1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131	4.000E-02	2.200E-02	2.200E-02	U235T	FI	55WAH1		CK-W73-1-37		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131	2.400E-01	2.200E-02	2.200E-02	U235T	FI	65SAR1		CK-W73-1-35		1.173E-01	(5.773E-02 - 1.879E-01)	YES
52	TE	131	8.500E-02	8.000E-03	8.000E-03	U235T	FI			K-P73-1	SLM,KW	1.173E-01	(5.773E-02 - 1.879E-01)	YES
53	I	131	1.400E-03	2.000E-04	2.000E-04	U235T	FI			C69WAH1-74	GREENDALE	7.664E-04	(9.454E-05 - 3.310E-03)	YES
53	I	131	1.400E-03	1.200E-04	1.200E-04	U235T	FI	70CELL		K-CC71-2-53		7.664E-04	(9.454E-05 - 3.310E-03)	YES
49	NI	132	2.200E-01	6.000E-02	6.000E-02	U235T	FI	65KCN1		K-CA73-1-21		1.654E-03	(1.498E-04 - 4.368E-03)	NC
49	NI	132	2.500E-01	2.000E-02	2.000E-02	U235T	FI	72GLN1		CK-W73-1-45		1.654E-03	(1.498E-04 - 4.368E-03)	NC
50	SN	132	1.350E-01	3.900E-02	3.900E-02	U235T	FC	70CELL		K-CA73-1-31		1.426E-01	(7.493E-02 - 2.168E-01)	YES
50	SN	132	5.100E-01	9.000E-02	9.000E-02	U235T	FI	65KCN1		K-CA73-1-21		1.415E-01	(7.384E-02 - 2.176E-01)	NC
50	SN	132	5.600E-01			U235T	FI	72GUNI		CK-W73-1-45		1.415E-01	(7.384E-02 - 2.176E-01)	NC
50	SN	132	1.370E-01	8.000E-03	8.000E-03	U235T	FC	72NAE1		K-N71-1		1.426E-01	(7.493E-02 - 2.168E-01)	YES
50	SN	132	3.300E-01	5.000E-02	5.000E-02	U235T	FC			C65WAH1-28	LIN	1.426E-01	(7.493E-02 - 2.168E-01)	NC
50	SN	132	1.400E-01	3.000E-02	3.000E-02	U235T	FC	71CEN1		K-C71-2	DENSCHLAG	1.426E-01	(7.493E-02 - 2.168E-01)	YES
50	SN	132	2.000E-01	3.000E-02	3.000E-02	U235T	FC	71ZAI1		CK-W73-1-42		1.426E-01	(7.493E-02 - 2.168E-01)	YES
50	SN	132	3.200E-01	3.000E-02	3.000E-02	U235T	FC	71ZAI1		CK-W73-1-46		1.426E-01	(7.493E-02 - 2.168E-01)	NC
50	SN	132	1.400E-01	3.000E-02	3.000E-02	U235T	FC	70CLIN1		K-P74-1		1.426E-01	(7.493E-02 - 2.168E-01)	YES
51	SN	132	4.870E-01	1.000E-02	1.000E-02	U235T	FI	72NAE1		K-N71-1		4.556E-01	(4.200E-01 - 5.734E-01)	YES
51	SN	132	8.600E-01	2.300E-02	2.300E-02	U235T	FC	70CELL		K-CA73-1-31		6.382E-01	(5.368E-01 - 7.263E-01)	NC
51	SN	132	2.200E-01	8.000E-02	8.000E-02	U235T	FI	65KCN1		K-CA73-1-21		4.556E-01	(4.200E-01 - 5.734E-01)	NC

THERMAL NEUTRON FISSION OF U-235 ALLOY METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	UNCERTAINTY MINUS	PROCESS	TYPE	PRIMARY YIELD	PRIMARY REF.	SECONDARY CR COMMENTS	REFERENCE	ESTIMATED VALUE	RANGE	FIT
51	SB	132	4.850E-01	2.500E-02	2.500E-02	U235T	FI	71CEN1		K-C71-2	DENSCHLAG	4.556E-01	(4.200E-01 - 5.734E-01)	YES
51	SB	132	4.870E-01	1.000E-02	1.000E-02	U235T	FI	72NAE1		K-N71-1-11		4.556E-01	(4.200E-01 - 5.734E-01)	YES
51	SB	132	6.300E-01	8.000E-02	8.000E-02	U235T	FI	70CEL1		K-CA73-1-21		4.556E-01	(4.200E-01 - 5.734E-01)	YES
51	SB	132	6.600E-01	8.000E-02	8.000E-02	U235T	FI	66STR1		CK-h73-1-41		4.556E-01	(4.200E-01 - 5.734E-01)	NC
51	SB	132	7.200E-01			U235T	FC	56PAP1		CK-h73-1-4C		6.382E-01	(5.368E-01 - 7.263E-01)	YES
51	SB	132	6.200E-01	1.000E-02	1.000E-02	U235T	FC	72NAE1		CK-h73-1-44		6.382E-01	(5.368E-01 - 7.263E-01)	YES
51	SB	132	1.600E-01	2.000E-02	2.000E-02	U235T	FI	72GUN1		CK-h73-1-45		4.556E-01	(4.200E-01 - 5.734E-01)	NC
51	SB	132	5.430E-01	3.300E-02	3.300E-02	U235T	FI			K-P73-1		4.556E-01	(4.200E-01 - 5.734E-01)	YES
51	SB	132	5.300E-01	4.000E-02	4.000E-02	U235T	FI			K-P74-1		4.556E-01	(4.200E-01 - 5.734E-01)	YES
52	TE	132	2.000E-02			U235T	FI	72GUN1		CK-h73-1-45		3.541E-01	(2.498E-01 - 4.413E-01)	NC
52	TE	132	3.760E-01	1.500E-02	1.500E-02	U235T	FI	72NAE1		K-N71-1		3.541E-01	(2.498E-01 - 4.413E-01)	YES
52	TE	132	2.000E-01	3.000E-02	3.000E-02	U235T	FI	66STR1		C65KAH-1-2C		3.541E-01	(2.498E-01 - 4.413E-01)	NC
52	TE	132	1.560E-01	2.300E-02	2.300E-02	U235T	FI	70CEL1		K-CC71-2-53		3.541E-01	(2.498E-01 - 4.413E-01)	NC
52	TE	132	3.750E-01	1.500E-02	1.500E-02	U235T	FI	71CEN1		K-C71-2	DENSCHLAG	3.541E-01	(2.498E-01 - 4.413E-01)	YES
52	TE	132	3.250E-01	3.200E-02	3.200E-02	U235T	FI			K-P73-1		3.541E-01	(2.498E-01 - 4.413E-01)	YES
52	TE	132	3.260E-01	3.000E-02	3.000E-02	U235T	FI			K-P74-1		3.541E-01	(2.498E-01 - 4.413E-01)	YES
53	I	132	3.500E-03	3.000E-04	3.000E-04	U235T	FI			C65KAH-1-74	GREENDALE	7.630E-03	(1.878E-03 - 2.019E-02)	YES
53	I	132	3.970E-03	2.500E-04	2.500E-04	U235T	FI	70CEL1		K-CC71-2-53		7.630E-03	(1.878E-03 - 2.019E-02)	YES
53	I	132	2.570E-03	2.500E-04	2.500E-04	U235T	FI	71CEN1		K-C71-2	DENSCHLAG	7.630E-03	(1.878E-03 - 2.019E-02)	YES
55	CS	132	1.400E-08	1.000E-08	1.000E-08	U235T	FI	66MCH1		C65KAH-1-27		1.285E-09	(3.354E-12 - 8.636E-08)	YES
50	SN	133	1.200E-03			U235T	FI	66STR1		C65KAH-1-2C		2.525E-02	(7.825E-03 - 5.584E-02)	NC
50	SN	133	3.000E-02			U235T	FI	72GUN1		CK-h73-1-45		2.525E-02	(7.825E-03 - 5.584E-02)	YES
51	SB	133	AVE	1.000E-01	1.000E-01	U235T	FI	66STR1		C65KAH-1-2C, 75	6SPAR1	2.518E-01	(2.303E-01 - 3.522E-01)	YES
51	SB	133	4.640E-01	4.500E-02	4.500E-02	U235T	FC	70CEL1		K-CA73-1-21		3.171E-01	(2.532E-01 - 3.848E-01)	YES
51	SB	133	4.550E-01			U235T	FI	66STR1		K-CA73-1-38		2.518E-01	(2.303E-01 - 3.522E-01)	NC
51	SB	133	4.600E-01	6.000E-02	6.000E-02	U235T	FC	70CEL1		K-CC71-2-53		3.171E-01	(2.532E-01 - 3.848E-01)	NC
51	SB	133	3.300E-01	7.000E-02	7.000E-02	U235T	FC	70CEL1		K-CC71-2-53		3.171E-01	(2.532E-01 - 3.848E-01)	YES
51	SB	133	5.100E-01	5.000E-02	5.000E-02	U235T	FI	72GUN1		CK-h73-1-45		2.518E-01	(2.303E-01 - 3.522E-01)	NC
51	SB	133	5.600E-01			U235T	FC	53PAP1		CK-h73-1-36		3.171E-01	(2.532E-01 - 3.848E-01)	NC
51	SB	133	3.700E-01	9.000E-02	9.000E-02	U235T	FC	65PAR1		CK-h73-1-51		3.171E-01	(2.532E-01 - 3.848E-01)	YES
51	SB	133	3.260E-01	4.100E-02	4.100E-02	U235T	FC			K-P73-1		3.171E-01	(2.532E-01 - 3.848E-01)	YES
51	SB	133	3.260E-01	4.000E-02	4.000E-02	U235T	FC			K-P74-1	SEE K-P73-1	3.171E-01	(2.532E-01 - 3.848E-01)	YES
52	TE	133M	4.650E-01	2.700E-02	2.700E-02	U235T	FI	73STA1		K-S73-1		6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133M	2.500E-01	4.000E-02	4.000E-02	U235T	FI	66STR1		CK-h73-1-41		6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133M	5.000E-02	5.000E-02	5.000E-02	U235T	FI	55WAH1		CK-h73-1-37		6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133M	2.800E-01	4.000E-02	4.000E-02	U235T	FI	66STR1		CK-h73-1-41		6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133M	7.100E-01			U235T	FC	53PAP1		CK-h73-1-36		9.531E-01	(9.267E-01 - 9.882E-01)	YES
52	TE	133M	3.300E-01			U235T	FI	66STR1		K-CP74-1-14		6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133M	4.650E-01	2.700E-02	2.700E-02	U235T	FI			K-P74-1	SEE K-P73-1	6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133M	4.650E-01	2.700E-02	2.700E-02	U235T	FI			K-P73-1		6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133G	1.590E-01	1.500E-02	1.500E-02	U235T	FI	72STA1		K-S73-1		6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133G	3.100E-01			U235T	FI	66STR1		K-CP74-1-14		6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133G	1.590E-01	1.500E-02	1.500E-02	U235T	FI			K-P73-1		6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133G	1.590E-01	1.500E-02	1.500E-02	U235T	FI			K-P74-1	SEE K-P73-1	6.360E-01	(5.299E-01 - 7.543E-01)	YES
52	TE	133	9.734E-01	1.400E-03	1.400E-03	U235T	FC	70CEL1		K-CA73-1-21		9.531E-01	(9.267E-01 - 9.882E-01)	YES
52	TE	133	6.440E-01	6.800E-02	6.800E-02	U235T	FI	70CEL1		K-CA73-1-21		6.360E-01	(5.299E-01 - 7.543E-01)	YES

2 A ISOMER EXPTL. VALUE

THERMAL NEUTRON FISSION OF U-235 ALICI METHOD									
Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	UNCERTAINTY MINUS	PROCESS TYPE	PRIMARY YIELD REF.	SECONDARY REFERENCE CR COMPONENTS	FIT
52	133	52TE133	5.700E-01	7.000E-02	7.000E-02	U235T FI	66STRI	K-CA73-1-28	YES
52	133	52TE133	4.500E-01	7.000E-01	7.000E-01	U235T FI	72GUNI	CK-W73-1-45	NC
52	133	52TE133	6.400E-01	1.000E-01	1.000E-01	U235T FI	66STRI	CK-CP74-1-14	YES
52	133	52TE133	6.400E-01	1.000E-02	1.000E-02	U235T FI	U235T FI	K-CP73-1 LITERATURE	YES
52	133	52TE133	6.540E-01	3.100E-02	3.100E-02	U235T FI	66STRI	CK-W73-1 SLP, KKH	YES
52	133	52TE133	6.540E-01	3.100E-02	3.100E-02	U235T FI	66STRI	K-P73-1 SEE K-P73-1	YES
52	133	52TE133	6.540E-01	3.100E-02	3.100E-02	U235T FI	735PA1	K-S73-1 SLP, KKH	YES
53	133	53I133	2.600E-01	3.000E-01	3.000E-01	U235T FI	53PAPI	CK-W73-1-26	NC
53	133	53I133	2.500E-02	3.000E-02	3.000E-02	U235T FI	66STRI	C65WAH-1-20, 74 GREENC	YES
53	133	53I133	2.000E-01	1.200E-01	1.200E-01	U235T FI	72GUNI	CK-W73-1-45	NC
53	133	53I133	2.200E-02	8.000E-03	8.000E-03	U235T FI	66YCSI	CK-W73-1-47	NC
53	133	53I133	2.500E-02	8.000E-03	8.000E-03	U235T FI	66STRI	CK-W73-1-41	NC
53	133	53I133	2.000E-02	2.000E-02	2.000E-02	U235T FI	66STRI	CK-W73-1-48	YES
53	133	53I133	2.660E-02	1.400E-03	1.400E-03	U235T FI	66STRI	CK-W73-1-49	YES
53	133	53I133	2.100E-01	3.000E-02	3.000E-02	U235T FI	70CELI	K-CA73-1-31	YES
53	133	53I133	2.600E-02	5.000E-03	5.000E-03	U235T FI	70GUNI	K-P73-1	NC
53	133	53I133	2.600E-02	5.000E-03	5.000E-03	U235T FI	70GUNI	K-P73-1 SEE K-P73-1	YES
54	133	54XE133	2.590E-04	1.000E-05	1.000E-05	U235T FI	70FCR2	K-F72-2	YES
54	133	54XE133	1.000E-03	1.600E-05	1.600E-05	U235T FI	53KATI	C65WAH-1-76	YES
54	133	54XE133	9.700E-05	2.000E-05	2.000E-05	U235T FI	70FCR2	K-F72-2	YES
50	134	50SN134	8.000E-02	3.000E-02	3.000E-02	U235T FI	65KCN1	K-CA73-1-21	NC
51	134	51S134	3.900E-02	4.000E-03	4.000E-03	U235T FI	72GUNI	CK-W73-1-45	NC
51	134	51S134	1.100E-01	6.000E-02	6.000E-02	U235T FI	65KCN1	K-CA73-1-18	NC
51	134	51S134	3.000E-02	1.000E-02	1.000E-02	U235T FI	65KCN1	K-CA73-1-21	NC
51	134	51S134	1.600E-01	5.000E-03	5.000E-03	U235T FI	72GUNI	C65WAH-1-22, 75 65PAR1	NC
51	134	51S134	4.200E-02	5.000E-03	5.000E-03	U235T FI	65KCN1	CK-W73-1-45	NC
51	134	51S134	3.800E-02	5.000E-03	5.000E-03	U235T FI	65KCN1	CK-W73-1-55	NC
51	134	51S134	4.000E-02	9.000E-02	9.000E-02	U235T FI	65KCN1	CK-W73-1-51	NC
52	134	52TE134	5.400E-01	6.000E-02	6.000E-02	U235T FI	72GUNI	K-CP74-1-11, 11	YES
52	134	52TE134	5.200E-01	6.000E-02	6.000E-02	U235T FI	72GUNI	CK-W73-1-21	YES
52	134	52TE134	8.800E-01	1.000E-02	1.000E-02	U235T FI	65KCN1	CK-W73-1-45	NC
52	134	52TE134	8.500E-01	1.000E-02	1.000E-02	U235T FI	65KCN1	CK-W73-1-29	NC
52	134	52TE134	5.000E-01	1.000E-02	1.000E-02	U235T FI	71TRC3	CK-W73-1-56	NC
52	134	52TE134	8.400E-01	1.000E-02	1.000E-02	U235T FI	65BLA1	CK-W73-1-28	NC
52	134	52TE134	8.100E-01	1.000E-02	1.000E-02	U235T FI	65BLA1	K-CP73-1 LITERATURE	NC
53	134	53I134	1.100E-01	1.000E-02	1.000E-02	U235T FI	65WAH1	CK-CP74-1-11, NCTE	YES
53	134	53I134	1.170E-01	1.000E-02	1.000E-02	U235T FI	70CELI	C65WAH-1-77 GREENC	YES
53	134	53I134	3.500E-01	5.000E-02	5.000E-02	U235T FI	72GUNI	K-CA73-1-31	YES
53	134	53I134	1.300E-01	2.000E-02	2.000E-02	U235T FI	45GLE2	CK-W73-1-54	NC
53	134	53I134	1.100E-01	2.000E-02	2.000E-02	U235T FI	55WAH1	CK-W73-1-37	YES
53	134	53I134	1.600E-01	2.000E-02	2.000E-02	U235T FI	65BLA1	CK-W73-1-28	NC
53	134	53I134	1.200E-01	2.000E-02	2.000E-02	U235T FI	65YCSI	CK-W73-1-47	YES
53	134	53I134	1.200E-01	2.000E-02	2.000E-02	U235T FI	65KCN1	CK-W73-1-45	YES

THERMAL NEUTRON FISSION OF U-235 ALICOT METHOD

2	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS MINUS	PROCESS TYPE YIELD	PRIMARY YIELD REF.	SECONDARY REFERENCE CR COMMENTS	VALLE	ESTIMATED RANGE	FIT
53	1134		1.130E-01	9.000E-03	U235T	FI	K-P74-1 SEE K-P73-1	1.658E-01	(1.127E-01 - 2.207E-01)	YES
53	1134		1.130E-01	9.000E-03	U235T	FI	K-P73-1	1.658E-01	(1.127E-01 - 2.207E-01)	YES
54	1134		5.600E-02	2.000E-07	U235T	FI	65KCN1	7.059E-03	(1.530E-03 - 2.044E-02)	NC
55	5C134		1.100E-06	1.000E-07	U235T	FI	65WCH1	6.582E-06	(2.059E-07 - 6.525E-05)	YES
52	TE135		5.200E-01	7.000E-02	U235T	FC	72WEE1	5.635E-01	(4.903E-01 - 6.525E-01)	YES
52	TE135	AB.	5.600E-01		U235T	FI	K-CP73-1 LITERATURE	5.368E-01	(4.455E-01 - 6.484E-01)	YES
53	1135	AVE	4.600E-01	3.000E-02	U235T	FI	65WCH1-1-74, 78 GREENO	3.629E-01	(3.174E-01 - 4.582E-01)	YES
53	1135	AVE	4.400E-01	7.000E-02	U235T	FI	K-CA73-1-31 DEN. DEL.	3.629E-01	(3.174E-01 - 4.582E-01)	YES
53	1135	AB.	4.700E-01	2.000E-02	U235T	FI	K-CP73-1 LITERATURE	3.629E-01	(3.174E-01 - 4.582E-01)	YES
53	1135		9.700E-01		U235T	FC	K-CA73-1-4C	9.464E-01	(9.137E-01 - 9.938E-01)	NC
54	XE135M		2.540E-02	1.400E-03	U235T	FI	65CKA1	5.341E-02	(2.072E-02 - 1.008E-01)	YES
54	XE135G		1.420E-02	2.100E-03	U235T	FI	70FCR2	5.341E-02	(2.072E-02 - 1.008E-01)	YES
54	XE135	SUM	4.320E-02	4.800E-03	U235T	FI	K-F72-2	5.341E-02	(2.072E-02 - 1.008E-01)	YES
54	XE135	AVE	4.600E-02	1.000E-02	U235T	FI	70FCR2	5.341E-02	(2.072E-02 - 1.008E-01)	YES
54	XE135	AVE	3.600E-02	1.000E-02	U235T	FI		5.341E-02	(2.072E-02 - 1.008E-01)	YES
54	XE135		2.700E-02	1.000E-02	U235T	FI	71CEN1	5.341E-02	(2.072E-02 - 1.008E-01)	YES
54	XE135		3.500E-02	1.000E-02	U235T	FI	53ER01	5.341E-02	(2.072E-02 - 1.008E-01)	YES
54	XE135		2.500E-02	1.800E-02	U235T	FI	53KAT1	5.341E-02	(2.072E-02 - 1.008E-01)	YES
54	XE135		4.500E-02	6.000E-03	U235T	FI	65CKA1-	5.341E-02	(2.072E-02 - 1.008E-01)	YES
51	58136		3.440E-02	1.900E-03	U235T	FI	51-CA2	5.341E-02	(2.072E-02 - 1.008E-01)	YES
51	58136		2.600E-02	2.000E-02	U235T	FI	711A1	5.341E-02	(2.072E-02 - 1.008E-01)	YES
52	TE134		1.000E-01	3.000E-02	U235T	FI	65KCN1	3.580E-03	(6.981E-04 - 1.117E-02)	NC
52	TE134		2.400E-01	4.000E-02	U235T	FC	65TAL	2.542E-01	(1.599E-01 - 3.427E-01)	YES
53	1136	AVE	6.500E-01	1.500E-01	U235T	FC	K-CA73-1-21 DENIG	7.182E-01	(6.904E-01 - 8.631E-01)	YES
53	1136		6.700E-01	2.500E-01	U235T	FI	65KCN1	5.205E-01	(4.499E-01 - 5.854E-01)	YES
53	1136		1.736E-01	6.700E-02	U235T	FI	67WUN1	5.205E-01	(4.499E-01 - 5.854E-01)	NC
53	1136		2.100E-01	8.000E-02	U235T	FI	67WUN1	5.205E-01	(4.499E-01 - 5.854E-01)	NC
53	1136		7.590E-01	1.700E-01	U235T	FC	72WAT1	7.182E-01	(6.904E-01 - 8.631E-01)	YES
53	1136		6.500E-01	1.500E-01	U235T	FC	72WAT1	7.182E-01	(6.904E-01 - 8.631E-01)	YES
53	1136		3.500E-01	5.000E-02	U235T	FI	65KCN1	5.625E-01	(4.499E-01 - 8.631E-01)	YES
54	XE136		2.400E-01	1.800E-01	U235T	FI	72GUN1	2.151E-01	(1.313E-01 - 3.057E-01)	YES
54	XE136		2.100E-01	4.000E-02	U235T	FI	65KCN1	2.151E-01	(1.313E-01 - 3.057E-01)	YES
54	XE136		3.400E-01	5.000E-02	U235T	FI	65WCH1	2.615E-03	(4.638E-04 - 8.799E-03)	YES
55	5C136	AVE	5.300E-04	5.000E-05	U235T	FI	65KCN1	2.615E-04	(2.936E-05 - 1.611E-03)	NC
52	TE137		8.600E-02	3.000E-02	U235T	FI	65KCN1	7.130E-02	(3.018E-02 - 1.265E-01)	YES
53	1137		5.100E-01	6.000E-02	U235T	FI	65KCN1	4.154E-01	(3.490E-01 - 4.983E-01)	YES
53	1137		2.800E-01	6.000E-02	U235T	FI	73VEN1	4.154E-01	(3.490E-01 - 4.983E-01)	NC
53	1137		4.600E-01	7.000E-02	U235T	FI	73KRA2	4.154E-01	(3.490E-01 - 4.983E-01)	YES
56	XE137		5.780E-01	3.000E-03	U235T	FC	65WCH1-1-5 KRATZ	4.154E-01	(3.490E-01 - 4.983E-01)	YES
54	XE137		4.660E-01	6.300E-02	U235T	FI	65WCH1	5.637E-01	(9.692E-01 - 1.000E-00)	YES
54	XE137		3.300E-01	5.000E-02	U235T	FI	K-CA73-1-13 (K-E72-2)	4.507E-01	(3.910E-01 - 5.920E-01)	YES
55	5C137		5.600E-02	3.000E-02	U235T	FI	65KCN1	4.507E-01	(3.910E-01 - 5.920E-01)	NC
52	TE138		3.600E-02	1.000E-02	U235T	FI	K-CA73-1-21	1.625E-02	(5.790E-03 - 3.969E-02)	YES
52	TE138				U235T	FI	K-CA73-1-22	1.547E-02	(3.121E-03 - 3.200E-02)	YES

THERMAL NEUTRON FISSION OF U-235 AT 101 MET-CO

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	UNCERTAINTY MINUS	PROCESS TYPE	PRIMARY YIELD	PRIMARY REF.	SECONDARY REFERENCE CR COMMENTS	ESTIMATED RANGE	FIT		
52TE13B			4.000E-02	2.000E-02	2.000E-02	U235T	F1	72GUN1	CM-A73-1-45	1.247E-02	13.121E-03	- 3.200E-02	YES
53 113B			2.387E-01	1.500E-02	1.500E-02	U235T	F1	68KCN1	K-CAT73-1-2C APIEL	2.183E-01	11.571E-01	- 2.684E-01	YES
53 113B			1.600E-01	4.000E-02	4.000E-02	U235T	F1	73VEN1	K-CAT73-1-35 VENEZIA	2.183E-01	11.571E-01	- 2.684E-01	YES
53 113B			1.240E-01	2.500E-02	2.500E-02	U235T	F1	73VEN1	K-CAT73-1-35 VENEZIA	2.183E-01	11.571E-01	- 2.684E-01	AC
53 113B			3.000E-02	3.000E-02	3.000E-02	U235T	F1	72GUN1	CM-A73-1-45	2.183E-01	11.571E-01	- 2.684E-01	YES
54XE13B			7.402E-01	9.180E-02	7.410E-02	U235T	F1	72FAR1	K-CAT73-1-131 (K-E72-2)	6.528E-01	15.852E-01	- 8.052E-01	YES
54XE13B			4.600E-01	9.000E-02	9.000E-02	U235T	F1	68KCN1	K-CAT73-1-22	6.528E-01	15.852E-01	- 8.052E-01	AC
54XE13B			5.600E-01	5.000E-02	5.000E-02	U235T	F1	72GUN1	CM-A73-1-45	6.528E-01	15.852E-01	- 8.052E-01	YES
55CS13B			4.700E-02	2.000E-03	2.000E-03	U235T	F1	68KCN1	CM-A73-1-12	7.566E-02	13.804E-02	- 1.178E-01	YES
55CS13B			4.770E-02	1.100E-02	1.100E-02	U235T	F1	68KCN1	K-CAT73-1-22	7.566E-02	13.804E-02	- 1.178E-01	YES
55CS13B			2.500E-01	7.000E-02	7.000E-02	U235T	F1	72GUN1	K-CAT73-1-22	7.566E-02	13.804E-02	- 1.178E-01	YES
56PA13B			1.400E-01	4.000E-01	4.000E-01	U235T	F1	68KCN1	CM-A73-1-45	7.566E-02	13.804E-02	- 1.178E-01	AC
56PA13B			1.000E-02	1.000E-02	1.000E-02	U235T	F1	68KCN1	K-CAT73-1-22	7.566E-02	13.804E-02	- 1.178E-01	AC
57TE13S			7.200E-02	3.800E-02	3.800E-02	U235T	F1	73VEN1	K-CAT73-1-35 VENEZIA	7.566E-02	13.804E-02	- 1.178E-01	YES
53 113S			1.869E-01	1.000E-02	1.000E-02	U235T	F1	45RAZ	K-CAT73-1-2C APIEL	7.566E-02	13.804E-02	- 1.178E-01	YES
53 113S			2.000E-02	1.000E-02	1.000E-02	U235T	F1	68KCN1	K-CAT73-1-2C APIEL	7.566E-02	13.804E-02	- 1.178E-01	AC
54XE13S			1.200E-01	5.000E-02	5.000E-02	U235T	F1	73KRA3	CM-A73-1-25	7.566E-02	13.804E-02	- 1.178E-01	YES
54XE13S			6.200E-01	2.000E-02	2.000E-02	U235T	FC	58PA1	K-CAT73-1-35 (K-E72-2)	7.566E-02	13.804E-02	- 1.178E-01	YES
54XE13S			7.526E-01	7.680E-02	6.140E-02	U235T	F1	72FAR1	CM-A73-1-45	7.566E-02	13.804E-02	- 1.178E-01	YES
54XE13S			1.300E-01	3.000E-02	3.000E-02	U235T	F1	68KCN1	K-CAT73-1-22	7.566E-02	13.804E-02	- 1.178E-01	YES
55CS13S			2.400E-01	4.000E-02	4.000E-02	U235T	F1	68KCN1	CM-A73-1-45	7.566E-02	13.804E-02	- 1.178E-01	YES
55CS13S			1.840E-01	1.800E-02	1.800E-02	U235T	F1	72FAR1	CM-A73-1-45	7.566E-02	13.804E-02	- 1.178E-01	YES
55CS13S			1.500E-01	3.000E-02	3.000E-02	U235T	F1	70FCR1	K-CAT73-1-25 REEDER	7.566E-02	13.804E-02	- 1.178E-01	YES
56PA13S			1.100E-02	5.000E-03	5.000E-03	U235T	F1	62NAH1	K-CAT73-1-22	7.566E-02	13.804E-02	- 1.178E-01	AC
56PA13S			3.400E-02	2.100E-02	2.100E-02	U235T	F1	73KRA3	CM-A73-1-25	7.566E-02	13.804E-02	- 1.178E-01	YES
54XE14C			5.500E-01	1.000E-02	1.000E-02	U235T	FC	58PA1	K-CAT73-1-35	7.566E-02	13.804E-02	- 1.178E-01	YES
54XE14C			4.591E-01	6.690E-02	6.690E-02	U235T	F1	72FAR1	K-CAT73-1-131 (K-E72-2)	5.736E-01	14.489E-01	- 6.216E-01	YES
55CS14C			3.100E-01	4.000E-02	4.000E-02	U235T	F1	65CA1	CM-A73-1-4C	4.733E-01	13.385E-01	- 4.953E-01	YES
55CS14C			3.257E-01	2.640E-02	2.640E-02	U235T	F1	72FAR1	K-CAT73-1-35 REEDER	4.733E-01	13.385E-01	- 4.953E-01	YES
55CS14C			5.300E-01	3.000E-02	3.000E-02	U235T	F1	62NAH1	CM-A73-1-25	4.733E-01	13.385E-01	- 4.953E-01	YES
56PA14C			4.600E-02	3.000E-04	3.000E-04	U235T	FC	45RAZ	CM-A73-1-12	6.478E-02	12.664E-02	- 1.174E-01	YES
57LA14C			7.000E-04	1.000E-04	1.000E-04	U235T	F1	62NAH1	CM-A73-1-12	6.478E-02	12.664E-02	- 1.174E-01	YES
54XE141			2.500E-01	3.000E-02	3.000E-02	U235T	FC	45RAZ	CM-A73-1-12	6.478E-02	12.664E-02	- 1.174E-01	YES
54XE141			2.000E-01	1.000E-02	1.000E-02	U235T	FC	45RAZ	CM-A73-1-12	6.478E-02	12.664E-02	- 1.174E-01	YES
55CS141			5.500E-01	7.000E-02	7.000E-02	U235T	F1	72FAR1	K-E72-1	2.446E-01	11.520E-01	- 3.328E-01	YES
55CS141			4.500E-01	7.100E-02	7.100E-02	U235T	F1	65CA1	CM-A73-1-4C	5.736E-01	14.489E-01	- 6.216E-01	YES
54XE141			5.457E-01	4.140E-02	4.140E-02	U235T	F1	70FCR1	K-CAT73-1-22	5.736E-01	14.489E-01	- 6.216E-01	YES
55CS141			5.200E-01	4.000E-02	4.000E-02	U235T	F1	72FAR1	K-CAT73-1-35 REEDER	5.736E-01	14.489E-01	- 6.216E-01	YES
56PA141			2.600E-01	5.000E-02	5.000E-02	U235T	F1	72FAR1	CM-A73-1-12	5.736E-01	14.489E-01	- 6.216E-01	YES
57LA141			3.700E-03	1.300E-03	1.300E-03	U235T	F1	62NAH1	CM-A73-1-12	2.822E-01	11.386E-01	- 3.154E-01	YES
57LA141			3.000E-03	4.000E-04	4.000E-04	U235T	FC	45RAZ	CM-A73-1-12	2.822E-01	11.386E-01	- 3.154E-01	YES
54XE142			5.900E-02	8.000E-03	8.000E-03	U235T	FC	45RAZ	CM-A73-1-12	2.822E-01	11.386E-01	- 3.154E-01	YES
54XE142			1.075E-01	1.700E-02	1.700E-02	U235T	FC	45RAZ	CM-A73-1-12	2.822E-01	11.386E-01	- 3.154E-01	YES
55CS142			4.100E-01	5.000E-02	5.000E-02	U235T	F1	72FAR1	K-CAT73-1-131 (K-E72-2)	7.175E-02	13.042E-02	- 1.272E-01	YES
55CS142								CM-A73-1-4C	4.521E-01	13.497E-01	- 4.992E-01	YES	

THERMAL NEUTRON FISSION LF U-235 ALLOT METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	MINUS	PROCESS	TYPE	PRIMARY YIELD	REF.	SECONDARY CR COMMENTS	REFERENCE	VALUE	ESTIMATED RANGE	FIT
55	CS	142	5.120E-01	4.100E-02	4.100E-02	U235T	FI	72REEL		K-CAT73-1-35 REEDER		4.201E-01	13.497E-01 - 4.952E-01	YES
55	CS	142	2.490E-01	6.600E-02	6.600E-02	U235T	FI	72FCR1		K-CAT73-1-32		4.201E-01	13.497E-01 - 4.952E-01	AC
57	LA	142	1.700E-02	4.000E-03	4.000E-03	U235T	FI	62NAP1		C65NAP1-1-12		1.673E-02	13.736E-03 - 3.946E-02	YES
54	XE	143	8.500E-03	7.000E-04	5.000E-04	U235T	FC	58NAP1		C65NAP1-1-35		1.256E-02	13.294E-03 - 3.297E-02	YES
54	XE	143	8.500E-03	7.000E-04	5.000E-04	U235T	FI	72FRI1		K-CAT73-1-13(K-672-2)		1.254E-02	13.277E-03 - 3.253E-02	YES
55	CS	143	2.500E-01	3.000E-02	3.000E-02	U235T	FI	65CPA1		C65NAP1-4/		2.218E-01	11.605E-01 - 2.717E-01	YES
55	CS	143	3.000E-01	2.600E-02	2.600E-02	U235T	FI	72REEL		K-CAT73-1-25 REEDER		2.218E-01	11.605E-01 - 2.717E-01	AC
55	CS	143	1.690E-01	2.900E-02	2.900E-02	U235T	FI	70FCR1		K-CAT73-1-32		2.218E-01	11.605E-01 - 2.717E-01	YES
56	RA	143	8.800E-01	6.000E-02	6.000E-02	U235T	FC	65RUN1		C65NAP1-1-12		5.254E-01	16.89E-01 - 9.600E-01	YES
58	CE	143	5.300E-03	2.600E-03	2.600E-03	U235T	FI	62NAP1		C65NAP1-1-12		1.243E-03	11.592E-04 - 5.226E-03	YES
58	CE	143	1.250E-01	2.630E-02	2.630E-02	U235T	FI	67FAS1		K-CAT73-1-24 ACT PL80L		1.243E-03	11.592E-04 - 5.226E-03	AC
54	XE	144	1.100E-03	5.000E-04	1.000E-04	U235T	FC	58NAP1		C65NAP1-35		1.584E-03	12.189E-04 - 6.317E-03	YES
55	CS	144	5.200E-02	1.600E-02	1.600E-02	U235T	FI	65CPA1		C65NAP1-4C		6.250E-02	14.342E-02 - 1.271E-01	YES
55	CS	144	2.230E-01	2.800E-02	2.800E-02	U235T	FI	72REEL		K-CAT73-1-25 REEDER		8.250E-02	14.342E-02 - 1.271E-01	AC
56	BA	144	7.807E-01	4.000E-02	4.000E-02	U235T	FC	65RUN1		C65NAP1-1-12		7.621E-01	17.252E-01 - 8.396E-01	YES
58	CE	144	1.200E-02	1.200E-02	1.200E-02	U235T	FI	67FAS1		K-CAT73-1-24		1.658E-02	12.589E-03 - 2.811E-02	YES
58	CE	144	1.200E-02	1.200E-02	1.200E-02	U235T	FI	65FAS1		K-CAT73-1-27		1.658E-02	12.589E-03 - 2.811E-02	YES
54	XE	145	2.610E-05	1.400E-06	1.400E-06	U235T	FC	71NCL2		K-CAT73-1-32		1.224E-04	17.755E-06 - 8.486E-04	YES
55	CS	145	2.600E-02	1.400E-02	1.400E-02	U235T	FI	70FCR1		K-CAT73-1-AC		2.066E-02	16.914E-03 - 4.400E-02	YES
55	CS	145	1.700E-02	9.000E-03	9.000E-03	U235T	FI	72REEL		K-CAT73-1-35 REEDER		2.066E-02	16.914E-03 - 4.400E-02	YES
55	CS	145	7.270E-02	1.800E-02	1.800E-02	U235T	FI	62NAP1		C65NAP1-1E6		2.066E-02	16.914E-03 - 4.400E-02	AC
61	PM	146	4.200E-07	1.200E-07	1.200E-07	U235T	FC	62NAP1		C65NAP1-1E6		1.712E-10	12.535E-13 - 1.734E-08	AC
58	CE	147	5.630E-01	3.700E-02	6.300E-02	U235T	FC	65RUN1		C65NAP1-1E7		5.764E-01	19.611E-01 - 1.000E+03	YES
58	CE	147	5.630E-01	3.700E-02	6.300E-02	U235T	FC	71DEN1		K-CC71-2-2		5.764E-01	19.611E-01 - 1.000E+03	YES
61	PM	148	7.000E-05	2.000E-05	2.000E-05	U235T	FI	68PAC1		C65NAP1-1E6		1.621E-06	11.894E-08 - 1.717E-05	AC
61	PM	150	2.100E-03	1.000E-04	1.000E-04	U235T	FI	55CPU1		C65NAP1-1E5		5.250E-04	12.191E-06 - 7.446E-03	YES
61	PM	150	8.340E-04	5.000E-05	5.000E-05	U235T	FI	72RUN1		K-G73-1		5.250E-04	12.191E-06 - 7.446E-03	YES
65	TB	160	1.1300E-03			U235T	FI	72FAP1		C65NAP1-67 PERRMAN		5.749E-06	12.398E-09 - 5.627E-04	YES
65	TB	160	1.1500E-04			U235T	FI	72FAP1		K-CC71-2-57 FAPLAND		5.749E-06	12.398E-09 - 5.627E-04	YES

THERMAL NEUTRON FISSION OF PL-235 NUCLT METHOD

2.8700 -1 94 239 -0 -0-0.000 1.000 .200
 4 .56 .09 .15 .15 99.00 .15 .25 .25 -C 1 -C -0

NUBAR =2.8700

FOR ZP(1), NU(A) IS FROM U235T, UNADJUSTED.

ODD-EVEN Z EFFECT = 1.00 +/- .20 .

FOR ZP(4), NU(A) IS FROM NUTCT(A) DIVIDED ACCORDING TO THE NU(A) FRACTION USED FOR ZP(1).

SIGMA = .560. UNCERTAINTIES FOR REGIONS SYMMETRY TO 129, 130 TO 151, 152 TO 161 ARE +/- .150 .090 .150.

SPECIAL ZP FUNCTION WAS ENTERED. SEE TABLES.

TYPE OF ZP FUNCTION USED IS 4.

THERMAL NEUTRON FISSION CF PU-235 NLCT METHOD
ESTIMATE FRACTIONAL YIELDS
CDC-EVEN 2 CORRECTION FACTOR = 1.00 +/- .20

MASS 74 FISSION PRODUCT CHAIN
NLCT = 2.346 NU = .704 ZP = 30.059
DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15
Z FIY RANGE OF FIY FCY RANGE OF FCY
27 2.44E-06 (3.66E-12 - 5.71E-04) 2.44E-06 (3.66E-12 - 5.71E-04)
28 2.68E-03 (5.12E-06 - 3.20E-02) 2.65E-03 (7.50E-06 - 3.21E-02)
29 1.56E-01 (2.42E-02 - 2.99E-01) 1.59E-01 (2.69E-02 - 3.05E-01)
30 6.25E-01 (4.33E-01 - 8.19E-01) 7.85E-01 (6.20E-01 - 9.36E-01)
31 2.18E-01 (4.59E-02 - 3.56E-01) 9.95E-01 (9.90E-01 - 1.00E+00)
32 5.03E-03 (1.86E-05 - 4.37E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
33 6.53E-06 (2.63E-11 - 1.01E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
34 4.01E-10 (0. - 3.49E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 75 FISSION PRODUCT CHAIN
NLCT = 2.322 NU = .697 ZP = 30.448
DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15
Z FIY RANGE OF FIY FCY RANGE OF FCY
27 7.05E-08 (0. - 7.23E-05) 7.05E-08 (4.24E-22 - 7.23E-05)
28 2.52E-04 (4.15E-08 - 8.32E-03) 2.52E-04 (1.12E-07 - 8.32E-03)
29 4.50E-02 (1.74E-03 - 1.54E-01) 4.53E-02 (1.99E-03 - 1.55E-01)
30 4.52E-01 (2.88E-01 - 7.45E-01) 5.37E-01 (3.28E-01 - 7.98E-01)
31 4.33E-01 (2.12E-01 - 6.76E-01) 9.70E-01 (9.41E-01 - 1.00E+00)
32 3.00E-02 (7.47E-04 - 1.24E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
33 1.25E-04 (9.83E-09 - 5.33E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
34 2.51E-08 (0. - 3.96E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 76 FISSION PRODUCT CHAIN
NLCT = 2.219 NU = .666 ZP = 30.827
DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15
Z FIY RANGE OF FIY FCY RANGE OF FCY
27 1.41E-09 (0. - 7.30E-06) 1.41E-09 (0. - 7.30E-06)
28 1.62E-05 (1.63E-10 - 1.71E-03) 1.62E-05 (1.57E-09 - 1.71E-03)
29 8.87E-03 (5.97E-05 - 6.29E-02) 8.89E-03 (7.59E-05 - 6.29E-02)
30 2.71E-01 (7.20E-02 - 4.30E-01) 2.79E-01 (8.06E-02 - 4.48E-01)
31 6.06E-01 (4.06E-01 - 8.09E-01) 8.85E-01 (7.84E-01 - 1.00E+00)
32 1.13E-01 (1.22E-02 - 2.53E-01) 9.99E-01 (9.97E-01 - 1.00E+00)
33 1.41E-03 (1.37E-06 - 2.22E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
34 9.10E-07 (5.12E-13 - 3.22E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 77 FISSION PRODUCT CHAIN
NLCT = 2.305 NU = .707 ZP = 31.235
DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15
Z FIY RANGE OF FIY FCY RANGE OF FCY
28 5.18E-07 (1.67E-13 - 2.32E-04) 5.18E-07 (1.67E-13 - 2.32E-04)
29 9.70E-04 (6.41E-07 - 1.80E-02) 9.71E-04 (1.16E-06 - 1.80E-02)
30 5.36E-02 (8.12E-03 - 2.29E-01) 9.45E-02 (9.08E-03 - 2.31E-01)
31 5.87E-01 (3.87E-01 - 8.10E-01) 6.82E-01 (4.71E-01 - 8.75E-01)
32 3.06E-01 (9.55E-02 - 4.90E-01) 9.88E-01 (9.76E-01 - 1.00E+00)
33 1.19E-02 (1.10E-04 - 7.42E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
34 2.63E-05 (4.31E-10 - 2.26E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
35 2.78E-09 (0. - 1.09E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 78 FISSION PRODUCT CHAIN
NLCT = 2.604 NU = .517 ZP = 31.709
DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15
Z FIY RANGE OF FIY FCY RANGE OF FCY
28 5.01E-05 (0. - 1.54E-05) 5.01E-05 (5.01E-05 - 1.54E-05)
29 3.55E-05 (1.00E-09 - 2.88E-03) 3.59E-05 (6.01E-09 - 2.88E-03)
30 1.54E-02 (1.86E-04 - 8.55E-02) 1.54E-02 (2.26E-04 - 8.55E-02)
31 2.39E-01 (1.20E-01 - 5.42E-01) 3.94E-01 (1.45E-01 - 5.69E-01)
32 5.67E-01 (3.70E-01 - 8.04E-01) 9.21E-01 (8.48E-01 - 1.00E+00)
33 7.62E-02 (5.56E-03 - 2.08E-01) 9.59E-01 (9.99E-01 - 1.00E+00)
34 4.51E-04 (3.21E-07 - 1.46E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
35 3.12E-07 (6.04E-14 - 1.72E-02) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 79 FISSION PRODUCT CHAIN
NLCT = 3.065 NU = 1.077 ZP = 32.150
DEVIATION FROM UCD = .79 +/- .25 SIGMA = .56 +/- .15
Z FIY RANGE OF FIY FCY RANGE OF FCY
29 1.12E-06 (7.64E-13 - 3.62E-04) 1.12E-06 (7.64E-13 - 3.62E-04)
30 1.61E-03 (1.80E-06 - 2.40E-02) 1.61E-03 (2.92E-06 - 2.40E-02)
31 1.21E-01 (1.41E-02 - 2.62E-01) 1.23E-01 (1.57E-02 - 2.66E-01)
32 6.11E-01 (4.12E-01 - 8.07E-01) 7.34E-01 (5.41E-01 - 8.58E-01)
33 2.58E-01 (6.45E-02 - 6.12E-01) 9.92E-01 (9.84E-01 - 1.00E+00)
34 7.52E-03 (4.74E-05 - 5.90E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
35 1.25E-05 (1.13E-10 - 1.54E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
36 1.10E-05 (0. - 6.30E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 80 FISSION PRODUCT CHAIN
NLCT = 3.265 NU = 1.113 ZP = 32.542
DEVIATION FROM UCD = .77 +/- .25 SIGMA = .56 +/- .15
Z FIY RANGE OF FIY FCY RANGE OF FCY
29 2.78E-06 (0. - 4.20E-05) 2.78E-06 (0. - 4.20E-05)
30 1.33E-04 (1.13E-08 - 3.76E-03) 1.33E-04 (3.92E-08 - 3.76E-03)
31 3.13E-02 (8.13E-04 - 1.27E-01) 3.14E-02 (9.45E-04 - 1.27E-01)
32 4.35E-01 (2.19E-01 - 6.84E-01) 4.70E-01 (2.60E-01 - 7.33E-01)
33 4.66E-01 (2.80E-01 - 7.35E-01) 9.56E-01 (9.15E-01 - 1.00E+00)
34 4.33E-02 (1.61E-03 - 1.51E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
35 2.26E-04 (3.62E-08 - 8.01E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
36 6.35E-06 (0. - 6.83E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 81 FISSION PRODUCT CHAIN
NLCT = 3.526 NU = 1.152 ZP = 32.935
DEVIATION FROM UCD = .76 +/- .25 SIGMA = .56 +/- .15
Z FIY RANGE OF FIY FCY RANGE OF FCY
29 4.26E-10 (0. - 3.62E-06) 4.26E-10 (0. - 3.62E-06)
30 6.62E-06 (2.88E-11 - 1.04E-03) 6.83E-06 (4.55E-10 - 1.04E-03)
31 5.18E-03 (1.57E-05 - 4.64E-02) 5.18E-03 (2.65E-05 - 4.65E-02)
32 2.13E-01 (4.72E-02 - 3.55E-01) 2.18E-01 (5.24E-02 - 3.70E-01)
33 6.25E-01 (4.32E-01 - 8.16E-01) 8.43E-01 (7.13E-01 - 9.69E-01)
34 1.54E-01 (2.35E-02 - 2.97E-01) 9.87E-01 (9.95E-01 - 1.00E+00)
35 2.60E-03 (4.81E-06 - 3.15E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
36 2.33E-06 (3.34E-12 - 5.56E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF PL-235 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS

CDC-EVEN 2 CORRECTION FACTOR = 1.00 +/- .20

MASS 82 FISSION PRODUCT CHAIN

NLCT = 3.600 NU = 1.186 ZP = 33.327

DEVIATION FROM UCD = .75 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	2.22E-07	(3.20E-14 - 1.42E-04)	2.22E-07	(3.20E-14 - 1.42E-04)
31	5.51E-04	(2.03E-07 - 1.30E-02)	5.51E-04	(4.25E-07 - 1.30E-02)
32	6.53E-02	(4.30E-03 - 1.95E-01)	6.98E-02	(4.85E-03 - 1.96E-01)
33	5.51E-01	(3.58E-01 - 7.95E-01)	6.21E-01	(4.17E-01 - 8.48E-01)
34	3.61E-01	(1.35E-01 - 5.75E-01)	9.82E-01	(9.64E-01 - 1.00E+00)
35	1.81E-02	(2.60E-04 - 9.35E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
36	5.22E-05	(1.72E-09 - 3.36E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
37	7.32E-09	(0. - 1.92E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 83 FISSION PRODUCT CHAIN

NLCT = 3.451 NU = 1.168 ZP = 33.699

DEVIATION FROM UCD = .73 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	5.57E-09	(0. - 1.64E-05)	5.57E-09	(2.65E-23 - 1.64E-05)
31	4.30E-05	(1.16E-09 - 3.01E-03)	4.31E-05	(6.73E-09 - 3.01E-03)
32	1.61E-02	(2.05E-04 - 8.77E-02)	1.61E-02	(2.48E-04 - 8.78E-02)
33	3.45E-01	(1.25E-01 - 5.51E-01)	3.61E-01	(1.53E-01 - 5.79E-01)
34	5.63E-01	(3.66E-01 - 8.02E-01)	8.24E-01	(8.53E-01 - 1.00E+00)
35	7.57E-02	(5.18E-03 - 2.04E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
36	6.49E-04	(2.83E-07 - 1.43E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	2.84E-07	(5.33E-14 - 1.63E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 84 FISSION PRODUCT CHAIN

NLCT = 3.464 NU = 1.227 ZP = 34.100

DEVIATION FROM UCD = .72 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	1.71E-06	(1.80E-12 - 4.65E-04)	1.71E-06	(1.80E-12 - 4.65E-04)
32	2.13E-03	(3.20E-06 - 2.81E-02)	2.13E-03	(4.91E-06 - 2.81E-02)
33	1.40E-01	(1.90E-02 - 2.82E-01)	1.42E-01	(2.12E-02 - 2.87E-01)
34	6.20E-01	(4.24E-01 - 8.10E-01)	7.62E-01	(5.87E-01 - 9.19E-01)
35	2.31E-01	(5.65E-02 - 3.82E-01)	9.94E-01	(9.88E-01 - 1.00E+00)
36	6.21E-03	(2.86E-05 - 5.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	5.13E-06	(5.14E-11 - 1.23E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
38	6.36E-10	(0. - 4.57E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 85 FISSION PRODUCT CHAIN

NLCT = 3.381 NU = 1.248 ZP = 34.486

DEVIATION FROM UCD = .71 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	4.84E-08	(0. - 5.80E-05)	4.84E-08	(0. - 5.80E-05)
32	1.55E-04	(2.46E-08 - 7.17E-03)	1.95E-04	(7.30E-08 - 7.18E-03)
33	3.89E-02	(1.28E-03 - 1.43E-01)	3.91E-02	(1.48E-03 - 1.43E-01)
34	4.71E-01	(2.55E-01 - 7.22E-01)	5.10E-01	(2.95E-01 - 7.78E-01)
35	4.55E-01	(2.39E-01 - 7.04E-01)	9.65E-01	(9.31E-01 - 1.00E+00)
36	3.10E-02	(1.03E-03 - 1.35E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
37	1.62E-04	(1.68E-08 - 6.44E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
38	3.69E-08	(0. - 4.95E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 86 FISSION PRODUCT CHAIN

NLCT = 3.265 NU = 1.259 ZP = 34.870

DEVIATION FROM UCD = .69 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	8.64E-10	(0. - 5.55E-06)	8.84E-10	(0. - 5.55E-06)
32	1.16E-05	(8.28E-11 - 1.41E-03)	1.16E-05	(9.66E-10 - 1.41E-03)
33	7.20E-03	(3.89E-05 - 5.55E-02)	7.21E-03	(5.04E-05 - 5.60E-02)
34	2.47E-01	(5.86E-02 - 4.01E-01)	2.54E-01	(6.57E-02 - 4.15E-01)
35	6.15E-01	(4.17E-01 - 8.04E-01)	8.70E-01	(7.57E-01 - 1.00E+00)
36	1.22E-01	(1.59E-02 - 2.70E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
37	1.00E-03	(2.27E-06 - 2.56E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
38	1.32E-06	(1.08E-12 - 4.00E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 87 FISSION PRODUCT CHAIN

NLCT = 3.168 NU = 1.301 ZP = 35.264

DEVIATION FROM UCD = .68 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	3.58E-07	(5.55E-14 - 1.95E-04)	3.98E-07	(9.95E-14 - 1.59E-04)
33	8.14E-04	(4.48E-07 - 1.63E-02)	8.14E-04	(8.46E-07 - 1.63E-02)
34	8.53E-02	(6.68E-03 - 2.18E-01)	8.61E-02	(7.49E-03 - 2.20E-01)
35	5.77E-01	(3.78E-01 - 8.08E-01)	6.63E-01	(4.50E-01 - 8.68E-01)
36	3.23E-01	(1.08E-01 - 5.17E-01)	9.86E-01	(9.73E-01 - 1.00E+00)
37	1.36E-02	(1.45E-04 - 8.00E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
38	3.27E-05	(6.70E-10 - 2.57E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
39	3.70E-09	(0. - 1.30E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 88 FISSION PRODUCT CHAIN

NLCT = 3.137 NU = 1.379 ZP = 35.673

DEVIATION FROM UCD = .67 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	7.33E-09	(7.78E-13 - 1.66E-06)	7.33E-09	(7.78E-13 - 1.66E-06)
33	5.23E-05	(3.87E-07 - 9.20E-04)	5.23E-05	(3.94E-07 - 9.28E-04)
34	1.61E-02	(2.44E-03 - 5.65E-02)	1.81E-02	(2.50E-03 - 5.70E-02)
35	3.61E-01	(2.23E-01 - 4.86E-01)	3.79E-01	(2.41E-01 - 5.12E-01)
36	5.51E-01	(4.00E-01 - 7.20E-01)	9.30E-01	(8.78E-01 - 1.00E+00)
37	6.52E-02	(1.69E-02 - 1.44E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
38	5.51E-04	(1.25E-05 - 4.91E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
39	2.22E-07	(1.19E-10 - 1.90E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 89 FISSION PRODUCT CHAIN

NLCT = 3.128 NU = 1.429 ZP = 36.074

DEVIATION FROM UCD = .65 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	2.14E-06	(3.39E-09 - 9.58E-05)	2.14E-06	(3.39E-09 - 9.58E-05)
34	2.47E-03	(1.22E-04 - 1.41E-02)	2.47E-03	(1.24E-04 - 1.41E-02)
35	1.50E-01	(5.66E-02 - 2.46E-01)	1.53E-01	(5.90E-02 - 2.51E-01)
36	6.24E-01	(4.69E-01 - 7.74E-01)	7.76E-01	(6.60E-01 - 8.81E-01)
37	2.10E-01	(1.01E-01 - 3.21E-01)	9.95E-01	(9.90E-01 - 1.00E+00)
38	5.44E-03	(4.00E-04 - 2.46E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	7.40E-06	(2.12E-08 - 2.31E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
40	4.75E-10	(1.42E-14 - 2.33E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF PU-235 ALITY METHOD
 ESTIMATED FRACTIONAL YIELDS

COO-EVEN Z CORRECTION FACTOR = 1.00 +/- .20

MASS 90 FISSION PRODUCT CHAIN

NUTCT = 3.095 NU = 1.530 ZP = 36.488

DEVIATION FROM LCD = .64 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	4.77E-08	(1.23E-11 - 6.33E-06)	4.77E-08	(1.23E-11 - 6.33E-06)
34	1.63E-04	(2.70E-06 - 2.34E-03)	1.93E-04	(2.75E-06 - 2.34E-03)
35	3.87E-02	(7.74E-03 - 9.64E-02)	3.89E-02	(7.93E-03 - 9.66E-02)
36	4.70E-01	(3.37E-01 - 6.29E-01)	5.09E-01	(3.72E-01 - 6.74E-01)
37	4.56E-01	(3.22E-01 - 6.12E-01)	9.65E-01	(9.36E-01 - 1.00E+00)
38	3.52E-02	(6.70E-03 - 9.02E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	1.63E-04	(2.11E-06 - 2.08E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
40	3.75E-08	(6.59E-12 - 5.33E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 91 FISSION PRODUCT CHAIN

NUTCT = 3.061 NU = 1.576 ZP = 36.884

DEVIATION FROM LCD = .62 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	7.58E-10	(2.84E-14 - 3.26E-07)	7.58E-10	(2.84E-14 - 3.26E-07)
34	1.04E-05	(3.50E-08 - 2.94E-04)	1.04E-05	(3.58E-08 - 2.94E-04)
35	6.72E-03	(5.50E-04 - 2.85E-02)	6.73E-03	(5.61E-04 - 2.86E-02)
36	2.40E-01	(1.18E-01 - 3.43E-01)	2.47E-01	(1.24E-01 - 3.52E-01)
37	6.19E-01	(4.61E-01 - 7.73E-01)	8.64E-01	(7.78E-01 - 9.60E-01)
38	1.34E-01	(4.72E-02 - 2.28E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
39	1.95E-03	(8.57E-05 - 1.20E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	1.49E-06	(1.98E-09 - 7.40E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 92 FISSION PRODUCT CHAIN

NUTCT = 3.032 NU = 1.595 ZP = 37.270

DEVIATION FROM LCD = .61 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	3.79E-07	(2.61E-10 - 2.78E-05)	3.79E-07	(2.61E-10 - 2.78E-05)
35	7.88E-04	(2.21E-05 - 6.32E-03)	7.88E-04	(2.24E-05 - 6.32E-03)
36	8.38E-02	(2.28E-02 - 1.64E-01)	8.46E-02	(2.36E-02 - 1.65E-01)
37	5.75E-01	(4.20E-01 - 7.43E-01)	6.59E-01	(5.23E-01 - 7.80E-01)
38	3.26E-01	(1.91E-01 - 4.42E-01)	9.86E-01	(9.74E-01 - 1.00E+00)
39	1.40E-02	(1.66E-03 - 4.76E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	3.41E-05	(2.05E-07 - 6.85E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
41	4.01E-09	(3.20E-13 - 1.07E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 93 FISSION PRODUCT CHAIN

NUTCT = 3.027 NU = 1.631 ZP = 37.662

DEVIATION FROM LCD = .60 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	8.19E-09	(9.17E-13 - 1.79E-06)	8.19E-09	(9.17E-13 - 1.79E-06)
35	5.65E-05	(4.34E-07 - 9.81E-04)	5.65E-05	(4.43E-07 - 9.81E-04)
36	1.89E-02	(2.62E-03 - 5.88E-02)	1.90E-02	(2.58E-03 - 5.88E-02)
37	3.67E-01	(2.30E-01 - 4.97E-01)	3.86E-01	(2.48E-01 - 5.22E-01)
38	5.47E-01	(3.96E-01 - 7.15E-01)	9.33E-01	(8.82E-01 - 1.00E+00)
39	6.58E-02	(1.60E-02 - 1.40E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
40	5.15E-04	(1.17E-05 - 4.69E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
41	2.01E-07	(1.03E-10 - 1.77E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 94 FISSION PRODUCT CHAIN

NUTCT = 3.016 NU = 1.652 ZP = 38.049

DEVIATION FROM LCD = .59 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	2.66E-06	(4.67E-09 - 1.12E-04)	2.66E-06	(4.67E-09 - 1.12E-04)
36	2.84E-03	(1.50E-04 - 1.56E-02)	2.84E-03	(1.53E-04 - 1.56E-02)
37	1.61E-01	(6.29E-02 - 2.55E-01)	1.64E-01	(6.57E-02 - 2.63E-01)
38	6.24E-01	(4.73E-01 - 7.77E-01)	7.90E-01	(6.77E-01 - 8.53E-01)
39	2.05E-01	(5.24E-02 - 3.08E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
40	4.76E-03	(3.29E-04 - 2.25E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	6.02E-06	(1.56E-08 - 2.00E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
42	3.58E-10	(1.07E-14 - 1.90E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 95 FISSION PRODUCT CHAIN

NUTCT = 3.007 NU = 1.674 ZP = 38.436

DEVIATION FROM LCD = .57 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	7.50E-08	(2.58E-11 - 9.05E-06)	7.90E-08	(2.58E-11 - 9.09E-06)
36	2.73E-04	(4.53E-06 - 2.95E-03)	2.73E-04	(4.61E-06 - 2.59E-03)
37	4.70E-02	(1.04E-02 - 1.10E-01)	4.73E-02	(1.07E-02 - 1.11E-01)
38	4.56E-01	(3.58E-01 - 6.62E-01)	5.45E-01	(4.07E-01 - 7.01E-01)
39	4.26E-01	(2.50E-01 - 5.74E-01)	9.71E-01	(9.48E-01 - 1.00E+00)
40	2.66E-02	(4.90E-03 - 7.82E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	1.14E-04	(1.23E-06 - 1.61E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
42	2.23E-08	(4.01E-12 - 3.66E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 96 FISSION PRODUCT CHAIN

NUTCT = 2.966 NU = 1.661 ZP = 38.810

DEVIATION FROM LCD = .56 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	1.71E-05	(9.24E-14 - 5.83E-07)	1.71E-05	(9.24E-14 - 5.83E-07)
36	1.66E-05	(8.32E-08 - 4.45E-04)	1.86E-05	(8.49E-08 - 4.45E-04)
37	9.65E-03	(9.49E-04 - 3.67E-02)	9.67E-03	(9.67E-04 - 3.68E-02)
38	2.80E-01	(1.50E-01 - 3.85E-01)	2.90E-01	(1.60E-01 - 3.58E-01)
39	6.01E-01	(4.43E-01 - 7.64E-01)	8.91E-01	(8.17E-01 - 9.78E-01)
40	1.00E-01	(3.37E-02 - 1.94E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
41	1.27E-03	(4.31E-05 - 8.86E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
42	7.78E-07	(7.56E-10 - 4.65E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 97 FISSION PRODUCT CHAIN

NUTCT = 2.924 NU = 1.654 ZP = 39.186

DEVIATION FROM LCD = .55 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	8.08E-07	(8.00E-10 - 4.78E-05)	8.08E-07	(8.00E-10 - 4.78E-05)
37	1.30E-03	(4.69E-05 - 9.02E-03)	1.30E-03	(4.77E-05 - 9.02E-03)
38	1.05E-01	(3.44E-02 - 1.96E-01)	1.10E-01	(3.56E-02 - 1.97E-01)
39	6.02E-01	(4.45E-01 - 7.65E-01)	7.13E-01	(5.83E-01 - 8.20E-01)
40	2.78E-01	(1.48E-01 - 3.82E-01)	9.91E-01	(9.82E-01 - 1.00E+00)
41	5.46E-03	(9.19E-04 - 3.62E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	1.80E-05	(7.61E-08 - 4.35E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
43	1.63E-09	(8.53E-14 - 5.64E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF PU-239 ALIOT METHOD

ESTIMATED FRACTIONAL YIELDS

CDC-EVEN Z CORRECTION FACTOR = 1.00 +/- .20

MASS 98 FISSION PRODUCT CHAIN

NLICT = 2.902 NU = 1.654 ZP = 39.565			
DEVIATION FROM LCD = .53 +/- .15 SIGMA = .56 +/- .05			
Z	FIV	RANGE OF FIV	FCY
36	2.22E-08	(3.98E-12 - 3.66E-06)	2.22E-08 (3.98E-12 - 3.66E-06)
37	1.14E-04	(1.23E-06 - 1.61E-03)	1.14E-04 (1.23E-06 - 1.61E-03)
38	2.85E-02	(4.88E-03 - 7.81E-02)	2.87E-02 (4.99E-03 - 7.82E-02)
39	4.58E-01	(3.59E-01 - 5.73E-01)	4.54E-01 (3.16E-01 - 6.10E-01)
40	4.98E-01	(3.62E-01 - 6.62E-01)	4.53E-01 (9.53E-01 - 1.00E+00)
41	4.71E-02	(1.05E-02 - 1.10E-01)	1.00E+00 (9.99E-01 - 1.00E+00)
42	2.74E-04	(4.56E-06 - 3.00E-03)	1.00E+00 (1.00E+00 - 1.00E+00)
43	7.55E-08	(2.61E-11 - 9.12E-06)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 99 FISSION PRODUCT CHAIN

NLICT = 2.957 NU = 1.699 ZP = 39.961			
DEVIATION FROM LCD = .52 +/- .15 SIGMA = .56 +/- .05			
Z	FIV	RANGE OF FIV	FCY
36	3.22E-10	(1.07E-14 - 1.76E-07)	3.22E-10 (1.07E-14 - 1.76E-07)
37	5.57E-06	(1.39E-08 - 1.89E-04)	5.57E-06 (1.43E-08 - 1.89E-04)
38	4.35E-03	(3.06E-04 - 2.17E-02)	4.55E-03 (3.11E-04 - 2.17E-02)
39	2.01E-01	(8.92E-02 - 3.03E-01)	2.05E-01 (9.37E-02 - 3.09E-01)
40	6.27E-01	(4.74E-01 - 7.78E-01)	8.32E-01 (7.33E-01 - 9.32E-01)
41	1.55E-01	(6.54E-02 - 2.64E-01)	9.97E-01 (9.94E-01 - 1.00E+00)
42	2.59E-03	(1.62E-04 - 1.62E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
43	2.88E-06	(5.25E-09 - 1.18E-04)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 100 FISSION PRODUCT CHAIN

NLICT = 3.080 NU = 1.788 ZP = 40.373			
DEVIATION FROM LCD = .51 +/- .15 SIGMA = .56 +/- .05			
Z	FIV	RANGE OF FIV	FCY
37	1.45E-07	(6.32E-11 - 1.40E-05)	1.45E-07 (6.32E-11 - 1.40E-05)
38	4.12E-04	(8.40E-06 - 4.01E-03)	4.13E-04 (8.54E-06 - 4.01E-03)
39	5.51E-02	(1.48E-02 - 1.29E-01)	5.94E-02 (1.52E-02 - 1.30E-01)
40	5.30E-01	(3.83E-01 - 6.98E-01)	5.90E-01 (4.31E-01 - 7.33E-01)
41	3.88E-01	(2.50E-01 - 5.25E-01)	9.78E-01 (9.59E-01 - 1.00E+00)
42	2.20E-02	(3.29E-03 - 6.52E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
43	7.27E-05	(6.33E-07 - 1.17E-03)	1.00E+00 (1.00E+00 - 1.00E+00)
44	1.17E-08	(1.56E-12 - 2.32E-06)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 101 FISSION PRODUCT CHAIN

NLICT = 3.061 NU = 1.797 ZP = 40.755			
DEVIATION FROM LCD = .49 +/- .15 SIGMA = .56 +/- .05			
Z	FIV	RANGE OF FIV	FCY
37	3.07E-09	(2.17E-13 - 8.89E-07)	3.07E-09 (2.17E-13 - 8.89E-07)
38	2.83E-05	(1.55E-07 - 6.00E-04)	2.83E-05 (1.58E-07 - 6.00E-04)
39	1.55E-02	(1.40E-03 - 4.40E-02)	1.25E-02 (1.43E-03 - 4.40E-02)
40	3.12E-01	(1.78E-01 - 4.22E-01)	3.24E-01 (1.90E-01 - 4.39E-01)
41	5.84E-01	(2.58E-01 - 7.51E-01)	9.08E-01 (8.43E-01 - 9.91E-01)
42	5.08E-02	(2.58E-02 - 1.73E-01)	9.99E-01 (9.98E-01 - 1.00E+00)
43	5.16E-04	(2.77E-05 - 7.04E-03)	1.00E+00 (1.00E+00 - 1.00E+00)
44	4.75E-07	(3.65E-10 - 3.27E-05)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 102 FISSION PRODUCT CHAIN

NLICT = 2.873 NU = 1.683 ZP = 41.091			
DEVIATION FROM LCD = .48 +/- .15 SIGMA = .56 +/- .09			
Z	FIV	RANGE OF FIV	FCY
38	1.56E-06	(2.75E-09 - 8.67E-05)	1.86E-06 (2.75E-09 - 8.67E-05)
39	2.25E-03	(1.06E-04 - 1.32E-02)	2.25E-03 (1.08E-04 - 1.32E-02)
40	1.44E-01	(5.28E-02 - 2.40E-01)	1.46E-01 (5.50E-02 - 2.43E-01)
41	6.22E-01	(4.66E-01 - 7.74E-01)	7.68E-01 (6.49E-01 - 8.72E-01)
42	2.22E-01	(1.08E-01 - 3.25E-01)	9.94E-01 (9.89E-01 - 1.00E+00)
43	5.51E-03	(4.54E-04 - 2.61E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
44	8.45E-06	(2.58E-08 - 2.54E-04)	1.00E+00 (1.00E+00 - 1.00E+00)
45	5.71E-10	(2.13E-14 - 2.66E-07)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 103 FISSION PRODUCT CHAIN

NLICT = 2.735 NU = 1.686 ZP = 41.470			
DEVIATION FROM LCD = .47 +/- .15 SIGMA = .56 +/- .09			
Z	FIV	RANGE OF FIV	FCY
38	5.66E-06	(1.58E-11 - 7.15E-06)	5.66E-06 (1.58E-11 - 7.15E-06)
39	2.17E-04	(3.22E-06 - 2.54E-03)	2.17E-04 (3.27E-06 - 2.54E-03)
40	4.13E-02	(8.56E-03 - 1.01E-01)	4.16E-02 (8.78E-03 - 1.01E-01)
41	4.60E-01	(3.44E-01 - 6.45E-01)	5.21E-01 (3.84E-01 - 6.83E-01)
42	4.46E-01	(3.11E-01 - 5.95E-01)	9.67E-01 (9.40E-01 - 1.00E+00)
43	2.28E-02	(6.04E-03 - 8.61E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
44	1.45E-04	(1.76E-06 - 1.91E-03)	1.00E+00 (1.00E+00 - 1.00E+00)
45	3.15E-06	(6.66E-12 - 4.71E-06)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 104 FISSION PRODUCT CHAIN

NLICT = 2.625 NU = 1.759 ZP = 41.877			
DEVIATION FROM LCD = .45 +/- .15 SIGMA = .56 +/- .09			
Z	FIV	RANGE OF FIV	FCY
38	8.18E-10	(3.20E-14 - 3.44E-07)	8.18E-10 (3.20E-14 - 3.44E-07)
39	1.10E-05	(3.90E-08 - 3.05E-04)	1.10E-05 (3.88E-08 - 3.06E-04)
40	6.52E-03	(5.79E-04 - 2.92E-02)	6.97E-03 (5.90E-04 - 2.92E-02)
41	2.42E-01	(1.20E-01 - 3.44E-01)	2.50E-01 (1.27E-01 - 3.56E-01)
42	6.17E-01	(4.60E-01 - 7.72E-01)	8.67E-01 (7.82E-01 - 9.62E-01)
43	1.21E-01	(4.58E-02 - 2.25E-01)	9.98E-01 (9.96E-01 - 1.00E+00)
44	1.87E-03	(8.08E-05 - 1.16E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
45	1.41E-06	(1.82E-09 - 7.05E-05)	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 105 FISSION PRODUCT CHAIN

NLICT = 2.478 NU = 1.842 ZP = 42.287			
DEVIATION FROM LCD = .44 +/- .15 SIGMA = .56 +/- .09			
Z	FIV	RANGE OF FIV	FCY
39	3.22E-07	(2.06E-10 - 2.48E-05)	2.2E-07 (2.06E-10 - 2.48E-05)
40	7.07E-04	(1.88E-05 - 5.86E-03)	7.07E-04 (1.91E-05 - 5.86E-03)
41	7.55E-02	(2.59E-02 - 1.58E-01)	7.99E-02 (2.16E-02 - 1.58E-01)
42	5.65E-01	(4.14E-01 - 7.36E-01)	6.48E-01 (5.11E-01 - 7.72E-01)
43	3.37E-01	(2.00E-01 - 4.56E-01)	9.85E-01 (9.72E-01 - 1.00E+00)
44	1.51E-03	(1.87E-03 - 5.03E-02)	1.00E+00 (1.00E+00 - 1.00E+00)
45	3.59E-05	(2.45E-07 - 7.52E-04)	1.00E+00 (1.00E+00 - 1.00E+00)
46	4.82E-05	(4.23E-13 - 1.23E-06)	1.00E+00 (1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF PL-239 NUCLID METHOD
 ESTIMATED FRACTIONAL YIELDS
 CDC-EVEN Z CORRECTION FACTOR = 1.00 +/- .20

MASS 106 FISSION PRODUCT CHAIN

NUCLID = 2.393 NU = 1.922 ZP = 42.696

DEVIATION FROM LCD = .43 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	5.73E-09	(5.44E-13 - 1.39E-06)	5.73E-09	(5.44E-13 - 1.39E-06)
40	4.39E-05	(2.99E-07 - 8.21E-04)	4.39E-05	(3.05E-07 - 8.21E-04)
41	1.63E-02	(2.09E-03 - 5.29E-02)	1.63E-02	(2.13E-03 - 5.30E-02)
42	3.47E-01	(2.10E-01 - 4.69E-01)	3.63E-01	(2.25E-01 - 4.91E-01)
43	5.61E-01	(4.08E-01 - 7.30E-01)	5.24E-01	(3.69E-01 - 1.00E+00)
44	7.50E-02	(1.91E-02 - 1.52E-01)	9.99E-01	(1.99E-01 - 1.00E+00)
45	6.38E-04	(1.61E-05 - 5.45E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
46	2.77E-07	(1.64E-10 - 2.22E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 107 FISSION PRODUCT CHAIN

NUCLID = 2.367 NU = 2.007 ZP = 43.107

DEVIATION FROM LCD = .41 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	1.62E-06	(2.23E-09 - 7.83E-05)	1.62E-06	(2.23E-09 - 7.83E-05)
41	2.05E-03	(9.26E-05 - 1.24E-02)	2.05E-03	(9.42E-05 - 1.24E-02)
42	1.37E-01	(4.91E-02 - 2.33E-01)	1.39E-01	(5.12E-02 - 2.35E-01)
43	6.19E-01	(4.63E-01 - 7.73E-01)	7.59E-01	(6.37E-01 - 8.63E-01)
44	2.35E-01	(1.14E-01 - 3.38E-01)	9.94E-01	(9.88E-01 - 1.00E+00)
45	6.42E-03	(5.14E-04 - 2.76E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	9.64E-06	(3.14E-08 - 2.79E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
47	6.86E-10	(2.49E-14 - 3.03E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 108 FISSION PRODUCT CHAIN

NUCLID = 2.414 NU = 2.166 ZP = 43.482

DEVIATION FROM LCD = .33 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	5.05E-08	(1.34E-11 - 6.60E-06)	5.05E-08	(1.34E-11 - 6.60E-06)
41	2.01E-04	(2.87E-06 - 2.41E-03)	2.01E-04	(2.92E-06 - 2.41E-03)
42	3.96E-02	(6.01E-03 - 9.79E-02)	3.98E-02	(8.21E-03 - 9.81E-02)
43	4.73E-01	(3.39E-01 - 6.32E-01)	5.13E-01	(3.76E-01 - 6.77E-01)
44	4.53E-01	(3.19E-01 - 6.07E-01)	9.65E-01	(9.38E-01 - 1.00E+00)
45	3.44E-02	(6.47E-03 - 8.88E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	1.57E-04	(1.99E-06 - 2.02E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
47	3.54E-08	(7.89E-12 - 5.11E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 109 FISSION PRODUCT CHAIN

NUCLID = 2.550 NU = 2.308 ZP = 43.596

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	1.62E-08	(0. - 3.06E-05)	1.62E-08	(1.06E-22 - 3.06E-05)
41	9.12E-05	(5.29E-09 - 4.64E-03)	9.12E-05	(2.15E-08 - 4.64E-03)
42	2.51E-02	(5.15E-04 - 1.12E-01)	2.52E-02	(6.06E-04 - 1.12E-01)
43	4.07E-01	(1.84E-01 - 6.42E-01)	4.32E-01	(2.32E-01 - 6.83E-01)
44	5.15E-01	(3.21E-01 - 7.67E-01)	9.47E-01	(8.96E-01 - 1.00E+00)
45	5.28E-02	(7.43E-03 - 1.68E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
46	3.36E-04	(7.42E-08 - 9.81E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
47	1.07E-07	(1.07E-14 - 9.24E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 110 FISSION PRODUCT CHAIN

NUCLID = 2.755 NU = 2.440 ZP = 44.039

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	2.50E-06	(5.15E-12 - 6.30E-04)	2.90E-06	(5.15E-12 - 6.30E-04)
42	2.55E-03	(6.40E-06 - 3.41E-02)	3.00E-03	(9.30E-06 - 3.41E-02)
43	1.65E-01	(2.72E-02 - 3.07E-01)	1.68E-01	(3.01E-02 - 3.14E-01)
44	6.27E-01	(4.37E-01 - 8.21E-01)	7.95E-01	(6.36E-01 - 9.44E-01)
45	2.01E-01	(4.14E-02 - 3.45E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
46	4.54E-02	(1.50E-05 - 4.31E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	5.55E-06	(1.89E-11 - 9.19E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
48	3.20E-10	(0. - 3.05E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 111 FISSION PRODUCT CHAIN

NUCLID = 2.545 NU = 2.468 ZP = 44.449

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	6.55E-08	(0. - 7.17E-05)	6.95E-08	(4.24E-22 - 7.17E-05)
42	2.50E-04	(4.07E-08 - 8.27E-03)	2.50E-04	(1.10E-07 - 8.28E-03)
43	4.48E-02	(1.72E-03 - 1.54E-01)	4.50E-02	(1.97E-03 - 1.55E-01)
44	4.51E-01	(2.87E-01 - 7.44E-01)	5.36E-01	(3.27E-01 - 7.97E-01)
45	4.34E-01	(2.13E-01 - 6.77E-01)	9.70E-01	(9.40E-01 - 1.00E+00)
46	3.02E-02	(7.56E-04 - 1.24E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
47	1.25E-04	(1.00E-08 - 5.56E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
48	2.55E-08	(0. - 3.95E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 112 FISSION PRODUCT CHAIN

NUCLID = 3.175 NU = 2.934 ZP = 44.781

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	2.33E-05	(0. - 9.82E-06)	2.33E-05	(1.32E-23 - 9.82E-06)
42	2.32E-05	(3.36E-10 - 2.11E-03)	2.32E-05	(2.67E-09 - 2.11E-03)
43	1.11E-02	(5.44E-05 - 7.12E-02)	1.11E-02	(1.18E-04 - 7.12E-02)
44	2.57E-01	(8.90E-02 - 4.74E-01)	3.08E-01	(9.98E-02 - 4.95E-01)
45	5.02E-01	(3.92E-01 - 8.11E-01)	9.00E-01	(8.11E-01 - 1.00E+00)
46	9.64E-02	(9.04E-03 - 2.35E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
47	1.07E-02	(7.82E-07 - 1.90E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	6.00E-07	(2.24E-13 - 2.52E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 113 FISSION PRODUCT CHAIN

NUCLID = 3.642 NU = 2.428 ZP = 45.209

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	6.58E-07	(2.66E-13 - 2.66E-04)	6.56E-07	(2.66E-13 - 2.66E-04)
43	1.13E-03	(8.82E-07 - 1.97E-02)	1.14E-03	(1.54E-06 - 1.97E-02)
44	1.02E-01	(5.65E-03 - 2.35E-01)	1.03E-01	(1.08E-02 - 2.41E-01)
45	5.96E-01	(3.95E-01 - 8.11E-01)	6.98E-01	(4.92E-01 - 8.82E-01)
46	2.51E-01	(8.51E-02 - 4.65E-01)	9.89E-01	(9.79E-01 - 1.00E+00)
47	1.06E-02	(8.57E-05 - 6.93E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	2.15E-05	(2.88E-10 - 2.02E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
49	2.10E-05	(0. - 9.23E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

TERMAL NEUTRON FISSION OF PU-239 NUTCT METHOD

ESTIMATED FRACTIONAL YIELDS

CCC-EVEN Z CORRECTION FACTOR = 1.00 +/- .20

MASS 114 FISSION PRODUCT CHAIN

NUTCT = 4.078 NU = 2.356 ZP = 45.573

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	2.04E-08	(0. - 3.50E-05)	2.04E-08	(2.12E-22 - 3.50E-05)
43	1.07E-04	(7.33E-09 - 5.09E-03)	1.07E-04	(2.77E-08 - 5.09E-03)
44	2.76E-02	(6.27E-04 - 1.18E-01)	2.77E-02	(7.34E-04 - 1.18E-01)
45	4.21E-01	(1.98E-01 - 6.60E-01)	4.48E-01	(2.44E-01 - 7.04E-01)
46	5.03E-01	(3.04E-01 - 7.56E-01)	9.51E-01	(9.05E-01 - 1.00E+00)
47	4.86E-02	(2.04E-03 - 1.61E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
48	2.89E-04	(5.48E-08 - 9.00E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
49	8.61E-08	(7.11E-15 - 8.13E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 115 FISSION PRODUCT CHAIN

NUTCT = 4.123 NU = 2.261 ZP = 45.927

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	4.68E-10	(0. - 3.82E-06)	4.68E-10	(3.31E-24 - 3.82E-06)
43	7.31E-06	(3.29E-11 - 1.08E-03)	7.31E-06	(5.01E-10 - 1.08E-03)
44	5.40E-03	(2.15E-05 - 4.76E-02)	5.41E-03	(2.88E-05 - 4.76E-02)
45	2.17E-01	(4.93E-02 - 3.65E-01)	2.23E-01	(5.46E-02 - 3.76E-01)
46	6.24E-01	(4.30E-01 - 8.16E-01)	8.47E-01	(7.18E-01 - 9.92E-01)
47	1.51E-01	(2.24E-02 - 2.93E-01)	9.98E-01	(9.95E-01 - 1.00E+00)
48	2.49E-03	(4.38E-06 - 3.07E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	2.17E-06	(2.90E-12 - 5.33E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 116 FISSION PRODUCT CHAIN

NUTCT = 4.078 NU = 2.146 ZP = 46.274

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	3.64E-07	(8.53E-14 - 1.89E-04)	3.64E-07	(8.53E-14 - 1.89E-04)
44	7.68E-04	(3.98E-07 - 1.57E-02)	7.68E-04	(7.62E-07 - 1.57E-02)
45	8.27E-02	(6.25E-03 - 2.14E-01)	8.35E-02	(7.02E-03 - 2.16E-01)
46	5.73E-01	(3.75E-01 - 8.07E-01)	6.57E-01	(4.45E-01 - 8.65E-01)
47	3.29E-01	(1.12E-01 - 5.26E-01)	9.86E-01	(9.72E-01 - 1.00E+00)
48	1.43E-02	(1.59E-04 - 8.19E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	3.52E-05	(7.75E-10 - 2.68E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
50	4.19E-09	(0. - 1.38E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 117 FISSION PRODUCT CHAIN

NUTCT = 4.030 NU = 2.036 ZP = 46.622

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	1.23E-08	(0. - 2.61E-05)	1.23E-08	(5.29E-23 - 2.61E-05)
44	7.53E-05	(3.60E-09 - 4.15E-03)	7.54E-05	(1.59E-08 - 4.15E-03)
45	2.24E-02	(4.08E-04 - 1.05E-01)	2.25E-02	(4.83E-04 - 1.06E-01)
46	3.91E-01	(1.67E-01 - 6.19E-01)	4.14E-01	(2.18E-01 - 6.57E-01)
47	5.28E-01	(3.40E-01 - 7.79E-01)	9.41E-01	(8.86E-01 - 1.00E+00)
48	5.81E-02	(2.98E-03 - 1.77E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
49	4.00E-04	(1.05E-07 - 1.08E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.38E-07	(1.42E-14 - 1.07E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 118 FISSION PRODUCT CHAIN

NUTCT = 4.000 NU = 2.000 ZP = 47.000

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	2.05E-10	(0. - 2.35E-06)	2.05E-10	(8.27E-25 - 2.35E-06)
44	4.02E-06	(9.91E-12 - 7.62E-04)	4.02E-06	(2.15E-10 - 7.62E-04)
45	3.65E-02	(5.85E-06 - 3.84E-02)	3.70E-02	(1.39E-05 - 3.84E-02)
46	1.62E-01	(3.37E-02 - 3.23E-01)	1.86E-01	(3.73E-02 - 3.31E-01)
47	6.22E-01	(4.43E-01 - 8.23E-01)	8.14E-01	(6.65E-01 - 9.59E-01)
48	1.62E-01	(3.37E-02 - 3.23E-01)	9.96E-01	(9.93E-01 - 1.00E+00)
49	3.65E-02	(5.85E-06 - 3.84E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	4.02E-06	(9.91E-12 - 7.62E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 119 FISSION PRODUCT CHAIN

NUTCT = 4.030 NU = 1.909 ZP = 47.356

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	1.70E-07	(2.13E-14 - 1.21E-04)	1.70E-07	(2.13E-14 - 1.21E-04)
45	4.59E-04	(1.40E-07 - 1.17E-02)	4.59E-04	(3.10E-07 - 1.17E-02)
46	6.27E-02	(3.49E-03 - 1.85E-01)	6.32E-02	(3.95E-03 - 1.86E-01)
47	5.38E-01	(3.48E-01 - 7.87E-01)	6.01E-01	(4.02E-01 - 8.38E-01)
48	3.78E-01	(1.55E-01 - 6.01E-01)	9.79E-01	(9.59E-01 - 1.00E+00)
49	2.05E-02	(3.37E-04 - 1.00E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
50	6.44E-05	(2.63E-09 - 3.80E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
51	9.67E-09	(0. - 2.25E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 120 FISSION PRODUCT CHAIN

NUTCT = 4.080 NU = 1.843 ZP = 47.722

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	4.38E-09	(0. - 1.42E-05)	4.38E-09	(2.65E-23 - 1.42E-05)
45	3.63E-05	(8.28E-10 - 2.73E-03)	3.63E-05	(5.21E-09 - 2.73E-03)
46	1.45E-02	(1.66E-04 - 8.28E-02)	1.46E-02	(2.02E-04 - 8.29E-02)
47	3.32E-01	(1.14E-01 - 5.30E-01)	3.46E-01	(1.35E-01 - 5.56E-01)
48	5.72E-01	(3.74E-01 - 8.06E-01)	9.18E-01	(8.42E-01 - 1.00E+00)
49	8.15E-02	(6.07E-03 - 2.13E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
50	7.47E-04	(3.77E-07 - 1.55E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	3.50E-07	(7.82E-14 - 1.84E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 121 FISSION PRODUCT CHAIN

NUTCT = 4.125 NU = 1.742 ZP = 48.074

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	2.15E-06	(2.84E-12 - 5.31E-04)	2.15E-06	(2.84E-12 - 5.31E-04)
46	2.47E-02	(4.33E-06 - 3.06E-02)	2.47E-02	(6.48E-06 - 3.06E-02)
47	1.50E-01	(2.22E-02 - 2.93E-01)	1.53E-01	(2.47E-02 - 2.98E-01)
48	6.24E-01	(4.30E-01 - 8.16E-01)	7.77E-01	(6.08E-01 - 9.30E-01)
49	2.18E-01	(4.95E-02 - 3.65E-01)	9.95E-01	(9.89E-01 - 1.00E+00)
50	5.43E-02	(2.17E-05 - 4.77E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	7.37E-06	(3.35E-11 - 1.08E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	4.73E-10	(0. - 3.85E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF PL-235 ALIOT METHOD
 ESTIMATED FRACTIONAL YIELDS
 ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .20

MASS 122 FISSION PRODUCT CHAIN

NUCT = 4.063 NU = 1.538 ZP = 48.386

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	1.28E-07	(1.07E-14 - 1.03E-04)	1.28E-07	(1.07E-14 - 1.03E-04)
46	3.79E-04	(9.49E-08 - 1.05E-02)	3.79E-04	(2.23E-07 - 1.05E-02)
47	5.65E-02	(2.80E-03 - 1.75E-01)	5.69E-02	(3.18E-03 - 1.75E-01)
48	5.24E-01	(3.36E-01 - 7.75E-01)	5.81E-01	(3.85E-01 - 8.26E-01)
49	3.56E-01	(1.72E-01 - 6.26E-01)	9.77E-01	(9.54E-01 - 1.00E+00)
50	2.32E-02	(4.38E-04 - 1.07E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
51	7.58E-05	(4.05E-09 - 4.30E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	1.34E-08	(0. - 2.74E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 123 FISSION PRODUCT CHAIN

NUCT = 3.778 NU = 1.259 ZP = 48.668

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	7.68E-09	(0. - 1.97E-05)	7.68E-09	(5.29E-23 - 1.97E-05)
46	5.40E-05	(1.84E-09 - 3.43E-03)	5.40E-05	(9.51E-09 - 3.43E-03)
47	1.84E-02	(2.71E-04 - 9.45E-02)	1.85E-02	(3.25E-04 - 9.46E-02)
48	3.63E-01	(1.41E-01 - 5.79E-01)	3.82E-01	(1.78E-01 - 6.11E-01)
49	5.49E-01	(3.56E-01 - 7.94E-01)	9.31E-01	(8.67E-01 - 1.00E+00)
50	6.82E-02	(4.16E-03 - 1.93E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
51	5.36E-04	(1.91E-07 - 1.28E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	2.13E-07	(2.84E-14 - 1.38E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 124 FISSION PRODUCT CHAIN

NUCT = 3.373 NU = .897 ZP = 48.918

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	5.20E-10	(0. - 4.06E-06)	5.20E-10	(3.31E-24 - 4.06E-06)
46	7.89E-06	(3.84E-11 - 1.13E-03)	7.89E-06	(5.58E-10 - 1.13E-03)
47	5.67E-03	(2.37E-05 - 4.89E-02)	5.67E-03	(3.16E-05 - 4.89E-02)
48	2.22E-01	(5.16E-02 - 3.70E-01)	2.28E-01	(5.72E-02 - 3.82E-01)
49	6.23E-01	(4.28E-01 - 8.14E-01)	8.51E-01	(7.25E-01 - 9.96E-01)
50	1.47E-01	(2.12E-02 - 2.90E-01)	9.98E-01	(9.95E-01 - 1.00E+00)
51	2.36E-03	(3.94E-06 - 2.98E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	2.00E-06	(2.47E-12 - 5.09E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 125 FISSION PRODUCT CHAIN

NUCT = 3.154 NU = .623 ZP = 49.202

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	6.99E-07	(3.02E-13 - 2.76E-04)	6.99E-07	(3.02E-13 - 2.76E-04)
47	1.18E-03	(9.61E-07 - 2.01E-02)	1.18E-03	(1.66E-06 - 2.01E-02)
48	1.04E-01	(1.01E-02 - 2.42E-01)	1.05E-01	(1.13E-02 - 2.44E-01)
49	5.98E-01	(3.97E-01 - 8.11E-01)	7.03E-01	(4.98E-01 - 8.83E-01)
50	2.87E-01	(8.25E-02 - 4.58E-01)	9.90E-01	(9.80E-01 - 1.00E+00)
51	1.02E-02	(8.00E-05 - 6.80E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	2.04E-05	(2.58E-10 - 1.95E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	1.54E-09	(0. - 8.82E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 126 FISSION PRODUCT CHAIN

NUCT = 2.96C NU = .463 ZP = 49.531

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	3.10E-08	(0. - 4.47E-05)	3.10E-08	(4.24E-22 - 4.47E-05)
47	1.43E-04	(1.32E-08 - 6.01E-03)	1.43E-04	(4.41E-08 - 6.01E-03)
48	3.26E-02	(8.68E-04 - 1.25E-01)	3.28E-02	(1.03E-03 - 1.30E-01)
49	4.45E-01	(2.26E-01 - 6.91E-01)	4.78E-01	(2.65E-01 - 7.43E-01)
50	4.61E-01	(2.72E-01 - 7.33E-01)	9.58E-01	(9.18E-01 - 1.00E+00)
51	4.16E-02	(1.48E-03 - 1.48E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
52	2.20E-04	(3.13E-08 - 7.68E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	5.76E-08	(0. - 6.42E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 127 FISSION PRODUCT CHAIN

NUCT = 2.793 NU = .323 ZP = 49.868

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	5.02E-10	(0. - 5.62E-06)	9.02E-10	(3.31E-24 - 5.62E-06)
47	1.17E-05	(8.53E-11 - 1.42E-03)	1.17E-05	(9.87E-10 - 1.42E-03)
48	7.27E-03	(3.56E-05 - 5.62E-02)	7.28E-03	(5.13E-05 - 5.62E-02)
49	2.48E-01	(5.91E-02 - 4.02E-01)	2.55E-01	(6.63E-02 - 4.17E-01)
50	6.15E-01	(4.16E-01 - 8.04E-01)	8.70E-01	(7.58E-01 - 1.00E+00)
51	1.28E-01	(1.57E-02 - 2.70E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
52	1.78E-03	(2.22E-06 - 2.54E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	1.30E-06	(1.04E-12 - 3.96E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 128 FISSION PRODUCT CHAIN

NUCT = 2.642 NU = .251 ZP = 50.232

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	5.36E-07	(1.78E-13 - 2.36E-04)	5.36E-07	(1.78E-13 - 2.36E-04)
48	5.63E-04	(6.72E-07 - 1.82E-02)	9.94E-04	(1.21E-06 - 1.82E-02)
49	5.47E-02	(8.33E-03 - 2.30E-01)	9.57E-02	(9.32E-03 - 2.32E-01)
50	5.68E-01	(3.89E-01 - 8.11E-01)	6.84E-01	(4.74E-01 - 8.76E-01)
51	3.04E-01	(9.39E-02 - 4.86E-01)	9.88E-01	(9.77E-01 - 1.00E+00)
52	1.17E-02	(1.06E-04 - 7.35E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	2.55E-05	(4.06E-10 - 2.22E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	2.67E-09	(0. - 1.06E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 129 FISSION PRODUCT CHAIN

NUCT = 2.46C NU = .232 ZP = 50.523

DEVIATION FROM UCD = -.10 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	3.37E-08	(0. - 4.70E-05)	3.37E-08	(2.12E-22 - 4.70E-05)
48	1.52E-04	(1.48E-08 - 6.21E-03)	1.52E-04	(4.85E-08 - 6.21E-03)
49	3.37E-02	(5.53E-04 - 1.32E-01)	3.39E-02	(1.10E-03 - 1.32E-01)
50	4.50E-01	(2.32E-01 - 6.97E-01)	4.84E-01	(2.70E-01 - 7.50E-01)
51	4.76E-01	(2.66E-01 - 7.28E-01)	9.59E-01	(9.21E-01 - 1.00E+00)
52	4.03E-02	(1.38E-03 - 1.45E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
53	2.07E-04	(2.79E-08 - 7.44E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	5.30E-08	(0. - 6.12E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF PU-235 ALTCT METHOD
 ESTIMATED FRACTIONAL YIELDS
 ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .20

MASS 130 FISSION PRODUCT CHAIN

NU = 2.402 NU = .366 ZP = 50.655

DEVIATION FROM UCD = -.40 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	8.79E-09	(1.02E-12 - 1.89E-06)	8.79E-09	(1.02E-12 - 1.89E-06)
48	5.64E-05	(4.68E-07 - 1.02E-03)	5.94E-05	(4.77E-07 - 1.02E-03)
49	1.95E-02	(2.74E-03 - 6.00E-02)	1.96E-02	(2.80E-03 - 6.00E-02)
50	3.71E-01	(2.34E-01 - 5.02E-01)	3.91E-01	(2.52E-01 - 5.28E-01)
51	5.43E-01	(3.54E-01 - 7.12E-01)	9.34E-01	(8.84E-01 - 1.00E+00)
52	6.52E-02	(1.54E-02 - 1.38E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
53	4.93E-04	(1.10E-05 - 4.55E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.89E-07	(9.34E-11 - 1.69E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 131 FISSION PRODUCT CHAIN

NU = 2.359 NU = .464 ZP = 51.071

DEVIATION FROM UCD = -.42 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	2.20E-06	(3.52E-09 - 9.75E-05)	2.20E-06	(3.52E-09 - 9.75E-05)
49	2.51E-03	(1.25E-04 - 1.43E-02)	2.51E-03	(1.27E-04 - 1.43E-02)
50	1.51E-01	(5.73E-02 - 2.49E-01)	1.54E-01	(5.98E-02 - 2.52E-01)
51	6.24E-01	(4.69E-01 - 7.74E-01)	7.78E-01	(6.62E-01 - 8.82E-01)
52	2.17E-01	(1.00E-01 - 3.19E-01)	9.95E-01	(9.90E-01 - 1.00E+00)
53	5.36E-03	(3.91E-04 - 2.44E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	7.23E-06	(2.05E-08 - 2.28E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
55	4.60E-10	(1.42E-14 - 2.28E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 132 FISSION PRODUCT CHAIN

NU = 2.429 NU = .623 ZP = 51.510

DEVIATION FROM UCD = -.43 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	3.82E-08	(8.85E-12 - 5.40E-06)	3.82E-08	(8.85E-12 - 5.40E-06)
49	1.66E-04	(2.15E-06 - 2.10E-03)	1.66E-04	(2.19E-06 - 2.10E-03)
50	3.55E-02	(6.78E-03 - 9.07E-02)	3.56E-02	(6.95E-03 - 9.09E-02)
51	4.57E-01	(3.24E-01 - 6.13E-01)	4.93E-01	(3.57E-01 - 6.58E-01)
52	4.69E-01	(3.36E-01 - 6.27E-01)	9.61E-01	(9.31E-01 - 1.00E+00)
53	3.84E-02	(1.65E-03 - 9.59E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.50E-04	(2.32E-06 - 2.32E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
55	4.68E-08	(1.19E-11 - 6.24E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 133 FISSION PRODUCT CHAIN

NU = 2.552 NU = .842 ZP = 51.972

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	2.83E-10	(7.11E-15 - 1.61E-07)	2.83E-10	(7.11E-15 - 1.61E-07)
49	5.07E-06	(1.21E-08 - 1.77E-04)	5.07E-06	(1.24E-08 - 1.77E-04)
50	4.28E-03	(2.79E-04 - 2.08E-02)	4.29E-03	(2.84E-04 - 2.08E-02)
51	1.55E-01	(8.54E-02 - 2.97E-01)	2.00E-01	(1.96E-02 - 3.03E-01)
52	4.27E-01	(4.75E-01 - 7.79E-01)	8.27E-01	(7.26E-01 - 9.28E-01)
53	1.70E-01	(6.85E-02 - 2.69E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
54	3.18E-03	(1.78E-04 - 1.49E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
55	3.17E-06	(6.06E-09 - 1.27E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 134 FISSION PRODUCT CHAIN

NU = 2.714 NU = 1.044 ZP = 52.427

DEVIATION FROM UCD = -.47 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	8.62E-08	(2.54E-11 - 9.66E-06)	8.62E-08	(2.94E-11 - 9.66E-06)
50	2.89E-04	(4.95E-06 - 3.12E-03)	2.90E-04	(5.04E-06 - 3.12E-03)
51	4.66E-02	(1.10E-02 - 1.13E-01)	4.89E-02	(1.12E-02 - 1.13E-01)
52	5.03E-01	(3.62E-01 - 6.66E-01)	5.52E-01	(4.13E-01 - 7.06E-01)
53	4.21E-01	(2.84E-01 - 5.67E-01)	9.72E-01	(9.49E-01 - 1.00E+00)
54	2.76E-02	(4.63E-03 - 7.63E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
55	1.07E-04	(1.12E-06 - 1.54E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
56	2.04E-08	(3.51E-12 - 3.45E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 135 FISSION PRODUCT CHAIN

NU = 2.646 NU = 1.179 ZP = 52.857

DEVIATION FROM UCD = -.48 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.02E-05	(4.62E-14 - 4.03E-07)	1.02E-05	(4.62E-14 - 4.03E-07)
50	1.28E-05	(4.80E-08 - 3.42E-04)	1.28E-05	(4.90E-08 - 3.42E-04)
51	7.66E-03	(6.72E-04 - 3.13E-02)	7.69E-03	(6.85E-04 - 3.13E-02)
52	2.54E-01	(1.29E-01 - 3.57E-01)	2.62E-01	(1.36E-01 - 3.67E-01)
53	6.13E-01	(4.55E-01 - 7.71E-01)	8.75E-01	(7.93E-01 - 9.60E-01)
54	1.24E-01	(4.19E-02 - 2.11E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
55	1.67E-03	(6.81E-05 - 1.07E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.18E-06	(1.40E-09 - 6.26E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 136 FISSION PRODUCT CHAIN

NU = 3.045 NU = 1.278 ZP = 53.273

DEVIATION FROM UCD = -.49 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	3.67E-07	(2.49E-10 - 2.72E-05)	3.67E-07	(2.49E-10 - 2.72E-05)
51	7.71E-04	(2.14E-05 - 6.23E-03)	7.72E-04	(2.18E-05 - 6.23E-03)
52	8.25E-02	(2.24E-02 - 1.63E-01)	8.37E-02	(2.32E-02 - 1.64E-01)
53	5.74E-01	(4.19E-01 - 7.42E-01)	7.57E-01	(5.21E-01 - 7.78E-01)
54	3.28E-01	(1.53E-01 - 4.45E-01)	9.86E-01	(9.73E-01 - 1.00E+00)
55	1.42E-02	(1.70E-03 - 4.81E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	3.50E-05	(2.13E-07 - 6.98E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
57	4.15E-05	(3.38E-13 - 1.10E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 137 FISSION PRODUCT CHAIN

NU = 3.075 NU = 1.288 ZP = 53.656

DEVIATION FROM UCD = -.51 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	8.73E-05	(1.01E-12 - 1.88E-06)	8.73E-05	(1.01E-12 - 1.88E-06)
51	5.51E-05	(4.65E-07 - 1.01E-03)	5.91E-05	(4.73E-07 - 1.01E-03)
52	1.54E-02	(2.73E-03 - 5.95E-02)	1.95E-02	(2.79E-03 - 5.95E-02)
53	3.71E-01	(2.33E-01 - 5.02E-01)	3.90E-01	(2.52E-01 - 5.27E-01)
54	5.44E-01	(3.94E-01 - 7.12E-01)	9.34E-01	(8.84E-01 - 1.00E+00)
55	6.54E-02	(1.55E-02 - 1.38E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
56	4.55E-04	(1.10E-05 - 4.55E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.50E-07	(9.42E-11 - 1.70E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF PL-239 ALIOT METHOD
 ESTIMATED FRACTIONAL YIELDS
 CDC-EVEN 2 CORRECTION FACTOR = 1.00 +/- .20

MASS 138 FISSION PRODUCT CHAIN
 NLTC1 = 2.962 NU = 1.260 ZP = 54.024
 DEVIATION FROM LCD = -.52 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	3.29E-06	(6.38E-09 - 1.30E-04)	3.29E-06	(6.38E-09 - 1.30E-04)
52	3.25E-03	(1.84E-04 - 1.71E-02)	3.25E-03	(1.88E-04 - 1.71E-02)
53	1.71E-01	(6.96E-02 - 2.71E-01)	1.75E-01	(7.29E-02 - 2.76E-01)
54	8.28E-01	(4.76E-01 - 7.79E-01)	8.02E-01	(6.93E-01 - 9.05E-01)
55	1.93E-01	(8.41E-02 - 2.95E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
56	4.19E-03	(2.71E-04 - 2.05E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	4.90E-06	(1.15E-08 - 1.73E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
58	2.70E-10	(7.11E-15 - 1.55E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 139 FISSION PRODUCT CHAIN
 NLTC1 = 2.897 NU = 1.246 ZP = 54.358
 DEVIATION FROM LCD = -.53 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	1.14E-07	(4.46E-11 - 1.10E-05)	1.14E-07	(4.46E-11 - 1.18E-05)
52	3.51E-04	(6.61E-06 - 3.58E-03)	3.51E-04	(6.72E-06 - 3.58E-03)
53	5.41E-02	(1.29E-02 - 1.21E-01)	5.45E-02	(1.33E-02 - 1.22E-01)
54	5.18E-01	(3.74E-01 - 6.85E-01)	5.73E-01	(4.34E-01 - 7.21E-01)
55	4.03E-01	(2.66E-01 - 5.44E-01)	9.76E-01	(9.55E-01 - 1.00E+00)
56	2.44E-02	(3.85E-03 - 7.01E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	8.69E-05	(8.24E-07 - 1.33E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.51E-08	(2.26E-12 - 2.78E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 140 FISSION PRODUCT CHAIN
 NLTC1 = 2.923 NU = 1.269 ZP = 54.785
 DEVIATION FROM LCD = -.55 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	2.23E-09	(1.35E-13 - 7.06E-07)	2.23E-09	(1.35E-13 - 7.06E-07)
52	2.25E-05	(1.10E-07 - 5.10E-04)	2.25E-05	(1.12E-07 - 5.10E-04)
53	1.08E-02	(1.13E-03 - 3.99E-02)	1.09E-02	(1.15E-03 - 3.99E-02)
54	2.94E-01	(1.62E-01 - 4.01E-01)	3.05E-01	(1.73E-01 - 4.16E-01)
55	5.94E-01	(4.37E-01 - 7.59E-01)	8.99E-01	(8.29E-01 - 9.84E-01)
56	9.98E-02	(2.59E-02 - 1.84E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
57	1.10E-03	(3.63E-05 - 7.99E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	6.24E-07	(5.46E-10 - 3.97E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 141 FISSION PRODUCT CHAIN
 NLTC1 = 2.962 NU = 1.303 ZP = 55.177
 DEVIATION FROM LCD = -.56 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	8.77E-07	(9.04E-10 - 5.07E-05)	8.77E-07	(9.04E-10 - 5.07E-05)
53	1.38E-03	(5.08E-05 - 9.37E-03)	1.38E-03	(5.17E-05 - 9.37E-03)
54	1.12E-01	(3.59E-02 - 1.99E-01)	1.13E-01	(3.72E-02 - 2.01E-01)
55	6.05E-01	(4.47E-01 - 7.66E-01)	7.18E-01	(5.89E-01 - 8.25E-01)
56	2.73E-01	(1.44E-01 - 3.76E-01)	9.91E-01	(9.83E-01 - 1.00E+00)
57	9.05E-03	(8.60E-04 - 3.51E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.67E-05	(7.11E-08 - 4.13E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
59	1.47E-09	(7.46E-14 - 5.25E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 142 FISSION PRODUCT CHAIN
 NLTC1 = 3.006 NU = 1.359 ZP = 55.577
 DEVIATION FROM LCD = -.57 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	1.96E-08	(3.32E-12 - 3.36E-06)	1.96E-08	(3.32E-12 - 3.36E-06)
53	1.04E-04	(1.08E-06 - 1.51E-03)	1.04E-04	(1.10E-06 - 1.51E-03)
54	2.72E-02	(4.53E-03 - 1.55E-02)	2.73E-02	(4.63E-03 - 1.56E-02)
55	4.18E-01	(2.82E-01 - 5.64E-01)	4.46E-01	(3.07E-01 - 5.99E-01)
56	5.05E-01	(3.63E-01 - 6.70E-01)	9.50E-01	(9.12E-01 - 1.00E+00)
57	4.93E-02	(1.12E-02 - 1.14E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
58	2.97E-04	(5.14E-06 - 3.17E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	8.94E-08	(3.10E-11 - 9.92E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 143 FISSION PRODUCT CHAIN
 NLTC1 = 3.015 NU = 1.351 ZP = 55.967
 DEVIATION FROM LCD = -.59 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	2.95E-10	(7.11E-15 - 1.67E-07)	2.98E-10	(7.11E-15 - 1.67E-07)
53	5.27E-06	(1.28E-08 - 1.82E-04)	5.27E-06	(1.31E-08 - 1.82E-04)
54	4.35E-02	(2.50E-04 - 2.12E-02)	4.39E-03	(2.95E-04 - 2.12E-02)
55	1.95E-01	(8.69E-02 - 2.95E-01)	2.02E-01	(9.12E-02 - 3.05E-01)
56	6.27E-01	(4.75E-01 - 7.78E-01)	8.29E-01	(7.29E-01 - 9.30E-01)
57	1.66E-01	(6.72E-02 - 2.67E-01)	9.97E-01	(9.96E-01 - 1.00E+00)
58	3.10E-02	(1.72E-04 - 1.66E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	3.05E-06	(5.72E-09 - 1.23E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 144 FISSION PRODUCT CHAIN
 NLTC1 = 3.026 NU = 1.434 ZP = 56.362
 DEVIATION FROM LCD = -.60 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	1.60E-07	(7.30E-11 - 1.50E-05)	1.60E-07	(7.30E-11 - 1.50E-05)
54	4.41E-04	(9.27E-06 - 4.20E-03)	4.41E-04	(9.43E-06 - 4.20E-03)
55	6.13E-02	(1.40E-02 - 1.32E-01)	6.18E-02	(1.44E-02 - 1.23E-01)
56	5.35E-01	(3.87E-01 - 7.03E-01)	5.97E-01	(4.58E-01 - 7.38E-01)
57	3.82E-01	(2.44E-01 - 5.17E-01)	4.79E-01	(9.61E-01 - 1.00E+00)
58	2.10E-02	(3.08E-03 - 6.32E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	6.75E-05	(5.66E-07 - 1.11E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	1.06E-08	(1.33E-12 - 2.15E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 145 FISSION PRODUCT CHAIN
 NLTC1 = 3.032 NU = 1.411 ZP = 56.755
 DEVIATION FROM LCD = -.61 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	3.07E-05	(2.17E-13 - 8.85E-07)	3.07E-05	(2.17E-13 - 8.85E-07)
54	2.82E-05	(1.55E-07 - 5.95E-04)	2.82E-05	(1.58E-07 - 5.95E-04)
55	1.25E-02	(1.40E-03 - 4.35E-02)	1.25E-02	(1.42E-03 - 4.40E-02)
56	3.12E-01	(1.78E-01 - 4.22E-01)	3.24E-01	(1.90E-01 - 4.38E-01)
57	5.84E-01	(4.28E-01 - 7.51E-01)	9.08E-01	(8.43E-01 - 9.51E-01)
58	9.08E-02	(2.58E-02 - 1.73E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
59	5.17E-04	(2.77E-05 - 7.04E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	4.76E-07	(3.66E-10 - 3.27E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION OF PL-235 NLCT METHOD
ESTIMATE FRACTIONAL YIELDS
COD-EVEN Z CORRECTION FACTOR = 1.00 +/- .20

MASS 146 FISSION PRODUCT CHAIN									
NLCT = 3.062		NU = 1.548		ZP = 57.163		MASS 150 FISSION PRODUCT CHAIN			
DEVIATION FROM UCD = -.63 +/- .15		SIGMA = .56 +/- .05				NLCT = 3.182		NU = 1.955	
Z		FIV		RANGE OF FIV		DEVIATION FROM UCD = -.68 +/- .25		SIGMA = .56 +/- .15	
FCY		FCY		RANGE OF FIV		FCY		FCY	
54	9.89E-07	1.68E-09	5.52E-05	9.89E-07	1.08E-09	5.52E-05	55	1.34E-05	1.34E-09
55	1.49E-03	3.72E-05	9.90E-03	1.49E-03	1.58E-05	9.90E-03	56	1.56E-05	1.56E-05
56	1.17E-01	3.82E-02	2.05E-01	1.18E-01	3.97E-02	2.07E-01	57	8.66E-03	5.69E-05
57	6.08E-01	4.50E-01	7.68E-01	7.24E-01	5.59E-01	8.32E-01	58	2.68E-01	2.76E-01
58	2.55E-01	1.38E-01	3.68E-01	9.92E-01	1.94E-01	1.00E+00	59	6.07E-01	8.83E-01
59	8.47E-03	1.79E-04	3.35E-02	1.00E+00	1.00E+00	1.00E+00	60	1.15E-01	1.26E-02
60	1.50E-05	6.48E-08	3.83E-04	1.00E+00	1.00E+00	1.00E+00	61	1.45E-02	1.45E-06
61	1.27E-09	6.44E-14	4.72E-07	1.00E+00	1.00E+00	1.00E+00	62	5.56E-07	5.56E-13

MASS 147 FISSION PRODUCT CHAIN									
NLCT = 3.097		NU = 1.673		ZP = 57.589		MASS 151 FISSION PRODUCT CHAIN			
DEVIATION FROM UCD = -.64 +/- .15		SIGMA = .56 +/- .05				NLCT = 3.296		NU = 2.061	
Z		FIV		RANGE OF FIV		DEVIATION FROM UCD = -.70 +/- .25		SIGMA = .56 +/- .15	
FCY		FCY		RANGE OF FIV		FCY		FCY	
54	1.73E-08	2.76E-12	3.07E-06	1.73E-08	2.76E-12	3.07E-06	56	4.18E-07	4.18E-07
55	9.55E-05	9.48E-07	1.42E-03	9.55E-05	9.65E-07	1.42E-03	57	8.42E-04	8.42E-04
56	2.58E-02	4.19E-03	7.28E-02	2.59E-02	4.28E-03	7.29E-02	58	6.66E-02	6.93E-03
57	4.11E-01	2.74E-01	5.54E-01	4.37E-01	2.98E-01	5.88E-01	59	5.76E-01	3.60E-01
58	5.11E-01	3.68E-01	6.77E-01	9.48E-01	9.08E-01	1.00E+00	60	3.23E-02	1.36E-02
59	5.16E-02	1.20E-02	1.18E-01	1.00E+00	9.99E-01	1.00E+00	61	1.38E-04	1.38E-04
60	3.22E-04	5.81E-06	3.36E-03	1.00E+00	1.00E+00	1.00E+00	62	3.14E-05	6.17E-10
61	1.01E-07	3.70E-11	1.08E-05	1.00E+00	1.00E+00	1.00E+00	63	3.57E-05	3.57E-05

MASS 148 FISSION PRODUCT CHAIN									
NLCT = 3.130		NU = 1.755		ZP = 57.999		MASS 152 FISSION PRODUCT CHAIN			
DEVIATION FROM UCD = -.65 +/- .15		SIGMA = .56 +/- .09				NLCT = 3.435		NU = 2.218	
Z		FIV		RANGE OF FIV		DEVIATION FROM UCD = -.71 +/- .25		SIGMA = .56 +/- .15	
FCY		FCY		RANGE OF FIV		FCY		FCY	
54	2.08E-10	7.11E-15	1.29E-07	2.08E-10	7.11E-15	1.29E-07	56	6.14E-05	6.14E-05
55	4.05E-06	8.70E-09	1.51E-04	4.05E-06	8.91E-09	1.51E-04	57	4.61E-05	4.61E-05
56	3.71E-03	2.25E-04	1.88E-02	3.72E-03	2.29E-04	1.88E-02	58	1.66E-02	2.23E-04
57	1.83E-01	1.76E-02	2.84E-01	1.86E-01	8.06E-02	2.88E-01	59	3.51E-01	1.36E-01
58	6.28E-01	4.78E-01	7.79E-01	8.15E-01	7.09E-01	9.16E-01	60	5.55E-01	3.63E-01
59	1.82E-01	1.76E-02	2.83E-01	9.96E-01	9.93E-01	1.00E+00	61	2.33E-02	4.85E-03
60	3.67E-03	2.22E-04	1.87E-02	1.00E+00	1.00E+00	1.00E+00	62	6.13E-04	2.51E-07
61	3.98E-06	8.48E-09	1.49E-04	1.00E+00	1.00E+00	1.00E+00	63	2.66E-07	4.26E-14

MASS 149 FISSION PRODUCT CHAIN									
NLCT = 3.136		NU = 1.849		ZP = 58.413		MASS 153 FISSION PRODUCT CHAIN			
DEVIATION FROM UCD = -.67 +/- .15		SIGMA = .56 +/- .05				NLCT = 3.634		NU = 2.272	
Z		FIV		RANGE OF FIV		DEVIATION FROM UCD = -.73 +/- .25		SIGMA = .56 +/- .15	
FCY		FCY		RANGE OF FIV		FCY		FCY	
55	9.84E-08	3.57E-11	1.06E-05	9.84E-08	3.57E-11	1.06E-05	57	1.65E-06	2.20E-12
56	3.17E-04	5.66E-06	3.32E-03	3.17E-04	5.76E-06	3.32E-03	58	2.27E-02	3.35E-06
57	5.11E-02	1.18E-02	1.17E-01	5.14E-02	1.21E-02	1.17E-01	59	1.44E-01	2.04E-02
58	5.10E-01	3.67E-01	6.76E-01	5.61E-01	4.23E-01	7.13E-01	60	6.22E-01	4.26E-01
59	4.12E-01	2.75E-01	5.56E-01	9.74E-01	9.52E-01	1.00E+00	61	2.24E-01	3.34E-02
60	2.61E-02	5.25E-03	7.33E-02	1.00E+00	1.00E+00	1.00E+00	62	5.66E-03	2.54E-05
61	9.72E-05	5.74E-07	1.44E-02	1.00E+00	1.00E+00	1.00E+00	63	8.32E-06	4.27E-11
62	1.78E-08	2.86E-12	3.12E-06	1.00E+00	1.00E+00	1.00E+00	64	5.66E-10	5.66E-10

THERMAL NEUTRON FISSION OF PL-235 NLCT METHOD
 ESTIMATED FRACTIONAL YIELDS
 CCC-EVEN Z CORRECTION FACTOR = 1.00 +/- .20

MASS 154 FISSION PRODUCT CHAIN
 NLCT = 3.530 NU = 2.367 ZP = 60.503
 DEVIATION FROM UCD = -.74 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	4.08E-08 (C.	- 5.26E-05)	4.08E-08	(7.12E-22 - 5.26E-05)
58	1.73E-04 (1.94E-08	- 6.71E-03)	1.73E-04	(6.02E-08 - 6.71E-03)
59	3.64E-02 (1.12E-03	- 1.38E-01)	3.66E-02	(1.29E-03 - 1.38E-01)
60	4.61E-01 (2.46E-01	- 7.11E-01)	4.98E-01	(2.81E-01 - 7.67E-01)
61	4.65E-01 (2.51E-01	- 7.15E-01)	9.62E-01	(9.26E-01 - 1.00E+00)
62	3.74E-02 (1.18E-03	- 1.40E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
63	1.82E-04 (2.13E-08	- 6.89E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
64	4.37E-08 (C.	- 5.47E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 155 FISSION PRODUCT CHAIN
 NLCT = 3.604 NU = 2.427 ZP = 60.905
 DEVIATION FROM UCD = -.75 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	6.01E-10 (C.	- 4.42E-06)	6.01E-10	(3.31E-24 - 4.42E-06)
58	8.76E-06 (4.73E-11	- 1.20E-03)	8.76E-06	(6.48E-10 - 1.20E-03)
59	6.05E-03 (2.72E-05	- 5.07E-02)	6.06E-03	(3.59E-05 - 5.07E-02)
60	2.29E-01 (5.51E-02	- 3.79E-01)	2.35E-01	(6.10E-02 - 3.91E-01)
61	6.21E-01 (4.25E-01	- 8.11E-01)	8.56E-01	(7.34E-01 - 1.00E+00)
62	1.42E-01 (1.56E-02	- 2.84E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
63	2.19E-03 (3.39E-06	- 2.86E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	1.79E-06 (1.57E-12	- 4.77E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 156 FISSION PRODUCT CHAIN
 NLCT = 3.425 NU = 2.259 ZP = 61.220
 DEVIATION FROM UCD = -.76 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	5.55E-07 (2.20E-13	- 2.51E-04)	9.95E-07	(2.20E-13 - 2.51E-04)
59	1.06E-03 (7.74E-07	- 1.90E-02)	1.06E-03	(1.37E-06 - 1.90E-02)
60	5.82E-02 (6.99E-03	- 2.35E-01)	9.93E-02	(1.00E-02 - 2.37E-01)
61	5.52E-01 (3.92E-01	- 8.11E-01)	6.91E-01	(4.83E-01 - 8.79E-01)
62	2.57E-01 (8.53E-02	- 4.75E-01)	9.89E-01	(9.78E-01 - 1.00E+00)
63	1.11E-02 (9.51E-05	- 7.13E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	2.34E-05 (3.40E-10	- 2.11E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
65	2.36E-09 (C.	- 9.87E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 157 FISSION PRODUCT CHAIN
 NLCT = 3.205 NU = 2.079 ZP = 61.531
 DEVIATION FROM UCD = -.78 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	3.12E-08 (C.	- 4.49E-05)	3.12E-08	(2.12E-22 - 4.49E-05)
59	1.44E-04 (1.33E-08	- 6.03E-03)	1.44E-04	(4.44E-08 - 6.03E-03)
60	3.27E-02 (8.93E-04	- 1.30E-01)	3.28E-02	(1.04E-03 - 1.30E-01)
61	4.45E-01 (2.27E-01	- 6.92E-01)	4.78E-01	(2.66E-01 - 7.43E-01)
62	4.80E-01 (2.71E-01	- 7.33E-01)	9.58E-01	(9.18E-01 - 1.00E+00)
63	4.15E-02 (1.47E-03	- 1.48E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
64	2.18E-04 (3.10E-08	- 7.66E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
65	5.72E-08 (C.	- 6.40E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 158 FISSION PRODUCT CHAIN
 NLCT = 3.059 NU = 2.064 ZP = 61.904
 DEVIATION FROM UCD = -.79 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	6.00E-10 (C.	- 4.46E-06)	6.00E-10	(3.31E-24 - 4.46E-06)
59	8.84E-06 (4.82E-11	- 1.20E-03)	8.84E-06	(6.56E-10 - 1.20E-03)
60	6.05E-02 (2.75E-05	- 5.09E-02)	6.09E-02	(3.63E-05 - 5.09E-02)
61	2.25E-01 (5.54E-02	- 3.75E-01)	2.35E-01	(6.14E-02 - 3.92E-01)
62	6.21E-01 (4.25E-01	- 8.11E-01)	8.57E-01	(7.35E-01 - 1.00E+00)
63	1.41E-01 (1.55E-02	- 2.84E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
64	2.16E-03 (3.35E-06	- 2.85E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
65	1.77E-06 (1.53E-12	- 4.74E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 159 FISSION PRODUCT CHAIN
 NLCT = 2.871 NU = 1.932 ZP = 62.233
 DEVIATION FROM UCD = -.80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	5.31E-07 (1.74E-13	- 2.35E-04)	5.31E-07	(1.74E-13 - 2.35E-04)
60	5.66E-04 (6.63E-07	- 1.81E-02)	9.87E-04	(1.19E-06 - 1.81E-02)
61	5.44E-02 (8.27E-03	- 2.30E-01)	9.54E-02	(9.25E-03 - 2.32E-01)
62	5.66E-01 (3.68E-01	- 8.11E-01)	6.83E-01	(4.73E-01 - 8.76E-01)
63	3.05E-01 (5.44E-02	- 4.87E-01)	9.88E-01	(9.76E-01 - 1.00E+00)
64	1.16E-02 (1.08E-04	- 7.37E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
65	2.57E-05 (4.13E-10	- 2.24E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
66	2.70E-09 (C.	- 1.01E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 160 FISSION PRODUCT CHAIN
 NLCT = 2.467 NU = 1.710 ZP = 62.536
 DEVIATION FROM UCD = -.80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	2.55E-06 (C.	- 4.34E-05)	2.95E-06	(1.06E-22 - 4.34E-05)
60	1.38E-04 (1.23E-08	- 5.85E-03)	1.38E-04	(4.17E-08 - 5.85E-03)
61	3.20E-02 (8.52E-04	- 1.26E-01)	3.21E-02	(9.90E-04 - 1.28E-01)
62	4.42E-01 (2.23E-01	- 6.08E-01)	4.74E-01	(2.63E-01 - 7.38E-01)
63	4.63E-01 (2.76E-01	- 7.36E-01)	9.57E-01	(9.16E-01 - 1.00E+00)
64	4.24E-02 (1.54E-03	- 1.50E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
65	2.27E-04 (3.35E-08	- 7.83E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
66	6.04E-08 (C.	- 6.61E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 161 FISSION PRODUCT CHAIN
 NLCT = 2.241 NU = 1.569 ZP = 62.873
 DEVIATION FROM UCD = -.80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	5.57E-10 (C.	- 5.45E-06)	8.57E-10	(C. - 5.45E-06)
60	1.13E-05 (7.53E-11	- 1.35E-03)	1.13E-05	(9.37E-10 - 1.35E-03)
61	7.11E-02 (3.78E-05	- 5.55E-02)	7.12E-02	(4.91E-05 - 5.55E-02)
62	2.46E-01 (5.78E-02	- 3.95E-01)	2.53E-01	(6.48E-02 - 4.13E-01)
63	6.16E-01 (4.17E-01	- 8.03E-01)	8.69E-01	(7.55E-01 - 1.00E+00)
64	1.30E-01 (1.62E-02	- 2.71E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
65	1.33E-02 (2.34E-06	- 2.56E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
66	1.36E-06 (1.13E-12	- 4.06E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

THERMAL NEUTRON FISSION CF PL-235 ALIOT PETHOC
 ZP VALUES
 (1) FROM DEVIATION FROM UCC - SCALE ALIOT ACCORDING TO ALBAR. (2) FROM CORYELL DELTA ZP.
 (3) FROM METHWAY DELTA ZP. (4) FROM DEVIATION FROM UCC ARE ALIOT.

72	29.22	28.99	28.83	29.26	117	46.55	46.58	46.42	46.62
73	30.80	29.22	29.22	30.02	118	46.57	46.53	46.71	47.00
74	30.02	29.77	29.61	30.06	119	47.31	47.37	47.37	47.36
75	30.41	30.16	30.00	30.45	120	47.66	47.54	47.66	47.72
76	30.80	30.55	30.39	30.83	121	47.55	47.64	47.96	48.07
77	31.20	30.95	30.79	31.24	122	48.31	48.14	48.28	48.39
78	31.62	31.36	31.20	31.71	123	48.61	48.51	48.65	48.67
79	32.04	31.79	31.63	32.15	124	48.50	48.47	48.81	48.92
80	32.42	32.18	32.02	32.54	125	49.20	48.55	49.05	49.20
81	32.81	32.59	32.43	32.94	126	49.53	49.25	49.35	49.53
82	33.20	32.99	32.83	33.33	127	49.87	49.56	49.70	49.87
83	33.50	33.40	33.24	33.70	128	50.24	49.50	50.04	50.23
84	34.00	33.81	33.65	34.10	129	50.52	50.26	50.40	50.52
85	34.40	34.22	34.06	34.49	130	50.83	50.63	50.77	50.66
86	34.80	34.64	34.48	34.87	131	51.04	51.04	51.16	51.07
87	35.21	35.06	34.90	35.26	132	51.46	51.45	51.55	51.51
88	35.63	35.49	35.33	35.67	133	51.90	51.89	52.03	51.97
89	36.03	35.90	35.74	36.07	134	52.35	52.36	52.50	52.43
90	36.42	36.30	36.14	36.49	135	52.75	52.80	52.94	52.86
91	36.81	36.70	36.54	36.88	136	53.15	53.22	53.36	53.27
92	37.20	37.10	36.94	37.27	137	53.55	53.63	53.77	53.66
93	37.60	37.51	37.35	37.66	138	53.98	54.03	54.17	54.02
94	37.95	37.91	37.75	38.05	139	54.37	54.43	54.57	54.40
95	38.32	38.32	38.16	38.44	140	54.76	54.83	54.97	54.76
96	38.76	38.71	38.55	38.81	141	55.14	55.23	55.37	55.18
97	39.15	39.11	38.95	39.19	142	55.53	55.63	55.77	55.58
98	39.53	39.50	39.34	39.56	143	55.91	56.02	56.16	55.97
99	39.90	39.89	39.73	39.96	144	56.30	56.42	56.56	56.36
100	40.26	40.25	40.09	40.37	145	56.65	56.82	56.96	56.76
101	40.62	40.62	40.46	40.76	146	57.00	57.24	57.38	57.16
102	40.98	40.99	40.83	41.09	147	57.34	57.70	57.84	57.59
103	41.35	41.35	41.19	41.47	148	57.68	58.12	58.26	58.00
104	41.71	41.71	41.55	41.86	149	58.05	58.53	58.67	58.41
105	42.12	42.12	41.96	42.29	150	58.44	58.94	59.08	58.83
106	42.56	42.53	42.37	42.70	151	58.83	59.33	59.47	59.26
107	42.98	42.96	42.80	43.11	152	59.25	59.73	59.87	59.69
108	43.48	43.56	43.40	43.68	153	59.65	60.12	60.26	60.09
109	43.74	43.99	43.83	44.00	154	60.05	60.51	60.65	60.50
110	44.10	44.32	44.16	44.04	155	60.43	60.87	61.01	60.90
111	44.45	44.64	44.48	44.45	156	60.84	61.20	61.34	61.22
112	44.78	44.94	44.78	44.78	157	61.25	61.55	61.65	61.53
113	45.12	45.25	45.09	45.21	158	61.66	61.93	62.07	61.90
114	45.46	45.55	45.39	45.57	159	62.03	62.22	62.46	62.23
115	45.84	45.90	45.74	45.93	160	62.41	62.71	62.85	62.54
116	46.22	46.24	46.08	46.27	161	62.81	63.10	63.24	62.87

THERMAL NEUTRON FISSION OF PU-239 ALICUT METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS MINUS	PROCESS TYPE	PRIMARY REF.	SECONDARY REFERENCE OR COMMENTS	VALLE	ESTIMATED RANGE	FIT
358R	8C		L3.600E-05		PU239T	FI	7C7RA1	2.358E-04	13.617E-08 - 8.005E-03	YES
358R	8D		5.500E-04	1.100E-04	PU239T	FI	7C7RA1	1.837E-02	12.601E-04 - 9.348E-02	YES
34SE	83M		4.500E-01	9.000E-02	PU239T	FC	62CR02	5.537E-01	18.532E-01 - 1.000E+00	YES
34SE	83G		5.300E-01	7.000E-02	PU239T	FC	62CR02	5.237E-01	18.532E-01 - 1.000E+00	YES
34SE	83	SUM	1.020E+00	1.100E-01	PU239T	FC	62CR02	5.237E-01	18.532E-01 - 1.000E+00	YES
37SR	86		3.100E-05	3.100E-06	PU239T	FI	60GRU1	1.802E-03	12.266E-06 - 2.557E-02	YES
34SE	87		3.310E-01	7.000E-02	PU239T	FC	71GR11	8.613E-02	17.489E-03 - 2.196E-01	NC
358R	87		6.300E-01	3.000E-01	PU239T	FC	71GR11	6.430E-01	14.495E-01 - 8.678E-01	YES
358R	88		6.100E-01	3.000E-01	PU239T	FC	71GR11	3.789E-01	12.405E-01 - 5.122E-01	YES
358R	89		6.300E-01	2.500E-01	PU239T	FC	71GR11	1.526E-01	15.904E-01 - 2.507E-01	NC
36KR	89		8.500E-01	5.000E-03	PU239T	FC	65MCL1	7.765E-01	16.597E-02 - 8.808E-01	YES
358R	9C		1.620E-01	4.200E-02	PU239T	FC	71GR11	3.888E-02	17.934E-03 - 9.641E-02	YES
36KR	9C		6.400E-01	1.000E-02	PU239T	FC	65MCL1	5.67E-01	13.724E-01 - 6.758E-01	YES
36KR	91		3.100E-01	1.000E-02	PU239T	FC	65MCL1	2.465E-01	11.242E-01 - 3.516E-01	YES
36KR	92		1.130E-01	5.000E-03	PU239T	FC	65MCL1	8.462E-02	12.359E-02 - 1.648E-01	YES
36KR	93		2.50E-02	1.000E-03	PU239T	FC	65MCL1	1.859E-02	12.679E-02 - 5.882E-02	YES
36KR	95		2.400E-04	6.000E-05	PU239T	FC	65MCL1	2.729E-04	14.612E-06 - 2.92E-03	YES
41NB	95		L3.600E-04		PU239T	FI	55TR01	1.140E-04	11.235E-06 - 1.613E-03	YES
41NB	96		7.700E-04	1.000E-04	PU239T	FI	62MAH1	1.270E-03	14.512E-05 - 8.857E-03	YES
41NB	97		1.500E-02	4.000E-03	PU239T	FI	62MAH1	5.455E-03	19.194E-04 - 3.622E-02	YES
43TC105			7.200E-01	8.000E-02	PU239T	FC	66BAE1	5.648E-01	19.716E-01 - 1.000E+00	NC
43TC106			8.000E-01	1.000E-01	PU239T	FC	66BAE1	5.244E-01	18.686E-01 - 1.000E+00	YES
43TC107			4.100E-01	5.000E-02	PU239T	FC	66BAE1	7.586E-01	16.374E-01 - 8.635E-01	NC
53	112R	AVE	2.400E-04	2.000E-05	PU239T	FI	56KEN1	2.552E-05	14.060E-10 - 2.25E-03	YES
53	112R		1.230E-04	1.400E-05	PU239T	FI	7C7RA1	2.552E-05	14.060E-10 - 2.25E-03	YES
53	113C		1.870E-03	6.000E-04	PU239T	FI	7C7RA1	4.532E-04	11.097E-05 - 4.545E-03	YES
53	113C	AVE	2.000E-03	1.000E-04	PU239T	FI	56KEN1	2.166E-01	11.004E-01 - 3.191E-01	YES
52TE131M			1.800E-01	1.800E-02	PU239T	FI	60KAT1	1.655E-04	12.151E-06 - 2.100E-03	NC
49IN132			2.700E-01	5.000E-02	PU239T	FI	72G6N1	3.545E-02	16.781E-03 - 9.074E-02	NC
50SN132			6.100E-01	7.000E-02	PU239T	FI	72G6N1	4.657E-01	13.362E-01 - 6.271E-01	NC
52TE132			2.000E-02	7.000E-02	PU239T	FI	72G6N1	1.653E-04	12.648E-06 - 2.318E-03	NC
54XE132			5.000E-02	5.000E-02	PU239T	FI	72G6N1	4.285E-03	12.794E-04 - 2.082E-02	NC
50SN133			5.000E-02	7.000E-02	PU239T	FI	72G6N1	1.554E-01	18.543E-02 - 2.970E-01	NC
51SB133			4.500E-01	2.800E-02	PU239T	FI	70CA11	6.275E-01	14.753E-01 - 7.786E-01	NC
52TE133			1.510E-01	6.000E-02	PU239T	FI	70CA11	1.656E-01	16.850E-02 - 2.693E-01	YES
53	1133		6.000E-02	1.900E-04	PU239T	FI	72G6N1	1.656E-01	16.850E-02 - 2.693E-01	NC
54XE133M			5.240E-03	1.200E-04	PU239T	FI	70FCR2	3.175E-03	11.782E-04 - 1.687E-02	YES
54XE133G			1.490E-03	2.300E-04	PU239T	FI	70FCR2	3.175E-03	11.782E-04 - 1.687E-02	YES
50SN134			6.730E-03	5.000E-02	PU239T	FI	70FCR2	2.175E-03	11.782E-04 - 1.687E-02	YES
51SB134			5.000E-02	6.000E-02	PU239T	FI	72G6N1	2.854E-04	14.950E-06 - 3.115E-03	NC
52TE134			2.300E-01	5.100E-01	PU239T	FI	72G6N1	4.862E-02	11.096E-02 - 1.128E-01	NC
53	1134		3.350E-01	2.500E-02	PU239T	FI	72G6N1	5.029E-01	13.619E-01 - 6.675E-01	YES
53	1134		1.500E-01	7.000E-02	PU239T	FI	70CA11	4.205E-01	12.840E-01 - 5.669E-01	YES
53	1135		6.680E-01	1.700E-02	PU239T	FI	70CA11	6.127E-01	14.552E-01 - 7.707E-01	YES

THERMAL NEUTRON FISSION OF PL-235 ALLOY METROD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY		PROCESS TYPE	YIELD	PRIMARY REF.	SECONDARY REFERENCE OR COMMENTS	ESTIMATED VALUE	RANGE	FIT
				PLUS	MINUS							
54	WE135M		5.390E-02	4.900E-03	4.900E-03	PU235T	FI	7CFCR2	K-F72-2	1.238E-01	(4.188E-02 - 2.166E-01)	YES
54	WE135G		6.690E-02	8.300E-03	8.300E-03	PU235T	FI	7CFCR2	K-F72-2	1.238E-01	(4.188E-02 - 2.166E-01)	YES
54	WE135	SUM	1.616E-01	9.000E-03	9.000E-03	PU235T	FI	7CFCR2	K-F72-2	1.238E-01	(4.188E-02 - 2.166E-01)	YES
54	WE135		1.510E-01	2.000E-03	2.000E-03	PU235T	FI	71P-A1		1.238E-01	(4.188E-02 - 2.166E-01)	YES
54	WE135		1.480E-01	2.500E-02	2.500E-02	PU235T	FI	64CKA1-	CK71-1 CORRECTED	1.238E-01	(4.188E-02 - 2.166E-01)	YES
51	WE134		5.000E-02	3.000E-02	3.000E-02	PU235T	FI	72GUM1	CK-W73-1-45	7.713E-04	(2.139E-05 - 6.231E-03)	AC
52	WE134		2.500E-01	4.000E-02	4.000E-02	PU235T	FI	72GUM1	CK-W73-1-45	7.713E-04	(2.139E-05 - 6.231E-03)	AC
53	1136		3.200E-01	6.000E-02	6.000E-02	PU235T	FI	72GUM1	CK-W73-1-45	7.713E-04	(2.139E-05 - 6.231E-03)	AC
53	1136		3.300E-01	3.000E-02	3.000E-02	PU235T	FI	72GUM1	CK-W73-1-45	7.713E-04	(2.139E-05 - 6.231E-03)	AC
54	WE134		3.200E-01	5.000E-02	5.000E-02	PU235T	FI	72GUM1	CK-W73-1-45	7.713E-04	(2.139E-05 - 6.231E-03)	AC
55	CS136	AVE	1.000E-02	7.000E-03	7.000E-03	PU235T	FI	60KAT1	60KAT1	1.420E-02	(1.698E-03 - 4.445E-01)	YES
55	CS136		1.660E-02	1.660E-03	1.660E-03	PU235T	FI	61GRU1	60KAT1	1.420E-02	(1.698E-03 - 4.445E-01)	YES
52	WE137		1.550E-01	3.700E-02	3.700E-02	PU235T	FC	71GR11	K-CC71-2-63 GR1PW	1.531E-02	(2.790E-03 - 5.993E-02)	AC
53	1137		4.200E-01	2.000E-02	2.000E-02	PU235T	FC	71GR11	K-CC71-2-63 GR1PW	1.531E-02	(2.790E-03 - 5.993E-02)	AC
54	WE137		5.170E-01	5.000E-02	5.000E-02	PU235T	FC	65MCL1	K-CC71-2-63 GR1PW	5.341E-01	(8.842E-01 - 1.000E+00)	YES
52	WE138		4.000E-02	2.000E-02	2.000E-02	PU235T	FI	72GUM1	CK-W73-1-45	3.247E-03	(1.842E-04 - 1.713E-02)	AC
53	1138		1.430E-01	9.000E-03	9.000E-03	PU235T	FC	71GR11	CK-W73-1-45	1.747E-01	(7.285E-02 - 2.755E-01)	YES
53	1138		1.500E-01	3.000E-02	3.000E-02	PU235T	FI	72GUM1	CK-W73-1-45	1.713E-01	(6.965E-02 - 2.713E-01)	YES
54	WE138		8.510E-01	1.000E-02	1.000E-02	PU235T	FC	65MCL1	CK-W73-1-45	6.023E-01	(6.929E-01 - 9.052E-01)	YES
54	WE138		5.500E-01	7.000E-02	7.000E-02	PU235T	FI	72GUM1	CK-W73-1-45	6.276E-01	(4.757E-01 - 7.789E-01)	YES
55	CS138		2.200E-01	3.400E-02	3.400E-02	PU235T	FC	71GR11	CK-W73-1-45	1.535E-01	(8.410E-02 - 2.950E-01)	YES
53	1138		5.400E-02	8.000E-03	8.000E-03	PU235T	FC	65MCL1	CK-W73-1-45	5.450E-02	(1.326E-02 - 1.219E-01)	YES
54	WE139		3.010E-01	8.000E-03	8.000E-03	PU235T	FC	65MCL1	CK-W73-1-45	5.726E-01	(4.337E-01 - 7.211E-01)	YES
54	WE141		7.500E-02	4.000E-03	4.000E-03	PU235T	FC	65MCL1	CK-W73-1-45	3.053E-01	(1.728E-01 - 4.158E-01)	YES
54	WE142		1.650E-02	1.200E-03	1.200E-03	PU235T	FC	65MCL1	CK-W73-1-45	1.134E-01	(3.724E-02 - 2.012E-01)	YES
54	WE143		2.600E-03	2.000E-04	2.000E-04	PU235T	FC	65MCL1	CK-W73-1-45	2.726E-02	(4.630E-03 - 7.559E-02)	YES
54	WE144		2.500E-04	6.000E-05	6.000E-05	PU235T	FC	65MCL1	CK-W73-1-45	4.353E-03	(2.949E-04 - 2.117E-02)	YES
61	PM15C		1.700E-03	8.000E-05	8.000E-05	PU235T	FI	72GUM1	K-G73-1	4.407E-04	(9.425E-06 - 4.197E-03)	YES
										1.449E-03	(1.453E-06 - 2.259E-02)	YES

FISSION SPECTRUM NEUTRON FISSION CF U-235 NUTOT METHOD

2.6200	1	92	235	-0	-0	1.800	1.250	.100				
4	.56	.06	.12	.12	.45	.10	.20	.20	-0	1	-0	-0

NUBAR =2.6200

FOR ZP(1) NU(A) IS FROM U235T, ADJUSTED ACCORDING TO NUBAR.

ODD-EVEN Z EFFECT = 1.25 +/- .10 .

FOR ZP(4), NU(A) IS FROM NUTCT(A) DIVIDED ACCORDING TO THE NU(A) FUNCTION USED FOR ZP(1).

SIGMA = .560. UNCERTAINTIES FOR REGIONS SYMMETRY TO 129, 130 TO 151, 152 TO 161 ARE +/- .120 .060 .120.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCD IN REGION SYMMETRY TO 129 IS 0.00 +/- .200.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCD IN REGION 130-151 IS - .450 +/- .100.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCD IN REGION 152-161 IS - .450 +/- .200.

SAME UNCERTAINTIES ARE USED FOR ZP(2) AND ZP(3).

TYPE OF ZP FUNCTION USED IS 4.

FISSION SPECTRUM NEUTRON FISSION CF U-235 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 74 FISSION PRODUCT CHAIN
NLCT = 2.467 NU = .740 ZP = 29.586

DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	2.15E-08	(5.12E-14 - 1.32E-05)	2.15E-08	(5.12E-14 - 1.32E-05)
27	7.50E-05	(7.85E-08 - 2.12E-03)	7.51E-05	(9.99E-08 - 2.12E-03)
28	3.14E-02	(2.08E-03 - 1.12E-01)	3.15E-02	(2.16E-03 - 1.12E-01)
29	3.17E-01	(1.93E-01 - 4.50E-01)	3.49E-01	(2.21E-01 - 5.04E-01)
30	6.12E-01	(4.48E-01 - 8.37E-01)	9.60E-01	(9.26E-01 - 1.00E+00)
31	3.52E-02	(4.36E-03 - 1.08E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
32	3.79E-04	(5.31E-07 - 6.99E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
33	7.51E-08	(5.65E-13 - 2.52E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 75 FISSION PRODUCT CHAIN
NLCT = 2.843 NU = .849 ZP = 30.018

DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	2.54E-06	(2.40E-10 - 2.40E-04)	2.54E-06	(2.40E-10 - 2.40E-04)
28	3.86E-03	(5.43E-05 - 2.99E-02)	3.86E-03	(5.68E-05 - 2.99E-02)
29	1.28E-01	(3.69E-02 - 2.17E-01)	1.32E-01	(4.07E-02 - 2.25E-01)
30	7.23E-01	(5.74E-01 - 8.75E-01)	8.55E-01	(7.58E-01 - 9.48E-01)
31	1.40E-01	(4.36E-02 - 2.29E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
32	4.68E-03	(7.61E-05 - 3.37E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
33	3.44E-06	(4.03E-10 - 2.91E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
34	2.50E-10	(0. - 8.00E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 76 FISSION PRODUCT CHAIN
NLCT = 3.196 NU = .900 ZP = 30.428

DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	6.57E-08	(4.52E-13 - 2.32E-05)	6.57E-08	(4.52E-13 - 2.32E-05)
28	3.46E-04	(7.95E-07 - 6.61E-03)	3.46E-04	(8.61E-07 - 6.61E-03)
29	3.73E-02	(3.99E-03 - 1.05E-01)	3.77E-02	(4.33E-03 - 1.06E-01)
30	6.05E-01	(4.42E-01 - 8.30E-01)	6.42E-01	(5.15E-01 - 8.01E-01)
31	3.24E-01	(2.01E-01 - 4.59E-01)	9.67E-01	(9.36E-01 - 1.00E+00)
32	3.33E-02	(2.31E-03 - 1.17E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
33	8.31E-05	(9.34E-08 - 2.27E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
34	2.48E-08	(6.41E-14 - 1.45E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 77 FISSION PRODUCT CHAIN
NLCT = 3.695 NU = .992 ZP = 30.854

DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	8.73E-10	(0. - 1.45E-06)	8.73E-10	(0. - 1.45E-06)
28	1.70E-05	(4.18E-09 - 9.90E-04)	1.70E-05	(5.06E-09 - 9.90E-04)
29	6.44E-03	(1.71E-04 - 3.64E-02)	6.46E-03	(1.88E-04 - 3.64E-02)
30	3.30E-01	(1.31E-01 - 4.83E-01)	3.36E-01	(1.66E-01 - 4.92E-01)
31	5.04E-01	(3.87E-01 - 6.22E-01)	8.41E-01	(7.18E-01 - 9.91E-01)
32	1.58E-01	(3.50E-02 - 3.08E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
33	1.35E-03	(1.12E-05 - 1.36E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
34	1.48E-06	(6.35E-11 - 2.07E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 78 FISSION PRODUCT CHAIN
NLCT = 3.617 NU = 1.012 ZP = 31.251

DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	5.70E-07	(1.26E-11 - 1.12E-04)	5.70E-07	(1.26E-11 - 1.12E-04)
29	7.18E-04	(3.75E-06 - 9.10E-03)	7.18E-04	(4.32E-06 - 9.10E-03)
30	1.13E-01	(1.95E-02 - 2.51E-01)	1.14E-01	(2.02E-02 - 2.52E-01)
31	4.74E-01	(3.55E-01 - 6.12E-01)	5.88E-01	(4.36E-01 - 7.64E-01)
32	4.02E-01	(1.91E-01 - 5.74E-01)	9.89E-01	(9.79E-01 - 1.00E+00)
33	1.05E-02	(4.05E-04 - 4.91E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
34	3.78E-05	(1.67E-08 - 1.64E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
35	2.68E-09	(0. - 2.95E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 79 FISSION PRODUCT CHAIN
NLCT = 3.462 NU = 1.063 ZP = 31.661

DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	5.80E-09	(1.68E-14 - 7.90E-06)	9.80E-09	(1.68E-14 - 7.90E-06)
29	4.32E-05	(3.05E-08 - 1.46E-03)	4.32E-05	(4.03E-08 - 1.46E-03)
30	2.25E-02	(1.17E-03 - 9.11E-02)	2.26E-02	(1.22E-03 - 9.11E-02)
31	2.75E-01	(1.52E-01 - 3.98E-01)	3.02E-01	(1.73E-01 - 4.39E-01)
32	6.47E-01	(4.78E-01 - 8.64E-01)	9.49E-01	(9.05E-01 - 1.00E+00)
33	5.05E-02	(6.91E-03 - 1.26E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
34	6.07E-04	(2.13E-06 - 9.35E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
35	1.51E-07	(1.88E-12 - 3.95E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 80 FISSION PRODUCT CHAIN
NLCT = 3.169 NU = .986 ZP = 32.021

DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	2.49E-06	(2.31E-10 - 2.37E-04)	2.49E-06	(2.31E-10 - 2.37E-04)
30	3.81E-03	(5.30E-05 - 2.96E-02)	3.81E-03	(5.55E-05 - 2.96E-02)
31	1.27E-01	(3.64E-02 - 2.16E-01)	1.31E-01	(4.02E-02 - 2.24E-01)
32	7.23E-01	(5.74E-01 - 8.74E-01)	8.54E-01	(7.56E-01 - 9.47E-01)
33	1.41E-01	(4.41E-02 - 2.30E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
34	4.74E-03	(7.79E-05 - 3.40E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
35	3.51E-06	(4.18E-10 - 2.95E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
36	2.55E-10	(0. - 8.16E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 81 FISSION PRODUCT CHAIN
NLCT = 3.110 NU = 1.000 ZP = 32.416

DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	7.36E-08	(5.46E-13 - 2.45E-05)	7.36E-08	(5.46E-13 - 2.45E-05)
30	3.74E-04	(9.09E-07 - 6.93E-03)	3.74E-04	(9.83E-07 - 6.93E-03)
31	3.85E-02	(4.30E-03 - 1.08E-01)	3.93E-02	(4.67E-03 - 1.09E-01)
32	6.11E-01	(4.47E-01 - 8.36E-01)	6.50E-01	(5.22E-01 - 8.06E-01)
33	3.18E-01	(1.94E-01 - 4.51E-01)	9.68E-01	(9.39E-01 - 1.00E+00)
34	3.17E-02	(2.12E-03 - 1.12E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
35	7.62E-05	(8.06E-08 - 2.14E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
36	2.15E-08	(5.12E-14 - 1.34E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF U-235 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 82 FISSION PRODUCT CHAIN
NLCT = 3.110 NU = 1.037 ZP = 32.820
DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	1.25E-09	(0. - 1.83E-06)	1.25E-09	(6.62E-24 - 1.83E-06)
30	2.20E-05	(6.53E-09 - 1.17E-03)	2.20E-05	(7.78E-09 - 1.17E-03)
31	7.54E-03	(2.26E-04 - 4.01E-02)	7.57E-03	(2.48E-04 - 4.02E-02)
32	3.52E-01	(1.49E-01 - 5.08E-01)	3.60E-01	(1.96E-01 - 5.19E-01)
33	4.96E-01	(3.77E-01 - 6.21E-01)	8.56E-01	(7.43E-01 - 1.00E+00)
34	1.43E-01	(2.52E-02 - 2.89E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
35	1.11E-03	(7.99E-06 - 1.20E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
36	1.10E-06	(3.82E-11 - 1.70E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 83 FISSION PRODUCT CHAIN
NLCT = 3.037 NU = 1.059 ZP = 33.219
DEVIATION FROM LCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	7.69E-07	(2.09E-11 - 1.35E-04)	7.69E-07	(2.09E-11 - 1.35E-04)
31	8.77E-04	(5.25E-06 - 1.03E-02)	8.77E-04	(6.06E-06 - 1.03E-02)
32	1.26E-01	(2.35E-02 - 2.68E-01)	1.27E-01	(2.44E-02 - 2.70E-01)
33	4.85E-01	(3.65E-01 - 6.18E-01)	6.12E-01	(4.54E-01 - 7.77E-01)
34	3.79E-01	(1.71E-01 - 5.41E-01)	9.91E-01	(9.82E-01 - 1.00E+00)
35	9.04E-03	(3.12E-04 - 4.49E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
36	2.96E-05	(1.69E-08 - 1.41E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
37	1.90E-09	(0. - 2.40E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 84 FISSION PRODUCT CHAIN
NLCT = 3.078 NU = 1.145 ZP = 33.642
DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	1.19E-08	(5.29E-11 - 5.50E-07)	1.19E-08	(5.29E-11 - 5.50E-07)
31	4.97E-05	(2.78E-06 - 3.76E-04)	4.97E-05	(2.79E-06 - 3.76E-04)
32	2.45E-02	(7.53E-03 - 5.46E-02)	2.46E-02	(7.58E-03 - 5.46E-02)
33	2.88E-01	(2.27E-01 - 3.48E-01)	3.13E-01	(2.49E-01 - 3.80E-01)
34	6.39E-01	(5.33E-01 - 7.57E-01)	9.52E-01	(9.25E-01 - 9.88E-01)
35	4.74E-02	(2.06E-02 - 8.29E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
36	5.40E-04	(5.36E-05 - 2.72E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
37	1.27E-07	(1.26E-09 - 3.30E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 85 FISSION PRODUCT CHAIN
NLCT = 3.013 NU = 1.189 ZP = 34.049
DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	1.96E-06	(4.32E-08 - 2.88E-05)	1.96E-06	(4.32E-08 - 2.88E-05)
32	3.26E-03	(5.61E-04 - 1.11E-02)	3.27E-03	(5.63E-04 - 1.11E-02)
33	1.18E-01	(6.58E-02 - 1.67E-01)	1.22E-01	(7.30E-02 - 1.71E-01)
34	7.21E-01	(6.22E-01 - 8.17E-01)	8.43E-01	(7.88E-01 - 8.95E-01)
35	1.52E-01	(9.68E-02 - 2.02E-01)	9.94E-01	(9.90E-01 - 1.00E+00)
36	5.50E-03	(1.11E-03 - 1.68E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	4.44E-06	(1.24E-07 - 5.51E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
38	4.12E-10	(7.12E-13 - 3.74E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 66 FISSION PRODUCT CHAIN
NLCT = 2.957 NU = 1.214 ZP = 34.449
DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	5.40E-08	(4.16E-10 - 1.67E-06)	5.40E-08	(4.16E-10 - 1.67E-06)
32	3.03E-04	(2.52E-05 - 1.73E-03)	3.03E-04	(2.53E-05 - 1.73E-03)
33	3.47E-02	(1.36E-02 - 6.50E-02)	3.50E-02	(1.39E-02 - 6.53E-02)
34	5.54E-01	(4.92E-01 - 7.10E-01)	6.29E-01	(5.65E-01 - 7.07E-01)
35	3.35E-01	(2.76E-01 - 4.03E-01)	9.64E-01	(9.40E-01 - 1.00E+00)
36	3.64E-02	(1.26E-02 - 7.45E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	5.44E-05	(6.53E-06 - 6.37E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
38	3.07E-06	(1.77E-10 - 1.17E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 67 FISSION PRODUCT CHAIN
NLCT = 2.920 NU = 1.340 ZP = 34.888
DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	6.02E-10	(1.27E-12 - 4.72E-08)	6.02E-10	(1.27E-12 - 4.72E-08)
32	1.30E-05	(4.21E-07 - 1.45E-04)	1.30E-05	(4.22E-07 - 1.45E-04)
33	5.46E-03	(1.21E-03 - 1.55E-02)	5.47E-03	(1.22E-03 - 1.56E-02)
34	3.07E-01	(2.06E-01 - 3.96E-01)	3.13E-01	(2.12E-01 - 4.02E-01)
35	5.11E-01	(4.37E-01 - 5.85E-01)	8.24E-01	(7.47E-01 - 9.06E-01)
36	1.74E-01	(5.72E-02 - 2.56E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
37	1.65E-03	(2.54E-04 - 6.06E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
38	1.55E-06	(3.74E-08 - 3.27E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 68 FISSION PRODUCT CHAIN
NLCT = 2.957 NU = 1.412 ZP = 35.305
DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	3.44E-07	(3.92E-09 - 8.07E-06)	3.44E-07	(3.92E-09 - 8.07E-06)
33	5.10E-04	(5.59E-05 - 2.40E-03)	5.11E-04	(5.63E-05 - 2.40E-03)
34	9.41E-02	(4.33E-02 - 1.58E-01)	9.46E-02	(4.38E-02 - 1.59E-01)
35	4.53E-01	(3.79E-01 - 5.34E-01)	5.48E-01	(4.58E-01 - 6.40E-01)
36	4.39E-01	(3.35E-01 - 5.30E-01)	9.87E-01	(9.77E-01 - 1.00E+00)
37	1.33E-02	(3.79E-03 - 3.10E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
38	5.62E-05	(2.81E-06 - 4.60E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
39	4.71E-09	(1.79E-11 - 2.42E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 69 FISSION PRODUCT CHAIN
NLCT = 2.778 NU = 1.416 ZP = 35.697
DEVIATION FROM LCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	6.71E-05	(2.53E-11 - 3.47E-07)	6.71E-05	(2.53E-11 - 3.47E-07)
33	3.30E-05	(1.64E-06 - 2.71E-04)	3.30E-05	(1.65E-06 - 2.71E-04)
34	1.92E-02	(5.46E-03 - 4.49E-02)	1.92E-02	(5.49E-03 - 4.49E-02)
35	2.61E-01	(1.59E-01 - 3.15E-01)	2.80E-01	(2.17E-01 - 3.40E-01)
36	6.62E-01	(5.54E-01 - 7.79E-01)	9.43E-01	(9.12E-01 - 9.81E-01)
37	5.67E-02	(2.62E-02 - 9.50E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
38	7.55E-04	(8.31E-05 - 3.54E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
39	2.10E-07	(2.41E-09 - 4.91E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF U-235 NUTCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 98 FISSION PRODUCT CHAIN

NUTCT = 2.602 NU = 1.588 ZP = 39.272

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	4.69E-07	(5.84E-09 - 1.03E-05)	4.69E-07	(5.84E-09 - 1.03E-05)
37	6.30E-04	(7.33E-05 - 2.83E-03)	6.30E-04	(7.38E-05 - 2.83E-03)
38	1.05E-01	(5.63E-02 - 1.73E-01)	1.06E-01	(5.09E-02 - 1.74E-01)
39	4.66E-01	(3.91E-01 - 5.46E-01)	5.72E-01	(4.79E-01 - 6.60E-01)
40	4.16E-01	(3.11E-01 - 5.03E-01)	9.88E-01	(9.80E-01 - 1.00E+00)
41	1.15E-02	(3.14E-03 - 2.78E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	4.41E-05	(2.05E-06 - 3.80E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
43	3.34E-09	(1.15E-11 - 1.85E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 99 FISSION PRODUCT CHAIN

NUTCT = 2.506 NU = 1.615 ZP = 39.673

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	8.67E-09	(3.51E-11 - 4.26E-07)	8.67E-09	(3.51E-11 - 4.26E-07)
37	3.96E-05	(2.08E-06 - 3.13E-04)	3.96E-05	(2.08E-06 - 3.13E-04)
38	2.14E-02	(6.30E-03 - 4.90E-02)	2.14E-02	(6.34E-03 - 4.90E-02)
39	2.73E-01	(2.11E-01 - 3.30E-01)	2.95E-01	(2.31E-01 - 3.58E-01)
40	6.52E-01	(5.45E-01 - 7.70E-01)	9.47E-01	(9.18E-01 - 9.84E-01)
41	5.24E-02	(2.36E-02 - 8.95E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
42	6.52E-04	(6.86E-05 - 3.15E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	1.68E-07	(1.81E-09 - 4.12E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 100 FISSION PRODUCT CHAIN

NUTCT = 2.268 NU = 1.576 ZP = 40.047

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	1.99E-06	(4.39E-08 - 2.91E-05)	1.99E-06	(4.39E-08 - 2.91E-05)
38	3.29E-03	(5.67E-04 - 1.12E-02)	3.30E-03	(5.69E-04 - 1.12E-02)
39	1.19E-01	(7.02E-02 - 1.68E-01)	1.22E-01	(7.34E-02 - 1.72E-01)
40	7.21E-01	(6.22E-01 - 8.17E-01)	8.44E-01	(7.89E-01 - 8.95E-01)
41	1.51E-01	(9.63E-02 - 2.01E-01)	9.95E-01	(9.90E-01 - 1.00E+00)
42	5.46E-03	(1.09E-03 - 1.67E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	4.38E-06	(1.22E-07 - 5.45E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
44	4.05E-10	(6.96E-13 - 3.68E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 101 FISSION PRODUCT CHAIN

NUTCT = 2.087 NU = 1.554 ZP = 40.429

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	6.53E-08	(5.32E-10 - 1.95E-06)	6.53E-08	(5.32E-10 - 1.95E-06)
38	3.44E-04	(2.98E-05 - 1.91E-03)	3.44E-04	(2.99E-05 - 1.91E-03)
39	3.72E-02	(1.49E-02 - 6.86E-02)	3.76E-02	(1.53E-02 - 6.90E-02)
40	6.04E-01	(5.01E-01 - 7.21E-01)	6.42E-01	(5.78E-01 - 7.18E-01)
41	3.25E-01	(2.65E-01 - 3.91E-01)	9.66E-01	(9.44E-01 - 1.00E+00)
42	3.34E-02	(1.13E-02 - 6.97E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	8.35E-05	(5.43E-06 - 5.68E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.50E-08	(1.36E-10 - 9.93E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 102 FISSION PRODUCT CHAIN

NUTCT = 1.973 NU = 1.461 ZP = 40.782

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	1.88E-09	(5.46E-12 - 1.17E-07)	1.88E-09	(5.46E-12 - 1.17E-07)
38	2.93E-05	(1.21E-06 - 2.76E-04)	2.93E-05	(1.21E-06 - 2.76E-04)
39	8.99E-03	(2.27E-03 - 2.29E-02)	9.02E-03	(2.30E-03 - 2.30E-02)
40	3.78E-01	(2.73E-01 - 4.64E-01)	3.87E-01	(2.89E-01 - 4.74E-01)
41	4.85E-01	(4.10E-01 - 5.64E-01)	8.73E-01	(8.10E-01 - 9.46E-01)
42	1.27E-01	(6.38E-02 - 1.99E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
43	8.84E-04	(1.14E-04 - 3.71E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	7.78E-07	(1.12E-08 - 1.55E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 103 FISSION PRODUCT CHAIN

NUTCT = 1.905 NU = 1.489 ZP = 41.183

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	1.06E-06	(1.67E-08 - 1.99E-05)	1.06E-06	(1.67E-08 - 1.99E-05)
39	1.09E-03	(1.49E-04 - 4.37E-03)	1.09E-03	(1.50E-04 - 4.37E-03)
40	1.41E-01	(7.36E-02 - 2.17E-01)	1.42E-01	(7.47E-02 - 2.18E-01)
41	4.95E-01	(4.20E-01 - 5.73E-01)	6.38E-01	(5.36E-01 - 7.26E-01)
42	3.55E-01	(2.50E-01 - 4.42E-01)	9.92E-01	(9.87E-01 - 1.00E+00)
43	7.66E-03	(1.89E-03 - 2.03E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.25E-05	(6.59E-07 - 2.24E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.30E-09	(3.39E-12 - 8.70E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 104 FISSION PRODUCT CHAIN

NUTCT = 1.853 NU = 1.510 ZP = 41.581

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	2.26E-08	(1.20E-10 - 9.16E-07)	2.26E-08	(1.20E-10 - 9.16E-07)
39	7.78E-05	(4.96E-06 - 5.37E-04)	7.78E-05	(4.58E-06 - 5.37E-04)
40	3.21E-02	(1.67E-02 - 6.74E-02)	3.21E-02	(1.08E-02 - 6.75E-02)
41	3.20E-01	(2.00E-01 - 3.85E-01)	3.52E-01	(2.88E-01 - 4.26E-01)
42	6.09E-01	(5.06E-01 - 7.27E-01)	9.61E-01	(9.38E-01 - 9.93E-01)
43	3.65E-02	(1.56E-02 - 7.04E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
44	3.67E-04	(3.24E-05 - 2.01E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	7.16E-08	(6.00E-10 - 2.05E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 105 FISSION PRODUCT CHAIN

NUTCT = 1.929 NU = 1.611 ZP = 41.560

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	2.75E-08	(7.71E-14 - 1.56E-05)	2.79E-08	(7.71E-14 - 1.56E-05)
39	5.03E-05	(1.08E-07 - 2.39E-03)	9.03E-05	(1.36E-07 - 2.39E-03)
40	3.50E-02	(2.52E-03 - 1.20E-01)	3.51E-02	(2.61E-03 - 1.20E-01)
41	3.30E-01	(2.08E-01 - 4.67E-01)	3.65E-01	(2.39E-01 - 5.26E-01)
42	5.98E-01	(4.36E-01 - 8.24E-01)	9.64E-01	(9.32E-01 - 1.00E+00)
43	3.58E-02	(3.70E-03 - 1.03E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
44	3.21E-04	(6.58E-07 - 6.31E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	5.85E-08	(3.73E-13 - 2.16E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF L-235 NLCT METHOD

ESTIMATED FRACTIONAL YIELD
 CDS-EVEN 2 CORRECTION FACTOR = 1.25 +/- .1C

PASS 114 FISSION PRODUCT CHAIN

NLCT = 4.420 NU = 2.276 ZP = 45.328
 DEVIATION FRCP LCD = 0.00 +/- .2C SIGMA = .56 +/- .12

Z	FIV	RANGE CF FIV	FCY	RANGE OF FCY
42	2.78E-07	(3.73E-12 - 7.00E-05)	2.78E-07	(3.73E-12 - 7.00E-05)
43	4.42E-14	(1.63E-06 - 6.67E-03)	4.42E-04	(1.91E-08 - 6.67E-03)
44	8.70E-02	(1.23E-02 - 2.13E-01)	8.74E-02	(1.27E-02 - 2.14E-01)
45	4.44E-01	(3.28E-01 - 5.90E-01)	5.31E-01	(3.93E-01 - 7.25E-01)
46	4.54E-01	(2.44E-01 - 6.49E-01)	9.85E-01	(9.71E-01 - 1.00E+00)
47	1.46E-02	(7.31E-04 - 6.00E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	6.60E-05	(4.40E-08 - 2.34E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
49	5.53E-09	(6.58E-15 - 4.98E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 115 FISSION PRODUCT CHAIN

NLCT = 4.203 NU = 2.122 ZP = 45.658
 DEVIATION FRCP LCD = 0.00 +/- .2C SIGMA = .56 +/- .12

Z	FIV	RANGE CF FIV	FCY	RANGE OF FCY
42	1.21E-08	(1.69E-14 - 8.08E-06)	1.01E-08	(1.69E-14 - 8.08E-06)
43	4.42E-05	(3.18E-08 - 1.51E-03)	4.42E-05	(4.19E-08 - 1.51E-03)
44	2.29E-02	(1.20E-03 - 9.19E-02)	2.29E-02	(1.25E-03 - 9.20E-02)
45	2.81E-01	(1.54E-01 - 4.01E-01)	3.04E-01	(1.75E-01 - 4.42E-01)
46	6.46E-01	(4.77E-01 - 8.63E-01)	9.49E-01	(9.06E-01 - 1.00E+00)
47	5.00E-02	(6.78E-03 - 1.25E-01)	9.95E-01	(9.99E-01 - 1.00E+00)
48	5.55E-04	(2.65E-06 - 9.27E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
49	1.47E-07	(1.79E-12 - 3.87E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 116 FISSION PRODUCT CHAIN

NLCT = 4.000 NU = 2.000 ZP = 46.000
 DEVIATION FRCP LCD = 0.00 +/- .2C SIGMA = .56 +/- .12

Z	FIV	RANGE CF FIV	FCY	RANGE OF FCY
42	2.36E-10	(7.00E-07) 2.36E-10	(1.65E-14 - 8.08E-06)	(1.65E-14 - 8.08E-06)
43	2.86E-06	(3.11E-10 - 2.64E-04)	2.96E-06	(5.47E-10 - 2.64E-04)
44	4.25E-03	(6.43E-05 - 3.18E-02)	4.25E-03	(6.73E-05 - 3.18E-02)
45	1.34E-01	(4.01E-02 - 2.23E-01)	1.39E-01	(4.43E-02 - 2.32E-01)
46	7.26E-01	(5.78E-01 - 8.75E-01)	8.61E-01	(7.67E-01 - 9.55E-01)
47	1.34E-01	(4.01E-02 - 2.23E-01)	9.95E-01	(9.99E-01 - 1.00E+00)
48	4.25E-03	(6.43E-05 - 3.18E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	2.56E-06	(3.11E-10 - 2.64E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 117 FISSION PRODUCT CHAIN

NLCT = 4.298 NU = 2.085 ZP = 46.423
 DEVIATION FRCP LCD = 0.00 +/- .2C SIGMA = .56 +/- .12

Z	FIV	RANGE CF FIV	FCY	RANGE OF FCY
43	6.00E-08	(4.85E-13 - 2.39E-05)	6.90E-08	(4.89E-13 - 2.39E-05)
44	3.57E-04	(8.41E-07 - 6.74E-03)	3.58E-04	(9.10E-07 - 6.74E-03)
45	3.80E-02	(4.12E-03 - 1.06E-01)	3.83E-02	(4.67E-03 - 1.07E-01)
46	6.67E-01	(4.44E-01 - 8.32E-01)	6.46E-01	(5.18E-01 - 8.03E-01)
47	3.42E-01	(1.58E-01 - 4.56E-01)	9.67E-01	(9.37E-01 - 1.00E+00)
48	3.26E-02	(2.23E-03 - 1.15E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
49	8.01E-05	(8.77E-08 - 2.21E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
50	2.35E-08	(5.58E-14 - 1.40E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 118 FISSION PRODUCT CHAIN

NLCT = 4.422 NU = 2.061 ZP = 46.803
 DEVIATION FRCP LCD = 0.00 +/- .2C SIGMA = .56 +/- .12

Z	FIV	RANGE CF FIV	FCY	RANGE OF FCY
43	1.50E-05	(1.50E-05 - 2.06E-06)	1.50E-05	(1.50E-05 - 2.06E-06)
44	2.50E-05	(6.17E-09 - 1.27E-03)	2.50E-05	(9.67E-09 - 1.27E-03)
45	6.14E-03	(2.50E-04 - 4.21E-02)	8.19E-03	(2.85E-04 - 4.22E-02)
46	3.44E-01	(1.58E-01 - 5.20E-01)	3.72E-01	(2.11E-01 - 5.32E-01)
47	4.52E-01	(3.72E-01 - 6.21E-01)	8.64E-01	(7.15E-01 - 1.00E+00)
48	1.35E-01	(2.66E-02 - 2.81E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
49	1.00E-03	(6.58E-06 - 1.13E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
50	5.41E-07	(2.55E-11 - 1.55E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 119 FISSION PRODUCT CHAIN

NLCT = 4.442 NU = 1.941 ZP = 47.146
 DEVIATION FRCP LCD = 0.00 +/- .2C SIGMA = .56 +/- .12

Z	FIV	RANGE CF FIV	FCY	RANGE OF FCY
44	1.48E-06	(6.35E-11 - 2.07E-04)	1.48E-06	(6.35E-11 - 2.07E-04)
45	1.35E-03	(1.12E-05 - 1.34E-02)	1.35E-03	(1.27E-05 - 1.36E-02)
46	1.56E-01	(3.50E-02 - 3.08E-01)	1.59E-01	(3.64E-02 - 1.10E-01)
47	5.44E-01	(3.87E-01 - 6.22E-01)	6.64E-01	(4.93E-01 - 8.20E-01)
48	3.30E-01	(1.31E-01 - 4.83E-01)	9.94E-01	(9.87E-01 - 1.00E+00)
49	6.44E-02	(1.71E-04 - 3.64E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.70E-05	(4.18E-09 - 9.85E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
51	8.72E-10	(1.45E-06) 1.00E+00	(1.00E+00 - 1.00E+00)	(1.00E+00 - 1.00E+00)

PASS 120 FISSION PRODUCT CHAIN

NLCT = 4.358 NU = 1.760 ZP = 47.466
 DEVIATION FRCP LCD = 0.00 +/- .2C SIGMA = .56 +/- .12

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
44	1.24E-06	(3.84E-13 - 2.92E-05)	7.26E-08	(3.84E-13 - 2.52E-05)
45	1.16E-04	(3.36E-07 - 3.66E-03)	1.76E-04	(4.09E-07 - 3.68E-03)
46	5.16E-03	(4.45E-03 - 1.54E-02)	5.18E-02	(5.12E-03 - 1.54E-02)
47	3.75E-01	(2.68E-01 - 5.25E-01)	4.31E-01	(3.10E-01 - 6.09E-01)
48	5.44E-01	(3.34E-01 - 7.65E-01)	9.75E-01	(9.51E-01 - 1.00E+00)
49	2.53E-03	(1.58E-03 - 8.36E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.72E-04	(2.34E-07 - 4.21E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
51	2.36E-06	(7.81E-14 - 1.21E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 121 FISSION PRODUCT CHAIN

NLCT = 4.182 NU = 1.543 ZP = 47.771
 DEVIATION FRCP LCD = 0.00 +/- .2C SIGMA = .56 +/- .12

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
44	3.03E-05	(1.50E-05 - 3.66E-06)	3.03E-05	(1.32E-05 - 3.68E-06)
45	1.67E-05	(7.31E-09 - 8.65E-04)	1.87E-05	(1.03E-08 - 8.65E-04)
46	1.25E-02	(4.84E-04 - 6.55E-02)	1.36E-02	(5.02E-04 - 6.59E-02)
47	2.26E-01	(1.04E-01 - 8.86E-01)	2.40E-01	(1.17E-01 - 3.50E-01)
48	6.66E-01	(5.17E-01 - 8.86E-01)	9.27E-01	(8.69E-01 - 1.00E+00)
49	7.13E-02	(1.36E-02 - 1.54E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
50	1.15E-03	(6.79E-06 - 1.42E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	4.10E-07	(1.04E-11 - 7.44E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF L-235 NLCTC METHCD
ESTIMATED FRACTIONAL YIELDS
ODC-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 122 FISSION PRCDUCT CHAIN

NLCTC = 3.765 NU = 1.280 ZP = 48.058

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	1.81E-06	(1.34E-10 - 1.93E-04)	1.81E-06	(1.34E-10 - 1.93E-04)
46	3.10E-03	(3.70E-05 - 2.60E-02)	3.10E-03	(3.88E-05 - 2.61E-02)
47	1.15E-01	(3.04E-02 - 2.04E-01)	1.19E-01	(3.35E-02 - 2.10E-01)
48	7.21E-01	(5.66E-01 - 8.71E-01)	8.39E-01	(7.36E-01 - 9.33E-01)
49	1.55E-01	(5.22E-02 - 2.43E-01)	9.94E-01	(9.89E-01 - 1.00E+00)
50	5.78E-03	(1.10E-04 - 3.85E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	4.80E-06	(7.12E-10 - 3.60E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
52	4.59E-10	(0. - 1.08E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 123 FISSION PRCDUCT CHAIN

NLCTC = 3.292 NU = .961 ZP = 48.324

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	1.74E-07	(2.40E-12 - 4.32E-05)	1.74E-07	(2.40E-12 - 4.32E-05)
46	6.67E-04	(2.51E-06 - 9.96E-03)	6.67E-04	(2.68E-06 - 9.96E-03)
47	5.31E-02	(1.57E-03 - 1.29E-01)	5.37E-02	(8.23E-03 - 1.31E-01)
48	6.54E-01	(4.84E-01 - 8.68E-01)	7.08E-01	(5.80E-01 - 8.41E-01)
49	2.71E-01	(1.45E-01 - 3.88E-01)	9.79E-01	(9.59E-01 - 1.00E+00)
50	2.10E-02	(1.04E-03 - 8.71E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	3.85E-05	(2.51E-08 - 1.38E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	8.34E-09	(1.26E-14 - 7.11E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 124 FISSION PRCDUCT CHAIN

NLCTC = 2.951 NU = .706 ZP = 48.614

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	1.07E-08	(2.27E-14 - 7.26E-06)	1.07E-08	(2.27E-14 - 7.26E-06)
46	9.94E-05	(8.98E-08 - 3.03E-03)	9.94E-05	(1.01E-07 - 3.03E-03)
47	1.85E-02	(1.12E-03 - 6.93E-02)	1.86E-02	(1.22E-03 - 6.95E-02)
48	4.93E-01	(2.88E-01 - 7.01E-01)	5.12E-01	(3.84E-01 - 7.01E-01)
49	4.18E-01	(3.06E-01 - 5.66E-01)	9.29E-01	(8.67E-01 - 1.00E+00)
50	7.04E-02	(8.47E-03 - 1.87E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
51	3.02E-04	(8.51E-07 - 5.22E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	1.60E-07	(1.46E-12 - 4.87E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 125 FISSION PRCDUCT CHAIN

NLCTC = 2.460 NU = .490 ZP = 48.920

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	4.20E-10	(0. - 9.06E-07)	4.20E-10	(0. - 9.06E-07)
46	1.00E-05	(1.69E-09 - 7.08E-04)	1.00E-05	(2.11E-09 - 7.08E-04)
47	4.64E-03	(9.59E-05 - 2.97E-02)	4.65E-03	(1.06E-04 - 2.97E-02)
48	2.86E-01	(1.00E-01 - 4.38E-01)	2.91E-01	(1.08E-01 - 4.45E-01)
49	5.16E-01	(4.03E-01 - 6.23E-01)	8.07E-01	(6.64E-01 - 9.62E-01)
50	1.91E-01	(4.80E-02 - 3.45E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
51	1.98E-03	(2.16E-05 - 1.74E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	2.64E-06	(1.71E-10 - 3.01E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 126 FISSION PRCDUCT CHAIN

NLCTC = 2.113 NU = .456 ZP = 49.297

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	3.74E-07	(6.16E-12 - 8.48E-05)	3.74E-07	(6.16E-12 - 8.48E-05)
47	5.40E-04	(2.30E-06 - 7.56E-03)	5.41E-04	(2.68E-06 - 7.59E-03)
48	9.71E-02	(1.49E-02 - 2.25E-01)	9.76E-02	(1.54E-02 - 2.29E-01)
49	4.57E-01	(3.35E-01 - 6.00E-01)	5.54E-01	(4.11E-01 - 7.45E-01)
50	4.33E-01	(2.22E-01 - 6.19E-01)	9.87E-01	(9.75E-01 - 1.00E+00)
51	1.28E-02	(5.76E-04 - 5.54E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	5.26E-05	(2.97E-08 - 2.03E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	4.30E-09	(5.75E-15 - 4.05E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 127 FISSION PRCDUCT CHAIN

NLCTC = 2.102 NU = .378 ZP = 49.566

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	1.04E-08	(1.69E-14 - 8.19E-06)	1.04E-08	(1.69E-14 - 8.19E-06)
47	4.49E-05	(3.26E-08 - 1.52E-03)	4.49E-05	(4.30E-08 - 1.52E-03)
48	2.31E-02	(1.22E-03 - 9.24E-02)	2.31E-02	(1.27E-03 - 9.25E-02)
49	2.82E-01	(1.55E-01 - 4.02E-01)	3.05E-01	(1.76E-01 - 4.44E-01)
50	6.45E-01	(4.76E-01 - 8.63E-01)	9.50E-01	(9.07E-01 - 1.00E+00)
51	4.96E-02	(6.70E-03 - 1.24E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
52	5.88E-04	(2.01E-06 - 9.20E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	1.44E-07	(1.73E-12 - 3.83E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 128 FISSION PRCDUCT CHAIN

NLCTC = 2.089 NU = .344 ZP = 50.032

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	2.25E-06	(1.95E-10 - 2.22E-04)	2.25E-06	(1.95E-10 - 2.22E-04)
48	3.57E-03	(4.74E-05 - 2.85E-02)	3.57E-03	(4.97E-05 - 2.85E-02)
49	1.24E-01	(2.45E-02 - 2.13E-01)	1.27E-01	(3.80E-02 - 2.20E-01)
50	7.22E-01	(5.71E-01 - 8.74E-01)	8.49E-01	(7.50E-01 - 9.43E-01)
51	1.46E-01	(4.65E-02 - 2.34E-01)	9.95E-01	(9.90E-01 - 1.00E+00)
52	5.05E-03	(8.68E-05 - 3.54E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	3.87E-06	(4.93E-10 - 3.14E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
54	3.42E-10	(0. - 8.90E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 129 FISSION PRCDUCT CHAIN

NLCTC = 1.940 NU = .320 ZP = 50.413

DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	7.60E-08	(5.79E-13 - 2.54E-05)	7.60E-08	(5.79E-13 - 2.54E-05)
48	3.62E-04	(5.45E-07 - 7.03E-03)	3.82E-04	(1.02E-06 - 7.03E-03)
49	3.54E-02	(4.39E-03 - 1.09E-01)	3.97E-02	(4.77E-03 - 1.09E-01)
50	6.13E-01	(4.48E-01 - 8.37E-01)	6.52E-01	(5.24E-01 - 8.67E-01)
51	3.16E-01	(1.92E-01 - 4.45E-01)	9.69E-01	(9.40E-01 - 1.00E+00)
52	3.12E-02	(2.06E-03 - 1.12E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
53	7.43E-05	(7.72E-08 - 2.11E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	2.12E-08	(5.12E-14 - 1.31E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF U-235 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 130 FISSION PRODUCT CHAIN
NLCT = 1.850 NU = .343 ZP = 50.362
DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	1.23E-07	(1.20E-09 - 3.21E-06)	1.23E-07	(1.20E-09 - 3.21E-06)
48	5.27E-04	(5.20E-05 - 2.67E-03)	5.28E-04	(5.21E-05 - 2.67E-03)
49	4.68E-02	(2.03E-02 - 8.21E-02)	4.74E-02	(2.08E-02 - 8.27E-02)
50	6.37E-01	(5.31E-01 - 7.56E-01)	6.85E-01	(6.21E-01 - 7.52E-01)
51	2.50E-01	(2.29E-01 - 3.50E-01)	9.75E-01	(9.58E-01 - 1.00E+00)
52	2.49E-02	(7.70E-03 - 5.53E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	5.11E-05	(2.88E-06 - 3.84E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.24E-08	(5.57E-11 - 5.68E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 131 FISSION PRODUCT CHAIN
NLCT = 1.897 NU = .414 ZP = 50.779
DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	1.54E-09	(5.70E-12 - 1.20E-07)	1.94E-09	(5.70E-12 - 1.20E-07)
48	3.00E-05	(1.25E-06 - 2.81E-04)	3.00E-05	(1.25E-06 - 2.81E-04)
49	5.12E-03	(2.31E-03 - 2.32E-02)	9.15E-03	(2.34E-03 - 2.32E-02)
50	3.81E-01	(2.75E-01 - 4.66E-01)	3.90E-01	(2.92E-01 - 4.76E-01)
51	4.84E-01	(4.09E-01 - 5.63E-01)	8.74E-01	(8.12E-01 - 9.47E-01)
52	1.25E-01	(6.25E-02 - 1.98E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
53	8.67E-04	(1.11E-04 - 3.65E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	7.56E-07	(1.08E-08 - 1.51E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 132 FISSION PRODUCT CHAIN
NLCT = 1.970 NU = .511 ZP = 51.207
DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	8.59E-07	(1.27E-08 - 1.68E-05)	8.59E-07	(1.27E-08 - 1.68E-05)
49	5.44E-04	(1.24E-04 - 3.90E-03)	9.45E-04	(1.25E-04 - 3.90E-03)
50	1.31E-01	(6.47E-02 - 2.05E-01)	1.32E-01	(6.77E-02 - 2.06E-01)
51	4.89E-01	(4.13E-01 - 5.67E-01)	6.20E-01	(5.11E-01 - 7.08E-01)
52	3.71E-01	(2.66E-01 - 4.57E-01)	9.91E-01	(9.85E-01 - 1.00E+00)
53	8.55E-03	(2.12E-03 - 2.21E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	2.70E-05	(1.05E-06 - 2.58E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
55	1.67E-09	(4.71E-12 - 1.06E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 133 FISSION PRODUCT CHAIN
NLCT = 2.102 NU = .641 ZP = 51.648
DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	1.13E-08	(4.53E-11 - 5.26E-07)	1.13E-08	(4.93E-11 - 5.26E-07)
49	4.78E-05	(2.64E-06 - 3.64E-04)	4.78E-05	(2.66E-06 - 3.64E-04)
50	2.40E-02	(7.30E-03 - 5.36E-02)	2.40E-02	(7.35E-03 - 5.36E-02)
51	2.86E-01	(2.24E-01 - 3.45E-01)	3.10E-01	(2.44E-01 - 3.76E-01)
52	6.41E-01	(5.35E-01 - 7.60E-01)	9.51E-01	(9.24E-01 - 9.87E-01)
53	4.83E-02	(2.11E-02 - 8.40E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
54	5.58E-04	(5.60E-05 - 2.79E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
55	1.33E-07	(1.34E-09 - 3.43E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 134 FISSION PRODUCT CHAIN
NLCT = 2.241 NU = .833 ZP = 52.112
DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.15E-06	(2.16E-08 - 1.86E-05)	1.15E-06	(2.16E-08 - 1.86E-05)
50	2.31E-03	(3.57E-04 - 8.45E-03)	2.31E-03	(3.58E-04 - 8.49E-03)
51	1.00E-01	(5.57E-02 - 1.47E-01)	1.02E-01	(5.80E-02 - 1.50E-01)
52	7.14E-01	(6.11E-01 - 8.17E-01)	8.17E-01	(7.59E-01 - 8.70E-01)
53	1.76E-01	(1.18E-01 - 2.27E-01)	9.92E-01	(9.86E-01 - 1.00E+00)
54	7.60E-02	(1.68E-02 - 2.17E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
55	7.40E-06	(2.40E-07 - 8.27E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
56	8.35E-10	(1.75E-12 - 6.56E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 135 FISSION PRODUCT CHAIN
NLCT = 2.574 NU = 1.003 ZP = 52.568
DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.65E-06	(5.29E-11 - 6.66E-07)	1.69E-06	(9.29E-11 - 6.68E-07)
50	1.27E-04	(8.54E-06 - 5.26E-04)	1.37E-04	(8.96E-06 - 5.26E-04)
51	2.22E-02	(7.52E-03 - 4.62E-02)	2.24E-02	(7.66E-03 - 4.63E-02)
52	5.23E-01	(4.27E-01 - 6.30E-01)	5.45E-01	(4.69E-01 - 6.37E-01)
53	3.56E-01	(3.28E-01 - 4.72E-01)	9.41E-01	(9.05E-01 - 9.91E-01)
54	5.50E-02	(2.36E-02 - 1.05E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
55	2.22E-04	(1.51E-05 - 1.24E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.02E-07	(8.22E-10 - 3.05E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 136 FISSION PRODUCT CHAIN
NLCT = 2.666 NU = 1.069 ZP = 52.991
DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.66E-10	(2.86E-13 - 1.87E-08)	1.88E-10	(2.86E-13 - 1.87E-08)
50	5.55E-06	(1.42E-07 - 7.44E-05)	5.60E-06	(1.42E-07 - 7.44E-05)
51	2.21E-03	(6.05E-04 - 1.02E-02)	3.21E-03	(6.11E-04 - 1.03E-02)
52	2.41E-01	(1.49E-01 - 3.25E-01)	2.45E-01	(1.75E-01 - 3.23E-01)
53	5.21E-01	(4.52E-01 - 5.90E-01)	7.45E-01	(6.76E-01 - 8.54E-01)
54	2.31E-01	(1.41E-01 - 3.15E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
55	2.52E-02	(5.37E-04 - 9.54E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	4.85E-06	(1.18E-07 - 6.64E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 137 FISSION PRODUCT CHAIN
NLCT = 2.711 NU = 1.136 ZP = 53.399
DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	1.40E-07	(1.23E-09 - 3.93E-06)	1.40E-07	(1.23E-09 - 3.93E-06)
51	2.76E-04	(2.53E-05 - 1.47E-03)	2.76E-04	(2.54E-05 - 1.47E-03)
52	6.66E-02	(2.77E-02 - 1.20E-01)	4.71E-02	(2.80E-02 - 1.21E-01)
53	4.11E-01	(3.42E-01 - 4.85E-01)	4.78E-01	(3.99E-01 - 5.73E-01)
54	5.02E-01	(4.04E-01 - 6.05E-01)	9.80E-01	(9.67E-01 - 1.00E+00)
55	1.56E-02	(6.35E-03 - 4.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.50E-04	(6.65E-06 - 7.77E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.22E-06	(6.13E-11 - 5.17E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF L-235 NLCT METHOD

ESTIMATE FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 138 FISSION PRODUCT CHAIN

NLCT = 2.649 NU = 1.135 ZP = 53.789

DEVIATION FROM LCD = -.45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
50	2.48E-09	(1.70E-12 - 1.57E-07)	2.48E-09	(7.08E-12 - 1.57E-07)
51	1.62E-05	(6.59E-07 - 1.54E-04)	1.62E-05	(6.61E-07 - 1.54E-04)
52	1.24E-02	(3.10E-03 - 3.19E-02)	1.24E-02	(3.11E-03 - 3.19E-02)
53	2.18E-01	(1.57E-01 - 2.68E-01)	2.30E-01	(1.68E-01 - 2.84E-01)
54	6.53E-01	(5.86E-01 - 8.05E-01)	9.23E-01	(8.86E-01 - 9.66E-01)
55	7.53E-02	(3.82E-02 - 1.18E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
56	1.31E-03	(1.70E-04 - 5.45E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
57	4.82E-07	(7.05E-09 - 9.48E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 139 FISSION PRODUCT CHAIN

NLCT = 2.621 NU = 1.153 ZP = 54.186

DEVIATION FROM LCD = -.45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
51	6.01E-07	(5.38E-09 - 1.13E-05)	6.01E-07	(9.38E-09 - 1.13E-05)
52	1.51E-03	(2.66E-04 - 6.10E-03)	1.52E-03	(2.07E-04 - 6.10E-03)
53	8.11E-02	(4.21E-02 - 1.25E-01)	8.26E-02	(4.36E-02 - 1.27E-01)
54	7.00E-01	(5.53E-01 - 8.10E-01)	9.82E-01	(7.21E-01 - 8.36E-01)
55	2.07E-01	(1.46E-01 - 2.57E-01)	9.89E-01	(9.81E-01 - 1.00E+00)
56	1.10E-02	(2.72E-03 - 2.90E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.33E-05	(5.12E-07 - 1.32E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.89E-09	(4.59E-12 - 1.26E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 140 FISSION PRODUCT CHAIN

NLCT = 2.604 NU = 1.169 ZP = 54.582

DEVIATION FROM LCD = -.45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
51	1.47E-08	(7.78E-11 - 5.98E-07)	1.47E-08	(7.78E-11 - 5.98E-07)
52	1.24E-04	(7.90E-06 - 8.59E-04)	1.24E-04	(7.91E-06 - 8.59E-04)
53	2.10E-02	(7.00E-03 - 4.43E-02)	2.12E-02	(7.12E-03 - 4.44E-02)
54	5.14E-01	(4.17E-01 - 6.20E-01)	5.35E-01	(4.58E-01 - 6.28E-01)
55	4.02E-01	(3.34E-01 - 4.80E-01)	9.37E-01	(9.01E-01 - 9.89E-01)
56	6.23E-02	(2.53E-02 - 1.14E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
57	2.44E-04	(2.16E-05 - 1.33E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.17E-07	(5.80E-10 - 3.40E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 141 FISSION PRODUCT CHAIN

NLCT = 2.606 NU = 1.204 ZP = 54.985

DEVIATION FROM LCD = -.45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
51	2.01E-10	(3.12E-13 - 1.97E-08)	2.01E-10	(3.12E-13 - 1.97E-08)
52	5.89E-06	(1.51E-07 - 7.74E-05)	5.89E-06	(1.52E-07 - 7.74E-05)
53	3.31E-03	(6.31E-04 - 1.05E-02)	3.32E-03	(6.37E-04 - 1.05E-02)
54	2.45E-01	(1.52E-01 - 3.33E-01)	2.48E-01	(1.56E-01 - 3.37E-01)
55	5.21E-01	(4.51E-01 - 5.90E-01)	7.70E-01	(6.80E-01 - 8.57E-01)
56	2.28E-01	(1.38E-01 - 3.15E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
57	2.83E-03	(5.15E-04 - 9.29E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	4.60E-07	(1.10E-07 - 6.37E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 142 FISSION PRODUCT CHAIN

NLCT = 2.576 NU = 1.234 ZP = 55.379

DEVIATION FROM LCD = -.45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
52	1.70E-07	(1.59E-09 - 4.60E-06)	1.70E-07	(1.59E-09 - 4.60E-06)
53	2.16E-04	(3.01E-05 - 1.64E-03)	7.18E-04	(3.03E-05 - 1.64E-03)
54	7.21E-02	(3.06E-02 - 1.28E-01)	7.24E-02	(3.09E-02 - 1.28E-01)
55	4.21E-01	(3.50E-01 - 5.00E-01)	4.93E-01	(4.11E-01 - 5.60E-01)
56	4.65E-01	(3.89E-01 - 5.90E-01)	9.82E-01	(9.70E-01 - 1.00E+00)
57	1.00E-02	(5.70E-03 - 3.92E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	5.00E-05	(1.57E-06 - 6.95E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
59	1.00E-06	(4.72E-11 - 4.40E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 143 FISSION PRODUCT CHAIN

NLCT = 2.620 NU = 1.260 ZP = 55.787

DEVIATION FROM LCD = -.45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
52	2.55E-05	(7.32E-12 - 1.60E-07)	2.55E-05	(7.32E-12 - 1.60E-07)
53	1.45E-05	(6.75E-07 - 1.57E-04)	1.65E-05	(6.77E-07 - 1.57E-04)
54	1.25E-02	(3.14E-03 - 3.21E-02)	1.26E-02	(3.16E-03 - 3.22E-02)
55	2.15E-01	(1.59E-01 - 2.65E-01)	2.31E-01	(1.69E-01 - 2.85E-01)
56	6.42E-01	(5.05E-01 - 8.05E-01)	9.24E-01	(8.87E-01 - 9.67E-01)
57	7.40E-02	(3.75E-02 - 1.18E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
58	1.25E-02	(1.67E-04 - 5.35E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	4.72E-07	(6.06E-09 - 9.32E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 144 FISSION PRODUCT CHAIN

NLCT = 2.778 NU = 1.343 ZP = 56.209

DEVIATION FROM LCD = -.45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
53	4.50E-07	(7.20E-09 - 9.60E-06)	4.90E-07	(7.20E-09 - 9.60E-06)
54	1.32E-02	(1.73E-04 - 5.45E-03)	1.32E-03	(1.73E-04 - 5.45E-03)
55	7.57E-02	(3.85E-02 - 1.15E-01)	7.71E-02	(3.98E-02 - 1.20E-01)
56	6.54E-01	(5.86E-01 - 8.06E-01)	7.71E-01	(7.09E-01 - 8.24E-01)
57	2.17E-01	(1.56E-01 - 2.67E-01)	9.88E-01	(9.78E-01 - 1.00E+00)
58	1.22E-02	(3.06E-03 - 3.16E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	1.00E-05	(6.47E-07 - 1.92E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
60	2.44E-09	(6.50E-12 - 1.54E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 145 FISSION PRODUCT CHAIN

NLCT = 2.853 NU = 1.443 ZP = 56.638

DEVIATION FROM LCD = -.45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
53	8.40E-09	(3.77E-11 - 3.84E-07)	8.40E-09	(3.77E-11 - 3.84E-07)
54	8.42E-05	(4.76E-06 - 6.32E-04)	8.42E-05	(4.76E-06 - 6.32E-04)
55	1.66E-02	(5.19E-03 - 3.73E-02)	1.69E-02	(5.28E-03 - 3.73E-02)
56	4.77E-01	(3.76E-01 - 5.76E-01)	4.94E-01	(4.11E-01 - 5.53E-01)
57	4.25E-01	(3.57E-01 - 5.08E-01)	9.23E-01	(8.79E-01 - 9.81E-01)
58	7.66E-02	(3.33E-02 - 1.35E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
59	3.54E-04	(3.49E-05 - 1.75E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	2.01E-07	(1.97E-09 - 5.25E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION C₁ L-235 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
CDC-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 146 FISSION PRODUCT CHAIN

NLCT = 2.909 NU = 1.574 ZP = 57.079
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	2.67E-06	(5.45E-08 - 4.13E-05)	2.67E-06	(5.45E-08 - 4.13E-05)
55	1.59E-03	(3.25E-04 - 7.04E-03)	1.99E-03	(3.28E-04 - 7.04E-03)
56	1.52E-01	(1.10E-01 - 2.76E-01)	1.94E-01	(1.12E-01 - 2.78E-01)
57	5.16E-01	(4.43E-01 - 5.87E-01)	7.10E-01	(6.11E-01 - 8.00E-01)
58	2.85E-01	(1.87E-01 - 3.74E-01)	9.95E-01	(9.92E-01 - 1.00E+00)
59	4.62E-03	(9.73E-04 - 1.36E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
60	9.95E-06	(2.98E-07 - 1.17E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
61	4.15E-10	(7.86E-13 - 3.51E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 147 FISSION PRODUCT CHAIN

NLCT = 2.958 NU = 1.743 ZP = 57.535
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	3.63E-08	(2.20E-10 - 1.34E-06)	3.63E-08	(2.20E-10 - 1.34E-06)
55	1.08E-04	(7.60E-06 - 6.99E-04)	1.08E-04	(7.64E-06 - 6.99E-04)
56	3.90E-02	(1.38E-02 - 7.87E-02)	3.91E-02	(1.39E-02 - 7.88E-02)
57	3.44E-01	(2.84E-01 - 4.13E-01)	3.83E-01	(3.18E-01 - 4.63E-01)
58	5.84E-01	(4.84E-01 - 7.00E-01)	9.67E-01	(9.47E-01 - 9.96E-01)
59	3.27E-02	(1.26E-02 - 6.21E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
60	2.72E-04	(2.19E-05 - 1.59E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
61	4.61E-08	(3.35E-10 - 1.48E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 148 FISSION PRODUCT CHAIN

NLCT = 3.015 NU = 1.893 ZP = 57.983
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	2.87E-10	(4.46E-13 - 2.80E-08)	2.87E-10	(4.46E-13 - 2.80E-08)
55	3.41E-06	(8.82E-08 - 4.47E-05)	3.41E-06	(8.85E-08 - 4.47E-05)
56	4.65E-03	(8.90E-04 - 1.47E-02)	4.66E-03	(8.93E-04 - 1.47E-02)
57	1.40E-01	(8.73E-02 - 1.90E-01)	1.45E-01	(9.18E-02 - 1.96E-01)
58	7.23E-01	(6.26E-01 - 8.18E-01)	8.68E-01	(8.17E-01 - 9.18E-01)
59	1.29E-01	(7.79E-02 - 1.78E-01)	9.96E-01	(9.93E-01 - 1.00E+00)
60	3.88E-03	(7.02E-04 - 1.28E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
61	2.57E-06	(6.11E-08 - 3.56E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 149 FISSION PRODUCT CHAIN

NLCT = 3.071 NU = 2.000 ZP = 58.414
DEVIATION FROM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	7.49E-08	(6.35E-10 - 2.17E-06)	7.49E-08	(6.35E-10 - 2.17E-06)
56	3.78E-04	(3.37E-05 - 2.06E-03)	3.78E-04	(3.38E-05 - 2.06E-03)
57	3.51E-02	(1.60E-02 - 7.13E-02)	3.95E-02	(1.63E-02 - 7.17E-02)
58	6.12E-01	(5.08E-01 - 7.29E-01)	6.51E-01	(5.87E-01 - 7.25E-01)
59	3.17E-01	(2.57E-01 - 3.82E-01)	9.69E-01	(9.47E-01 - 1.00E+00)
60	3.14E-02	(1.64E-02 - 6.63E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
61	7.52E-05	(4.74E-06 - 5.22E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
62	2.15E-08	(1.12E-10 - 8.81E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 150 FISSION PRODUCT CHAIN

NLCT = 3.035 NU = 2.026 ZP = 58.814
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	1.33E-05	(C - 1.91E-06)	1.33E-05	(6.62E-04 - 1.51E-06)
56	2.30E-05	(7.06E-09 - 1.20E-03)	2.30E-05	(8.39E-09 - 1.20E-03)
57	7.75E-03	(2.37E-04 - 4.00E-02)	7.78E-03	(2.60E-04 - 4.09E-02)
58	3.56E-01	(1.52E-01 - 5.12E-01)	3.64E-01	(2.01E-01 - 5.23E-01)
59	4.95E-01	(3.76E-01 - 6.21E-01)	8.59E-01	(7.47E-01 - 1.00E+00)
60	1.40E-01	(2.83E-02 - 2.86E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
61	1.07E-03	(7.49E-06 - 1.18E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	1.04E-06	(3.49E-11 - 1.65E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 151 FISSION PRODUCT CHAIN

NLCT = 3.112 NU = 2.111 ZP = 59.237
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	6.45E-07	(1.57E-11 - 1.21E-04)	6.49E-07	(1.57E-11 - 1.21E-04)
57	7.82E-04	(4.35E-06 - 9.62E-03)	7.83E-04	(5.00E-06 - 9.62E-03)
58	1.19E-01	(2.11E-02 - 2.55E-01)	1.19E-01	(2.19E-02 - 2.60E-01)
59	4.75E-01	(3.59E-01 - 6.15E-01)	5.98E-01	(4.44E-01 - 7.70E-01)
60	3.52E-01	(1.03E-01 - 5.60E-01)	9.90E-01	(9.81E-01 - 1.00E+00)
61	5.84E-03	(3.62E-04 - 4.72E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	3.40E-05	(1.35E-08 - 1.54E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
63	2.32E-05	(C - 2.72E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 152 FISSION PRODUCT CHAIN

NLCT = 3.100 NU = 2.141 ZP = 59.639
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	1.24E-06	(2.11E-14 - 9.15E-06)	1.24E-06	(2.11E-14 - 9.15E-06)
57	5.05E-05	(4.04E-08 - 1.65E-03)	5.09E-05	(5.28E-08 - 1.65E-03)
58	2.45E-02	(1.35E-03 - 9.69E-02)	2.49E-02	(1.44E-03 - 9.70E-02)
59	2.90E-01	(1.64E-01 - 4.14E-01)	3.15E-01	(1.86E-01 - 4.58E-01)
60	6.36E-01	(4.69E-01 - 8.58E-01)	9.53E-01	(9.12E-01 - 1.00E+00)
61	4.65E-02	(6.05E-03 - 1.20E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
62	5.25E-04	(1.67E-06 - 8.62E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
63	1.23E-07	(1.33E-12 - 3.44E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 153 FISSION PRODUCT CHAIN

NLCT = 3.202 NU = 2.219 ZP = 60.059
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	1.00E-06	(1.33E-10 - 1.92E-04)	1.80E-06	(1.33E-10 - 1.92E-04)
58	3.05E-03	(3.68E-05 - 2.60E-02)	3.09E-03	(3.86E-05 - 2.60E-02)
59	1.15E-01	(3.04E-02 - 2.03E-01)	1.18E-01	(3.34E-02 - 2.10E-01)
60	7.21E-01	(5.66E-01 - 8.71E-01)	8.35E-01	(7.36E-01 - 9.33E-01)
61	1.55E-01	(5.23E-02 - 2.43E-01)	9.94E-01	(9.89E-01 - 1.00E+00)
62	5.00E-03	(1.10E-04 - 3.86E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
63	4.62E-06	(7.17E-10 - 3.61E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
64	4.62E-10	(C - 1.00E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF U-235 NUCLEAR METHOD
ESTIMATED FRACTIONAL YIELDS
COD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 154 FISSION PRODUCT CHAIN

NLTCT = 3.623 NU = 2.609 ZP = 60.6C1
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12
Z FIY RANGE OF FIY FCY RANGE OF FCY
57 1.22E-08 (2.54E-14 - 7.90E-06) 1.22E-08 (2.54E-14 - 7.90E-06)
58 1.09E-04 (1.06E-07 - 3.21E-03) 1.09E-04 (1.18E-07 - 3.21E-03)
59 1.95E-02 (1.24E-03 - 7.16E-02) 1.96E-02 (1.34E-03 - 7.18E-02)
60 5.02E-01 (2.99E-01 - 7.13E-01) 5.21E-01 (3.96E-01 - 7.09E-01)
61 4.11E-01 (3.01E-01 - 5.60E-01) 9.33E-01 (8.74E-01 - 1.00E+00)
62 6.69E-02 (7.77E-03 - 1.81E-01) 1.00E+00 (9.99E-01 - 1.00E+00)
63 2.77E-04 (7.31E-07 - 4.93E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
64 1.40E-07 (1.17E-12 - 4.48E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 155 FISSION PRODUCT CHAIN

NLTCT = 3.643 NU = 2.665 ZP = 61.013
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12
Z FIY RANGE OF FIY FCY RANGE OF FCY
58 4.68E-06 (4.56E-10 - 4.34E-04) 4.68E-06 (4.56E-10 - 4.34E-04)
59 2.86E-03 (4.12E-05 - 2.19E-02) 2.87E-03 (4.58E-05 - 2.19E-02)
60 2.29E-01 (6.66E-02 - 3.85E-01) 2.32E-01 (6.94E-02 - 3.90E-01)
61 5.21E-01 (4.15E-01 - 6.31E-01) 7.53E-01 (5.84E-01 - 9.10E-01)
62 2.44E-01 (7.48E-02 - 4.00E-01) 9.97E-01 (9.93E-01 - 1.00E+00)
63 3.28E-03 (5.22E-05 - 2.39E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
64 5.79E-06 (6.56E-10 - 4.98E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
65 1.57E-10 (0. - 5.54E-07) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 156 FISSION PRODUCT CHAIN

NLTCT = 3.545 NU = 2.546 ZP = 61.356
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12
Z FIY RANGE OF FIY FCY RANGE OF FCY
58 2.12E-07 (2.35E-12 - 5.86E-05) 2.12E-07 (2.35E-12 - 5.86E-05)
59 3.67E-04 (1.19E-06 - 5.92E-03) 3.68E-04 (1.40E-06 - 5.92E-03)
60 7.85E-02 (1.02E-02 - 2.00E-01) 7.88E-02 (1.06E-02 - 2.01E-01)
61 4.31E-01 (3.18E-01 - 5.79E-01) 5.10E-01 (3.77E-01 - 7.02E-01)
62 4.73E-01 (2.65E-01 - 6.75E-01) 9.84E-01 (9.68E-01 - 1.00E+00)
63 1.64E-02 (5.05E-04 - 6.45E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
64 8.08E-05 (6.26E-08 - 2.66E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
65 7.93E-09 (1.42E-14 - 6.00E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 157 FISSION PRODUCT CHAIN

NLTCT = 3.138 NU = 2.215 ZP = 61.617
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12
Z FIY RANGE OF FIY FCY RANGE OF FCY
58 1.56E-08 (2.97E-14 - 1.07E-05) 1.56E-08 (2.97E-14 - 1.07E-05)
59 5.99E-05 (5.34E-08 - 1.83E-03) 5.99E-05 (6.89E-08 - 1.83E-03)
60 2.74E-02 (1.65E-03 - 1.03E-01) 2.75E-02 (1.71E-03 - 1.03E-01)
61 3.01E-01 (1.75E-01 - 4.29E-01) 3.29E-01 (2.00E-01 - 4.77E-01)
62 6.27E-01 (4.60E-01 - 8.90E-01) 9.56E-01 (9.18E-01 - 1.00E+00)
63 4.36E-02 (5.28E-03 - 1.15E-01) 1.00E+00 (9.99E-01 - 1.00E+00)
64 4.61E-04 (1.31E-06 - 7.90E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
65 1.00E-07 (5.31E-13 - 3.04E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 158 FISSION PRODUCT CHAIN

NLTCT = 2.886 NU = 2.025 ZP = 61.932
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12
Z FIY RANGE OF FIY FCY RANGE OF FCY
58 5.08E-10 (0. - 1.15E-06) 5.08E-10 (3.31E-24 - 1.15E-06)
59 5.17E-06 (2.09E-10 - 3.78E-04) 5.17E-06 (1.32E-09 - 3.78E-04)
60 6.06E-03 (1.15E-04 - 3.97E-02) 6.07E-03 (1.25E-04 - 3.97E-02)
61 1.58E-01 (5.43E-02 - 2.46E-01) 1.64E-01 (6.02E-02 - 2.58E-01)
62 7.20E-01 (5.64E-01 - 8.70E-01) 9.84E-01 (8.01E-01 - 9.75E-01)
63 1.13E-01 (2.91E-02 - 2.01E-01) 9.97E-01 (9.94E-01 - 1.00E+00)
64 2.95E-02 (3.39E-05 - 2.52E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
65 1.67E-06 (1.17E-10 - 1.83E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 159 FISSION PRODUCT CHAIN

NLTCT = 2.590 NU = 1.813 ZP = 62.240
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12
Z FIY RANGE OF FIY FCY RANGE OF FCY
59 3.72E-07 (8.86E-12 - 7.01E-05) 3.72E-07 (8.86E-12 - 7.01E-05)
60 1.10E-03 (6.08E-06 - 1.37E-02) 1.11E-03 (6.45E-06 - 1.37E-02)
61 6.50E-02 (1.22E-02 - 1.51E-01) 7.01E-02 (1.33E-02 - 1.53E-01)
62 6.85E-01 (5.14E-01 - 8.08E-01) 7.55E-01 (6.31E-01 - 8.67E-01)
63 2.31E-01 (1.08E-01 - 3.30E-01) 9.86E-01 (9.72E-01 - 1.00E+00)
64 1.42E-02 (5.25E-04 - 6.81E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
65 2.03E-05 (8.43E-09 - 9.13E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
66 3.40E-05 (0. - 3.96E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 160 FISSION PRODUCT CHAIN

NLTCT = 2.372 NU = .664 ZP = 62.182
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12
Z FIY RANGE OF FIY FCY RANGE OF FCY
59 6.23E-07 (2.15E-11 - 9.75E-05) 6.23E-07 (2.15E-11 - 9.75E-05)
60 1.55E-03 (1.10E-05 - 1.65E-02) 1.55E-03 (1.16E-05 - 1.69E-02)
61 8.20E-02 (1.67E-02 - 1.67E-01) 8.36E-02 (1.83E-02 - 1.70E-01)
62 7.01E-01 (5.32E-01 - 9.78E-01) 7.84E-01 (6.66E-01 - 8.85E-01)
63 2.05E-01 (0.68E-02 - 2.95E-01) 9.89E-01 (9.79E-01 - 1.00E+00)
64 1.00E-02 (3.25E-04 - 5.71E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
65 1.25E-05 (3.89E-09 - 6.82E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
66 1.81E-05 (0. - 2.63E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 161 FISSION PRODUCT CHAIN

NLTCT = 2.237 NU = 1.566 ZP = 62.923
DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12
Z FIY RANGE OF FIY FCY RANGE OF FCY
59 4.00E-10 (0. - 8.85E-07) 4.00E-10 (1.65E-24 - 8.85E-07)
60 5.78E-06 (1.62E-09 - 6.96E-04) 5.78E-06 (2.02E-09 - 6.56E-04)
61 4.57E-03 (5.33E-05 - 2.94E-02) 4.58E-03 (1.03E-04 - 2.94E-02)
62 2.84E-01 (5.51E-02 - 4.37E-01) 2.89E-01 (1.05E-01 - 4.43E-01)
63 5.17E-01 (4.03E-01 - 6.24E-01) 9.05E-01 (6.61E-01 - 9.60E-01)
64 1.53E-01 (4.88E-02 - 3.47E-01) 9.98E-01 (9.96E-01 - 1.00E+00)
65 2.01E-03 (2.23E-05 - 1.76E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
66 2.71E-06 (1.75E-10 - 3.06E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF L-235 NLCT METHOD
 ZP VALUES

(1) FROM DEVIATION FROM UCD - SCALE NL(2) ACCORDING TO NUBAR. (2) FROM CORRELL DELTA ZP.
 (3) FROM NETHAWAY DELTA ZP. (4) FROM DEVIATION FROM UCD AND NLCT.

72	28.77	28.79	28.78	28.78	117	46.43	46.38	46.35	46.42
73	30.42	29.18	29.17	29.56	118	46.81	46.73	46.74	46.80
74	29.55	29.57	29.56	29.59	119	47.15	47.03	47.04	47.15
75	29.94	29.96	29.95	30.02	120	47.45	47.24	47.25	47.47
76	30.33	30.35	30.34	30.43	121	47.81	47.64	47.65	47.77
77	30.73	30.75	30.74	30.85	122	48.12	47.94	47.95	48.06
78	31.14	31.16	31.15	31.25	123	48.41	48.31	48.32	48.32
79	31.57	31.59	31.58	31.66	124	48.69	48.47	48.48	48.61
80	31.97	31.98	31.97	32.02	125	48.95	48.75	48.76	48.92
81	32.37	32.39	32.38	32.42	126	49.21	49.05	49.06	49.30
82	32.78	32.79	32.78	32.82	127	49.45	49.36	49.37	49.66
83	33.18	33.20	33.19	33.22	128	49.65	49.57	49.58	49.87
84	33.60	33.61	33.60	33.64	129	50.02	49.70	49.71	50.07
85	34.01	34.02	34.01	34.05	130	50.41	50.06	50.07	50.41
86	34.43	34.44	34.43	34.45	131	50.78	50.44	50.44	50.78
87	34.86	34.86	34.85	34.89	132	51.21	50.85	50.85	51.21
88	35.29	35.29	35.28	35.31	133	51.67	51.25	51.25	51.67
89	35.70	35.70	35.69	35.70	134	52.14	51.69	51.70	52.14
90	36.10	36.10	36.09	36.07	135	52.55	52.16	52.17	52.55
91	36.50	36.50	36.49	36.45	136	52.99	52.60	52.61	52.99
92	36.91	36.90	36.89	36.86	137	53.42	53.02	53.03	53.42
93	37.32	37.31	37.30	37.26	138	53.83	53.43	53.44	53.83
94	37.72	37.71	37.70	37.67	139	54.23	53.83	53.84	54.23
95	38.12	38.12	38.11	38.07	140	54.63	54.23	54.24	54.63
96	38.52	38.51	38.50	38.48	141	55.02	54.63	54.64	55.02
97	38.92	38.91	38.90	38.89	142	55.42	55.02	55.04	55.42
98	39.30	39.30	39.29	39.27	143	55.82	55.42	55.44	55.82
99	39.69	39.69	39.68	39.67	144	56.22	55.82	55.83	56.22
100	40.06	40.05	40.04	40.05	145	56.62	56.22	56.23	56.62
101	40.42	40.42	40.41	40.43	146	57.05	57.04	57.05	57.08
102	40.80	40.79	40.78	40.78	147	57.51	57.50	57.51	57.53
103	41.17	41.15	41.14	41.18	148	57.93	57.92	57.93	57.98
104	41.55	41.51	41.50	41.58	149	58.34	58.33	58.34	58.41
105	41.93	41.92	41.91	41.96	150	58.75	58.74	58.75	58.81
106	42.33	42.33	42.32	42.32	151	59.14	59.13	59.14	59.24
107	42.76	42.76	42.75	42.76	152	59.54	59.53	59.54	59.64
108	43.13	43.36	43.35	42.76	153	59.93	59.92	59.93	60.06
109	43.61	43.79	43.78	43.36	154	60.32	60.31	60.32	60.60
110	44.12	44.12	44.11	44.80	155	60.68	60.67	60.68	61.01
111	44.31	44.44	44.43	44.26	156	61.01	61.00	61.01	61.36
112	44.64	44.74	44.73	44.63	157	61.36	61.35	61.36	61.62
113	44.98	45.05	45.04	44.97	158	61.74	61.73	61.74	61.93
114	45.31	45.35	45.34	45.33	159	62.12	62.12	62.12	62.24
115	45.69	45.70	45.69	45.66	160	62.51	62.51	62.52	62.18
116	46.06	46.04	46.05	46.00	161	62.90	62.90	62.91	62.92

FISSION SPECTRUM NEUTRON FISSION OF U-235 NUCLEAR METHOD

Z	A ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS MINUS		PROCESS	TYPE	PRIMARY YIELD	PRIMARY REF.	SECONDARY REFERENCE OR COMMENTS	ESTIMATED VALUE	RANGE	FIT
36KR	89	5.350E-01	6.000E-03	6.000E-03	U235F	FC	72WCL1	K-h72-3		5.426E-01	(9.120E-01 - 9.810E-01)	YES
36KR	91	5.200E-01	2.000E-02	3.000E-02	U235F	FC	72WCL1	K-h72-3		6.245E-01	(5.609E-01 - 7.035E-01)	NO
36KR	92	2.100E-01	3.000E-02	2.000E-02	U235F	FC	72WCL1	K-h72-3		3.312E-01	(2.284E-01 - 4.203E-01)	YES
36KR	93	6.000E-02	2.000E-02	2.000E-02	U235F	FC	72WCL1	K-h72-3		1.058E-01	(5.321E-02 - 1.782E-01)	YES
54XE133M		7.550E-04	3.800E-05	3.800E-05	U235F	FI	70FCR2	K-F72-2		5.579E-04	(5.597E-05 - 2.789E-03)	YES
54XE133G		1.600E-04	5.200E-05	5.200E-05	U235F	FI	70FCR2	K-F72-2		5.579E-04	(5.597E-05 - 2.789E-03)	YES
54XE133 SUM		5.150E-04	6.200E-05	6.200E-05	U235F	FI	70FCR2	K-F72-2		5.579E-04	(5.597E-05 - 2.789E-03)	YES
54XE135M		3.310E-02	1.900E-03	1.900E-03	U235F	FI	70FCR2	K-F72-2		5.502E-02	(2.360E-02 - 1.051E-01)	YES
54XE135G		1.770E-02	2.800E-03	2.800E-03	U235F	FI	70FCR2	K-F72-2		5.502E-02	(2.360E-02 - 1.051E-01)	YES
54XE135 SUM		5.090E-02	2.200E-03	2.200E-03	U235F	FI	70FCR2	K-F72-2		5.502E-02	(2.360E-02 - 1.051E-01)	YES
55CS136		2.500E-03	3.000E-04	3.000E-04	U235F	FI	72KNC1	K-K72-2		2.527E-03	(5.370E-04 - 9.538E-03)	YES
54XE135		7.200E-01	1.000E-02	1.000E-02	U235F	FC	72WCL1	K-h72-3		7.823E-01	(7.212E-01 - 8.359E-01)	YES
54XE140		4.700E-01	1.000E-02	1.000E-02	U235F	FC	72WCL1	K-h72-3		5.351E-01	(4.575E-01 - 6.281E-01)	YES
54XE141		1.400E-01	2.000E-02	1.000E-02	U235F	FC	72WCL1	K-h72-3		2.485E-01	(1.557E-01 - 3.370E-01)	YES
54XE143		1.600E-02			U235F	FC	72WCL1	K-h72-3		1.256E-02	(3.161E-03 - 3.216E-02)	YES

FISSION SPECTRUM NEUTRON FISSION OF U-235 NLCT METHOD

2.6500	1	92	238	-0	-0	1.800	1.250	.100				
4	.56	.06	.12	.12	.45	.10	.20	.20	-C	1	-C	-0

NUBAR =2.6500

FOR ZP(1) NU(A) IS FROM U235T, ADJUSTED ACCORDING TO NUBAR.

ODD-EVEN Z EFFECT = 1.25 +/- .10 .

FOR ZP(4), NU(A) IS FROM NUTCT(A) DIVIDED ACCORDING TO THE NU(A) FUNCTION USED FOR ZP(1).

SIGMA = .560. UNCERTAINTIES FOR REGIONS SYMMETRY TO 129, 130 TO 151, 152 TO 161 ARE +/- .120 .060 .120.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION SYMMETRY TO 129 IS 0.00 +/- .200.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 130-151 IS - .450 +/- .100.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 152-161 IS - .450 +/- .200.

SAME UNCERTAINTIES ARE USED FOR ZP(2) AND ZP(3).

TYPE OF ZP FUNCTION USED IS 4.

FISSION SPECTRUM NEUTRON FISSION OF L-238 NLCTC METHCE
ESTIMATED FRACTIONAL YIELDS
CCC-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 74 FISSION PRODUCT CHAIN

NLCTC = 1.781 NU = .534 ZP = 29.141

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	1.55E-06	(6.89E-11 - 2.13E-04)	1.55E-06	(6.89E-11 - 2.13E-04)
27	1.40E-03	(1.18E-05 - 1.39E-02)	1.40E-03	(1.134E-05 - 1.39E-02)
28	1.60E-01	(3.60E-02 - 3.11E-01)	1.62E-01	(3.74E-02 - 3.13E-01)
29	5.06E-01	(3.88E-01 - 6.22E-01)	6.67E-01	(4.96E-01 - 8.23E-01)
30	3.26E-01	(1.28E-01 - 4.79E-01)	9.94E-01	(9.88E-01 - 1.00E+00)
31	6.27E-03	(1.67E-04 - 3.58E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
32	1.63E-05	(3.89E-09 - 9.63E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
33	8.23E-10	(0. - 1.40E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 75 FISSION PRODUCT CHAIN

NLCTC = 1.884 NU = .565 ZP = 29.538

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	3.51E-08	(1.16E-13 - 1.82E-05)	3.51E-08	(1.16E-13 - 1.82E-05)
27	1.06E-04	(1.42E-07 - 2.65E-03)	1.06E-04	(1.77E-07 - 2.65E-03)
28	3.85E-02	(2.97E-03 - 1.28E-01)	3.86E-02	(3.07E-03 - 1.28E-01)
29	3.42E-01	(2.21E-01 - 4.81E-01)	3.80E-01	(2.55E-01 - 5.46E-01)
30	5.86E-01	(4.16E-01 - 8.12E-01)	9.67E-01	(9.37E-01 - 1.00E+00)
31	3.31E-02	(3.20E-03 - 9.80E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
32	2.78E-04	(5.40E-07 - 5.76E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
33	4.75E-08	(2.59E-13 - 1.88E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 76 FISSION PRODUCT CHAIN

NLCTC = 1.696 NU = .509 ZP = 29.901

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	7.23E-10	(0. - 1.45E-06)	7.23E-10	(3.31E-24 - 1.45E-06)
27	6.67E-06	(1.25E-09 - 4.45E-04)	6.67E-06	(1.97E-09 - 4.45E-04)
28	7.12E-03	(1.58E-04 - 4.39E-02)	7.12E-03	(1.65E-04 - 4.39E-02)
29	1.70E-01	(6.20E-02 - 2.57E-01)	1.78E-01	(6.89E-02 - 2.71E-01)
30	7.16E-01	(5.56E-01 - 8.64E-01)	8.94E-01	(8.16E-01 - 9.84E-01)
31	1.04E-01	(2.46E-02 - 1.91E-01)	9.98E-01	(9.95E-01 - 1.00E+00)
32	2.48E-03	(2.51E-05 - 2.26E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
33	1.28E-06	(7.40E-11 - 1.55E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 77 FISSION PRODUCT CHAIN

NLCTC = 1.612 NU = .495 ZP = 30.281

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	2.58E-07	(4.71E-12 - 5.55E-05)	2.58E-07	(4.71E-12 - 5.55E-05)
28	8.66E-04	(3.97E-06 - 1.17E-02)	8.66E-04	(4.22E-06 - 1.17E-02)
29	6.09E-02	(5.71E-03 - 1.40E-01)	6.17E-02	(1.06E-02 - 1.42E-01)
30	6.71E-01	(5.00E-01 - 8.76E-01)	7.32E-01	(6.06E-01 - 8.55E-01)
31	2.50E-01	(1.25E-01 - 3.58E-01)	9.83E-01	(9.66E-01 - 1.00E+00)
32	1.73E-02	(7.38E-04 - 7.69E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
33	2.78E-05	(1.44E-08 - 1.12E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
34	5.28E-09	(8.35E-15 - 5.28E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 78 FISSION PRODUCT CHAIN

NLCTC = 2.126 NU = .652 ZP = 30.741

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	2.50E-05	(0. - 3.14E-06)	2.90E-09	(0. - 3.14E-06)
28	3.55E-05	(1.83E-08 - 1.70E-03)	3.99E-05	(2.12E-08 - 1.70E-03)
29	1.00E-02	(4.29E-04 - 5.00E-02)	1.09E-02	(4.68E-04 - 5.01E-02)
30	4.07E-01	(1.56E-01 - 5.82E-01)	4.18E-01	(2.67E-01 - 5.97E-01)
31	4.71E-01	(3.52E-01 - 6.10E-01)	8.89E-01	(7.97E-01 - 1.00E+00)
32	1.11E-01	(1.87E-02 - 2.48E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
33	6.66E-04	(3.47E-06 - 8.84E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
34	5.33E-07	(1.12E-11 - 1.07E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 79 FISSION PRODUCT CHAIN

NLCTC = 2.630 NU = .924 ZP = 31.216

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	7.51E-07	(2.20E-11 - 1.38E-04)	7.91E-07	(2.20E-11 - 1.38E-04)
29	8.94E-04	(5.47E-06 - 1.05E-02)	8.94E-04	(6.26E-06 - 1.05E-02)
30	1.27E-01	(2.39E-02 - 2.70E-01)	1.28E-01	(2.48E-02 - 2.71E-01)
31	4.66E-01	(3.66E-01 - 6.10E-01)	6.14E-01	(4.56E-01 - 7.79E-01)
32	3.77E-01	(1.69E-01 - 5.36E-01)	9.91E-01	(9.82E-01 - 1.00E+00)
33	8.91E-03	(3.64E-04 - 4.45E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
34	2.69E-05	(1.05E-08 - 1.35E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
35	1.84E-09	(0. - 2.35E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 80 FISSION PRODUCT CHAIN

NLCTC = 3.000 NU = 1.022 ZP = 31.638

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	1.25E-08	(2.11E-14 - 9.24E-06)	1.25E-08	(2.11E-14 - 9.24E-06)
29	5.12E-05	(4.08E-08 - 1.66E-03)	5.12E-05	(5.33E-08 - 1.66E-03)
30	2.50E-02	(1.40E-03 - 9.71E-02)	2.50E-02	(1.45E-03 - 9.72E-02)
31	2.50E-01	(1.64E-01 - 4.14E-01)	3.15E-01	(1.87E-01 - 4.59E-01)
32	6.37E-01	(4.69E-01 - 8.57E-01)	9.53E-01	(9.12E-01 - 1.00E+00)
33	4.66E-02	(6.20E-03 - 1.20E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
34	5.27E-04	(1.66E-06 - 8.55E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
35	1.22E-07	(1.31E-12 - 3.45E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 81 FISSION PRODUCT CHAIN

NLCTC = 3.212 NU = 1.025 ZP = 32.024

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	2.41E-06	(2.19E-10 - 2.32E-04)	2.41E-06	(2.19E-10 - 2.32E-04)
30	2.73E-03	(5.12E-05 - 2.93E-02)	3.73E-03	(5.36E-05 - 2.93E-02)
31	1.26E-01	(3.58E-02 - 2.15E-01)	1.30E-01	(3.95E-02 - 2.23E-01)
32	7.23E-01	(5.73E-01 - 8.74E-01)	8.52E-01	(7.54E-01 - 9.46E-01)
33	1.43E-01	(4.48E-02 - 2.31E-01)	9.95E-01	(9.90E-01 - 1.00E+00)
34	4.84E-02	(8.06E-05 - 3.45E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
35	3.62E-06	(4.40E-10 - 3.01E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
36	3.12E-10	(0. - 8.35E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF U-238 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 82 FISSION PRODUCT CHAIN

NLCT = 3.189 NU = 1.047 ZP = 32.418

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	7.25E-08	(5.33E-13 - 2.47E-05)	7.25E-08	(5.33E-13 - 2.47E-05)
30	3.70E-04	(8.92E-07 - 6.89E-03)	3.70E-04	(9.65E-07 - 6.89E-03)
31	3.87E-02	(4.26E-03 - 1.07E-01)	3.90E-02	(4.62E-03 - 1.08E-01)
32	6.10E-01	(4.46E-01 - 8.35E-01)	6.49E-01	(5.21E-01 - 8.65E-01)
33	3.19E-01	(1.95E-01 - 4.52E-01)	9.68E-01	(9.38E-01 - 1.00E+00)
34	3.19E-02	(2.14E-03 - 1.13E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
35	7.71E-05	(8.22E-08 - 2.16E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
36	2.23E-08	(5.55E-14 - 1.35E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 83 FISSION PRODUCT CHAIN

NLCT = 3.203 NU = 1.088 ZP = 32.819

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	1.28E-09	(0. - 1.85E-06)	1.28E-09	(6.62E-24 - 1.85E-06)
30	2.23E-05	(6.68E-09 - 1.18E-03)	2.23E-05	(7.96E-09 - 1.18E-03)
31	7.60E-03	(2.29E-04 - 4.03E-02)	7.63E-03	(2.52E-04 - 4.04E-02)
32	3.54E-01	(1.50E-01 - 5.09E-01)	3.61E-01	(1.97E-01 - 5.20E-01)
33	4.56E-01	(3.77E-01 - 6.21E-01)	8.57E-01	(7.44E-01 - 1.00E+00)
34	1.42E-01	(2.90E-02 - 2.89E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
35	1.10E-03	(7.81E-06 - 1.20E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
36	1.08E-06	(3.72E-11 - 1.69E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 84 FISSION PRODUCT CHAIN

NLCT = 3.506 NU = 1.251 ZP = 33.266

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	4.56E-07	(9.94E-12 - 1.02E-04)	4.96E-07	(9.94E-12 - 1.02E-04)
31	6.54E-04	(3.19E-06 - 8.57E-03)	6.54E-04	(3.69E-06 - 8.57E-03)
32	1.08E-01	(1.78E-02 - 2.44E-01)	1.08E-01	(1.85E-02 - 2.45E-01)
34	4.68E-01	(3.50E-01 - 6.09E-01)	5.77E-01	(4.28E-01 - 7.58E-01)
35	4.12E-01	(2.01E-01 - 5.89E-01)	9.89E-01	(9.78E-01 - 1.00E+00)
36	1.22E-02	(4.56E-04 - 5.11E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	4.22E-05	(2.02E-08 - 1.76E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
37	3.14E-09	(0. - 3.31E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 85 FISSION PRODUCT CHAIN

NLCT = 3.441 NU = 1.273 ZP = 33.660

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	9.94E-09	(1.68E-14 - 7.97E-06)	9.94E-09	(1.68E-14 - 7.97E-06)
31	4.36E-05	(3.11E-08 - 1.49E-03)	4.36E-05	(4.10E-08 - 1.49E-03)
32	2.27E-02	(1.19E-03 - 9.14E-02)	2.27E-02	(1.23E-03 - 9.15E-02)
33	2.80E-01	(1.53E-01 - 3.99E-01)	3.02E-01	(1.74E-01 - 4.40E-01)
34	6.47E-01	(4.77E-01 - 8.64E-01)	9.49E-01	(9.06E-01 - 1.00E+00)
35	5.63E-02	(6.85E-03 - 1.25E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
36	6.02E-04	(2.10E-06 - 9.34E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
37	1.49E-07	(1.84E-12 - 3.91E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 86 FISSION PRODUCT CHAIN

NLCT = 3.366 NU = 1.317 ZP = 34.062

DEVIATION FROM UCD = .45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	1.76E-06	(1.28E-10 - 1.90E-04)	1.76E-06	(1.28E-10 - 1.90E-04)
32	3.05E-03	(3.59E-05 - 2.58E-02)	3.05E-03	(3.77E-05 - 2.58E-02)
33	1.15E-01	(3.00E-02 - 2.03E-01)	1.18E-01	(3.30E-02 - 2.09E-01)
34	7.20E-01	(5.65E-01 - 8.71E-01)	8.38E-01	(7.35E-01 - 9.32E-01)
35	1.56E-01	(5.29E-02 - 2.44E-01)	9.94E-01	(9.88E-01 - 1.00E+00)
36	5.68E-02	(1.13E-04 - 3.85E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	4.62E-06	(7.44E-10 - 3.66E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
38	4.76E-10	(0. - 1.10E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 87 FISSION PRODUCT CHAIN

NLCT = 3.099 NU = 1.300 ZP = 34.440

DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .1C

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	5.66E-06	(4.65E-10 - 1.75E-06)	5.88E-06	(4.65E-10 - 1.79E-06)
32	3.21E-04	(2.72E-05 - 1.81E-03)	3.21E-04	(2.73E-05 - 1.81E-03)
33	3.58E-02	(1.42E-02 - 6.66E-02)	3.61E-02	(1.45E-02 - 6.70E-02)
34	5.56E-01	(4.56E-01 - 7.15E-01)	6.34E-01	(5.71E-01 - 7.12E-01)
35	3.30E-01	(2.71E-01 - 3.98E-01)	9.65E-01	(9.42E-01 - 1.00E+00)
36	3.50E-02	(1.20E-02 - 7.23E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	9.04E-05	(6.01E-06 - 6.05E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
38	2.60E-06	(1.57E-10 - 1.05E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 88 FISSION PRODUCT CHAIN

NLCT = 2.696 NU = 1.165 ZP = 34.781

DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	1.92E-05	(5.60E-12 - 1.19E-07)	1.92E-05	(5.60E-12 - 1.19E-07)
32	2.97E-05	(1.23E-06 - 2.75E-04)	2.97E-05	(1.23E-06 - 2.79E-04)
33	5.07E-02	(2.29E-03 - 2.31E-02)	9.10E-03	(1.32E-03 - 2.31E-02)
34	3.60E-01	(2.75E-01 - 4.65E-01)	3.89E-01	(2.91E-01 - 4.75E-01)
35	4.65E-01	(4.05E-01 - 5.64E-01)	8.73E-01	(8.11E-01 - 9.46E-01)
36	1.26E-01	(6.32E-02 - 1.96E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
37	8.74E-04	(1.12E-04 - 3.67E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
38	7.65E-07	(1.09E-08 - 1.53E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 89 FISSION PRODUCT CHAIN

NLCT = 2.655 NU = 1.221 ZP = 35.179

DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	1.10E-06	(1.74E-08 - 2.04E-05)	1.10E-06	(1.74E-08 - 2.04E-05)
33	1.11E-02	(1.53E-04 - 4.44E-03)	1.11E-02	(1.54E-04 - 4.45E-03)
34	1.42E-01	(7.47E-02 - 2.15E-01)	1.44E-01	(7.58E-02 - 2.20E-01)
35	4.56E-01	(4.21E-01 - 5.74E-01)	6.40E-01	(5.38E-01 - 7.28E-01)
36	3.52E-01	(2.48E-01 - 4.40E-01)	9.92E-01	(9.87E-01 - 1.00E+00)
37	7.53E-02	(1.85E-03 - 2.00E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
38	2.15E-05	(8.29E-07 - 2.15E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
39	1.25E-05	(3.23E-12 - 8.44E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF U-238 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 90 FISSION PRODUCT CHAIN

NLCT = 2.729 NU = 1.350 ZP = 35.614

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	1.61E-08	(7.74E-11 - 6.98E-07)	1.61E-08	(7.74E-11 - 6.98E-07)
33	6.12E-05	(3.64E-06 - 4.44E-04)	6.13E-05	(3.66E-06 - 4.44E-04)
34	2.78E-02	(8.87E-03 - 6.02E-02)	2.79E-02	(8.93E-03 - 6.03E-02)
35	3.03E-01	(2.42E-01 - 3.65E-01)	3.31E-01	(2.67E-01 - 4.01E-01)
36	6.26E-01	(5.21E-01 - 7.44E-01)	9.56E-01	(9.31E-01 - 9.90E-01)
37	4.31E-02	(1.82E-02 - 7.68E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
38	4.52E-04	(4.25E-05 - 2.36E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
39	9.75E-08	(8.94E-10 - 2.67E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 91 FISSION PRODUCT CHAIN

NLCT = 2.763 NU = 1.423 ZP = 36.027

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	2.36E-06	(5.49E-08 - 3.34E-05)	2.36E-06	(5.49E-08 - 3.34E-05)
34	3.68E-03	(6.55E-04 - 1.22E-02)	3.68E-03	(6.58E-04 - 1.22E-02)
35	1.25E-01	(7.53E-02 - 1.75E-01)	1.29E-01	(7.89E-02 - 1.79E-01)
36	7.22E-01	(6.25E-01 - 8.18E-01)	8.52E-01	(7.98E-01 - 9.03E-01)
37	1.44E-01	(9.02E-02 - 1.94E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
38	4.50E-03	(9.52E-04 - 1.53E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	3.70E-06	(9.80E-08 - 4.77E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
40	3.21E-10	(5.15E-13 - 3.06E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 92 FISSION PRODUCT CHAIN

NLCT = 2.896 NU = 1.524 ZP = 36.451

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	5.30E-08	(4.06E-10 - 1.65E-06)	5.30E-08	(4.06E-10 - 1.65E-06)
34	2.59E-04	(2.48E-05 - 1.71E-03)	2.99E-04	(2.49E-05 - 1.71E-03)
35	3.44E-02	(1.35E-02 - 6.46E-02)	3.47E-02	(1.38E-02 - 6.50E-02)
36	5.92E-01	(4.91E-01 - 7.09E-01)	8.27E-01	(5.64E-01 - 7.06E-01)
37	3.36E-01	(2.77E-01 - 4.04E-01)	9.63E-01	(9.39E-01 - 1.00E+00)
38	3.67E-02	(1.27E-02 - 7.50E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	9.77E-05	(6.65E-06 - 6.44E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
40	3.13E-08	(1.82E-10 - 1.19E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 93 FISSION PRODUCT CHAIN

NLCT = 2.961 NU = 1.595 ZP = 36.863

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	7.86E-10	(1.78E-12 - 5.84E-08)	7.86E-10	(1.78E-12 - 5.84E-08)
34	1.57E-05	(5.40E-07 - 1.69E-04)	1.57E-05	(5.41E-07 - 1.69E-04)
35	6.14E-03	(1.41E-03 - 1.71E-02)	6.16E-03	(1.43E-03 - 1.71E-02)
36	3.23E-01	(2.21E-01 - 4.12E-01)	8.30E-01	(2.27E-01 - 4.19E-01)
37	5.07E-01	(4.32E-01 - 5.82E-01)	8.36E-01	(7.62E-01 - 9.16E-01)
38	1.62E-01	(8.85E-02 - 2.42E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
39	1.43E-03	(2.12E-04 - 5.42E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
40	1.61E-06	(2.84E-08 - 2.76E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 94 FISSION PRODUCT CHAIN

NLCT = 3.071 NU = 1.655 ZP = 37.286

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	4.11E-07	(4.93E-09 - 9.31E-06)	4.11E-07	(4.93E-09 - 9.31E-06)
35	5.76E-04	(6.54E-05 - 2.64E-03)	5.76E-04	(6.58E-05 - 2.64E-03)
36	1.01E-01	(4.72E-02 - 1.66E-01)	1.01E-01	(4.78E-02 - 1.67E-01)
37	4.61E-01	(3.86E-01 - 5.41E-01)	5.62E-01	(4.70E-01 - 6.51E-01)
38	4.26E-01	(3.21E-01 - 5.14E-01)	9.88E-01	(9.79E-01 - 1.00E+00)
39	1.22E-02	(3.40E-03 - 2.91E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	4.85E-05	(2.35E-06 - 4.13E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
41	3.87E-05	(1.39E-11 - 2.07E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 95 FISSION PRODUCT CHAIN

NLCT = 3.137 NU = 1.759 ZP = 37.696

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	6.75E-05	(2.55E-11 - 3.48E-07)	6.75E-05	(2.55E-11 - 3.48E-07)
35	3.31E-05	(1.65E-06 - 2.72E-04)	3.31E-05	(1.66E-06 - 2.72E-04)
36	1.52E-02	(5.48E-03 - 4.50E-02)	1.92E-02	(5.51E-03 - 4.50E-02)
37	2.62E-01	(1.99E-01 - 3.16E-01)	2.81E-01	(2.17E-01 - 3.41E-01)
38	6.62E-01	(5.54E-01 - 7.75E-01)	9.43E-01	(9.12E-01 - 9.81E-01)
39	5.66E-02	(2.61E-02 - 9.45E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
40	7.53E-04	(8.28E-05 - 3.53E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
41	2.05E-07	(2.35E-09 - 4.85E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 96 FISSION PRODUCT CHAIN

NLCT = 3.131 NU = 1.779 ZP = 38.089

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	1.40E-06	(2.78E-08 - 2.20E-05)	1.40E-06	(2.78E-08 - 2.20E-05)
36	2.62E-03	(4.21E-04 - 9.35E-03)	2.62E-03	(4.23E-04 - 9.39E-03)
37	1.06E-01	(6.06E-02 - 1.54E-01)	1.09E-01	(6.32E-02 - 1.57E-01)
38	7.16E-01	(6.15E-01 - 8.18E-01)	8.27E-01	(7.70E-01 - 8.79E-01)
39	1.67E-01	(1.10E-01 - 2.17E-01)	9.93E-01	(9.88E-01 - 1.00E+00)
40	6.76E-03	(1.45E-03 - 1.96E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	6.15E-06	(1.89E-07 - 7.13E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
42	6.46E-10	(1.26E-12 - 5.35E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 97 FISSION PRODUCT CHAIN

NLCT = 3.105 NU = 1.751 ZP = 38.479

DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	4.06E-08	(2.88E-10 - 1.34E-06)	4.06E-08	(2.88E-10 - 1.34E-06)
36	2.45E-04	(1.96E-05 - 1.48E-03)	2.49E-04	(1.96E-05 - 1.48E-03)
37	3.12E-02	(1.18E-02 - 5.95E-02)	3.14E-02	(1.20E-02 - 5.92E-02)
38	5.77E-01	(4.78E-01 - 6.92E-01)	6.08E-01	(5.42E-01 - 6.50E-01)
39	3.56E-01	(2.50E-01 - 4.21E-01)	9.59E-01	(9.32E-01 - 1.00E+00)
40	4.12E-02	(1.48E-02 - 8.21E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	1.15E-04	(8.57E-06 - 7.53E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
42	4.15E-08	(2.61E-10 - 1.45E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF U-235 ALIOT METHCC
ESTIMATED FRACTIONAL YIELDS
COD-EVEN 2 CORRECTION FACTOR = 1.25 +/- .1C

MASS 98 FISSION PRODUCT CHAIN
NUCT = 3.142 NU = 1.831 ZP = 38.879
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	6.64E-10	(1.44E-12 - 5.10E-08)	6.64E-10	(1.44E-12 - 5.10E-08)
36	1.39E-05	(4.61E-07 - 1.53E-04)	1.39E-05	(4.62E-07 - 1.53E-04)
37	5.70E-03	(1.28E-03 - 1.61E-02)	5.71E-03	(1.30E-03 - 1.61E-02)
38	3.13E-01	(2.11E-01 - 4.02E-01)	3.19E-01	(2.17E-01 - 4.08E-01)
39	5.10E-01	(4.35E-01 - 5.84E-01)	5.28E-01	(4.52E-01 - 6.04E-01)
40	1.70E-01	(9.39E-02 - 2.51E-01)	9.98E-02	(4.97E-02 - 1.00E+00)
41	1.56E-03	(2.38E-04 - 5.82E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
42	1.84E-06	(3.39E-08 - 3.08E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 99 FISSION PRODUCT CHAIN
NUCT = 3.171 NU = 1.871 ZP = 39.279
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	4.41E-07	(5.39E-09 - 9.84E-06)	4.41E-07	(5.39E-09 - 9.84E-06)
37	6.04E-04	(6.95E-05 - 2.74E-03)	6.04E-04	(6.99E-05 - 2.74E-03)
38	1.03E-01	(4.88E-02 - 1.70E-01)	1.04E-01	(4.94E-02 - 1.70E-01)
39	4.64E-01	(3.89E-01 - 5.44E-01)	5.67E-01	(4.75E-01 - 6.56E-01)
40	4.21E-01	(3.16E-01 - 5.08E-01)	9.88E-01	(9.80E-01 - 1.00E+00)
41	1.18E-02	(3.26E-03 - 2.84E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	4.63E-05	(2.19E-06 - 3.95E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
43	3.58E-09	(1.26E-11 - 1.95E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 100 FISSION PRODUCT CHAIN
NUCT = 3.128 NU = 1.874 ZP = 39.665
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	9.39E-09	(3.89E-11 - 4.54E-07)	9.39E-09	(3.89E-11 - 4.54E-07)
37	4.19E-05	(2.23E-06 - 3.28E-04)	4.19E-05	(2.24E-06 - 3.28E-04)
38	2.21E-02	(6.59E-03 - 5.03E-02)	2.22E-02	(6.63E-03 - 5.03E-02)
39	2.77E-01	(2.15E-01 - 3.34E-01)	2.99E-01	(2.35E-01 - 3.63E-01)
40	6.49E-01	(5.42E-01 - 7.67E-01)	9.48E-01	(9.20E-01 - 9.85E-01)
41	5.12E-02	(2.28E-02 - 8.79E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
42	6.22E-04	(6.46E-05 - 3.04E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	1.57E-07	(1.66E-09 - 3.90E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 101 FISSION PRODUCT CHAIN
NUCT = 3.064 NU = 1.922 ZP = 40.068
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	1.66E-06	(3.49E-08 - 2.53E-05)	1.66E-06	(3.49E-08 - 2.53E-05)
38	2.54E-03	(4.88E-04 - 1.03E-02)	2.94E-03	(4.90E-04 - 1.03E-02)
39	1.12E-01	(6.52E-02 - 1.61E-01)	1.15E-01	(6.81E-02 - 1.64E-01)
40	7.20E-01	(6.19E-01 - 8.17E-01)	8.35E-01	(7.79E-01 - 8.87E-01)
41	1.59E-01	(1.03E-01 - 2.09E-01)	9.94E-01	(9.89E-01 - 1.00E+00)
42	6.09E-03	(1.26E-03 - 1.82E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	5.20E-06	(1.52E-07 - 6.25E-05)	1.00E+00	(1.00E+00 - 1.00E+00)
44	5.13E-10	(9.42E-13 - 4.45E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 102 FISSION PRODUCT CHAIN
NUCT = 2.944 NU = 1.832 ZP = 40.419
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	7.16E-06	(6.02E-10 - 2.10E-06)	7.18E-06	(6.02E-10 - 2.10E-06)
38	3.61E-04	(3.25E-05 - 2.01E-03)	3.68E-04	(3.25E-05 - 2.01E-03)
39	3.86E-02	(1.56E-02 - 7.05E-02)	3.89E-02	(1.60E-02 - 7.09E-02)
40	6.05E-01	(5.06E-01 - 7.27E-01)	6.48E-01	(5.85E-01 - 7.23E-01)
41	3.20E-01	(2.55E-01 - 3.85E-01)	9.68E-01	(9.47E-01 - 1.00E+00)
42	3.20E-02	(1.07E-02 - 6.73E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	7.76E-05	(4.94E-06 - 5.36E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.25E-06	(1.19E-10 - 9.13E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 103 FISSION PRODUCT CHAIN
NUCT = 2.811 NU = 1.902 ZP = 40.831
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	1.12E-05	(2.81E-12 - 7.74E-08)	1.12E-05	(2.81E-12 - 7.74E-08)
38	2.02E-05	(7.49E-07 - 2.06E-04)	2.03E-05	(7.50E-07 - 2.06E-04)
39	7.16E-03	(1.73E-03 - 1.93E-02)	7.20E-03	(1.75E-03 - 1.93E-02)
40	3.45E-01	(2.41E-01 - 4.32E-01)	3.53E-01	(2.50E-01 - 4.41E-01)
41	4.55E-01	(4.24E-01 - 5.76E-01)	4.52E-01	(4.24E-01 - 5.72E-01)
42	1.41E-01	(7.78E-02 - 2.25E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
43	1.16E-03	(1.65E-04 - 4.66E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	1.20E-06	(1.56E-08 - 2.15E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 104 FISSION PRODUCT CHAIN
NUCT = 2.663 NU = 1.942 ZP = 41.231
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	6.86E-07	(9.54E-09 - 1.40E-05)	6.88E-07	(9.54E-09 - 1.40E-05)
39	8.14E-04	(1.02E-04 - 3.41E-03)	8.15E-04	(1.03E-04 - 3.47E-03)
40	1.21E-01	(6.02E-02 - 1.93E-01)	1.22E-01	(6.10E-02 - 1.93E-01)
41	4.81E-01	(4.05E-01 - 5.66E-01)	4.03E-01	(3.06E-01 - 4.89E-01)
42	3.88E-01	(2.83E-01 - 4.73E-01)	9.90E-01	(9.83E-01 - 1.00E+00)
43	5.56E-03	(2.46E-03 - 2.41E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	3.24E-05	(1.38E-06 - 2.95E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
45	2.17E-05	(6.56E-12 - 1.31E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 105 FISSION PRODUCT CHAIN
NUCT = 2.396 NU = 1.850 ZP = 41.596
DEVIATION FROM UCD = .45 +/- .1C SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	1.52E-06	(9.81E-11 - 8.09E-07)	1.93E-06	(9.81E-11 - 8.09E-07)
39	8.58E-05	(4.31E-06 - 4.92E-04)	6.98E-05	(4.33E-06 - 4.52E-04)
40	3.00E-02	(9.81E-03 - 6.46E-02)	3.01E-02	(9.88E-03 - 6.41E-02)
41	3.12E-01	(2.51E-01 - 3.76E-01)	3.42E-01	(2.78E-01 - 4.15E-01)
42	6.17E-01	(5.13E-01 - 7.35E-01)	9.59E-01	(9.35E-01 - 9.52E-01)
43	4.00E-02	(1.67E-02 - 7.33E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	4.04E-04	(3.67E-05 - 2.16E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	8.25E-06	(7.20E-10 - 2.34E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF U-238 NUTCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 106 FISSION PRODUCT CHAIN
NUTCT = 2.113 NU = 1.770 ZP = 41.935
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
38	4.95E-10	(8.97E-13 - 4.32E-08)	4.95E-10	(8.97E-13 - 4.32E-08)
39	5.07E-06	(1.47E-07 - 6.12E-05)	5.07E-06	(1.47E-07 - 6.12E-05)
40	5.99E-03	(1.23E-03 - 1.80E-02)	5.99E-03	(1.24E-03 - 1.80E-02)
41	1.57E-01	(1.02E-01 - 2.08E-01)	1.63E-01	(1.08E-01 - 2.16E-01)
42	7.20E-01	(6.19E-01 - 8.17E-01)	8.84E-01	(8.36E-01 - 9.32E-01)
43	1.13E-01	(6.59E-02 - 1.62E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
44	2.59E-03	(5.00E-04 - 1.04E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.71E-06	(3.61E-08 - 2.58E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 107 FISSION PRODUCT CHAIN
NUTCT = 1.928 NU = 1.634 ZP = 42.267
DEVIATION FROM UCD = .45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
39	2.50E-07	(3.66E-09 - 6.34E-06)	2.90E-07	(3.66E-09 - 6.34E-06)
40	9.37E-04	(1.10E-04 - 4.19E-03)	9.38E-04	(1.10E-04 - 4.19E-03)
41	6.34E-02	(3.04E-02 - 1.04E-01)	6.44E-02	(3.13E-02 - 1.05E-01)
42	6.75E-01	(5.67E-01 - 7.91E-01)	7.40E-01	(6.77E-01 - 7.96E-01)
43	2.44E-01	(1.82E-01 - 2.95E-01)	9.84E-01	(9.72E-01 - 1.00E+00)
44	1.62E-02	(4.40E-03 - 3.94E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	2.51E-05	(1.16E-06 - 2.18E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
46	4.58E-09	(1.55E-11 - 2.56E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 108 FISSION PRODUCT CHAIN
NUTCT = 1.815 NU = 1.629 ZP = 42.200
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
39	5.30E-07	(1.62E-11 - 8.78E-05)	5.30E-07	(1.62E-11 - 8.78E-05)
40	1.39E-03	(9.13E-06 - 1.58E-02)	1.39E-03	(9.66E-06 - 1.58E-02)
41	7.77E-02	(1.52E-02 - 1.62E-01)	7.91E-02	(1.65E-02 - 1.64E-01)
42	6.56E-01	(5.27E-01 - 8.80E-01)	7.75E-01	(6.55E-01 - 8.78E-01)
43	2.13E-01	(9.32E-02 - 3.04E-01)	9.88E-01	(9.77E-01 - 1.00E+00)
44	1.18E-02	(3.80E-04 - 6.04E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.49E-05	(4.98E-09 - 7.49E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
46	2.21E-09	(0. - 3.00E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 109 FISSION PRODUCT CHAIN
NUTCT = 2.042 NU = 1.811 ZP = 42.655
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
39	7.04E-09	(1.14E-14 - 5.56E-06)	7.04E-09	(1.14E-14 - 5.56E-06)
40	7.44E-05	(5.42E-08 - 2.52E-03)	7.44E-05	(6.12E-08 - 2.52E-03)
41	1.56E-02	(8.30E-04 - 6.26E-02)	1.57E-02	(9.04E-04 - 6.28E-02)
42	4.66E-01	(2.56E-01 - 6.65E-01)	4.81E-01	(3.47E-01 - 6.74E-01)
43	4.36E-01	(3.22E-01 - 5.84E-01)	9.18E-01	(8.47E-01 - 1.00E+00)
44	8.19E-02	(1.10E-02 - 2.05E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
45	3.56E-04	(1.35E-06 - 6.22E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
46	2.37E-07	(2.84E-12 - 6.31E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 110 FISSION PRODUCT CHAIN
NUTCT = 1.517 NU = 1.655 ZP = 42.996
DEVIATION FROM UCD = C.C0 +/- .2C SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
39	1.75E-10	(0. - 5.21E-07)	1.79E-10	(0. - 5.21E-07)
40	5.40E-06	(5.82E-10 - 4.76E-04)	5.40E-06	(7.61E-10 - 4.76E-04)
41	3.14E-03	(4.82E-05 - 2.32E-02)	3.14E-03	(5.36E-05 - 2.32E-02)
42	2.35E-01	(7.20E-02 - 3.95E-01)	2.42E-01	(7.51E-02 - 4.00E-01)
43	5.21E-01	(4.16E-01 - 6.31E-01)	7.63E-01	(5.99E-01 - 9.21E-01)
44	2.34E-01	(6.92E-02 - 3.90E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
45	2.55E-03	(4.45E-05 - 2.26E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	5.02E-06	(5.15E-10 - 4.55E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 111 FISSION PRODUCT CHAIN
NUTCT = 2.025 NU = 1.628 ZP = 43.355
DEVIATION FROM UCD = C.C0 +/- .2C SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
40	2.15E-07	(2.41E-12 - 5.91E-05)	2.15E-07	(2.41E-12 - 5.91E-05)
41	3.71E-04	(1.21E-06 - 5.95E-03)	3.71E-04	(1.42E-06 - 5.95E-03)
42	7.69E-02	(1.03E-02 - 2.01E-01)	7.92E-02	(1.07E-02 - 2.01E-01)
43	4.32E-01	(3.18E-01 - 5.80E-01)	5.11E-01	(3.78E-01 - 7.03E-01)
44	4.72E-01	(2.64E-01 - 6.74E-01)	9.84E-01	(9.68E-01 - 1.00E+00)
45	1.63E-02	(8.66E-04 - 6.43E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	8.00E-05	(6.16E-08 - 2.64E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
47	7.82E-09	(1.42E-14 - 5.94E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 112 FISSION PRODUCT CHAIN
NUTCT = 2.596 NU = 1.906 ZP = 43.847
DEVIATION FROM UCD = C.C0 +/- .2C SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
40	1.32E-05	(0. - 2.14E-06)	1.32E-05	(6.62E-24 - 2.14E-06)
41	1.03E-05	(2.64E-09 - 5.90E-04)	1.03E-05	(3.97E-09 - 5.90E-04)
42	9.36E-03	(2.55E-04 - 5.22E-02)	9.37E-03	(2.65E-04 - 5.22E-02)
43	1.53E-01	(7.76E-02 - 2.81E-01)	2.02E-01	(8.66E-02 - 3.00E-01)
44	7.07E-01	(5.41E-01 - 8.75E-01)	9.09E-01	(8.40E-01 - 9.97E-01)
45	8.90E-02	(1.94E-02 - 1.75E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
46	1.82E-03	(1.46E-05 - 1.87E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	7.55E-07	(3.29E-11 - 1.14E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 113 FISSION PRODUCT CHAIN
NUTCT = 3.262 NU = 2.027 ZP = 44.278
DEVIATION FROM UCD = C.C0 +/- .2C SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
41	2.63E-07	(4.88E-12 - 5.62E-05)	2.63E-07	(4.88E-12 - 5.62E-05)
42	8.78E-04	(4.07E-06 - 1.18E-02)	8.78E-04	(4.33E-06 - 1.18E-02)
43	6.13E-02	(5.84E-03 - 1.41E-01)	6.22E-02	(1.07E-02 - 1.43E-01)
44	6.71E-01	(5.00E-01 - 8.77E-01)	7.34E-01	(6.07E-01 - 8.56E-01)
45	2.45E-01	(1.24E-01 - 3.56E-01)	9.83E-01	(9.67E-01 - 1.00E+00)
46	1.71E-02	(7.24E-04 - 7.64E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	2.73E-05	(1.40E-08 - 1.10E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
48	5.15E-09	(8.35E-15 - 5.15E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF L-238 NLCTC METHCC

ESTIMATED FRACTIONAL YIELDS

CCC-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 114 FISSION PRODUCT CHAIN

NLCTC = 3.536 NU = 2.043 ZP = 44.669

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
41	6.11E-09	(1.58E-15 - 5.08E-06)	6.11E-09	(1.58E-15 - 5.08E-06)
42	6.74E-05	(1.56E-08 - 2.37E-03)	6.74E-05	(1.57E-08 - 2.37E-03)
43	1.48E-02	(7.48E-04 - 6.05E-02)	1.48E-02	(1.15E-04 - 6.06E-02)
44	4.56E-01	(2.46E-01 - 6.52E-01)	4.71E-01	(3.34E-01 - 6.64E-01)
45	4.42E-01	(3.27E-01 - 5.89E-01)	9.14E-01	(1.83E-01 - 1.86E+00)
46	8.61E-02	(1.20E-02 - 2.12E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
47	4.34E-04	(1.58E-06 - 6.59E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
48	2.71E-07	(3.56E-12 - 6.87E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 115 FISSION PRODUCT CHAIN

NLCTC = 3.758 NU = 2.061 ZP = 45.061

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
42	3.11E-06	(2.26E-10 - 3.34E-04)	3.11E-06	(2.26E-10 - 3.34E-04)
43	2.20E-03	(2.60E-05 - 1.86E-02)	2.20E-03	(2.91E-05 - 1.86E-02)
44	2.01E-01	(5.28E-02 - 3.56E-01)	2.04E-01	(1.50E-02 - 3.59E-01)
45	5.18E-01	(4.07E-01 - 6.26E-01)	7.22E-01	(5.41E-01 - 8.78E-01)
46	2.74E-01	(9.26E-02 - 4.28E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
47	4.22E-03	(8.10E-05 - 2.80E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	8.61E-06	(1.30E-09 - 6.42E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
49	3.40E-10	(0. - 7.90E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 116 FISSION PRODUCT CHAIN

NLCTC = 3.944 NU = 2.076 ZP = 45.452

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
42	8.35E-08	(4.85E-13 - 3.19E-05)	8.35E-08	(4.85E-13 - 3.19E-05)
43	1.94E-04	(3.56E-07 - 3.91E-03)	1.94E-04	(4.80E-07 - 3.91E-03)
44	5.46E-02	(5.45E-03 - 1.59E-01)	5.48E-02	(5.64E-03 - 1.60E-01)
45	3.86E-01	(2.77E-01 - 5.33E-01)	4.40E-01	(3.21E-01 - 6.21E-01)
46	5.35E-01	(3.42E-01 - 7.55E-01)	9.76E-01	(9.54E-01 - 1.00E+00)
47	2.40E-02	(1.79E-03 - 8.10E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	1.57E-04	(1.99E-07 - 4.02E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
49	2.06E-08	(6.16E-14 - 1.10E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 117 FISSION PRODUCT CHAIN

NLCTC = 4.000 NU = 2.021 ZP = 45.815

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
42	1.86E-09	(0. - 2.68E-06)	1.86E-09	(1.32E-23 - 2.68E-06)
43	1.32E-05	(4.03E-09 - 6.91E-04)	1.32E-05	(5.90E-09 - 6.91E-04)
44	1.09E-02	(3.33E-04 - 5.75E-02)	1.09E-02	(3.46E-04 - 5.76E-02)
45	2.06E-01	(8.77E-02 - 2.96E-01)	2.17E-01	(9.82E-02 - 3.18E-01)
46	7.00E-01	(5.32E-01 - 8.79E-01)	9.17E-01	(8.52E-01 - 1.00E+00)
47	8.14E-02	(1.65E-02 - 1.66E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
48	1.53E-03	(1.07E-05 - 1.67E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	6.08E-07	(2.06E-11 - 9.60E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 118 FISSION PRODUCT CHAIN

NLCTC = 3.564 NU = 1.971 ZP = 46.181

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
42	6.25E-07	(2.16E-11 - 9.76E-05)	6.25E-07	(2.16E-11 - 9.76E-05)
44	1.55E-03	(1.10E-05 - 1.65E-02)	1.55E-03	(1.17E-05 - 1.69E-02)
45	8.21E-02	(1.68E-02 - 1.67E-01)	8.37E-02	(1.83E-02 - 1.70E-01)
46	7.01E-01	(5.33E-01 - 8.78E-01)	7.84E-01	(6.66E-01 - 8.86E-01)
47	2.05E-01	(6.67E-02 - 2.95E-01)	9.89E-01	(9.79E-01 - 1.00E+00)
48	1.00E-02	(3.24E-04 - 5.70E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	1.25E-05	(3.27E-09 - 6.81E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.80E-09	(0. - 2.62E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 119 FISSION PRODUCT CHAIN

NLCTC = 3.546 NU = 1.849 ZP = 46.527

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
43	2.54E-08	(8.92E-14 - 1.26E-05)	2.54E-08	(8.92E-14 - 1.26E-05)
44	1.81E-04	(2.55E-07 - 4.40E-03)	1.81E-04	(2.80E-07 - 4.40E-03)
45	2.60E-02	(2.08E-03 - 8.50E-02)	2.62E-02	(2.26E-03 - 8.53E-02)
46	5.48E-01	(3.60E-01 - 7.70E-01)	5.75E-01	(4.54E-01 - 7.52E-01)
47	3.75E-01	(2.63E-01 - 5.21E-01)	9.50E-01	(9.04E-01 - 1.00E+00)
48	5.02E-02	(4.71E-03 - 1.51E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
49	1.67E-04	(3.69E-07 - 3.56E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
50	6.76E-08	(3.44E-13 - 2.76E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 120 FISSION PRODUCT CHAIN

NLCTC = 3.812 NU = 1.722 ZP = 46.855

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
43	8.58E-10	(0. - 1.44E-06)	8.58E-10	(0. - 1.44E-06)
44	1.68E-05	(4.09E-09 - 9.82E-04)	1.68E-05	(4.95E-09 - 9.82E-04)
45	6.25E-03	(1.68E-04 - 3.62E-02)	6.41E-03	(1.85E-04 - 3.62E-02)
46	3.25E-01	(1.30E-01 - 4.82E-01)	3.35E-01	(1.65E-01 - 4.91E-01)
47	5.05E-01	(3.87E-01 - 6.22E-01)	8.40E-01	(7.17E-01 - 9.51E-01)
48	1.55E-01	(3.53E-02 - 3.05E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
49	1.36E-03	(1.14E-05 - 1.37E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.50E-06	(6.50E-11 - 2.06E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 121 FISSION PRODUCT CHAIN

NLCTC = 3.587 NU = 1.515 ZP = 47.160

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
44	1.30E-06	(5.14E-11 - 1.91E-04)	1.30E-06	(5.14E-11 - 1.91E-04)
45	1.25E-03	(5.70E-06 - 1.25E-02)	1.25E-03	(1.10E-05 - 1.29E-02)
46	1.51E-01	(3.25E-02 - 3.00E-01)	1.53E-01	(3.37E-02 - 3.02E-01)
47	5.01E-01	(3.83E-01 - 6.22E-01)	6.54E-01	(4.86E-01 - 8.11E-01)
48	3.35E-01	(1.30E-01 - 4.93E-01)	9.93E-01	(9.86E-01 - 1.00E+00)
49	6.88E-03	(1.92E-04 - 3.75E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.85E-05	(5.04E-09 - 1.06E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
51	1.02E-09	(0. - 1.60E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF U-238 NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 122 FISSION PRODUCT CHAIN

NLCT = 3.460 NU = 1.310 ZP = 47.467
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
44	7.21E-08	(3.79E-13 - 2.90E-05)	7.21E-08	(3.79E-13 - 2.90E-05)
45	1.75E-04	(3.33E-07 - 3.67E-03)	1.75E-04	(4.05E-07 - 3.67E-03)
46	5.15E-02	(4.92E-03 - 1.54E-01)	5.17E-02	(5.10E-03 - 1.54E-01)
47	3.78E-01	(2.67E-01 - 5.24E-01)	4.30E-01	(3.09E-01 - 6.08E-01)
48	5.44E-01	(3.54E-01 - 7.66E-01)	9.74E-01	(9.51E-01 - 1.00E+00)
49	2.54E-02	(1.59E-03 - 8.38E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.73E-04	(2.36E-07 - 4.28E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
51	2.38E-08	(8.09E-14 - 1.21E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 123 FISSION PRODUCT CHAIN

NLCT = 3.174 NU = 1.021 ZP = 47.740
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
44	4.22E-09	(0. - 4.56E-06)	4.22E-09	(2.65E-23 - 4.56E-06)
45	2.37E-05	(1.10E-08 - 1.01E-03)	2.37E-05	(1.52E-08 - 1.01E-03)
46	1.57E-02	(6.23E-04 - 7.23E-02)	1.57E-02	(6.46E-04 - 7.23E-02)
47	2.40E-01	(1.16E-01 - 3.44E-01)	2.56E-01	(1.31E-01 - 3.74E-01)
48	6.78E-01	(5.07E-01 - 8.79E-01)	9.34E-01	(8.80E-01 - 1.00E+00)
49	6.49E-02	(1.09E-02 - 1.46E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
50	5.81E-04	(4.94E-06 - 1.27E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	3.11E-07	(6.51E-12 - 6.26E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 124 FISSION PRODUCT CHAIN

NLCT = 2.772 NU = .737 ZP = 48.016
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
45	2.59E-06	(2.48E-10 - 2.43E-04)	2.59E-06	(2.48E-10 - 2.43E-04)
46	3.90E-03	(5.54E-05 - 3.01E-02)	3.91E-03	(5.80E-05 - 3.01E-02)
47	1.29E-01	(3.73E-02 - 2.18E-01)	1.33E-01	(4.11E-02 - 2.26E-01)
48	7.23E-01	(5.75E-01 - 8.75E-01)	8.56E-01	(7.59E-01 - 9.49E-01)
49	1.40E-01	(4.31E-02 - 2.28E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
50	4.62E-03	(7.45E-05 - 3.35E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	3.38E-06	(3.90E-10 - 2.88E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
52	2.83E-10	(0. - 7.87E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 125 FISSION PRODUCT CHAIN

NLCT = 2.323 NU = .459 ZP = 48.294
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
45	2.29E-07	(3.84E-12 - 5.14E-05)	2.29E-07	(3.84E-12 - 5.14E-05)
46	8.00E-04	(3.45E-06 - 1.12E-02)	8.00E-04	(3.68E-06 - 1.12E-02)
47	5.84E-02	(9.01E-03 - 1.37E-01)	5.92E-02	(9.80E-03 - 1.38E-01)
48	5.66E-01	(4.55E-01 - 8.74E-01)	7.25E-01	(5.98E-01 - 8.51E-01)
49	2.57E-01	(1.31E-01 - 3.67E-01)	9.82E-01	(9.64E-01 - 1.00E+00)
50	1.83E-02	(8.20E-04 - 7.99E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	3.07E-05	(1.71E-08 - 1.19E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	6.07E-09	(8.36E-15 - 5.78E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 126 FISSION PRODUCT CHAIN

NLCT = 2.023 NU = .304 ZP = 48.619
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
45	1.02E-08	(1.98E-14 - 1.03E-06)	1.02E-08	(1.98E-14 - 1.03E-06)
46	5.61E-05	(8.47E-08 - 2.96E-03)	9.61E-05	(9.48E-08 - 2.56E-03)
47	1.82E-02	(1.08E-03 - 6.85E-02)	1.83E-02	(1.18E-03 - 6.87E-02)
48	4.50E-01	(2.84E-01 - 6.97E-01)	5.08E-01	(3.80E-01 - 6.97E-01)
49	4.22E-01	(3.08E-01 - 5.65E-01)	9.28E-01	(8.65E-01 - 1.00E+00)
50	7.16E-02	(8.74E-03 - 1.85E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
51	3.12E-04	(8.59E-07 - 5.33E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	1.67E-07	(1.58E-12 - 5.02E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 127 FISSION PRODUCT CHAIN

NLCT = 1.519 NU = .222 ZP = 48.972
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
45	2.33E-10	(0. - 6.18E-07)	2.33E-10	(1.65E-24 - 6.18E-07)
46	6.54E-06	(8.10E-10 - 5.38E-04)	6.54E-06	(1.04E-09 - 5.38E-04)
47	3.54E-03	(5.58E-05 - 2.51E-02)	3.55E-03	(6.63E-05 - 2.51E-02)
48	2.53E-01	(8.00E-02 - 4.05E-01)	2.57E-01	(8.35E-02 - 4.14E-01)
49	5.21E-01	(4.13E-01 - 6.30E-01)	7.77E-01	(6.19E-01 - 9.35E-01)
50	2.20E-01	(6.21E-02 - 3.77E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
51	2.64E-03	(3.58E-05 - 2.05E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	4.13E-06	(3.68E-10 - 4.01E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 128 FISSION PRODUCT CHAIN

NLCT = 2.046 NU = .210 ZP = 49.353
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
46	2.15E-07	(2.49E-12 - 5.95E-05)	2.19E-07	(2.49E-12 - 5.95E-05)
47	3.76E-04	(1.24E-06 - 6.01E-03)	3.76E-04	(1.45E-06 - 6.01E-03)
48	7.55E-02	(1.05E-02 - 2.02E-01)	7.99E-02	(1.09E-02 - 2.02E-01)
49	7.23E-01	(3.19E-01 - 5.81E-01)	9.13E-01	(3.79E-01 - 7.05E-01)
50	4.71E-01	(2.63E-01 - 6.72E-01)	9.84E-01	(9.68E-01 - 1.00E+00)
51	1.62E-02	(8.82E-04 - 6.35E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	7.88E-05	(6.00E-08 - 2.61E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	7.65E-09	(1.14E-14 - 5.86E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 129 FISSION PRODUCT CHAIN

NLCT = 1.866 NU = .191 ZP = 49.731
DEVIATION FROM UCD = 0.00 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
46	4.68E-05	(0. - 4.88E-06)	4.68E-05	(2.65E-23 - 4.88E-06)
47	2.55E-05	(1.24E-08 - 1.06E-03)	2.55E-05	(1.71E-08 - 1.06E-03)
48	1.64E-02	(6.74E-04 - 7.44E-02)	1.64E-02	(6.99E-04 - 7.44E-02)
49	2.45E-01	(1.20E-01 - 3.50E-01)	2.61E-01	(1.36E-01 - 3.82E-01)
50	6.75E-01	(5.03E-01 - 8.78E-01)	9.36E-01	(8.83E-01 - 1.00E+00)
51	6.30E-02	(1.04E-02 - 1.43E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
52	5.26E-04	(4.46E-06 - 1.22E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	2.85E-07	(5.60E-12 - 5.92E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF L-238 NLTC METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.2E +/- .1C

MASS 130 FISSION PRODUCT CHAIN

NLTC = 1.908 NU = .291 ZP = 49.704

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	6.24E-09	(2.30E-11 - 3.27E-07)	6.24E-09	(2.30E-11 - 3.27E-07)
47	3.13E-05	(1.54E-06 - 2.60E-04)	3.13E-05	(1.54E-06 - 2.60E-04)
48	1.86E-02	(5.24E-03 - 4.38E-02)	1.86E-02	(5.27E-03 - 4.38E-02)
49	2.58E-01	(1.96E-01 - 3.11E-01)	2.77E-01	(2.13E-01 - 3.36E-01)
50	6.65E-01	(5.57E-01 - 7.82E-01)	9.41E-01	(9.10E-01 - 9.80E-01)
51	5.79E-02	(2.69E-02 - 9.66E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
52	7.88E-04	(8.78E-05 - 3.65E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	2.24E-07	(2.61E-09 - 5.16E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 131 FISSION PRODUCT CHAIN

NLTC = 2.140 NU = .452 ZP = 50.151

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	8.18E-07	(1.40E-08 - 1.44E-05)	8.18E-07	(1.40E-08 - 1.44E-05)
48	1.85E-03	(2.68E-04 - 7.15E-03)	1.85E-03	(2.69E-04 - 7.15E-03)
49	8.57E-02	(4.82E-02 - 1.35E-01)	9.16E-02	(5.01E-02 - 1.37E-01)
50	7.08E-01	(6.02E-01 - 8.15E-01)	7.99E-01	(7.39E-01 - 8.52E-01)
51	1.92E-01	(1.32E-01 - 2.42E-01)	9.91E-01	(9.84E-01 - 1.00E+00)
52	5.24E-03	(1.27E-03 - 2.53E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	1.01E-05	(3.58E-07 - 1.06E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.28E-09	(3.04E-12 - 9.26E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 132 FISSION PRODUCT CHAIN

NLTC = 2.578 NU = .698 ZP = 50.630

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	9.08E-09	(4.17E-11 - 4.08E-07)	9.08E-09	(4.17E-11 - 4.08E-07)
48	8.88E-05	(5.10E-06 - 6.60E-04)	8.88E-05	(5.11E-06 - 6.60E-04)
49	1.73E-02	(5.41E-03 - 3.82E-02)	1.74E-02	(5.50E-03 - 3.83E-02)
50	4.82E-01	(3.82E-01 - 5.82E-01)	5.00E-01	(4.17E-01 - 5.97E-01)
51	4.25E-01	(3.54E-01 - 5.05E-01)	9.25E-01	(8.82E-01 - 9.82E-01)
52	7.47E-02	(3.21E-02 - 1.31E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
53	3.36E-04	(3.27E-05 - 1.72E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.86E-07	(1.79E-09 - 4.95E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 133 FISSION PRODUCT CHAIN

NLTC = 2.781 NU = .899 ZP = 51.093

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	2.36E-06	(4.67E-08 - 3.75E-05)	2.36E-06	(4.67E-08 - 3.75E-05)
49	1.84E-03	(2.94E-04 - 6.62E-03)	1.84E-03	(2.96E-04 - 6.62E-03)
50	1.84E-01	(1.05E-01 - 2.68E-01)	1.86E-01	(1.06E-01 - 2.70E-01)
51	5.14E-01	(4.41E-01 - 5.87E-01)	7.01E-01	(6.01E-01 - 7.90E-01)
52	2.54E-01	(1.95E-01 - 3.83E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
53	4.95E-03	(1.07E-03 - 1.44E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.11E-05	(3.44E-07 - 1.28E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
55	4.84E-10	(5.59E-13 - 3.97E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 134 FISSION PRODUCT CHAIN

NLTC = 2.934 NU = 1.108 ZP = 51.558

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	2.85E-08	(1.61E-10 - 1.10E-06)	2.85E-08	(1.61E-10 - 1.10E-06)
49	9.16E-05	(6.12E-06 - 6.12E-04)	9.17E-05	(6.15E-06 - 6.12E-04)
50	3.52E-02	(1.21E-02 - 7.26E-02)	3.54E-02	(1.22E-02 - 7.29E-02)
51	3.31E-01	(2.72E-01 - 3.95E-01)	3.67E-01	(3.03E-01 - 4.44E-01)
52	5.57E-01	(4.95E-01 - 7.14E-01)	9.64E-01	(9.43E-01 - 9.55E-01)
53	3.56E-02	(1.41E-02 - 6.62E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
54	3.17E-04	(2.68E-05 - 1.75E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
55	5.77E-08	(4.54E-10 - 1.77E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 135 FISSION PRODUCT CHAIN

NLTC = 3.070 NU = 1.230 ZP = 51.990

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	2.64E-10	(4.01E-13 - 2.62E-08)	2.64E-10	(4.01E-13 - 2.62E-08)
49	3.21E-06	(8.16E-08 - 4.26E-05)	3.21E-06	(8.18E-08 - 4.26E-05)
50	4.48E-03	(8.46E-04 - 1.43E-02)	4.48E-03	(8.50E-04 - 1.43E-02)
51	1.26E-01	(8.52E-02 - 1.88E-01)	1.42E-01	(8.96E-02 - 1.93E-01)
52	7.23E-01	(6.27E-01 - 8.15E-01)	8.65E-01	(8.14E-01 - 9.15E-01)
53	1.31E-01	(7.58E-02 - 1.81E-01)	9.96E-01	(9.93E-01 - 1.00E+00)
54	4.02E-03	(7.39E-04 - 1.32E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
55	2.73E-06	(6.60E-08 - 3.74E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 136 FISSION PRODUCT CHAIN

NLTC = 3.131 NU = 1.284 ZP = 52.396

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	8.93E-08	(7.98E-10 - 2.49E-06)	8.93E-08	(7.98E-10 - 2.49E-06)
50	4.26E-04	(3.93E-05 - 2.26E-03)	4.26E-04	(3.94E-05 - 2.26E-03)
51	4.18E-02	(1.74E-02 - 7.45E-02)	4.22E-02	(1.78E-02 - 7.54E-02)
52	6.21E-01	(5.16E-01 - 7.35E-01)	6.63E-01	(5.99E-01 - 7.35E-01)
53	3.08E-01	(2.47E-01 - 3.71E-01)	9.71E-01	(9.51E-01 - 1.00E+00)
54	2.50E-02	(3.35E-03 - 6.22E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
55	6.56E-05	(3.58E-06 - 4.65E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.77E-08	(8.77E-11 - 7.54E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 137 FISSION PRODUCT CHAIN

NLTC = 3.178 NU = 1.326 ZP = 52.797

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.61E-05	(4.48E-12 - 1.03E-07)	1.61E-05	(4.48E-12 - 1.03E-07)
50	2.63E-05	(1.05E-06 - 2.53E-04)	2.63E-05	(1.05E-06 - 2.53E-04)
51	8.41E-03	(2.08E-03 - 2.18E-02)	8.44E-03	(2.10E-03 - 2.18E-02)
52	3.68E-01	(2.64E-01 - 4.55E-01)	3.77E-01	(2.77E-01 - 4.64E-01)
53	4.50E-01	(4.14E-01 - 5.68E-01)	8.67E-01	(8.02E-01 - 9.41E-01)
54	1.33E-01	(6.77E-02 - 2.07E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
55	5.65E-04	(1.27E-04 - 3.97E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
56	8.68E-07	(1.32E-08 - 1.72E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSIION CF 1-238 NLCTY METHCE
ESTIMATE FRACTIONAL YIELCS
ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 138 FISSIION PRCDUCT CHAIN

NLCTY = 3.128 NU = 1.326 ZP = 53.182

DEVIATION FRM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	1.08E-06	(1.70E-08 - 2.01E-05)	1.08E-06	(1.70E-08 - 2.01E-05)
51	1.10E-03	(1.50E-04 - 4.40E-03)	1.10E-03	(1.52E-04 - 4.40E-03)
52	1.42E-01	(7.40E-02 - 2.18E-01)	1.43E-01	(7.51E-02 - 2.19E-01)
53	4.96E-01	(4.20E-01 - 5.73E-01)	6.39E-01	(5.37E-01 - 7.27E-01)
54	3.54E-01	(2.49E-01 - 4.41E-01)	9.92E-01	(9.87E-01 - 1.00E+00)
55	7.61E-03	(1.87E-03 - 2.02E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	2.23E-05	(8.47E-07 - 2.22E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.28E-09	(3.33E-12 - 8.60E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 139 FISSIION PRCDUCT CHAIN

NLCTY = 3.114 NU = 1.344 ZP = 53.574

DEVIATION FRM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	2.43E-08	(1.32E-10 - 9.71E-07)	2.43E-08	(1.32E-10 - 9.71E-07)
51	8.19E-05	(5.30E-06 - 5.59E-04)	8.20E-05	(5.32E-06 - 5.60E-04)
52	3.31E-02	(1.11E-02 - 6.91E-02)	3.31E-02	(1.12E-02 - 6.91E-02)
53	3.23E-01	(2.64E-01 - 3.90E-01)	3.57E-01	(2.93E-01 - 4.32E-01)
54	6.06E-01	(5.03E-01 - 7.23E-01)	9.62E-01	(9.40E-01 - 9.94E-01)
55	3.76E-02	(1.51E-02 - 6.91E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
56	3.50E-04	(3.05E-05 - 1.94E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
57	6.69E-08	(5.49E-10 - 1.98E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 140 FISSIION PRCDUCT CHAIN

NLCTY = 3.128 NU = 1.374 ZP = 53.970

DEVIATION FRM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	3.33E-10	(5.40E-13 - 3.15E-08)	3.33E-10	(5.40E-13 - 3.15E-08)
51	3.80E-06	(1.01E-07 - 4.87E-05)	3.80E-06	(1.02E-07 - 4.87E-05)
52	4.68E-03	(9.73E-04 - 1.55E-02)	4.99E-03	(9.77E-04 - 1.55E-02)
53	1.45E-01	(9.11E-02 - 1.95E-01)	1.50E-01	(9.59E-02 - 2.01E-01)
54	7.22E-01	(6.24E-01 - 8.18E-01)	9.72E-01	(8.22E-01 - 9.22E-01)
55	1.24E-01	(7.45E-02 - 1.74E-01)	9.96E-01	(9.93E-01 - 1.00E+00)
56	3.62E-03	(6.41E-04 - 1.21E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	2.30E-06	(5.30E-08 - 3.27E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 141 FISSIION PRCDUCT CHAIN

NLCTY = 3.139 NU = 1.407 ZP = 54.368

DEVIATION FRM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	1.16E-07	(1.12E-09 - 3.07E-06)	1.16E-07	(1.12E-09 - 3.07E-06)
52	5.08E-04	(4.95E-05 - 2.59E-03)	5.08E-04	(4.96E-05 - 2.59E-03)
53	4.59E-02	(1.97E-02 - 8.05E-02)	4.64E-02	(2.02E-02 - 8.11E-02)
54	6.34E-01	(5.29E-01 - 7.53E-01)	6.81E-01	(6.17E-01 - 7.49E-01)
55	2.53E-01	(2.32E-01 - 3.54E-01)	9.74E-01	(9.57E-01 - 1.00E+00)
56	2.56E-02	(7.97E-03 - 5.65E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	5.34E-05	(3.06E-06 - 3.98E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.33E-08	(6.04E-11 - 5.98E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 142 FISSIION PRCDUCT CHAIN

NLCTY = 3.055 NU = 1.359 ZP = 54.750

DEVIATION FRM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	2.66E-05	(8.55E-12 - 1.54E-07)	2.66E-05	(8.55E-12 - 1.54E-07)
52	3.75E-05	(1.66E-06 - 3.35E-04)	3.75E-05	(1.67E-06 - 3.35E-04)
53	1.04E-02	(2.76E-03 - 2.57E-02)	1.05E-02	(2.80E-03 - 2.58E-02)
54	4.01E-01	(2.96E-01 - 4.87E-01)	4.12E-01	(3.16E-01 - 4.99E-01)
55	4.74E-01	(3.99E-01 - 5.54E-01)	8.86E-01	(8.28E-01 - 9.55E-01)
56	1.14E-01	(5.54E-02 - 1.83E-01)	9.95E-01	(9.99E-01 - 1.00E+00)
57	7.22E-04	(2.75E-05 - 3.16E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	5.75E-07	(7.58E-09 - 1.22E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 143 FISSIION PRCDUCT CHAIN

NLCTY = 2.561 NU = 1.366 ZP = 55.122

DEVIATION FRM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	1.64E-04	(3.37E-08 - 3.07E-05)	1.64E-04	(3.37E-08 - 3.07E-05)
53	1.56E-03	(2.37E-04 - 5.81E-03)	1.56E-03	(2.39E-04 - 5.81E-03)
54	1.70E-01	(5.38E-02 - 2.51E-01)	1.71E-01	(5.53E-02 - 2.53E-01)
55	5.10E-01	(4.35E-01 - 5.84E-01)	6.81E-01	(5.79E-01 - 7.70E-01)
56	3.13E-01	(2.12E-01 - 4.02E-01)	9.94E-01	(9.90E-01 - 1.00E+00)
57	5.71E-03	(1.28E-03 - 1.61E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.40E-05	(4.63E-07 - 1.54E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
59	6.67E-10	(1.44E-12 - 5.12E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 144 FISSIION PRCDUCT CHAIN

NLCTY = 2.506 NU = 1.377 ZP = 55.511

DEVIATION FRM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	4.61E-08	(2.58E-10 - 1.62E-06)	4.61E-08	(2.98E-10 - 1.62E-06)
53	1.26E-04	(5.43E-06 - 7.95E-04)	1.28E-04	(9.47E-06 - 7.95E-04)
54	4.30E-02	(1.56E-02 - 8.50E-02)	4.31E-02	(1.58E-02 - 8.51E-02)
55	3.56E-01	(2.94E-01 - 4.27E-01)	3.99E-01	(3.32E-01 - 4.82E-01)
56	5.11E-01	(4.73E-01 - 6.85E-01)	9.70E-01	(9.51E-01 - 9.58E-01)
57	2.00E-02	(1.12E-02 - 5.82E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	2.32E-04	(1.79E-05 - 1.41E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	3.67E-06	(2.53E-10 - 1.23E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 145 FISSIION PRCDUCT CHAIN

NLCTY = 2.789 NU = 1.353 ZP = 55.887

DEVIATION FRM UCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	8.49E-10	(1.79E-12 - 6.65E-08)	8.49E-10	(1.79E-12 - 6.65E-08)
53	7.46E-06	(2.43E-07 - 8.34E-05)	7.49E-06	(2.44E-07 - 8.34E-05)
54	7.66E-03	(1.70E-03 - 2.18E-02)	7.67E-03	(1.71E-03 - 2.18E-02)
55	1.76E-01	(1.18E-01 - 2.27E-01)	1.84E-01	(1.26E-01 - 2.37E-01)
56	7.14E-01	(6.10E-01 - 8.17E-01)	8.98E-01	(8.54E-01 - 9.45E-01)
57	5.56E-02	(5.54E-02 - 1.46E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
58	2.25E-03	(3.53E-04 - 8.43E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	1.13E-06	(2.12E-08 - 1.86E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF U-235 NLTOT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .10

MASS 146 FISSION PRODUCT CHAIN

NLTCT = 2.723 NU = 1.376 ZP = 56.281

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	2.58E-07	(3.14E-09 - 5.77E-06)	2.58E-07	(3.14E-09 - 5.77E-06)
54	8.66E-04	(9.93E-05 - 3.93E-03)	8.66E-04	(9.95E-05 - 3.94E-03)
55	6.08E-02	(2.88E-02 - 1.00E-01)	6.17E-02	(2.96E-02 - 1.01E-01)
56	6.71E-01	(5.63E-01 - 7.87E-01)	7.32E-01	(6.69E-01 - 7.89E-01)
57	2.50E-01	(1.88E-01 - 3.02E-01)	9.83E-01	(9.70E-01 - 1.00E+00)
58	1.73E-02	(4.77E-03 - 4.14E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	2.78E-05	(1.32E-06 - 2.37E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
60	5.28E-09	(1.86E-11 - 2.86E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 147 FISSION PRODUCT CHAIN

NLTCT = 2.692 NU = 1.454 ZP = 56.655

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	4.67E-09	(1.77E-11 - 2.41E-07)	4.67E-09	(1.77E-11 - 2.41E-07)
54	5.58E-05	(2.75E-06 - 4.58E-04)	5.58E-05	(2.79E-06 - 4.58E-04)
55	1.32E-02	(3.77E-03 - 3.09E-02)	1.33E-02	(3.83E-03 - 3.10E-02)
56	4.38E-01	(3.34E-01 - 5.29E-01)	4.52E-01	(3.62E-01 - 5.44E-01)
57	4.53E-01	(3.80E-01 - 5.34E-01)	9.05E-01	(8.54E-01 - 9.69E-01)
58	9.44E-02	(4.35E-02 - 1.58E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
59	5.13E-04	(5.63E-05 - 2.41E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	3.47E-07	(3.96E-09 - 8.13E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 148 FISSION PRODUCT CHAIN

NLTCT = 2.643 NU = 1.482 ZP = 57.091

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	2.40E-06	(4.76E-08 - 3.80E-05)	2.40E-06	(4.76E-08 - 3.80E-05)
55	1.86E-03	(2.98E-04 - 6.67E-03)	1.86E-03	(3.00E-04 - 6.67E-03)
56	1.85E-01	(1.05E-01 - 2.69E-01)	1.87E-01	(1.07E-01 - 2.71E-01)
57	5.15E-01	(4.41E-01 - 5.87E-01)	7.02E-01	(6.02E-01 - 7.92E-01)
58	2.93E-01	(1.94E-01 - 3.82E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
59	4.50E-03	(1.05E-03 - 1.43E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
60	1.10E-05	(3.38E-07 - 1.27E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
61	4.75E-10	(5.32E-13 - 3.91E-08)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 149 FISSION PRODUCT CHAIN

NLTCT = 3.202 NU = 1.949 ZP = 57.656

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .06

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	1.04E-08	(4.40E-11 - 4.91E-07)	1.04E-08	(4.40E-11 - 4.91E-07)
55	4.49E-05	(2.44E-06 - 3.46E-04)	4.49E-05	(2.44E-06 - 3.46E-04)
56	2.31E-02	(6.95E-03 - 5.20E-02)	2.31E-02	(7.00E-03 - 5.20E-02)
57	2.82E-01	(2.20E-01 - 3.40E-01)	3.05E-01	(2.41E-01 - 3.70E-01)
58	6.45E-01	(5.38E-01 - 7.63E-01)	9.50E-01	(9.22E-01 - 9.86E-01)
59	4.56E-02	(2.19E-02 - 8.58E-02)	9.99E-01	(9.99E-01 - 1.00E+00)
60	5.88E-04	(5.99E-05 - 2.91E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
61	1.44E-07	(1.48E-09 - 3.64E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 150 FISSION PRODUCT CHAIN

NLTCT = 3.327 NU = 2.056 ZP = 58.097

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	1.30E-06	(7.55E-11 - 1.56E-04)	1.30E-06	(7.55E-11 - 1.56E-04)
56	2.50E-03	(2.54E-05 - 2.28E-02)	2.50E-03	(2.67E-05 - 2.28E-02)
57	1.04E-01	(2.58E-02 - 1.92E-01)	1.07E-01	(2.83E-02 - 1.56E-01)
58	7.17E-01	(5.56E-01 - 8.64E-01)	8.23E-01	(7.15E-01 - 9.17E-01)
59	1.70E-01	(6.17E-02 - 2.56E-01)	9.93E-01	(9.86E-01 - 1.00E+00)
60	7.07E-02	(1.56E-04 - 4.37E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
61	6.59E-06	(1.23E-09 - 4.42E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
62	7.11E-10	(C. - 1.43E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 151 FISSION PRODUCT CHAIN

NLTCT = 3.585 NU = 2.308 ZP = 58.564

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	1.76E-08	(4.77E-14 - 1.00E-05)	1.76E-08	(4.77E-14 - 1.00E-05)
56	1.41E-04	(1.65E-07 - 3.76E-03)	1.41E-04	(1.82E-07 - 3.76E-03)
57	2.26E-02	(1.61E-03 - 7.81E-02)	2.27E-02	(1.75E-03 - 7.84E-02)
58	5.25E-01	(3.29E-01 - 7.43E-01)	5.48E-01	(4.30E-01 - 7.31E-01)
59	3.54E-01	(2.87E-01 - 5.41E-01)	9.42E-01	(8.90E-01 - 1.00E+00)
60	5.61E-02	(6.06E-03 - 1.66E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
61	2.16E-04	(4.77E-07 - 4.20E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
62	5.76E-06	(6.36E-13 - 3.54E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 152 FISSION PRODUCT CHAIN

NLTCT = 3.356 NU = 2.216 ZP = 58.914

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	4.51E-10	(C. - 9.46E-07)	4.51E-10	(C. - 9.48E-07)
56	1.06E-05	(1.84E-09 - 7.31E-04)	1.06E-05	(2.30E-09 - 7.31E-04)
57	4.75E-03	(1.02E-04 - 3.03E-02)	4.80E-03	(1.12E-04 - 3.03E-02)
58	2.90E-01	(1.03E-01 - 4.42E-01)	2.95E-01	(1.13E-01 - 4.49E-01)
59	5.15E-01	(4.01E-01 - 6.22E-01)	8.10E-01	(6.69E-01 - 9.65E-01)
60	1.88E-01	(4.65E-02 - 3.42E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
61	1.51E-02	(2.03E-05 - 1.70E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	2.50E-06	(1.56E-10 - 2.90E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 153 FISSION PRODUCT CHAIN

NLTCT = 3.187 NU = 2.141 ZP = 59.270

DEVIATION FROM LCD = -.45 +/- .10 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	4.82E-07	(9.46E-12 - 1.00E-04)	4.82E-07	(9.46E-12 - 1.00E-04)
57	6.41E-04	(3.09E-06 - 8.46E-03)	6.41E-04	(3.57E-06 - 8.47E-03)
58	1.07E-01	(1.75E-02 - 2.42E-01)	1.07E-01	(1.81E-02 - 2.43E-01)
59	4.67E-01	(3.49E-01 - 6.06E-01)	5.74E-01	(4.26E-01 - 7.57E-01)
60	4.14E-01	(2.03E-01 - 5.92E-01)	9.89E-01	(9.78E-01 - 1.00E+00)
61	1.13E-02	(4.67E-04 - 5.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	4.32E-05	(2.11E-08 - 1.75E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
63	3.24E-09	(C. - 3.38E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF L-238 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.25 +/- .1C

MASS 154 FISSION PRODUCT CHAIN

NLCT = 3.196 NU = 2.176 ZP = 59.668

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	NU	FIY	RANGE OF FIY	FCY	RANGE OF FCY	PRDUCT	CHAIN
56	6.11E-09	(1.26E-14 - 7.53E-06)	9.11E-09	(1.26E-14 - 7.53E-06)	57	1.74E-10	(C - 5.11E-C7)	1.74E-10	(8.27E-25 - 5.11E-C7)		
57	4.10E-05	(2.79E-08 - 1.44E-03)	4.10E-05	(3.70E-08 - 1.44E-03)	58	5.28E-06	(5.61E-10 - 4.85E-C4)	5.28E-06	(7.35E-10 - 4.85E-C4)		
58	2.18E-02	(1.11E-01 - 8.93E-02)	2.19E-02	(1.15E-03 - 8.93E-C2)	59	3.59E-C3	(4.71E-C5 - 2.30E-C2)	3.10E-03	(5.42E-05 - 2.30E-C2)		
59	2.75E-01	(1.49E-01 - 3.94E-01)	2.97E-01	(1.69E-01 - 4.33E-C1)	60	2.37E-C1	(7.12E-C2 - 3.94E-C1)	2.40E-01	(7.42E-02 - 3.94E-C1)		
60	6.16E-02	(4.80E-03 - 8.66E-01)	9.48E-01	(9.03E-01 - 1.00E+CC)	61	5.21E-C1	(4.16E-C1 - 6.31E-C1)	7.62E-01	(5.96E-01 - 5.19E-C1)		
61	5.50E-02	(7.20E-03 - 1.27E-01)	9.99E-01	(9.99E-01 - 1.00E+CC)	62	2.35E-C1	(7.00E-C2 - 3.92E-C1)	9.97E-01	(9.94E-01 - 1.00E+CC)		
62	6.33E-04	(2.25E-06 - 9.64E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)	63	3.64E-C3	(4.56E-C5 - 2.28E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)		
63	1.61E-07	(2.10E-12 - 4.11E-05)	1.00E+00	(1.00E+00 - 1.00E+CC)	64	5.13E-C6	(5.34E-10 - 4.61E-C4)	1.00E+00	(1.00E+00 - 1.00E+CC)		

MASS 155 FISSION PRODUCT CHAIN

NLCT = 3.193 NU = 2.176 ZP = 60.053

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	NU	FIY	RANGE OF FIY	FCY	RANGE OF FCY	PRDUCT	CHAIN
57	1.50E-06	(1.45E-10 - 1.99E-04)	1.90E-06	(1.45E-10 - 1.99E-04)	58	3.31E-C7	(4.59E-12 - 7.83E-C5)	3.31E-07	(4.99E-12 - 7.83E-C5)		
58	3.20E-03	(3.91E-05 - 2.66E-02)	3.20E-03	(4.10E-05 - 2.66E-C2)	59	4.57E-C4	(1.59E-C6 - 7.15E-C3)	4.97E-04	(2.32E-06 - 7.15E-C3)		
59	1.17E-01	(3.13E-02 - 2.05E-01)	1.20E-01	(3.44E-02 - 2.12E-C1)	60	5.27E-C2	(1.37E-C2 - 2.22E-C1)	9.32E-02	(1.42E-02 - 2.23E-C1)		
60	7.21E-01	(5.67E-01 - 8.72E-01)	8.41E-01	(7.39E-01 - 9.35E-C1)	61	4.51E-01	(3.35E-C1 - 5.96E-C1)	5.45E-01	(4.04E-01 - 7.39E-C1)		
61	1.53E-01	(5.09E-02 - 2.41E-01)	9.94E-01	(9.89E-01 - 1.00E+CC)	62	4.22E-C1	(3.31E-C1 - 6.32E-C1)	9.86E-01	(9.74E-01 - 1.00E+CC)		
62	5.61E-03	(1.55E-04 - 3.78E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)	63	1.35E-C2	(6.37E-C4 - 5.73E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)		
63	4.58E-06	(6.58E-10 - 3.50E-04)	1.00E+00	(1.00E+00 - 1.00E+CC)	64	5.79E-C5	(3.50E-C8 - 2.15E-C3)	1.00E+00	(1.00E+00 - 1.00E+CC)		
64	4.31E-10	(C - 1.03E-06)	1.00E+00	(1.00E+00 - 1.00E+CC)	65	4.52E-C5	(5.74E-15 - 4.42E-C6)	1.00E+00	(1.00E+00 - 1.00E+CC)		

MASS 156 FISSION PRODUCT CHAIN

NLCT = 2.999 NU = 1.978 ZP = 60.362

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	NU	FIY	RANGE OF FIY	FCY	RANGE OF FCY	PRDUCT	CHAIN
57	1.23E-07	(1.31E-12 - 3.45E-05)	1.23E-07	(1.31E-12 - 3.45E-C5)	58	1.55E-C6	(3.83E-14 - 1.20E-C5)	1.85E-08	(3.83E-14 - 1.20E-C5)		
58	5.27E-04	(1.66E-06 - 8.60E-03)	5.27E-04	(1.79E-06 - 8.60E-C3)	59	6.77E-C5	(6.58E-C8 - 1.95E-C3)	6.77E-05	(8.43E-08 - 1.95E-C3)		
59	4.68E-02	(6.03E-03 - 1.20E-01)	4.74E-02	(6.55E-03 - 1.21E-C1)	60	2.55E-C2	(1.87E-C3 - 1.08E-C1)	2.96E-02	(1.94E-03 - 1.08E-C1)		
60	6.37E-01	(4.69E-01 - 8.57E-01)	6.85E-01	(5.56E-01 - 8.28E-C1)	61	3.10E-C1	(1.85E-C1 - 4.40E-C1)	3.39E-01	(2.11E-01 - 4.40E-C1)		
61	2.50E-01	(1.64E-01 - 4.14E-01)	9.75E-01	(9.51E-01 - 1.00E+CC)	62	6.19E-01	(4.53E-C1 - 8.43E-01)	9.58E-01	(9.22E-01 - 1.00E+CC)		
62	2.49E-02	(1.40E-03 - 9.71E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)	63	4.12E-C2	(4.76E-C3 - 1.11E-C1)	1.00E+00	(1.00E+00 - 1.00E+CC)		
63	5.11E-05	(4.07E-08 - 1.65E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)	64	4.14E-C4	(1.09E-C6 - 7.40E-C3)	1.00E+00	(1.00E+00 - 1.00E+CC)		
64	1.24E-08	(2.11E-14 - 9.22E-06)	1.00E+00	(1.00E+00 - 1.00E+CC)	65	8.58E-C6	(7.11E-13 - 2.75E-C5)	1.00E+00	(1.00E+00 - 1.00E+CC)		

MASS 157 FISSION PRODUCT CHAIN

NLCT = 2.720 NU = 1.764 ZP = 60.664

DEVIATION FROM UCD = -.45 +/- .20 SIGMA = .56 +/- .12

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	NU	FIY	RANGE OF FIY	FCY	RANGE OF FCY	PRDUCT	CHAIN
57	6.43E-09	(8.57E-15 - 5.24E-06)	6.43E-09	(8.57E-15 - 5.24E-C6)	58	4.05E-10	(C - 9.94E-C7)	4.05E-10	(1.65E-24 - 5.94E-C7)		
58	6.58E-05	(4.85E-08 - 2.42E-03)	6.98E-05	(5.50E-08 - 2.42E-03)	59	4.38E-C6	(6.10E-10 - 3.40E-C4)	4.38E-06	(1.02E-09 - 3.40E-C4)		
59	1.51E-C2	(7.76E-04 - 6.12E-02)	1.51E-02	(8.46E-04 - 6.14E-C2)	60	5.46E-C2	(5.95E-C5 - 3.72E-C2)	5.46E-03	(1.04E-04 - 3.72E-C2)		
60	6.60E-01	(2.50E-01 - 6.56E-01)	4.75E-01	(3.38E-01 - 6.68E-C1)	61	1.51E-C1	(4.57E-C2 - 2.35E-C1)	1.56E-01	(5.50E-02 - 2.50E-C1)		
61	4.40E-01	(3.35E-01 - 5.81E-01)	9.15E-01	(8.42E-01 - 1.00E+CC)	62	7.21E-C1	(5.68E-C1 - 8.72E-C1)	8.78E-01	(7.91E-01 - 5.70E-C1)		
62	4.45E-02	(1.77E-02 - 2.10E-01)	1.00E+00	(9.99E-01 - 1.00E+CC)	63	1.15E-C1	(3.21E-C2 - 2.08E-C1)	9.97E-01	(9.93E-01 - 1.00E+CC)		
63	4.20E-C4	(1.49E-06 - 6.45E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)	64	3.55E-C3	(4.11E-C5 - 2.70E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)		
64	2.58E-C7	(3.29E-12 - 6.66E-05)	1.00E+00	(1.00E+00 - 1.00E+CC)	65	1.55E-C6	(1.57E-10 - 2.05E-C4)	1.00E+00	(1.00E+00 - 1.00E+CC)		

FISSION SPECTRUM NEUTRON FISSION CF U-235 ALICE METHOD

ZP VALUES

(1) FROM DEVIATION FROM UCD - SCALE N(1) ACCORDING TO NUBAR. (2) FROM CREVELL DELTA ZP.
(3) FROM NEWMAN DELTA ZP. (4) FROM DEVIATION FROM UCD AND NUBAR.

72	28.42	28.16	28.18	28.30	117	45.86	45.75	45.77	45.82
73	30.06	28.55	28.57	28.94	118	46.23	46.10	46.14	46.18
74	25.15	28.94	28.96	29.14	119	46.56	46.40	46.44	46.53
75	29.57	25.33	29.35	29.54	120	46.90	46.71	46.75	46.86
76	29.96	25.72	29.74	29.90	121	47.22	47.01	47.05	47.16
77	30.35	30.12	30.14	30.28	122	47.52	47.31	47.35	47.47
78	30.76	30.53	30.55	30.74	123	47.81	47.68	47.72	47.84
79	31.15	30.96	30.98	31.22	124	48.08	47.84	47.88	48.02
80	31.58	31.35	31.37	31.64	125	48.37	48.12	48.16	48.25
81	31.97	31.76	31.78	32.02	126	48.70	48.42	48.46	48.57
82	32.38	32.16	32.18	32.42	127	49.03	48.73	48.77	48.87
83	32.78	32.57	32.59	32.82	128	49.35	49.07	49.11	49.25
84	33.15	32.98	33.00	33.27	129	49.77	49.43	49.47	49.57
85	33.55	33.39	33.41	33.66	130	50.12	49.80	49.84	50.00
86	34.01	33.81	33.83	34.06	131	50.57	50.21	50.25	50.40
87	34.43	34.23	34.25	34.44	132	51.02	50.66	50.70	50.84
88	34.86	34.66	34.68	34.78	133	51.45	51.03	51.07	51.19
89	35.26	35.07	35.09	35.18	134	51.89	51.57	51.61	51.73
90	35.66	35.47	35.49	35.61	135	52.35	52.03	52.07	52.19
91	36.06	35.87	35.89	36.03	136	52.75	52.40	52.44	52.56
92	36.46	36.27	36.29	36.45	137	53.15	52.80	52.84	52.96
93	36.86	36.68	36.70	36.86	138	53.55	53.20	53.24	53.36
94	37.26	37.08	37.10	37.29	139	53.95	53.60	53.64	53.76
95	37.66	37.49	37.51	37.70	140	54.35	54.00	54.04	54.16
96	38.05	37.88	37.90	38.09	141	54.75	54.40	54.44	54.56
97	38.44	38.28	38.30	38.48	142	55.15	54.80	54.84	54.96
98	38.82	38.67	38.69	38.88	143	55.55	55.20	55.24	55.36
99	39.21	39.06	39.08	39.28	144	55.95	55.60	55.64	55.76
100	39.57	39.42	39.44	39.67	145	56.35	56.00	56.04	56.16
101	39.93	39.79	39.81	40.07	146	56.75	56.40	56.44	56.56
102	40.30	40.16	40.18	40.42	147	57.15	56.80	56.84	56.96
103	40.67	40.52	40.54	40.83	148	57.55	57.20	57.24	57.36
104	41.04	40.88	40.90	41.23	149	57.95	57.60	57.64	57.76
105	41.46	41.29	41.31	41.60	150	58.35	58.00	58.04	58.16
106	41.90	41.70	41.72	41.93	151	58.75	58.40	58.44	58.56
107	42.34	42.13	42.15	42.27	152	59.15	58.80	58.84	58.96
108	42.66	42.73	42.75	42.20	153	59.55	59.20	59.24	59.36
109	43.08	43.16	43.18	42.66	154	59.95	59.60	59.64	59.76
110	43.43	43.49	43.51	43.00	155	60.35	60.00	60.04	60.16
111	43.77	43.81	43.83	43.35	156	60.75	60.40	60.44	60.56
112	44.05	44.11	44.13	43.85	157	61.15	60.80	60.84	60.96
113	44.42	44.42	44.44	44.28	158	61.55	61.20	61.24	61.36
114	44.76	44.72	44.74	44.67	159	61.95	61.60	61.64	61.76
115	45.12	45.07	45.09	45.06	160	62.35	62.00	62.04	62.16
116	45.49	45.41	45.43	45.45	161	62.75	62.40	62.44	62.56

FISSION SPECTRUM NEUTRON FISSION CF L-238 NLCT METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	UNCERTAINTY MINUS	PROCESS	YIELD	TYPE	PRIMARY REF.	SECONDARY CR COMMENTS	REFERENCE	ESTIMATED VALUE	RANGE	FIT
36KR	89		9.560E-01	5.000E-03	5.000E-03	U238F	FC		72MCL1	K-W72-3		5.524E-01	(9.868E-01 - 1.000E+00)	YES
37RB	89		2.500E-02	1.600E-02	1.600E-02	U238F	FI		72MCL1	K-W72-2		7.534E-03	(1.847E-03 - 1.999E-02)	YES
36KR	91		8.400E-01	2.000E-02	1.000E-02	U238F	FC		72MCL1	K-W72-3		8.515E-01	(7.980E-01 - 9.029E-01)	YES
37RB	91		1.730E-01	6.200E-02	6.200E-02	U238F	FI		72MCL1	K-B73-2		1.426E-01	(9.018E-02 - 1.939E-01)	YES
36KR	92		5.700E-01	5.000E-02	2.000E-02	U238F	FC		72MCL1	K-W72-3		6.222E-01	(5.636E-01 - 7.057E-01)	YES
37RB	92		2.000E-01	8.200E-02	8.200E-02	U238F	FI		72MCL1	K-B73-2		3.360E-01	(2.771E-01 - 4.045E-01)	YES
36KR	93		2.500E-01	4.000E-02	1.000E-02	U238F	FC		72MCL1	K-W72-3		3.255E-01	(2.269E-01 - 4.188E-01)	YES
37RB	93		4.800E-01	1.400E-01	1.400E-01	U238F	FI		72MCL1	K-B73-2		5.066E-01	(4.317E-01 - 5.618E-01)	YES
37RB	94		3.600E-01	1.200E-01	1.200E-01	U238F	FI		72MCL1	K-B73-2		4.607E-01	(3.862E-01 - 5.411E-01)	YES
37RB	95		2.400E-01	7.700E-02	7.700E-02	U238F	FI		72MCL1	K-B73-2		2.615E-01	(1.994E-01 - 3.157E-01)	YES
37RB	97		1.300E-02	4.000E-03	4.000E-03	U238F	FI		72MCL1	K-B73-2		3.116E-02	(1.179E-02 - 5.938E-02)	YES
54XE132M			11.500E-03			U238F	FI		72MCL1	K-F72-2		1.112E-05	(3.441E-07 - 1.281E-04)	YES
54XE133G			L2.500E-04			U238F	FI		7CFCR2	K-F72-2		1.112E-05	(3.441E-07 - 1.281E-04)	YES
54XE133	SUM		L1.800E-03			U238F	FI		7CFCR2	K-F72-2		1.112E-05	(3.441E-07 - 1.281E-04)	YES
54XE135M			L3.500E-03			U238F	FI		7CFCR2	K-F72-2		4.034E-03	(7.387E-04 - 1.316E-02)	YES
54XE135G			L7.400E-03			U238F	FI		7CFCR2	K-F72-2		4.034E-03	(7.387E-04 - 1.316E-02)	YES
54XE135	SUM		6.900E-03	7.900E-04	7.900E-04	U238F	FI		7CFCR2	K-F72-2		4.034E-03	(7.387E-04 - 1.316E-02)	YES
55CS136			1.410E-04	1.400E-05	1.400E-05	U238F	FI		72MCL1	K-W72-2		6.559E-05	(3.979E-06 - 4.686E-04)	YES
55CS138			5.500E-03	7.500E-03	7.500E-03	U238F	FI		72MCL1	K-B73-2		7.610E-03	(1.872E-03 - 2.015E-02)	YES
54XE139			9.480E-01	5.000E-03	5.000E-03	U238F	FC		72MCL1	K-W72-3		5.621E-01	(9.396E-01 - 9.937E-01)	YES
55CS139			6.100E-02	1.500E-02	1.500E-02	U238F	FI		72MCL1	K-B73-2		3.756E-02	(1.511E-02 - 6.908E-02)	YES
54XE140			8.600E-01	2.000E-02	1.000E-02	U238F	FC		72MCL1	K-W72-3		8.720E-01	(8.220E-01 - 9.219E-01)	YES
54XE141			5.800E-01	5.000E-02	1.000E-02	U238F	FC		72MCL1	K-W72-3		6.809E-01	(6.170E-01 - 7.490E-01)	YES
55CS141			3.200E-01	7.000E-02	7.000E-02	U238F	FI		72MCL1	K-B73-2		2.534E-01	(2.320E-01 - 3.542E-01)	YES
55CS142			4.100E-01	9.000E-02	9.000E-02	U238F	FI		72MCL1	K-B73-2		4.714E-01	(3.989E-01 - 5.541E-01)	YES
54XE143			8.800E-02	1.100E-02	3.000E-03	U238F	FC		72MCL1	K-W72-3		1.714E-01	(9.534E-02 - 2.525E-01)	YES
55CS143			4.300E-01	1.000E-01	1.000E-01	U238F	FI		72MCL1	K-B73-2		5.056E-01	(4.350E-01 - 5.838E-01)	YES
54XE144			2.800E-02	5.000E-03	3.000E-03	U238F	FC		72MCL1	K-W72-3		4.313E-02	(1.576E-02 - 8.512E-02)	YES
55CS145			1.450E-01	2.900E-02	2.900E-02	U238F	FI		72MCL1	K-B73-2		1.762E-01	(1.183E-01 - 2.271E-01)	YES
55CS146			3.530E-02	9.600E-03	9.600E-03	U238F	FI		72MCL1	K-B73-2		6.085E-02	(2.875E-02 - 1.003E-01)	YES

FISSION SPECTRUM NEUTRON FISSION OF PL-239 NLEAR METHOD

3.0600	1	94	239	-0	-0	1.800	1.000	.150				
1	.56	.09	.15	.15	99.00	.15	.25	.25	-C	1	-C	-0

NUBAR = 3.0600

FOR ZP(1) NU(A) IS FROM U235T, ADJUSTED ACCORDING TO NUBAR.

ODD-EVEN Z EFFECT = 1.00 +/- .15 .

FOR ZP(4), NU(A) IS FROM NUTCT(A) DIVIDED ACCORDING TO THE NU(A) FUNCTION USED FOR ZP(1).

SIGMA = .560. UNCERTAINTIES FOR REGIONS SYMMETRY TO 129, 130 TO 151, 152 TO 161 ARE +/- .150 .090 .150.

SPECIAL ZP FUNCTION WAS ENTERED. SEE TABLES.

TYPE OF ZP FUNCTION USED IS 1.

FISSION SPECTRUM NEUTRON FISSION OF PL-235 NLEAR METHOD

ESTIMATE FRACTIONAL YIELDS

COD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 74 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .600 NU = .756 ZP = 30.079

DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	2.05E-06	(2.59E-12 - 5.16E-04)	2.05E-06	(2.59E-12 - 5.16E-04)
28	2.40E-03	(4.07E-06 - 3.01E-02)	2.40E-03	(6.12E-06 - 3.01E-02)
29	1.48E-01	(2.16E-02 - 2.91E-01)	1.50E-01	(2.39E-02 - 2.96E-01)
30	6.23E-01	(4.47E-01 - 7.96E-01)	7.74E-01	(6.04E-01 - 9.25E-01)
31	2.21E-01	(5.09E-02 - 3.66E-01)	9.94E-01	(9.89E-01 - 1.00E+00)
32	5.58E-03	(2.30E-05 - 4.85E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
33	7.70E-06	(3.66E-11 - 1.11E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
34	5.03E-10	(0. - 3.99E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 75 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .600 NU = .756 ZP = 30.471

DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	5.63E-08	(0. - 6.34E-05)	5.63E-08	(2.12E-22 - 6.34E-05)
28	2.16E-04	(3.03E-08 - 7.62E-03)	2.16E-04	(8.66E-08 - 7.62E-03)
29	4.13E-02	(1.45E-03 - 1.47E-01)	4.15E-02	(1.67E-03 - 1.48E-01)
30	4.79E-01	(2.80E-01 - 7.23E-01)	5.21E-01	(3.18E-01 - 7.79E-01)
31	4.46E-01	(2.36E-01 - 6.86E-01)	9.67E-01	(9.35E-01 - 1.00E+00)
32	3.29E-02	(9.05E-04 - 1.30E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
33	1.45E-04	(1.45E-08 - 6.06E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
34	3.17E-08	(0. - 4.53E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 76 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .600 NU = .756 ZP = 30.863

DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	9.59E-10	(0. - 5.82E-06)	9.59E-10	(6.62E-24 - 5.82E-06)
28	1.23E-05	(9.32E-11 - 1.46E-03)	1.23E-05	(1.05E-09 - 1.46E-03)
29	7.47E-03	(4.19E-05 - 5.71E-02)	7.48E-03	(5.42E-05 - 5.71E-02)
30	2.51E-01	(6.37E-02 - 4.02E-01)	2.59E-01	(7.10E-02 - 4.17E-01)
31	6.14E-01	(4.32E-01 - 7.87E-01)	8.72E-01	(7.62E-01 - 1.00E+00)
32	1.26E-01	(1.52E-02 - 2.67E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
33	1.73E-03	(2.08E-06 - 2.50E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
34	1.24E-06	(9.45E-13 - 3.85E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 77 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .620 NU = .781 ZP = 31.264

DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	3.99E-07	(9.95E-14 - 1.99E-04)	3.99E-07	(9.95E-14 - 1.99E-04)
29	8.15E-04	(4.50E-07 - 1.63E-02)	8.16E-04	(8.48E-07 - 1.63E-02)
30	8.54E-02	(6.65E-03 - 2.18E-01)	8.62E-02	(7.50E-03 - 2.20E-01)
31	5.77E-01	(3.94E-01 - 7.95E-01)	6.63E-01	(4.64E-01 - 8.63E-01)
32	3.23E-01	(1.12E-01 - 5.12E-01)	9.86E-01	(9.73E-01 - 1.00E+00)
33	1.36E-02	(1.45E-04 - 7.99E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
34	3.27E-05	(6.68E-10 - 2.57E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
35	3.77E-09	(0. - 1.30E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 78 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .680 NU = .856 ZP = 31.685

DEVIATION FROM UCD = .80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	6.42E-05	(0. - 1.78E-05)	6.42E-05	(2.65E-23 - 1.78E-05)
29	4.76E-05	(1.43E-09 - 3.15E-03)	4.76E-05	(7.84E-09 - 3.19E-03)
30	1.71E-02	(2.32E-04 - 9.06E-02)	1.71E-02	(2.79E-04 - 9.08E-02)
31	3.53E-01	(1.37E-01 - 5.58E-01)	3.76E-01	(1.78E-01 - 5.68E-01)
32	5.57E-01	(3.76E-01 - 7.87E-01)	9.27E-01	(8.60E-01 - 1.00E+00)
33	7.23E-02	(4.71E-03 - 1.95E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
34	5.57E-04	(2.38E-07 - 1.36E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
35	2.55E-07	(3.91E-14 - 1.52E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 79 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .780 NU = .982 ZP = 32.115

DEVIATION FROM UCD = .79 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	1.50E-06	(1.39E-12 - 4.31E-04)	1.50E-06	(1.39E-12 - 4.31E-04)
30	1.56E-03	(2.69E-06 - 2.66E-02)	1.96E-03	(4.19E-06 - 2.68E-02)
31	1.34E-01	(1.74E-02 - 2.76E-01)	1.36E-01	(1.94E-02 - 2.80E-01)
32	6.16E-01	(4.38E-01 - 7.87E-01)	7.54E-01	(5.72E-01 - 9.10E-01)
33	2.35E-01	(5.72E-02 - 3.88E-01)	9.93E-01	(9.87E-01 - 1.00E+00)
34	6.65E-03	(3.34E-05 - 5.37E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
35	1.03E-05	(6.54E-11 - 1.32E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
36	7.51E-10	(0. - 5.05E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 80 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .790 NU = .995 ZP = 32.500

DEVIATION FROM UCD = .78 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	4.21E-08	(0. - 5.35E-05)	4.21E-08	(2.12E-22 - 5.35E-05)
30	1.77E-04	(2.02E-08 - 6.75E-03)	1.77E-04	(6.23E-08 - 6.79E-03)
31	3.68E-02	(1.14E-03 - 1.36E-01)	3.70E-02	(1.32E-03 - 1.39E-01)
32	4.63E-01	(2.57E-01 - 7.05E-01)	5.00E-01	(2.91E-01 - 7.63E-01)
33	4.63E-01	(2.58E-01 - 7.06E-01)	9.63E-01	(9.27E-01 - 1.00E+00)
34	3.70E-02	(1.15E-03 - 1.35E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
35	1.78E-04	(2.05E-08 - 6.81E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
36	4.25E-08	(0. - 5.35E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 81 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .820 NU = 1.033 ZP = 32.855

DEVIATION FROM UCD = .77 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	6.65E-10	(0. - 4.71E-06)	6.69E-10	(3.31E-24 - 4.71E-06)
30	9.47E-06	(5.53E-11 - 1.25E-03)	9.47E-06	(7.24E-10 - 1.25E-03)
31	6.35E-03	(3.00E-05 - 5.21E-02)	6.36E-03	(3.95E-05 - 5.21E-02)
32	2.34E-01	(5.78E-02 - 3.82E-01)	2.40E-01	(6.40E-02 - 3.95E-01)
33	6.20E-01	(4.41E-01 - 7.90E-01)	8.60E-01	(7.40E-01 - 1.00E+00)
34	1.38E-01	(1.85E-02 - 2.80E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
35	2.08E-03	(3.04E-06 - 2.77E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
36	1.65E-06	(1.67E-12 - 4.54E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF PL-235 NLEAR METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 82 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .860 NU = 1.083 ZP = 33.295
DEVIATION FROM UCD = .75 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	3.01E-07	(5.68E-14 - 1.69E-04)	3.01E-07	(5.68E-14 - 1.69E-04)
31	6.75E-04	(3.06E-07 - 1.46E-02)	6.76E-04	(6.07E-07 - 1.46E-02)
32	7.73E-02	(5.41E-03 - 2.07E-01)	7.79E-02	(6.09E-03 - 2.08E-01)
33	5.65E-01	(3.83E-01 - 7.91E-01)	6.43E-01	(4.48E-01 - 8.54E-01)
34	3.41E-01	(1.27E-01 - 5.40E-01)	9.84E-01	(9.69E-01 - 1.00E+00)
35	1.56E-02	(1.93E-04 - 8.63E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
36	4.11E-05	(1.06E-09 - 2.93E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
37	5.21E-09	(0. - 1.57E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 83 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .900 NU = 1.133 ZP = 33.694
DEVIATION FROM UCD = .74 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	5.85E-09	(0. - 1.68E-05)	5.85E-09	(0. - 1.68E-05)
31	4.46E-05	(1.25E-09 - 3.07E-03)	4.46E-05	(7.10E-09 - 3.07E-03)
32	1.64E-02	(2.14E-04 - 8.87E-02)	1.65E-02	(2.58E-04 - 8.88E-02)
33	3.48E-01	(1.33E-01 - 5.50E-01)	3.64E-01	(1.70E-01 - 5.79E-01)
34	5.61E-01	(3.79E-01 - 7.89E-01)	9.25E-01	(8.55E-01 - 1.00E+00)
35	7.45E-02	(5.01E-03 - 2.03E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
36	6.31E-04	(2.67E-07 - 1.41E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	2.72E-07	(4.62E-14 - 1.59E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 84 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .960 NU = 1.209 ZP = 34.103
DEVIATION FROM UCD = .73 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	1.67E-06	(1.71E-12 - 4.58E-04)	1.67E-06	(1.71E-12 - 4.58E-04)
32	2.10E-03	(3.09E-06 - 2.79E-02)	2.10E-03	(4.75E-06 - 2.79E-02)
33	1.39E-01	(1.87E-02 - 2.81E-01)	1.41E-01	(2.08E-02 - 2.85E-01)
34	6.20E-01	(4.41E-01 - 7.90E-01)	7.61E-01	(5.85E-01 - 9.15E-01)
35	2.33E-01	(5.74E-02 - 3.81E-01)	9.94E-01	(9.87E-01 - 1.00E+00)
36	6.31E-03	(2.56E-05 - 5.19E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	9.36E-06	(5.41E-11 - 1.25E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
38	6.58E-10	(0. - 4.67E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 85 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.010 NU = 1.272 ZP = 34.508
DEVIATION FROM UCD = .72 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	3.92E-08	(0. - 5.13E-05)	3.92E-08	(2.12E-22 - 5.13E-05)
32	1.68E-04	(1.83E-08 - 6.60E-03)	1.68E-04	(5.75E-08 - 6.60E-03)
33	3.58E-02	(1.08E-03 - 1.36E-01)	3.60E-02	(1.25E-03 - 1.37E-01)
34	4.59E-01	(2.52E-01 - 7.00E-01)	4.95E-01	(2.88E-01 - 7.57E-01)
35	4.67E-01	(2.64E-01 - 7.10E-01)	9.62E-01	(9.25E-01 - 1.00E+00)
36	3.80E-02	(1.22E-03 - 1.41E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
37	1.87E-04	(2.26E-08 - 7.01E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
38	4.56E-08	(0. - 5.61E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 86 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.080 NU = 1.360 ZP = 34.922
DEVIATION FROM UCD = .71 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	4.58E-10	(0. - 3.96E-06)	4.98E-10	(3.31E-24 - 3.96E-06)
32	7.65E-06	(3.61E-11 - 1.11E-03)	7.65E-06	(5.34E-10 - 1.11E-03)
33	5.56E-03	(2.28E-05 - 4.83E-02)	5.56E-03	(3.04E-05 - 4.84E-02)
34	2.2CE-01	(5.07E-02 - 3.65E-01)	2.26E-01	(5.62E-02 - 3.77E-01)
35	6.23E-01	(4.47E-01 - 7.96E-01)	8.49E-01	(7.22E-01 - 9.55E-01)
36	1.48E-01	(2.17E-02 - 2.91E-01)	9.98E-01	(9.95E-01 - 1.00E+00)
37	2.41E-03	(4.11E-06 - 3.02E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
38	2.07E-06	(2.63E-12 - 5.15E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 87 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.170 NU = 1.473 ZP = 35.345
DEVIATION FROM UCD = .69 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	1.88E-07	(2.49E-14 - 1.28E-04)	1.88E-07	(2.49E-14 - 1.28E-04)
33	4.92E-04	(1.61E-07 - 1.22E-02)	4.92E-04	(3.49E-07 - 1.22E-02)
34	6.51E-02	(3.78E-03 - 1.85E-01)	6.56E-02	(4.27E-03 - 1.90E-01)
35	5.43E-01	(3.65E-01 - 7.75E-01)	6.09E-01	(4.21E-01 - 8.27E-01)
36	3.71E-01	(1.54E-01 - 5.85E-01)	9.80E-01	(9.61E-01 - 1.00E+00)
37	1.55E-02	(3.06E-04 - 9.76E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
38	5.95E-05	(2.24E-09 - 3.63E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
39	8.82E-09	(0. - 2.14E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 88 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.270 NU = 1.599 ZP = 35.773
DEVIATION FROM UCD = .68 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	2.53E-05	(1.63E-13 - 7.73E-07)	2.53E-05	(1.63E-13 - 7.73E-07)
33	2.46E-05	(1.26E-07 - 5.43E-04)	2.46E-05	(1.29E-07 - 5.43E-04)
34	1.15E-02	(1.23E-03 - 4.14E-02)	1.15E-02	(1.25E-03 - 4.15E-02)
35	3.01E-01	(1.74E-01 - 4.01E-01)	3.13E-01	(1.85E-01 - 4.17E-01)
36	5.50E-01	(4.54E-01 - 7.36E-01)	9.03E-01	(8.36E-01 - 9.87E-01)
37	9.62E-02	(2.95E-02 - 1.80E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
38	1.02E-03	(3.26E-05 - 7.61E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
39	5.61E-07	(4.66E-10 - 3.68E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 89 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.320 NU = 1.662 ZP = 36.178
DEVIATION FROM UCD = .67 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	8.65E-07	(8.92E-10 - 5.03E-05)	8.69E-07	(8.92E-10 - 5.03E-05)
34	1.37E-03	(5.04E-05 - 9.33E-03)	1.37E-03	(5.13E-05 - 9.33E-03)
35	1.12E-01	(3.72E-02 - 1.95E-01)	1.13E-01	(3.85E-02 - 2.01E-01)
36	6.04E-01	(4.68E-01 - 7.45E-01)	7.18E-01	(5.94E-01 - 8.18E-01)
37	2.73E-01	(1.50E-01 - 3.70E-01)	9.91E-01	(9.83E-01 - 1.00E+00)
38	5.05E-03	(8.66E-04 - 3.52E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	1.68E-05	(7.19E-08 - 4.15E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
40	1.49E-09	(7.46E-14 - 5.29E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF PL-235 ALBAR METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 90 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.350 NU = 1.700 ZP = 36.572

DEVIATION FROM UCD = .66 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	2.05E-08	(3.53E-12 - 3.46E-06)	2.05E-08	(3.53E-12 - 3.46E-06)
34	1.07E-04	(1.13E-06 - 1.55E-03)	1.07E-04	(1.15E-06 - 1.55E-03)
35	2.76E-02	(4.65E-03 - 7.64E-02)	2.77E-02	(4.75E-03 - 7.65E-02)
36	4.21E-01	(2.96E-01 - 5.56E-01)	4.49E-01	(3.22E-01 - 5.93E-01)
37	5.03E-01	(3.78E-01 - 6.53E-01)	9.51E-01	(9.14E-01 - 1.00E+00)
38	4.85E-02	(1.09E-02 - 1.13E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
39	2.89E-04	(4.93E-06 - 3.11E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
40	8.58E-08	(2.92E-11 - 9.63E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 91 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.380 NU = 1.738 ZP = 36.967

DEVIATION FROM UCD = .64 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	2.98E-10	(7.11E-15 - 1.67E-07)	2.98E-10	(7.11E-15 - 1.67E-07)
34	5.27E-06	(1.28E-08 - 1.82E-04)	5.27E-06	(1.31E-08 - 1.82E-04)
35	4.39E-03	(2.50E-04 - 2.12E-02)	4.40E-03	(2.95E-04 - 2.12E-02)
36	1.98E-01	(9.01E-02 - 2.96E-01)	2.02E-01	(9.44E-02 - 3.02E-01)
37	6.27E-01	(4.99E-01 - 7.53E-01)	8.29E-01	(7.31E-01 - 9.27E-01)
38	1.68E-01	(6.97E-02 - 2.65E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
39	3.10E-03	(1.72E-04 - 1.66E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	3.05E-06	(5.71E-09 - 1.23E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 92 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.410 NU = 1.776 ZP = 37.362

DEVIATION FROM UCD = .63 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	1.61E-07	(7.35E-11 - 1.51E-05)	1.61E-07	(7.35E-11 - 1.51E-05)
35	4.42E-04	(9.31E-06 - 4.21E-03)	4.42E-04	(9.47E-06 - 4.21E-03)
36	6.14E-02	(1.47E-02 - 1.32E-01)	6.19E-02	(1.52E-02 - 1.33E-01)
37	5.35E-01	(4.05E-01 - 6.88E-01)	5.97E-01	(4.68E-01 - 7.29E-01)
38	3.82E-01	(2.53E-01 - 5.06E-01)	9.79E-01	(9.61E-01 - 1.00E+00)
39	2.10E-02	(3.07E-03 - 6.31E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	6.73E-05	(5.63E-07 - 1.11E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
41	1.05E-08	(1.32E-12 - 2.14E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 93 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.460 NU = 1.839 ZP = 37.766

DEVIATION FROM UCD = .62 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	2.73E-09	(1.85E-13 - 8.16E-07)	2.73E-09	(1.85E-13 - 8.16E-07)
35	2.59E-05	(1.37E-07 - 5.65E-04)	2.60E-05	(1.39E-07 - 5.65E-04)
36	1.18E-02	(1.29E-03 - 4.24E-02)	1.19E-02	(1.32E-03 - 4.24E-02)
37	3.05E-01	(1.78E-01 - 4.06E-01)	3.17E-01	(1.90E-01 - 4.22E-01)
38	5.88E-01	(4.52E-01 - 7.34E-01)	9.05E-01	(8.39E-01 - 9.88E-01)
39	9.41E-02	(2.85E-02 - 1.77E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
40	9.80E-04	(3.06E-05 - 7.38E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
41	5.26E-07	(4.24E-10 - 3.52E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 94 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.490 NU = 1.876 ZP = 38.161

DEVIATION FROM UCD = .61 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	1.01E-06	(1.11E-09 - 5.56E-05)	1.01E-06	(1.11E-09 - 5.59E-05)
36	1.51E-03	(5.83E-05 - 9.96E-03)	1.51E-03	(5.93E-05 - 9.59E-03)
37	1.17E-01	(4.01E-02 - 2.06E-01)	1.19E-01	(4.16E-02 - 2.08E-01)
38	6.05E-01	(4.73E-01 - 7.47E-01)	7.28E-01	(6.05E-01 - 8.27E-01)
39	2.64E-01	(1.42E-01 - 3.66E-01)	9.92E-01	(9.84E-01 - 1.00E+00)
40	8.35E-03	(7.67E-04 - 3.33E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	1.44E-05	(5.93E-08 - 3.75E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
42	1.24E-05	(6.04E-14 - 4.64E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 95 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.520 NU = 1.914 ZP = 38.556

DEVIATION FROM UCD = .60 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	2.43E-08	(4.53E-12 - 3.90E-06)	2.43E-08	(4.53E-12 - 3.90E-06)
36	1.21E-04	(1.35E-06 - 1.68E-03)	1.21E-04	(1.37E-06 - 1.68E-03)
37	2.96E-02	(5.15E-03 - 8.01E-02)	2.97E-02	(5.27E-03 - 8.02E-02)
38	4.31E-01	(3.07E-01 - 5.65E-01)	4.60E-01	(3.35E-01 - 6.07E-01)
39	4.54E-01	(3.71E-01 - 6.43E-01)	9.54E-01	(9.18E-01 - 1.00E+00)
40	4.56E-02	(5.95E-03 - 1.00E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
41	2.56E-04	(4.18E-06 - 2.88E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
42	7.30E-06	(2.30E-11 - 8.56E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 96 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.540 NU = 1.939 ZP = 38.946

DEVIATION FROM UCD = .59 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	3.80E-10	(1.07E-14 - 1.95E-07)	3.80E-10	(1.07E-14 - 1.95E-07)
36	6.25E-06	(1.67E-08 - 2.06E-04)	6.29E-06	(1.71E-08 - 2.06E-04)
37	4.51E-03	(3.43E-04 - 2.25E-02)	4.92E-03	(3.49E-04 - 2.29E-02)
38	2.08E-01	(9.76E-02 - 3.07E-01)	2.13E-01	(1.02E-01 - 3.13E-01)
39	6.26E-01	(4.96E-01 - 7.52E-01)	8.39E-01	(7.44E-01 - 9.36E-01)
40	1.58E-01	(6.38E-02 - 2.55E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
41	2.75E-03	(1.44E-04 - 1.53E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	2.54E-06	(4.36E-09 - 1.00E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 97 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.550 NU = 1.952 ZP = 39.331

DEVIATION FROM UCD = .57 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	2.15E-07	(1.13E-10 - 1.86E-05)	2.15E-07	(1.13E-10 - 1.86E-05)
37	5.35E-04	(1.25E-05 - 4.84E-03)	5.39E-04	(1.27E-05 - 4.84E-03)
38	6.84E-02	(1.74E-02 - 1.43E-01)	6.89E-02	(1.79E-02 - 1.43E-01)
39	5.50E-01	(4.17E-01 - 7.02E-01)	6.19E-01	(4.89E-01 - 7.44E-01)
40	3.63E-01	(2.34E-01 - 4.82E-01)	9.82E-01	(9.66E-01 - 1.00E+00)
41	1.84E-02	(2.50E-03 - 5.75E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	5.36E-05	(4.02E-07 - 9.45E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
43	7.61E-05	(8.24E-13 - 1.70E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF PL-235 NLBAR METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.0C +/- .15

MASS 98 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.550 NU = 1.952 ZP = 39.711
DEVIATION FROM LCD = .56 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
36	4.89E-09	(4.30E-13 - 1.24E-06)	4.89E-09	(4.30E-13 - 1.24E-06)
37	3.93E-05	(2.53E-07 - 7.58E-04)	3.93E-05	(2.58E-07 - 7.58E-04)
38	1.52E-02	(1.89E-03 - 5.05E-02)	1.53E-02	(1.93E-03 - 5.06E-02)
39	3.38E-01	(2.05E-01 - 4.48E-01)	3.53E-01	(2.23E-01 - 4.69E-01)
40	5.68E-01	(4.33E-01 - 7.18E-01)	9.21E-01	(8.63E-01 - 9.99E-01)
41	7.88E-02	(2.16E-02 - 1.57E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
42	7.01E-04	(1.85E-05 - 5.82E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	3.18E-07	(2.62E-10 - 2.46E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 99 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.540 NU = 1.939 ZP = 40.087
DEVIATION FROM LCD = .55 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
37	1.52E-06	(2.89E-09 - 8.87E-05)	1.92E-06	(2.89E-09 - 8.87E-05)
38	2.30E-03	(1.10E-04 - 1.34E-02)	2.30E-03	(1.12E-04 - 1.34E-02)
39	1.45E-01	(5.57E-02 - 2.40E-01)	1.47E-01	(5.79E-02 - 2.43E-01)
40	6.22E-01	(4.90E-01 - 7.49E-01)	7.70E-01	(6.55E-01 - 8.70E-01)
41	2.25E-01	(1.10E-01 - 3.23E-01)	9.94E-01	(9.89E-01 - 1.00E+00)
42	5.80E-03	(4.41E-04 - 2.57E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	8.19E-06	(2.47E-08 - 2.49E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
44	5.47E-10	(1.78E-14 - 2.58E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 100 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.480 NU = 1.864 ZP = 40.438
DEVIATION FROM LCD = .54 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
37	7.72E-08	(2.50E-11 - 8.93E-06)	7.72E-08	(2.50E-11 - 8.93E-06)
38	2.68E-04	(4.42E-06 - 2.96E-03)	2.69E-04	(4.50E-06 - 2.96E-03)
39	4.66E-02	(1.10E-02 - 1.10E-01)	4.69E-02	(1.05E-02 - 1.10E-01)
40	4.57E-01	(3.74E-01 - 6.47E-01)	5.44E-01	(4.18E-01 - 6.50E-01)
41	4.27E-01	(3.03E-01 - 5.64E-01)	9.71E-01	(9.47E-01 - 1.00E+00)
42	2.89E-02	(4.97E-03 - 7.88E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	1.16E-04	(1.27E-06 - 1.63E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.29E-08	(4.16E-12 - 3.74E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 101 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.430 NU = 1.801 ZP = 40.795
DEVIATION FROM LCD = .53 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
37	2.01E-09	(1.17E-13 - 6.55E-07)	2.01E-09	(1.17E-13 - 6.55E-07)
38	2.08E-05	(9.86E-08 - 4.83E-04)	2.08E-05	(1.01E-07 - 4.83E-04)
39	1.04E-02	(1.06E-03 - 3.86E-02)	1.04E-02	(1.08E-03 - 3.86E-02)
40	2.89E-01	(1.63E-01 - 3.87E-01)	2.99E-01	(1.73E-01 - 4.02E-01)
41	5.97E-01	(4.61E-01 - 7.41E-01)	8.96E-01	(8.26E-01 - 9.82E-01)
42	1.03E-01	(3.27E-02 - 1.88E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
43	1.16E-03	(3.96E-05 - 8.33E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	6.81E-07	(6.21E-10 - 4.23E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 102 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.400 NU = 1.763 ZP = 41.161
DEVIATION FROM LCD = .52 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
38	1.01E-06	(1.11E-09 - 5.60E-05)	1.01E-06	(1.11E-09 - 5.60E-05)
39	1.51E-03	(5.83E-05 - 9.95E-03)	1.51E-03	(5.93E-05 - 1.00E-02)
40	1.17E-01	(4.01E-02 - 2.06E-01)	1.19E-01	(4.16E-02 - 2.08E-01)
41	6.05E-01	(4.73E-01 - 7.47E-01)	7.28E-01	(6.05E-01 - 8.27E-01)
42	2.64E-01	(1.42E-01 - 3.60E-01)	9.92E-01	(9.84E-01 - 1.00E+00)
43	2.38E-02	(7.67E-04 - 3.33E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	1.48E-05	(5.92E-08 - 3.78E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.24E-09	(6.04E-14 - 4.64E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 103 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.360 NU = 1.713 ZP = 41.522
DEVIATION FROM LCD = .51 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
38	3.35E-08	(7.44E-12 - 4.96E-06)	3.39E-08	(7.44E-12 - 4.96E-06)
39	1.53E-04	(1.90E-06 - 1.98E-03)	1.53E-04	(1.94E-06 - 1.58E-03)
40	3.38E-02	(6.32E-03 - 8.75E-02)	3.40E-02	(6.47E-03 - 8.80E-02)
41	4.50E-01	(3.30E-01 - 5.93E-01)	4.84E-01	(3.61E-01 - 6.36E-01)
42	4.75E-01	(3.57E-01 - 6.22E-01)	9.60E-01	(9.28E-01 - 1.00E+00)
43	4.02E-02	(2.20E-03 - 9.85E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.06E-04	(2.59E-06 - 2.45E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	5.26E-08	(1.42E-11 - 6.75E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 104 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.320 NU = 1.662 ZP = 41.883
DEVIATION FROM LCD = .50 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
38	7.63E-10	(2.84E-14 - 3.27E-07)	7.63E-10	(2.84E-14 - 3.27E-07)
39	1.04E-05	(3.52E-08 - 2.95E-04)	1.04E-05	(3.60E-08 - 2.55E-04)
40	6.74E-03	(5.52E-04 - 2.86E-02)	6.75E-03	(5.63E-04 - 2.86E-02)
41	2.40E-01	(1.22E-01 - 3.38E-01)	2.47E-01	(1.29E-01 - 3.47E-01)
42	6.18E-01	(4.84E-01 - 7.45E-01)	8.65E-01	(7.80E-01 - 9.58E-01)
43	1.33E-01	(4.89E-02 - 2.27E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
44	1.94E-03	(8.53E-05 - 1.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.45E-06	(1.97E-09 - 7.38E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 105 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.420 NU = 1.788 ZP = 42.312
DEVIATION FROM LCD = .49 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
39	2.57E-07	(1.48E-10 - 2.11E-05)	2.57E-07	(1.48E-10 - 2.11E-05)
40	6.08E-04	(1.50E-05 - 5.27E-03)	6.08E-04	(1.52E-05 - 5.27E-03)
41	7.30E-02	(1.92E-02 - 1.45E-01)	7.36E-02	(1.58E-02 - 1.50E-01)
42	5.58E-01	(4.25E-01 - 7.10E-01)	6.32E-01	(5.02E-01 - 7.53E-01)
43	3.51E-01	(2.22E-01 - 4.67E-01)	9.83E-01	(9.68E-01 - 1.00E+00)
44	1.65E-02	(2.20E-03 - 5.42E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	4.66E-05	(3.26E-07 - 8.55E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
46	6.22E-09	(6.11E-13 - 1.47E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF PL-235 NUBAR METHODC

ESTIMATE FRACTIONAL YIELDS
CDC-EVEN 2 CORRECTION FACTOR = 1.00 +/- .15

MASS 106 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.550 NU = 1.952 ZP = 42.754
DEVIATION FROM UCD = .47 +/- .15 SIGMA = .56 +/- .35

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE OF FCY
35	3.10E-09	(2.20E-13 - 8.95E-07)	3.10E-09	(2.20E-13 - 8.95E-07)			
40	2.84E-05	(1.56E-07 - 6.02E-04)	2.84E-05	(1.56E-07 - 6.02E-04)			
41	1.25E-02	(1.40E-03 - 4.41E-02)	1.25E-02	(1.39E-03 - 4.41E-02)			
42	3.12E-01	(1.85E-01 - 4.14E-01)	3.25E-01	(1.97E-01 - 4.32E-01)			
43	5.84E-01	(4.48E-01 - 7.31E-01)	9.09E-01	(8.45E-01 - 9.91E-01)			
44	9.06E-02	(2.68E-02 - 1.73E-01)	9.99E-01	(9.98E-01 - 1.00E+00)			
45	5.12E-04	(2.75E-05 - 7.01E-03)	1.00E+00	(1.00E+00 - 1.00E+00)			
46	4.72E-07	(3.61E-10 - 3.25E-05)	1.00E+00	(1.00E+00 - 1.00E+00)			

MASS 107 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.670 NU = 2.103 ZP = 43.192
DEVIATION FROM UCD = .46 +/- .15 SIGMA = .56 +/- .35

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE OF FCY
40	7.65E-07	(7.38E-10 - 4.59E-05)	7.65E-07	(7.38E-10 - 4.59E-05)			
41	1.26E-03	(4.44E-05 - 8.79E-03)	1.26E-03	(4.51E-05 - 8.79E-03)			
42	1.07E-01	(3.47E-02 - 1.93E-01)	1.08E-01	(3.60E-02 - 1.95E-01)			
43	6.01E-01	(4.64E-01 - 7.43E-01)	7.09E-01	(5.86E-01 - 8.10E-01)			
44	2.81E-01	(1.57E-01 - 3.79E-01)	9.90E-01	(9.81E-01 - 1.00E+00)			
45	9.74E-03	(5.61E-04 - 3.70E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
46	1.88E-05	(8.50E-08 - 4.50E-04)	1.00E+00	(1.00E+00 - 1.00E+00)			
47	1.74E-09	(5.59E-14 - 5.92E-07)	1.00E+00	(1.00E+00 - 1.00E+00)			

MASS 108 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 2.450 NU = 3.085 ZP = 43.508
DEVIATION FROM UCD = 0.00 +/- .15 SIGMA = .56 +/- .35

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE OF FCY
40	3.89E-08	(5.09E-12 - 5.47E-06)	3.89E-08	(9.09E-12 - 5.47E-06)			
41	1.68E-04	(2.19E-06 - 2.12E-03)	1.68E-04	(2.23E-06 - 2.12E-03)			
42	3.57E-02	(6.86E-03 - 9.12E-02)	3.59E-02	(7.02E-03 - 9.14E-02)			
43	4.58E-01	(3.39E-01 - 6.02E-01)	4.94E-01	(3.73E-01 - 6.48E-01)			
44	4.68E-01	(3.51E-01 - 6.13E-01)	9.62E-01	(9.31E-01 - 1.00E+00)			
45	3.81E-02	(7.57E-03 - 9.54E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
46	1.88E-04	(2.60E-06 - 2.30E-03)	1.00E+00	(1.00E+00 - 1.00E+00)			
47	4.59E-08	(1.16E-11 - 6.16E-06)	1.00E+00	(1.00E+00 - 1.00E+00)			

MASS 109 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 2.670 NU = 3.362 ZP = 44.009
DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE OF FCY
41	3.74E-06	(8.59E-12 - 7.32E-04)	3.74E-06	(8.59E-12 - 7.32E-04)			
42	3.53E-03	(3.97E-06 - 3.74E-02)	3.53E-03	(1.27E-05 - 3.74E-02)			
43	1.78E-01	(3.21E-02 - 3.20E-01)	1.82E-01	(3.56E-02 - 3.27E-01)			
44	6.28E-01	(4.61E-01 - 8.04E-01)	8.10E-01	(6.59E-01 - 9.55E-01)			
45	1.86E-01	(3.53E-02 - 3.27E-01)	9.96E-01	(9.92E-01 - 1.00E+00)			
46	3.86E-03	(3.08E-05 - 3.94E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
47	4.31E-06	(1.14E-11 - 7.95E-04)	1.00E+00	(1.00E+00 - 1.00E+00)			
48	2.26E-10	(0. - 2.49E-06)	1.00E+00	(1.00E+00 - 1.00E+00)			

MASS 110 FISSION PRODUCT CHAIN

NU BAR = 3.060 NL REF = 2.600 NU = 3.274 ZP = 44.366
DEVIATION FROM UCD = C.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE OF FCY
41	1.55E-07	(1.78E-14 - 1.15E-04)	1.55E-07	(1.78E-14 - 1.15E-04)			
42	4.22E-04	(1.23E-07 - 1.13E-02)	4.32E-04	(2.78E-07 - 1.13E-02)			
43	6.06E-02	(3.25E-03 - 6.11E-02)	6.11E-02	(3.68E-03 - 1.82E-01)			
44	5.34E-01	(3.58E-01 - 7.73E-01)	5.95E-01	(4.10E-01 - 8.29E-01)			
45	3.64E-01	(1.66E-01 - 6.03E-01)	9.79E-01	(9.58E-01 - 1.00E+00)			
46	2.13E-02	(3.67E-04 - 1.02E-01)	1.00E+00	(1.00E+00 - 1.00E+00)			
47	6.51E-05	(3.03E-09 - 3.95E-03)	1.00E+00	(1.00E+00 - 1.00E+00)			
48	1.05E-06	(0. - 2.43E-05)	1.00E+00	(1.00E+00 - 1.00E+00)			

MASS 111 FISSION PRODUCT CHAIN

NU BAR = 3.060 NL REF = 2.480 NU = 3.123 ZP = 44.658
DEVIATION FROM UCD = C.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE OF FCY
41	5.62E-05	(0. - 1.64E-03)	5.62E-05	(0. - 1.64E-03)			
42	4.33E-05	(1.18E-09 - 3.02E-03)	4.33E-05	(6.79E-09 - 3.02E-03)			
43	1.62E-02	(2.06E-04 - 8.78E-02)	1.62E-02	(2.49E-04 - 8.79E-02)			
44	2.44E-01	(1.31E-01 - 5.47E-01)	3.62E-01	(1.67E-01 - 5.75E-01)			
45	5.62E-01	(3.81E-01 - 7.90E-01)	9.24E-01	(8.54E-01 - 1.00E+00)			
46	7.54E-02	(5.15E-03 - 2.04E-01)	9.59E-01	(9.99E-01 - 1.00E+00)			
47	6.44E-04	(2.80E-07 - 1.43E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
48	2.62E-07	(4.57E-14 - 1.62E-04)	1.00E+00	(1.00E+00 - 1.00E+00)			

MASS 112 FISSION PRODUCT CHAIN

NU BAR = 3.060 NL REF = 2.320 NU = 2.921 ZP = 45.011
DEVIATION FROM UCD = C.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE OF FCY
42	3.67E-06	(8.26E-12 - 7.23E-04)	3.67E-06	(8.26E-12 - 7.23E-04)			
43	3.48E-03	(8.74E-06 - 3.71E-02)	3.49E-03	(1.24E-05 - 3.72E-02)			
44	1.77E-01	(3.17E-02 - 8.04E-01)	1.81E-01	(3.52E-02 - 3.26E-01)			
45	6.28E-01	(4.61E-01 - 8.04E-01)	8.09E-01	(6.57E-01 - 9.56E-01)			
46	1.67E-01	(3.57E-02 - 3.30E-01)	9.96E-01	(9.92E-01 - 1.00E+00)			
47	3.51E-03	(1.11E-05 - 3.97E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
48	4.40E-06	(1.19E-11 - 8.04E-04)	1.00E+00	(1.00E+00 - 1.00E+00)			
49	2.32E-10	(0. - 2.53E-06)	1.00E+00	(1.00E+00 - 1.00E+00)			

MASS 113 FISSION PRODUCT CHAIN

NU BAR = 3.060 NL REF = 2.200 NU = 2.770 ZP = 45.343
DEVIATION FROM UCD = C.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	CF	FCY	RANGE OF FCY
42	1.51E-07	(2.49E-14 - 1.30E-04)	1.51E-07	(2.49E-14 - 1.30E-04)			
43	4.58E-04	(1.65E-07 - 1.23E-02)	4.58E-04	(3.56E-07 - 1.23E-02)			
44	6.55E-02	(3.83E-03 - 1.85E-01)	6.60E-02	(4.32E-03 - 1.50E-01)			
45	5.44E-01	(3.66E-01 - 7.80E-01)	6.10E-01	(4.22E-01 - 8.37E-01)			
46	3.70E-01	(1.93E-01 - 5.84E-01)	9.81E-01	(9.61E-01 - 1.00E+00)			
47	1.54E-02	(3.03E-04 - 9.72E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
48	5.68E-05	(2.18E-09 - 3.60E-03)	1.00E+00	(1.00E+00 - 1.00E+00)			
49	8.68E-05	(0. - 2.12E-05)	1.00E+00	(1.00E+00 - 1.00E+00)			

FISSION SPECTRUM NEUTRON FISSION OF PL-235 ALBAR METHOD

ESTIMATED FRACTIONAL YIELDS

CCC-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 114 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 2.080 NU = 2.619 ZP = 45.676

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	7.09E-09	(0. - 1.88E-05)	7.09E-09	(2.65E-23 - 1.88E-05)
43	5.11E-05	(1.64E-09 - 3.32E-03)	5.11E-05	(8.73E-09 - 3.32E-03)
44	1.78E-02	(2.53E-04 - 9.28E-02)	1.79E-02	(3.04E-04 - 9.29E-02)
45	3.59E-01	(1.42E-01 - 5.67E-01)	3.77E-01	(1.85E-01 - 5.98E-01)
46	5.53E-01	(3.73E-01 - 7.85E-01)	9.29E-01	(8.64E-01 - 1.00E+00)
47	7.00E-02	(4.40E-03 - 1.96E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
48	5.62E-04	(2.11E-07 - 1.32E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	2.29E-07	(3.55E-14 - 1.44E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 115 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 2.040 NU = 2.569 ZP = 46.048

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	2.69E-06	(4.43E-12 - 6.04E-04)	2.69E-06	(4.43E-12 - 6.04E-04)
44	2.85E-03	(5.80E-06 - 3.32E-02)	2.86E-03	(8.49E-06 - 3.32E-02)
45	1.61E-01	(2.58E-02 - 3.04E-01)	1.64E-01	(2.87E-02 - 3.10E-01)
46	6.26E-01	(4.54E-01 - 8.02E-01)	7.90E-01	(6.29E-01 - 9.37E-01)
47	2.05E-01	(4.34E-02 - 3.47E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
48	4.75E-03	(1.65E-05 - 4.42E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
49	5.96E-06	(2.19E-11 - 9.59E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
50	3.53E-10	(0. - 3.24E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 116 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 2.000 NU = 2.519 ZP = 46.420

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	9.25E-08	(7.11E-15 - 8.48E-05)	9.25E-08	(7.11E-15 - 8.48E-05)
44	3.04E-04	(6.65E-08 - 9.26E-03)	3.04E-04	(1.53E-07 - 9.26E-03)
45	4.99E-02	(2.16E-03 - 1.63E-01)	5.03E-02	(2.47E-03 - 1.64E-01)
46	5.07E-01	(3.21E-01 - 7.51E-01)	5.57E-01	(3.65E-01 - 8.05E-01)
47	4.16E-01	(2.60E-01 - 6.48E-01)	9.73E-01	(9.47E-01 - 1.00E+00)
48	2.68E-02	(5.88E-04 - 1.16E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
49	1.02E-04	(6.60E-09 - 4.94E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.89E-08	(0. - 3.35E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 117 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.960 NU = 2.468 ZP = 46.792

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	2.08E-09	(0. - 9.17E-06)	2.08E-09	(1.32E-23 - 9.17E-06)
44	2.14E-05	(2.84E-10 - 2.01E-03)	2.14E-05	(2.36E-09 - 2.01E-03)
45	1.05E-02	(8.49E-05 - 6.91E-02)	1.05E-02	(1.06E-04 - 6.92E-02)
46	2.91E-01	(8.84E-02 - 4.60E-01)	3.01E-01	(9.86E-02 - 4.80E-01)
47	5.96E-01	(4.12E-01 - 7.96E-01)	8.97E-01	(8.05E-01 - 1.00E+00)
48	1.02E-01	(9.71E-03 - 2.39E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
49	1.14E-03	(8.92E-07 - 1.97E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	6.61E-07	(2.70E-13 - 2.67E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 118 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.520 NU = 2.418 ZP = 47.164

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	5.85E-07	(5.97E-13 - 3.37E-04)	9.85E-07	(5.97E-13 - 3.37E-04)
45	1.46E-03	(1.53E-06 - 2.25E-02)	1.49E-03	(2.51E-06 - 2.29E-02)
46	1.17E-01	(1.29E-02 - 2.57E-01)	1.18E-01	(1.44E-02 - 2.60E-01)
47	6.08E-01	(4.25E-01 - 7.91E-01)	7.26E-01	(5.32E-01 - 8.87E-01)
48	2.66E-01	(7.21E-02 - 4.18E-01)	9.91E-01	(9.83E-01 - 1.00E+00)
49	8.45E-03	(5.46E-05 - 6.13E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.51E-05	(1.41E-10 - 1.64E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
51	1.28E-05	(0. - 6.90E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 119 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.800 NU = 2.267 ZP = 47.496

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	4.39E-08	(0. - 5.49E-05)	4.39E-08	(2.12E-22 - 5.49E-05)
45	1.82E-04	(2.15E-08 - 6.91E-03)	1.82E-04	(6.54E-08 - 6.91E-03)
46	3.75E-02	(1.19E-03 - 1.46E-01)	3.76E-02	(1.37E-03 - 1.40E-01)
47	4.65E-01	(2.61E-01 - 7.08E-01)	5.03E-01	(2.95E-01 - 7.65E-01)
48	4.61E-01	(2.55E-01 - 7.03E-01)	9.63E-01	(9.28E-01 - 1.00E+00)
49	3.63E-02	(1.11E-03 - 1.37E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
50	1.73E-04	(1.93E-08 - 6.70E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
51	4.07E-08	(0. - 5.24E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 120 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.680 NU = 2.116 ZP = 47.829

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	1.35E-09	(0. - 7.25E-06)	1.39E-09	(6.62E-24 - 7.25E-06)
45	1.60E-05	(1.60E-10 - 1.70E-03)	1.60E-05	(1.55E-09 - 1.70E-03)
46	8.82E-03	(5.90E-05 - 6.27E-02)	8.83E-03	(7.50E-05 - 6.27E-02)
47	2.70E-01	(7.48E-02 - 4.25E-01)	2.79E-01	(8.34E-02 - 4.43E-01)
48	6.06E-01	(4.23E-01 - 7.93E-01)	8.85E-01	(7.83E-01 - 1.00E+00)
49	1.14E-01	(2.23E-02 - 2.54E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
50	1.42E-03	(1.39E-06 - 2.23E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	5.19E-07	(5.22E-13 - 3.24E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 121 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.520 NU = 1.914 ZP = 48.141

DEVIATION FROM UCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	1.20E-06	(8.85E-13 - 3.78E-04)	1.20E-06	(8.85E-13 - 3.78E-04)
46	1.69E-03	(1.58E-06 - 2.46E-02)	1.69E-03	(3.18E-06 - 2.46E-02)
47	1.24E-01	(1.49E-02 - 2.66E-01)	1.26E-01	(1.65E-02 - 2.69E-01)
48	6.13E-01	(4.31E-01 - 7.87E-01)	7.39E-01	(5.51E-01 - 8.98E-01)
49	2.53E-01	(6.49E-02 - 4.04E-01)	9.92E-01	(9.85E-01 - 1.00E+00)
50	7.62E-03	(4.36E-05 - 5.77E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
51	1.27E-05	(5.92E-11 - 1.48E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	1.00E-05	(0. - 5.97E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF PL-239 NLBAR METHOD

ESTIMATED FRACTIONAL YIELDS

CDC-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 122 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.340 NU = 1.687 ZP = 48.444

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	7.30E-08 (0.	- 7.38E-05)	7.30E-08	(4.24E-22 - 7.38E-05)
46	2.58E-04 (4.35E-08	- 8.44E-03)	2.58E-04	(1.17E-07 - 8.44E-03)
47	4.56E-02 (1.79E-03	- 1.56E-01)	4.59E-02	(2.05E-03 - 1.56E-01)
48	4.94E-01 (3.01E-01	- 7.38E-01)	5.40E-01	(3.42E-01 - 7.93E-01)
49	4.31E-01 (2.17E-01	- 6.66E-01)	9.70E-01	(9.41E-01 - 1.00E+00)
50	2.96E-02 (7.24E-04	- 1.23E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
51	1.21E-04 (5.34E-09	- 5.45E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
52	2.42E-08 (0.	- 3.87E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 123 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.100 NU = 1.385 ZP = 48.718

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	4.58E-09 (0.	- 1.46E-05)	4.58E-09	(2.65E-23 - 1.46E-05)
46	3.75E-05 (8.81E-10	- 2.78E-03)	3.75E-05	(5.46E-09 - 2.78E-03)
47	1.48E-02 (1.72E-04	- 8.37E-02)	1.48E-02	(2.10E-04 - 8.38E-02)
48	3.34E-01 (1.21E-01	- 5.29E-01)	3.49E-01	(1.52E-01 - 5.56E-01)
49	5.70E-01 (3.88E-01	- 7.93E-01)	9.19E-01	(8.44E-01 - 1.00E+00)
50	8.04E-02 (5.90E-03	- 2.11E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
51	7.29E-04 (3.58E-07	- 1.53E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	3.37E-07 (7.11E-14	- 1.80E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 124 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .840 NU = 1.058 ZP = 48.981

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	2.55E-10 (0.	- 2.67E-06)	2.55E-10	(1.65E-24 - 2.67E-06)
46	4.71E-06 (1.36E-11	- 8.36E-04)	4.71E-06	(2.69E-10 - 8.36E-04)
47	4.08E-03 (1.21E-05	- 4.06E-02)	4.09E-03	(1.68E-05 - 4.07E-02)
48	1.91E-01 (3.73E-02	- 3.34E-01)	1.95E-01	(4.13E-02 - 3.43E-01)
49	6.28E-01 (4.59E-01	- 8.04E-01)	8.23E-01	(6.80E-01 - 9.69E-01)
50	1.74E-01 (3.03E-02	- 3.15E-01)	9.97E-01	(9.93E-01 - 1.00E+00)
51	3.33E-03 (7.99E-06	- 3.62E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	3.43E-06 (7.20E-12	- 6.95E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 125 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .610 NU = .768 ZP = 49.259

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	4.17E-07 (1.10E-13	- 2.04E-04)	4.17E-07	(1.10E-13 - 2.04E-04)
47	8.40E-04 (4.78E-07	- 1.66E-02)	8.41E-04	(8.95E-07 - 1.66E-02)
48	8.68E-02 (6.92E-03	- 2.20E-01)	8.76E-02	(7.75E-03 - 2.22E-01)
49	5.79E-01 (3.95E-01	- 7.95E-01)	6.66E-01	(4.66E-01 - 8.65E-01)
50	3.20E-01 (1.10E-01	- 5.07E-01)	9.87E-01	(9.73E-01 - 1.00E+00)
51	1.33E-02 (1.38E-04	- 7.89E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	3.15E-05 (6.19E-10	- 2.51E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	3.58E-09 (0.	- 1.26E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 126 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .460 NU = .579 ZP = 49.577

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	1.56E-08 (0.	- 3.42E-05)	1.96E-08	(1.06E-22 - 3.42E-05)
47	1.04E-04 (6.92E-09	- 5.01E-03)	1.04E-04	(2.65E-08 - 5.01E-03)
48	2.71E-02 (6.05E-04	- 1.17E-01)	2.72E-02	(7.09E-04 - 1.17E-01)
49	4.18E-01 (2.03E-01	- 6.50E-01)	4.45E-01	(2.53E-01 - 6.94E-01)
50	5.05E-01 (3.18E-01	- 7.49E-01)	9.50E-01	(9.03E-01 - 1.00E+00)
51	4.93E-02 (2.11E-03	- 1.62E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
52	2.57E-04 (5.78E-08	- 9.14E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	8.55E-08 (7.11E-15	- 8.32E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 127 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .340 NU = .428 ZP = 49.609

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	5.71E-10 (0.	- 4.30E-06)	5.71E-10	(3.31E-24 - 4.30E-06)
47	8.45E-06 (4.40E-11	- 1.17E-03)	8.45E-06	(6.15E-10 - 1.17E-03)
48	5.51E-02 (2.59E-05	- 5.01E-02)	5.92E-02	(3.44E-05 - 5.01E-02)
49	2.26E-01 (5.39E-02	- 3.73E-01)	2.32E-01	(5.97E-02 - 3.85E-01)
50	6.22E-01 (4.44E-01	- 7.94E-01)	8.54E-01	(7.31E-01 - 9.59E-01)
51	1.44E-01 (2.02E-02	- 2.86E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
52	2.25E-02 (3.57E-06	- 2.90E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	1.66E-06 (2.13E-12	- 4.88E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 128 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .280 NU = .353 ZP = 50.271

DEVIATION FROM LCD = 0.00 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	3.72E-07 (8.88E-14	- 1.91E-04)	3.73E-07	(8.88E-14 - 1.91E-04)
48	7.80E-04 (4.10E-07	- 1.55E-02)	7.80E-04	(7.83E-07 - 1.59E-02)
49	8.34E-02 (6.36E-03	- 2.15E-01)	8.42E-02	(7.14E-03 - 2.17E-01)
50	5.74E-01 (3.91E-01	- 7.94E-01)	6.58E-01	(4.60E-01 - 8.61E-01)
51	3.27E-01 (1.16E-01	- 5.15E-01)	9.86E-01	(9.72E-01 - 1.00E+00)
52	1.41E-02 (1.55E-04	- 8.14E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	3.45E-05 (7.46E-10	- 2.65E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	4.00E-09 (0.	- 1.36E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 129 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .280 NU = .353 ZP = 50.504

DEVIATION FROM LCD = -.16 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	4.05E-08 (0.	- 5.23E-05)	4.05E-08	(2.12E-22 - 5.23E-05)
48	1.12E-04 (1.91E-08	- 6.68E-03)	1.72E-04	(5.96E-08 - 6.68E-03)
49	3.63E-02 (1.11E-03	- 1.37E-01)	3.64E-02	(1.28E-03 - 1.38E-01)
50	4.60E-01 (2.54E-01	- 7.03E-01)	4.97E-01	(2.89E-01 - 7.59E-01)
51	4.65E-01 (2.61E-01	- 7.08E-01)	9.62E-01	(9.26E-01 - 1.00E+00)
52	3.15E-02 (1.19E-03	- 1.40E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
53	1.83E-04 (2.16E-08	- 6.92E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	4.42E-08 (0.	- 5.50E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF PL-235 NLEAR METHOD
ESTIMATED FRACTIONAL YIELDS
COD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 130 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .300 NU = .378 ZP = 50.610
DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	1.39E-08	(2.00E-12 - 2.63E-06)	1.39E-08	(2.00E-12 - 2.63E-06)
48	8.21E-05	(7.57E-07 - 1.28E-03)	8.21E-05	(7.71E-07 - 1.28E-03)
49	2.36E-02	(3.66E-03 - 6.85E-02)	2.37E-02	(3.74E-03 - 6.86E-02)
50	3.98E-01	(2.71E-01 - 5.28E-01)	4.22E-01	(2.93E-01 - 5.59E-01)
51	5.22E-01	(3.94E-01 - 6.74E-01)	9.44E-01	(9.02E-01 - 1.00E+00)
52	5.57E-02	(1.35E-02 - 1.24E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
53	3.70E-04	(7.14E-06 - 3.71E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.23E-07	(4.99E-11 - 1.25E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 131 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .380 NU = .479 ZP = 51.029
DEVIATION FROM UCD = -.47 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	3.15E-06	(5.99E-09 - 1.26E-04)	3.15E-06	(5.99E-09 - 1.26E-04)
49	3.16E-03	(1.77E-04 - 1.68E-02)	3.16E-03	(1.80E-04 - 1.68E-02)
50	1.69E-01	(7.08E-02 - 2.66E-01)	1.72E-01	(7.39E-02 - 2.70E-01)
51	6.27E-01	(5.00E-01 - 7.54E-01)	8.00E-01	(6.93E-01 - 8.99E-01)
52	1.96E-01	(8.88E-02 - 2.94E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
53	4.31E-03	(2.82E-04 - 2.09E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	5.11E-06	(1.23E-08 - 1.78E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
55	2.86E-10	(7.11E-15 - 1.62E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 132 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .490 NU = .617 ZP = 51.462
DEVIATION FROM UCD = -.48 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	6.13E-08	(1.78E-11 - 7.58E-06)	6.13E-08	(1.78E-11 - 7.58E-06)
49	2.29E-04	(3.50E-06 - 2.65E-03)	2.29E-04	(3.56E-06 - 2.65E-03)
50	4.27E-02	(8.98E-03 - 1.03E-01)	4.29E-02	(9.21E-03 - 1.03E-01)
51	4.84E-01	(3.64E-01 - 6.32E-01)	5.27E-01	(4.02E-01 - 6.77E-01)
52	4.41E-01	(3.19E-01 - 5.81E-01)	9.68E-01	(9.42E-01 - 1.00E+00)
53	3.18E-02	(5.74E-03 - 8.41E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.37E-04	(1.62E-06 - 1.84E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
55	2.90E-08	(5.90E-12 - 4.44E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 133 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .650 NU = .819 ZP = 51.919
DEVIATION FROM UCD = -.49 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	5.12E-10	(1.78E-14 - 2.46E-07)	5.12E-10	(1.78E-14 - 2.46E-07)
49	7.80E-06	(2.30E-08 - 2.40E-04)	7.81E-06	(2.35E-08 - 2.40E-04)
50	5.63E-03	(4.21E-04 - 2.52E-02)	5.64E-03	(4.29E-04 - 2.52E-02)
51	2.21E-01	(1.08E-01 - 3.20E-01)	2.27E-01	(1.13E-01 - 3.27E-01)
52	6.23E-01	(4.91E-01 - 7.49E-01)	8.50E-01	(7.60E-01 - 9.46E-01)
53	1.47E-01	(5.71E-02 - 2.42E-01)	9.98E-01	(9.95E-01 - 1.00E+00)
54	2.38E-03	(1.15E-04 - 1.38E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
55	2.03E-06	(3.12E-09 - 9.20E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 134 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .850 NU = 1.070 ZP = 52.395
DEVIATION FROM UCD = -.51 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.17E-07	(4.60E-11 - 1.20E-05)	1.17E-07	(4.60E-11 - 1.20E-05)
50	3.58E-04	(6.75E-06 - 3.61E-03)	3.57E-04	(6.87E-06 - 3.61E-03)
51	5.46E-02	(1.31E-02 - 1.22E-01)	5.49E-02	(1.34E-02 - 1.23E-01)
52	5.15E-01	(3.92E-01 - 6.71E-01)	5.74E-01	(4.46E-01 - 7.12E-01)
53	4.02E-01	(2.75E-01 - 5.32E-01)	9.76E-01	(9.55E-01 - 1.00E+00)
54	2.42E-02	(3.80E-03 - 6.96E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
55	8.55E-05	(8.04E-07 - 1.32E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.46E-08	(2.18E-12 - 2.74E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 135 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = .990 NU = 1.247 ZP = 52.843
DEVIATION FROM UCD = -.52 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.15E-05	(5.68E-14 - 4.51E-07)	1.19E-09	(5.68E-14 - 4.51E-07)
50	1.44E-05	(5.67E-08 - 3.71E-04)	1.44E-05	(5.79E-08 - 3.71E-04)
51	8.23E-02	(7.46E-04 - 3.25E-02)	8.25E-03	(7.61E-04 - 3.29E-02)
52	2.62E-01	(1.40E-01 - 3.55E-01)	2.70E-01	(1.48E-01 - 3.70E-01)
53	6.05E-01	(4.74E-01 - 7.47E-01)	8.80E-01	(8.07E-01 - 9.71E-01)
54	1.15E-01	(4.08E-02 - 2.05E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
55	1.54E-02	(6.02E-05 - 1.01E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.04E-06	(1.17E-09 - 5.73E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 136 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.070 NU = 1.347 ZP = 53.261
DEVIATION FROM UCD = -.53 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	4.09E-07	(2.92E-10 - 2.94E-05)	4.09E-07	(2.92E-10 - 2.94E-05)
51	8.29E-04	(2.38E-05 - 6.56E-03)	8.29E-04	(2.42E-05 - 6.56E-03)
52	8.61E-02	(2.48E-02 - 1.67E-01)	8.70E-02	(2.57E-02 - 1.68E-01)
53	5.76E-01	(4.42E-01 - 7.27E-01)	6.65E-01	(5.36E-01 - 7.75E-01)
54	3.22E-01	(1.93E-01 - 4.27E-01)	9.87E-01	(9.75E-01 - 1.00E+00)
55	1.35E-02	(1.57E-03 - 4.63E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	3.20E-05	(1.87E-07 - 6.55E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
57	3.67E-05	(2.81E-13 - 1.01E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 137 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.110 NU = 1.398 ZP = 53.661
DEVIATION FROM UCD = -.54 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	8.28E-05	(9.31E-13 - 1.81E-06)	8.28E-09	(9.31E-13 - 1.81E-06)
51	5.65E-05	(4.39E-07 - 9.86E-04)	5.70E-05	(4.48E-07 - 9.86E-04)
52	1.50E-02	(2.64E-03 - 5.85E-02)	1.91E-02	(2.70E-03 - 5.90E-02)
53	3.66E-01	(2.39E-01 - 4.88E-01)	3.87E-01	(2.57E-01 - 5.14E-01)
54	5.46E-01	(4.14E-01 - 6.98E-01)	9.33E-01	(8.83E-01 - 1.00E+00)
55	6.65E-02	(1.17E-02 - 1.40E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
56	5.12E-04	(1.16E-05 - 4.66E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.55E-07	(1.01E-10 - 1.76E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF PL-235 NLEAR METHODC

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 138 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.140 NU = 1.436 ZP = 54.056
DEVIATION FROM UCD = -.56 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	2.51E-06	(4.28E-09 - 1.07E-04)	2.51E-06	(4.28E-09 - 1.07E-04)
52	2.73E-03	(1.42E-04 - 1.52E-02)	2.73E-03	(1.45E-04 - 1.52E-02)
53	1.58E-01	(6.34E-02 - 2.54E-01)	1.61E-01	(6.61E-02 - 2.57E-01)
54	6.26E-01	(4.96E-01 - 7.51E-01)	7.86E-01	(6.75E-01 - 8.86E-01)
55	2.09E-01	(9.82E-02 - 3.07E-01)	9.95E-01	(9.90E-01 - 1.00E+00)
56	4.95E-03	(3.47E-04 - 2.30E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	6.36E-06	(1.70E-08 - 2.08E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
58	3.86E-10	(1.07E-14 - 2.01E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 139 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.170 NU = 1.473 ZP = 54.450
DEVIATION FROM UCD = -.57 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	6.87E-08	(2.10E-11 - 8.22E-06)	6.87E-08	(2.10E-11 - 8.22E-06)
52	2.48E-04	(3.93E-06 - 2.79E-03)	2.48E-04	(4.00E-06 - 2.80E-03)
53	4.46E-02	(5.60E-03 - 1.08E-01)	4.48E-02	(9.85E-03 - 1.07E-01)
54	4.90E-01	(3.69E-01 - 6.40E-01)	5.35E-01	(4.10E-01 - 6.83E-01)
55	4.34E-01	(3.12E-01 - 5.73E-01)	9.70E-01	(9.45E-01 - 1.00E+00)
56	3.03E-02	(5.35E-03 - 8.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.26E-04	(1.44E-06 - 1.73E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	2.58E-08	(4.97E-12 - 4.08E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 140 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.190 NU = 1.499 ZP = 54.840
DEVIATION FROM UCD = -.58 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	1.22E-09	(5.68E-14 - 4.59E-07)	1.22E-09	(5.68E-14 - 4.59E-07)
52	1.46E-05	(5.83E-08 - 3.76E-04)	1.46E-05	(5.95E-08 - 3.76E-04)
53	8.33E-03	(7.59E-04 - 3.31E-02)	8.34E-03	(7.74E-04 - 3.32E-02)
54	2.63E-01	(1.41E-01 - 3.60E-01)	2.72E-01	(1.49E-01 - 3.71E-01)
55	6.09E-01	(4.73E-01 - 7.47E-01)	8.81E-01	(8.03E-01 - 9.69E-01)
56	1.18E-01	(4.04E-02 - 2.06E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
57	1.52E-03	(5.90E-05 - 1.00E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.02E-06	(1.13E-09 - 5.65E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 141 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.210 NU = 1.524 ZP = 55.230
DEVIATION FROM UCD = -.59 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	5.42E-07	(4.44E-10 - 3.59E-05)	5.42E-07	(4.44E-10 - 3.59E-05)
53	1.00E-03	(3.16E-05 - 7.49E-03)	1.00E-03	(3.21E-05 - 7.49E-03)
54	9.51E-02	(2.89E-02 - 1.78E-01)	9.61E-02	(2.99E-02 - 1.80E-01)
55	5.89E-01	(4.53E-01 - 7.35E-01)	6.85E-01	(5.57E-01 - 7.90E-01)
56	3.03E-01	(1.76E-01 - 4.04E-01)	9.88E-01	(9.78E-01 - 1.00E+00)
57	1.17E-02	(1.26E-03 - 4.19E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	2.53E-05	(1.32E-07 - 5.54E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
59	2.63E-09	(1.74E-13 - 7.96E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 142 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.230 NU = 1.549 ZP = 55.620
DEVIATION FROM UCD = -.60 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	1.26E-08	(1.73E-12 - 2.44E-06)	1.26E-08	(1.73E-12 - 2.44E-06)
53	7.64E-05	(6.81E-07 - 1.22E-03)	7.64E-05	(5.93E-07 - 1.22E-03)
54	2.26E-02	(3.44E-03 - 6.65E-02)	2.27E-02	(3.51E-03 - 6.66E-02)
55	3.52E-01	(2.65E-01 - 5.20E-01)	4.15E-01	(2.86E-01 - 5.50E-01)
56	5.27E-01	(3.98E-01 - 6.75E-01)	9.42E-01	(8.58E-01 - 1.00E+00)
57	5.77E-02	(1.42E-02 - 1.27E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
58	3.95E-04	(7.86E-06 - 3.88E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	1.36E-07	(5.74E-11 - 1.34E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 143 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.250 NU = 1.574 ZP = 56.010
DEVIATION FROM UCD = -.61 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	3.69E-06	(7.56E-09 - 1.41E-04)	3.69E-06	(7.56E-09 - 1.41E-04)
54	3.50E-03	(2.06E-04 - 1.80E-02)	3.50E-03	(2.09E-04 - 1.80E-02)
55	1.78E-01	(7.63E-02 - 2.75E-01)	1.81E-01	(7.97E-02 - 2.80E-01)
56	6.28E-01	(5.02E-01 - 7.55E-01)	8.09E-01	(7.05E-01 - 9.08E-01)
57	1.87E-01	(8.27E-02 - 2.85E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
58	3.90E-03	(2.43E-04 - 1.95E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	4.38E-06	(9.75E-09 - 1.55E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
60	2.31E-10	(7.11E-15 - 1.35E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 144 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.270 NU = 1.599 ZP = 56.400
DEVIATION FROM UCD = -.63 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	1.12E-07	(4.29E-11 - 1.16E-05)	1.12E-07	(4.29E-11 - 1.16E-05)
54	3.45E-04	(6.44E-06 - 3.53E-03)	3.45E-04	(6.55E-06 - 3.53E-03)
55	5.36E-02	(1.27E-02 - 1.21E-01)	5.40E-02	(1.31E-02 - 1.21E-01)
56	5.17E-01	(3.90E-01 - 6.68E-01)	5.71E-01	(4.43E-01 - 7.10E-01)
57	4.05E-01	(2.78E-01 - 5.36E-01)	9.75E-01	(9.54E-01 - 1.00E+00)
58	2.47E-02	(3.92E-03 - 7.06E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	8.86E-05	(8.48E-07 - 1.35E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	1.55E-08	(2.35E-12 - 2.84E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 145 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.300 NU = 1.637 ZP = 56.795
DEVIATION FROM UCD = -.64 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	2.00E-05	(1.17E-13 - 6.54E-07)	2.00E-05	(1.17E-13 - 6.54E-07)
54	2.08E-05	(9.85E-08 - 4.83E-04)	2.08E-05	(1.01E-07 - 4.83E-04)
55	1.04E-02	(1.05E-03 - 3.86E-02)	1.04E-02	(1.08E-03 - 3.86E-02)
56	2.85E-01	(1.63E-01 - 3.87E-01)	2.99E-01	(1.73E-01 - 4.02E-01)
57	5.57E-01	(4.61E-01 - 7.41E-01)	8.96E-01	(8.26E-01 - 9.82E-01)
58	1.03E-01	(3.27E-02 - 1.88E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
59	1.16E-03	(3.96E-05 - 8.33E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	6.81E-07	(6.22E-10 - 4.23E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION CF PL-235 NLBAR METHOD

ESTIMATED FRACTIONAL YIELDS

COD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

PASS 146 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.380 NU = 1.738 ZP = 57.214

DEVIATION FROM UCD = -.65 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	OF FIY	FCY	RANGE OF FCY
54	6.30E-07	(5.54E-10 - 4.00E-05)	6.30E-07	(5.54E-10 - 4.00E-05)			
55	1.11E-03	(3.66E-05 - 8.03E-03)	1.11E-03	(3.73E-05 - 8.03E-03)			
56	1.00E-01	(3.14E-02 - 1.85E-01)	1.01E-01	(3.25E-02 - 1.86E-01)			
57	5.94E-01	(4.58E-01 - 7.39E-01)	6.95E-01	(5.69E-01 - 7.99E-01)			
58	2.54E-01	(1.68E-01 - 3.93E-01)	9.89E-01	(9.80E-01 - 1.00E+00)			
59	1.08E-02	(1.12E-03 - 3.97E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
60	2.23E-05	(1.09E-07 - 5.06E-04)	1.00E+00	(1.00E+00 - 1.00E+00)			
61	2.20E-09	(1.35E-13 - 7.00E-07)	1.00E+00	(1.00E+00 - 1.00E+00)			

PASS 147 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.550 NU = 1.952 ZP = 57.676

DEVIATION FROM UCD = -.56 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	OF FIY	FCY	RANGE OF FCY
54	7.12E-09	(7.46E-13 - 1.62E-06)	7.12E-09	(7.46E-13 - 1.62E-06)			
55	5.12E-05	(3.75E-07 - 9.15E-04)	5.12E-05	(3.82E-07 - 9.15E-04)			
56	1.79E-02	(2.40E-03 - 5.64E-02)	1.79E-02	(2.45E-03 - 5.65E-02)			
57	3.59E-01	(2.30E-01 - 4.77E-01)	3.77E-01	(2.47E-01 - 5.01E-01)			
58	5.53E-01	(4.20E-01 - 7.05E-01)	9.30E-01	(8.78E-01 - 1.00E+00)			
59	6.99E-02	(1.80E-02 - 1.45E-01)	9.99E-01	(9.99E-01 - 1.00E+00)			
60	5.61E-04	(1.33E-05 - 4.98E-03)	1.00E+00	(1.00E+00 - 1.00E+00)			
61	2.28E-07	(1.24E-10 - 1.94E-05)	1.00E+00	(1.00E+00 - 1.00E+00)			

PASS 148 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.620 NU = 2.040 ZP = 58.089

DEVIATION FROM UCD = -.68 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	OF FIY	FCY	RANGE OF FCY
55	1.88E-06	(2.80E-09 - 8.73E-05)	1.88E-06	(2.80E-09 - 8.73E-05)			
56	2.27E-03	(1.07E-04 - 1.33E-02)	2.27E-03	(1.09E-04 - 1.33E-02)			
57	1.44E-01	(5.51E-02 - 2.39E-01)	1.46E-01	(5.73E-02 - 2.42E-01)			
58	6.22E-01	(4.90E-01 - 7.49E-01)	7.68E-01	(6.53E-01 - 8.69E-01)			
59	2.26E-01	(1.11E-01 - 3.24E-01)	9.94E-01	(9.89E-01 - 1.00E+00)			
60	5.88E-03	(4.49E-04 - 2.60E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
61	8.36E-06	(2.55E-08 - 2.52E-04)	1.00E+00	(1.00E+00 - 1.00E+00)			
62	5.63E-10	(2.13E-14 - 2.63E-07)	1.00E+00	(1.00E+00 - 1.00E+00)			

PASS 149 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.680 NU = 2.116 ZP = 58.499

DEVIATION FROM UCD = -.69 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	OF FIY	FCY	RANGE OF FCY
55	4.29E-08	(1.05E-11 - 5.87E-06)	4.29E-08	(1.05E-11 - 5.87E-06)			
56	1.79E-04	(2.42E-06 - 2.22E-03)	1.79E-04	(2.47E-06 - 2.22E-03)			
57	3.71E-02	(7.27E-03 - 9.36E-02)	3.73E-02	(7.45E-03 - 9.39E-02)			
58	4.64E-01	(3.44E-01 - 6.09E-01)	5.01E-01	(3.80E-01 - 6.56E-01)			
59	4.62E-01	(3.44E-01 - 6.07E-01)	9.63E-01	(9.34E-01 - 1.00E+00)			
60	3.67E-02	(7.14E-03 - 9.29E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
61	1.76E-04	(2.35E-06 - 2.19E-03)	1.00E+00	(1.00E+00 - 1.00E+00)			
62	4.17E-08	(1.01E-11 - 5.75E-06)	1.00E+00	(1.00E+00 - 1.00E+00)			

PASS 150 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.720 NU = 2.166 ZP = 58.898

DEVIATION FROM UCD = -.70 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	OF FIY	FCY	RANGE OF FCY
55	6.46E-10	(1.0E-12 - 4.62E-06)	6.46E-10	(3.31E-24 - 4.62E-06)			
56	9.25E-06	(5.28E-11 - 1.24E-03)	9.25E-06	(7.01E-10 - 1.24E-03)			
57	6.26E-03	(2.91E-02 - 5.17E-02)	6.26E-03	(3.84E-05 - 5.17E-02)			
58	2.32E-01	(5.70E-02 - 3.88E-01)	7.39E-01	(6.31E-02 - 7.39E-01)			
59	6.20E-01	(4.41E-01 - 7.91E-01)	8.59E-01	(7.39E-01 - 1.00E+00)			
60	1.35E-01	(1.89E-02 - 2.82E-01)	9.98E-01	(9.98E-01 - 1.00E+00)			
61	2.11E-03	(3.14E-06 - 2.80E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
62	1.65E-06	(1.75E-12 - 4.61E-04)	1.00E+00	(1.00E+00 - 1.00E+00)			

PASS 151 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.730 NU = 2.179 ZP = 59.283

DEVIATION FROM UCD = -.71 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	OF FIY	FCY	RANGE OF FCY
56	3.25E-07	(7.11E-14 - 1.80E-04)	3.25E-07	(7.11E-14 - 1.80E-04)			
57	7.25E-04	(3.54E-07 - 1.52E-02)	7.25E-04	(6.89E-07 - 1.52E-02)			
58	8.02E-02	(5.87E-03 - 2.11E-01)	8.10E-02	(6.59E-03 - 2.12E-01)			
59	5.70E-01	(3.87E-01 - 7.93E-01)	6.51E-01	(4.54E-01 - 8.58E-01)			
60	3.34E-01	(1.21E-01 - 5.30E-01)	9.89E-01	(9.70E-01 - 1.00E+00)			
61	1.45E-02	(1.73E-04 - 8.35E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
62	3.77E-05	(8.91E-10 - 2.75E-03)	1.00E+00	(1.00E+00 - 1.00E+00)			
63	4.62E-09	(1.0E-12 - 1.47E-05)	1.00E+00	(1.00E+00 - 1.00E+00)			

PASS 152 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.750 NU = 2.204 ZP = 59.673

DEVIATION FROM UCD = -.72 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	OF FIY	FCY	RANGE OF FCY
56	7.25E-05	(1.0E-12 - 1.92E-03)	7.25E-05	(2.65E-23 - 1.92E-03)			
57	5.21E-05	(1.71E-09 - 3.36E-03)	5.21E-05	(9.00E-09 - 3.36E-03)			
58	1.50E-02	(2.59E-04 - 9.34E-02)	1.81E-02	(3.11E-04 - 5.35E-02)			
59	3.60E-01	(1.44E-01 - 5.65E-01)	7.79E-01	(1.88E-01 - 6.01E-01)			
60	5.52E-01	(3.72E-01 - 7.84E-01)	9.30E-01	(8.65E-01 - 1.00E+00)			
61	6.54E-02	(4.31E-03 - 1.95E-01)	9.98E-01	(9.98E-01 - 1.00E+00)			
62	5.53E-04	(2.04E-07 - 1.30E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
63	2.23E-07	(3.20E-14 - 1.42E-04)	1.00E+00	(1.00E+00 - 1.00E+00)			

PASS 153 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.760 NU = 2.216 ZP = 60.098

DEVIATION FROM UCD = -.73 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY	OF FIY	FCY	RANGE OF FCY
57	2.46E-06	(3.71E-12 - 5.73E-04)	2.46E-06	(3.71E-12 - 5.73E-04)			
58	2.65E-03	(5.15E-06 - 3.21E-02)	2.69E-03	(7.61E-06 - 3.21E-02)			
59	1.57E-01	(2.43E-02 - 2.95E-01)	1.59E-01	(2.70E-02 - 3.05E-01)			
60	2.25E-01	(4.51E-01 - 8.00E-01)	7.85E-01	(6.20E-01 - 9.33E-01)			
61	2.11E-01	(4.58E-01 - 3.53E-01)	9.98E-01	(9.98E-01 - 1.00E+00)			
62	5.61E-02	(1.85E-02 - 4.95E-02)	1.00E+00	(1.00E+00 - 1.00E+00)			
63	6.55E-06	(2.60E-11 - 1.01E-03)	1.00E+00	(1.00E+00 - 1.00E+00)			
64	3.55E-10	(1.0E-12 - 3.47E-06)	1.00E+00	(1.00E+00 - 1.00E+00)			

FISSION SPECTRUM NEUTRON FISSION OF PL-239 ALBAR METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 154 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.750 NU = 2.204 ZP = 60.434
DEVIATION FROM LCD = -.75 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	8.06E-09	(7.11E-15 - 7.82E-05)	8.06E-08	(7.11E-15 - 7.82E-05)
58	2.77E-04	(5.00E-08 - 8.77E-03)	2.77E-04	(1.31E-07 - 8.77E-03)
59	4.74E-02	(1.94E-03 - 1.59E-01)	4.77E-02	(2.22E-03 - 1.59E-01)
60	4.99E-01	(3.10E-01 - 7.44E-01)	5.47E-01	(3.52E-01 - 7.98E-01)
61	4.25E-01	(2.10E-01 - 6.59E-01)	9.72E-01	(9.44E-01 - 1.00E+00)
62	2.84E-02	(6.64E-04 - 1.20E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
63	1.12E-04	(3.07E-09 - 5.23E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
64	2.19E-08	(0. - 3.65E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 155 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.690 NU = 2.128 ZP = 60.786
DEVIATION FROM LCD = -.76 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	2.22E-09	(0. - 9.53E-06)	2.22E-09	(1.32E-23 - 9.53E-06)
58	2.24E-05	(3.12E-10 - 2.06E-03)	2.24E-05	(2.53E-09 - 2.06E-03)
59	1.08E-02	(9.01E-05 - 7.03E-02)	1.08E-02	(1.12E-04 - 7.03E-02)
60	2.54E-01	(9.08E-02 - 4.65E-01)	3.05E-01	(1.01E-01 - 4.86E-01)
61	5.54E-01	(4.10E-01 - 7.96E-01)	8.99E-01	(8.08E-01 - 1.00E+00)
62	9.59E-02	(9.33E-03 - 2.37E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
63	1.10E-03	(8.29E-07 - 1.93E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	6.26E-07	(2.42E-13 - 2.59E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 156 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.530 NU = 1.927 ZP = 61.089
DEVIATION FROM LCD = -.77 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	1.88E-06	(2.18E-12 - 4.91E-04)	1.88E-06	(2.18E-12 - 4.91E-04)
59	2.27E-03	(3.63E-06 - 2.91E-02)	2.27E-03	(5.51E-06 - 2.91E-02)
60	1.44E-01	(2.03E-02 - 2.87E-01)	1.46E-01	(2.26E-02 - 2.92E-01)
61	6.22E-01	(4.44E-01 - 7.94E-01)	7.68E-01	(5.96E-01 - 9.21E-01)
62	2.26E-01	(5.35E-02 - 3.72E-01)	9.94E-01	(9.88E-01 - 1.00E+00)
63	5.87E-03	(2.56E-05 - 4.99E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	8.36E-06	(4.31E-11 - 1.17E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
65	5.63E-10	(0. - 4.26E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 157 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.440 NU = 1.813 ZP = 61.427
DEVIATION FROM LCD = -.78 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	8.66E-08	(7.11E-15 - 8.16E-05)	8.66E-08	(7.11E-15 - 8.16E-05)
59	2.90E-04	(5.52E-08 - 9.02E-03)	2.91E-04	(1.42E-07 - 9.02E-03)
60	4.87E-02	(2.05E-03 - 1.61E-01)	4.90E-02	(2.34E-03 - 1.62E-01)
61	5.03E-01	(3.15E-01 - 7.47E-01)	5.52E-01	(3.59E-01 - 8.02E-01)
62	4.20E-01	(2.05E-01 - 6.53E-01)	9.72E-01	(9.45E-01 - 1.00E+00)
63	2.75E-02	(6.24E-04 - 1.18E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
64	1.07E-04	(7.27E-09 - 5.68E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
65	2.03E-08	(0. - 3.49E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 158 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.410 NU = 1.776 ZP = 61.793
DEVIATION FROM LCD = -.79 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	2.06E-09	(0. - 9.12E-06)	2.06E-09	(1.32E-23 - 9.12E-06)
59	2.12E-05	(2.80E-10 - 2.00E-03)	2.12E-05	(2.34E-09 - 2.00E-03)
60	1.05E-02	(8.41E-05 - 6.90E-02)	1.05E-02	(1.05E-04 - 6.90E-02)
61	2.50E-01	(8.80E-02 - 4.55E-01)	3.01E-01	(9.83E-02 - 4.79E-01)
62	5.46E-01	(4.12E-01 - 7.96E-01)	8.97E-01	(8.04E-01 - 1.00E+00)
63	1.02E-01	(9.77E-03 - 2.40E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
64	1.15E-03	(5.02E-07 - 1.98E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
65	6.67E-07	(2.74E-13 - 2.66E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 159 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.400 NU = 1.763 ZP = 62.168
DEVIATION FROM LCD = -.80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	9.46E-07	(5.51E-13 - 3.29E-04)	9.46E-07	(5.51E-13 - 3.29E-04)
60	1.45E-03	(1.45E-06 - 2.26E-02)	1.45E-03	(2.39E-06 - 2.26E-02)
61	1.15E-01	(1.26E-02 - 2.55E-01)	1.16E-01	(1.14E-02 - 2.58E-01)
62	6.07E-01	(4.24E-01 - 7.92E-01)	7.23E-01	(5.29E-01 - 8.86E-01)
63	2.68E-01	(7.37E-02 - 4.22E-01)	9.91E-01	(9.83E-01 - 1.00E+00)
64	8.66E-03	(5.71E-05 - 6.21E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
65	1.56E-05	(1.52E-10 - 1.66E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
66	1.34E-09	(0. - 7.10E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 160 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.400 NU = 1.763 ZP = 62.557
DEVIATION FROM LCD = -.80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	2.39E-08	(0. - 3.84E-05)	2.39E-08	(1.06E-22 - 3.84E-05)
60	1.20E-04	(9.16E-09 - 5.42E-03)	1.20E-04	(3.31E-08 - 5.42E-03)
61	2.54E-02	(7.16E-04 - 1.22E-01)	2.95E-02	(8.35E-04 - 1.23E-01)
62	4.30E-01	(2.16E-01 - 6.65E-01)	4.59E-01	(2.62E-01 - 7.13E-01)
63	4.55E-01	(3.02E-01 - 7.35E-01)	9.54E-01	(9.10E-01 - 1.00E+00)
64	4.55E-02	(1.81E-03 - 1.56E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
65	2.61E-04	(4.44E-08 - 8.46E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
66	7.40E-08	(0. - 7.44E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 161 FISSION PRODUCT CHAIN

NU BAR = 3.060 NU REF = 1.400 NU = 1.763 ZP = 62.949
DEVIATION FROM LCD = -.80 +/- .25 SIGMA = .56 +/- .15

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	3.67E-10	(0. - 3.31E-06)	3.67E-10	(0. - 3.31E-06)
60	6.13E-06	(2.31E-11 - 9.74E-04)	6.13E-06	(3.90E-10 - 9.74E-04)
61	4.83E-03	(1.71E-05 - 4.47E-02)	4.84E-03	(2.32E-05 - 4.47E-02)
62	2.07E-01	(4.41E-02 - 3.45E-01)	2.11E-01	(4.89E-02 - 3.59E-01)
63	6.26E-01	(4.53E-01 - 8.01E-01)	8.38E-01	(7.03E-01 - 9.83E-01)
64	1.60E-01	(2.53E-02 - 3.02E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
65	2.80E-03	(5.59E-06 - 3.26E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
66	2.61E-06	(4.19E-12 - 5.94E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

FISSION SPECTRUM NEUTRON FISSION OF PL-235 NUBAR METHOD
 ZP VALUES
 (1) FROM DEVIATION FROM UCD - SCALE AL(A) ACCORDING TO NUBAR. (2) FROM CORVELL DELTA ZP.
 (3) FROM NETHAWAY DELTA ZP. (4) FROM DEVIATION FROM UCD AND NUBAR.

72	29.30	25.03	28.86	29.23	117	46.75	46.62	46.45	46.60
73	31.17	25.42	29.25	29.87	118	41.16	46.57	47.12	47.00
74	30.08	25.81	29.64	30.01	119	41.50	47.27	47.42	47.33
75	30.47	30.20	30.03	30.42	120	41.83	47.58	47.73	47.66
76	30.86	30.59	30.42	30.83	121	46.14	47.88	48.03	48.01
77	31.26	30.99	30.82	31.21	122	46.44	48.18	48.33	48.32
78	31.65	31.40	31.23	31.62	123	46.72	48.55	48.70	48.61
79	32.12	31.83	31.66	32.06	124	46.98	48.71	48.86	48.89
80	32.50	32.22	32.05	32.47	125	45.26	48.59	49.14	49.19
81	32.90	32.63	32.46	32.87	126	45.58	48.29	49.44	49.53
82	33.29	33.03	32.86	33.26	127	45.91	48.60	49.75	49.87
83	33.65	33.44	33.27	33.66	128	50.27	45.54	50.05	50.23
84	34.10	33.85	33.68	34.09	129	50.50	50.30	50.45	50.51
85	34.51	34.26	34.09	34.49	130	50.61	50.67	50.82	50.84
86	34.92	34.68	34.51	34.89	131	51.03	51.08	51.23	51.23
87	35.35	35.10	34.93	35.31	132	51.46	51.49	51.64	51.64
88	35.77	35.53	35.36	35.72	133	51.92	51.93	52.08	52.08
89	36.18	35.94	35.77	36.13	134	52.40	52.40	52.55	52.58
90	36.57	36.34	36.17	36.54	135	52.84	52.84	52.99	52.99
91	36.97	36.74	36.57	36.94	136	53.26	53.26	53.41	53.41
92	37.36	37.14	36.97	37.33	137	53.66	53.67	53.82	53.82
93	37.77	37.55	37.38	37.73	138	54.06	54.07	54.22	54.22
94	38.16	37.95	37.78	38.12	139	54.45	54.47	54.62	54.62
95	38.56	38.36	38.19	38.50	140	54.84	54.87	55.02	55.02
96	38.95	38.75	38.58	38.87	141	55.23	55.27	55.42	55.42
97	39.33	39.15	38.98	39.24	142	55.62	55.67	55.82	55.82
98	39.71	39.53	39.37	39.60	143	56.01	56.06	56.21	56.21
99	40.09	39.93	39.76	40.01	144	56.40	56.46	56.61	56.61
100	40.44	40.29	40.12	40.41	145	56.80	56.86	57.01	57.01
101	40.79	40.66	40.49	40.76	146	57.21	57.28	57.43	57.43
102	41.16	41.03	40.86	41.12	147	57.68	57.74	57.89	57.89
103	41.52	41.39	41.22	41.51	148	58.05	58.16	58.31	58.31
104	41.88	41.75	41.58	41.91	149	58.50	58.57	58.72	58.72
105	42.31	42.16	41.99	42.31	150	58.90	58.98	59.13	59.13
106	42.75	42.57	42.40	42.67	151	59.26	59.37	59.52	59.52
107	43.19	43.00	42.83	43.09	152	59.67	59.77	59.92	59.92
108	43.51	43.60	43.43	43.34	153	60.06	60.16	60.31	60.31
109	44.01	44.03	43.86	44.02	154	60.43	60.55	60.70	60.70
110	44.37	44.36	44.19	44.38	155	60.79	60.91	61.06	61.06
111	44.70	44.68	44.51	44.74	156	61.05	61.24	61.39	61.39
112	45.01	44.98	44.81	45.08	157	61.43	61.59	61.74	61.74
113	45.34	45.29	45.12	45.38	158	61.79	61.97	62.12	62.12
114	45.68	45.59	45.42	45.65	159	62.17	62.36	62.51	62.51
115	46.05	45.94	45.77	46.02	160	62.56	62.75	62.90	62.90
116	46.42	46.28	46.11	46.38	161	62.95	63.14	63.29	63.29

FISSION SPECTRUM NEUTRON FISSION OF PL-239 NUCLEAR METHOD

Z	A ISOMER	EXPTL. VALUE	UNCERTAINTY		PROCESS	TYPE	PRIMARY YIELD	PRIMARY REF.	SECONDARY REFERENCE OR COMMENTS	ESTIMATED		FIT
			PLUS	MINUS						VALUE	RANGE	
54	XE133M	6.950E-03	2.700E-04	2.700E-04	PU239F	FI	73FCR1		K-F73-5	2.377E-03	(1.154E-04 - 1.376E-02)	YES
54	XE133G	1.840E-03	1.500E-04	1.500E-04	PU239F	FI	73FCR1		K-F73-5	2.377E-03	(1.154E-04 - 1.376E-02)	YES
54	XE133 SUM	8.730E-03	3.200E-04	3.200E-04	PU239F	FI	73FCR1		K-F73-5	2.377E-03	(1.154E-04 - 1.376E-02)	YES
54	XE135M	1.090E-01	5.600E-02	5.600E-02	PU239F	FI	73FCR1		K-F73-5	1.187E-01	(4.082E-02 - 2.092E-01)	YES
54	XE135G	8.100E-02	9.100E-03	9.100E-03	PU239F	FI	73FCR1		K-F73-5	1.187E-01	(4.082E-02 - 2.092E-01)	YES
54	XE135 SUM	1.905E-01	7.200E-03	7.200E-03	PU239F	FI	73FCR1		K-F73-5	1.187E-01	(4.082E-02 - 2.092E-01)	YES
55	CS136	1.970E-02	2.000E-03	2.000E-03	PU239F	FI	72KN01		K-K72-2	1.346E-02	(1.566E-03 - 4.634E-02)	YES

14.6 MEV NEUTRON FISSION OF U-235 - NLCT METHOD

4.4800	2	92	235	-0	-014.600	1.150	.150				
4	.56	.09	.18	.18	.45	.15	.30	.30	-0	2	-0 -0

NUBAR =4.4800

FOR ZP(1), NU(A) IS FROM U-238 + 12 MEV-PROTONS, ADJUSTED ACCORDING TO NUBAR.

ODD-EVEN Z EFFECT = 1.15 +/- .15 .

FOR ZP(4), NU(A) IS FROM NUTCT(A) DIVIDED ACCORDING TO THE NU(A) FUNCTION USED FOR ZP(1).

SIGMA = .560. UNCERTAINTIES FOR REGIONS SYMMETRY TO 129, 130 TO 151, 152 TO 161 ARE +/- .180 .090 .180.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION SYMMETRY TO 129 IS 0.00 +/- .300.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 130-151 IS - .450 +/- .150.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 152-161 IS - .450 +/- .300.

SAME UNCERTAINTIES ARE USED FOR ZP(2) AND ZP(3).

TYPE OF ZP FUNCTION USED IS 4.

14.6 MEV NEUTRON FISSION OF U-235 - NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 74 FISSION PRODUCT CHAIN
 NLCT = 3.353 NU = .699 ZP = 29.570
 DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	2.38E-08 (0.	- 1.03E-04)	2.38E-08 (0.	- 1.03E-04)
27	9.35E-05 (1.91E-10	- 7.09E-03)	9.35E-05 (2.40E-08	- 7.09E-03)
28	3.16E-02 (1.77E-04	- 1.59E-01)	3.17E-02 (2.70E-04	- 1.59E-01)
29	3.61E-01 (1.34E-01	- 6.09E-01)	3.92E-01 (1.64E-01	- 6.72E-01)
30	5.66E-01 (2.93E-01	- 8.99E-01)	9.59E-01 (9.18E-01	- 1.00E+00)
31	4.11E-02 (5.15E-04	- 1.57E-01)	1.00E+00 (9.99E-01	- 1.00E+00)
32	3.20E-04 (2.48E-09	- 1.54E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
33	7.14E-08 (0.	- 1.61E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 75 FISSION PRODUCT CHAIN
 NLCT = 3.214 NU = .670 ZP = 29.948
 DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	4.05E-10 (0.	- 1.15E-05)	4.05E-10 (0.	- 1.15E-05)
27	5.11E-06 (1.98E-13	- 1.53E-03)	5.11E-06 (4.05E-10	- 1.53E-03)
28	5.32E-03 (2.31E-06	- 6.43E-02)	5.33E-03 (7.42E-06	- 6.43E-02)
29	1.72E-01 (2.03E-02	- 3.12E-01)	1.77E-01 (2.55E-02	- 3.29E-01)
30	6.87E-01 (4.73E-01	- 9.12E-01)	8.65E-01 (7.42E-01	- 1.00E+00)
31	1.32E-01 (1.04E-02	- 2.67E-01)	9.97E-01 (9.94E-01	- 1.00E+00)
32	3.07E-03 (6.04E-07	- 4.85E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
33	2.16E-06 (2.65E-14	- 9.68E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 76 FISSION PRODUCT CHAIN
 NLCT = 3.044 NU = .634 ZP = 30.324
 DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	1.93E-07 (0.	- 2.72E-04)	1.93E-07 (8.47E-22	- 2.72E-04)
28	6.27E-04 (1.27E-08	- 2.16E-02)	6.27E-04 (2.06E-07	- 2.16E-02)
29	5.91E-02 (1.30E-03	- 1.85E-01)	5.97E-02 (1.93E-03	- 1.88E-01)
30	6.17E-01 (3.92E-01	- 9.20E-01)	6.77E-01 (4.57E-01	- 9.24E-01)
31	3.03E-01 (8.41E-02	- 5.26E-01)	9.80E-01 (9.60E-01	- 1.00E+00)
32	1.99E-02 (5.75E-05	- 1.26E-01)	1.00E+00 (1.00E+00	- 1.00E+00)
33	4.32E-05 (3.07E-11	- 4.71E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
34	7.54E-09 (0.	- 5.68E-05)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 77 FISSION PRODUCT CHAIN
 NLCT = 3.041 NU = .634 ZP = 30.714
 DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	4.20E-09 (0.	- 3.62E-05)	4.20E-09 (2.65E-23	- 3.62E-05)
28	4.49E-05 (2.16E-11	- 5.61E-03)	4.49E-05 (4.22E-09	- 5.61E-03)
29	1.33E-02 (2.99E-05	- 9.13E-02)	1.33E-02 (7.47E-05	- 9.16E-02)
30	3.92E-01 (5.68E-02	- 6.84E-01)	4.05E-01 (2.04E-01	- 6.95E-01)
31	5.01E-01 (3.21E-01	- 7.28E-01)	9.07E-01 (8.16E-01	- 1.00E+00)
32	9.27E-02 (2.49E-03	- 2.72E-01)	9.99E-01 (9.99E-01	- 1.00E+00)
33	6.28E-04 (1.78E-08	- 1.93E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
34	3.80E-07 (0.	- 4.54E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 78 FISSION PRODUCT CHAIN
 NLCT = 3.217 NU = .670 ZP = 31.118
 DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	1.73E-06 (1.26E-14	- 1.02E-03)	1.73E-06 (1.26E-14	- 1.02E-03)
29	1.72E-03 (2.00E-07	- 3.26E-02)	1.72E-03 (1.93E-06	- 3.27E-02)
30	1.57E-01 (5.26E-03	- 3.50E-01)	1.59E-01 (1.10E-02	- 3.54E-01)
31	5.51E-01 (3.70E-01	- 7.26E-01)	7.10E-01 (4.76E-01	- 9.27E-01)
32	2.64E-01 (4.29E-02	- 4.94E-01)	9.94E-01 (9.88E-01	- 1.00E+00)
33	6.06E-03 (4.28E-06	- 6.15E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
34	1.24E-05 (1.00E-12	- 2.87E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
35	6.51E-10 (0.	- 1.35E-05)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 79 FISSION PRODUCT CHAIN
 NLCT = 3.516 NU = .748 ZP = 31.538
 DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	3.28E-06 (0.	- 1.22E-04)	3.28E-06 (2.12E-22	- 1.22E-04)
29	1.17E-04 (3.25E-10	- 7.98E-03)	1.17E-04 (3.31E-08	- 7.58E-03)
30	3.60E-02 (2.43E-04	- 1.70E-01)	3.61E-02 (3.60E-04	- 1.70E-01)
31	3.78E-01 (1.53E-01	- 6.31E-01)	4.14E-01 (1.86E-01	- 7.00E-01)
32	5.46E-01 (2.66E-01	- 8.86E-01)	9.63E-01 (9.27E-01	- 1.00E+00)
33	3.66E-02 (3.85E-04	- 1.45E-01)	1.00E+00 (9.99E-01	- 1.00E+00)
34	2.61E-04 (1.50E-09	- 1.38E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
35	5.28E-08 (0.	- 1.36E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 80 FISSION PRODUCT CHAIN
 NLCT = 3.228 NU = .762 ZP = 31.933
 DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	4.60E-10 (0.	- 1.26E-05)	4.80E-10 (3.31E-24	- 1.26E-05)
29	5.78E-06 (2.66E-13	- 1.63E-03)	5.78E-06 (4.80E-10	- 1.63E-03)
30	5.75E-03 (2.79E-06	- 6.68E-02)	5.75E-03 (8.56E-06	- 6.69E-02)
31	1.78E-01 (2.23E-02	- 3.15E-01)	1.84E-01 (2.79E-02	- 3.38E-01)
32	6.66E-01 (4.69E-01	- 9.05E-01)	8.70E-01 (7.52E-01	- 1.00E+00)
33	1.27E-01 (9.37E-03	- 2.62E-01)	9.97E-01 (9.94E-01	- 1.00E+00)
34	2.63E-03 (4.95E-07	- 4.66E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
35	1.90E-06 (2.07E-14	- 9.06E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 81 FISSION PRODUCT CHAIN
 NLCT = 3.482 NU = .858 ZP = 32.376
 DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	1.19E-07 (0.	- 2.11E-04)	1.19E-07 (0.	- 2.11E-04)
30	4.52E-04 (5.73E-09	- 1.83E-02)	4.53E-04 (1.25E-07	- 1.63E-02)
31	4.96E-02 (8.34E-04	- 1.71E-01)	5.00E-02 (1.28E-03	- 1.73E-01)
32	5.54E-01 (3.43E-01	- 9.14E-01)	6.44E-01 (4.18E-01	- 9.08E-01)
33	3.31E-01 (1.07E-01	- 5.65E-01)	9.75E-01 (9.50E-01	- 1.00E+00)
34	2.51E-02 (1.01E-04	- 1.41E-01)	1.00E+00 (1.00E+00	- 1.00E+00)
35	6.34E-05 (7.62E-11	- 5.77E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
36	1.27E-08 (0.	- 7.61E-05)	1.00E+00 (1.00E+00	- 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-235 - NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 82 FISSION PRODUCT CHAIN

NLCT = 3.834 NU = .918 ZP = 32.774

DEVIATION FROM LCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	2.23E-09 (C.	- 2.59E-05)	2.23E-09 (1.32E-23 - 2.59E-05)	
30	2.87E-05 (7.38E-12	- 4.45E-03)	2.87E-05 (2.24E-09 - 4.45E-03)	
31	1.01E-02 (1.53E-05	- 8.00E-02)	1.02E-02 (4.39E-05 - 8.02E-02)	
32	3.53E-01 (7.68E-02	- 6.18E-01)	3.63E-01 (1.50E-01 - 6.37E-01)	
33	5.23E-01 (3.40E-01	- 7.28E-01)	8.86E-01 (7.77E-01 - 1.00E+00)	
34	1.13E-01 (4.06E-03	- 2.99E-01)	9.99E-01 (9.98E-01 - 1.00E+00)	
35	9.10E-04 (4.31E-08	- 2.35E-02)	1.00E+00 (1.00E+00 - 1.00E+00)	
36	6.60E-07 (C.	- 6.09E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 83 FISSION PRODUCT CHAIN

NLCT = 4.388 NU = 1.009 ZP = 33.199

DEVIATION FROM LCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	8.43E-07 (C.	- 6.94E-04)	8.43E-07 (3.39E-21 - 6.94E-04)	
31	1.07E-03 (6.36E-08	- 2.55E-02)	1.07E-03 (9.07E-07 - 2.55E-02)	
32	1.23E-01 (5.02E-03	- 3.12E-01)	1.24E-01 (6.09E-03 - 3.14E-01)	
33	5.32E-01 (3.48E-01	- 7.25E-01)	6.56E-01 (4.37E-01 - 9.15E-01)	
34	3.35E-01 (6.69E-02	- 5.86E-01)	9.91E-01 (9.82E-01 - 1.00E+00)	
35	8.55E-03 (1.12E-05	- 7.52E-02)	1.00E+00 (1.00E+00 - 1.00E+00)	
36	7.34E-05 (4.52E-12	- 4.00E-03)	1.00E+00 (1.00E+00 - 1.00E+00)	
37	1.67E-09 (C.	- 2.22E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 84 FISSION PRODUCT CHAIN

NLCT = 4.269 NU = 1.140 ZP = 33.640

DEVIATION FROM LCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	1.15E-08 (1.43E-12	- 2.37E-06)	1.15E-08 (1.43E-12 - 2.37E-06)	
31	5.62E-05 (4.67E-07	- 9.31E-04)	5.62E-05 (4.79E-07 - 9.31E-04)	
32	2.33E-02 (3.39E-03	- 7.03E-02)	2.34E-02 (3.45E-03 - 7.04E-02)	
33	3.22E-01 (2.14E-01	- 4.28E-01)	3.46E-01 (2.35E-01 - 4.61E-01)	
34	6.01E-01 (4.55E-01	- 7.72E-01)	9.47E-01 (9.07E-01 - 1.00E+00)	
35	5.24E-02 (1.26E-02	- 1.13E-01)	9.95E-01 (9.99E-01 - 1.00E+00)	
36	5.02E-04 (1.06E-05	- 4.76E-03)	1.00E+00 (1.00E+00 - 1.00E+00)	
37	1.39E-07 (6.41E-11	- 1.30E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 85 FISSION PRODUCT CHAIN

NLCT = 4.220 NU = 1.262 ZP = 34.078

DEVIATION FROM LCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	1.73E-06 (2.70E-09	- 7.80E-05)	1.73E-06 (2.70E-09 - 7.80E-05)	
32	2.66E-03 (1.30E-04	- 1.53E-02)	2.66E-03 (1.32E-04 - 1.53E-02)	
33	1.24E-01 (4.81E-02	- 2.03E-01)	1.26E-01 (5.07E-02 - 2.06E-01)	
34	6.85E-01 (5.40E-01	- 8.23E-01)	8.11E-01 (7.17E-01 - 8.96E-01)	
35	1.83E-01 (8.83E-02	- 2.64E-01)	9.94E-01 (9.88E-01 - 1.00E+00)	
36	6.08E-03 (4.51E-04	- 2.74E-02)	1.00E+00 (1.00E+00 - 1.00E+00)	
37	6.31E-06 (1.84E-08	- 1.96E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	
38	5.42E-10 (1.55E-14	- 2.63E-07)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 86 FISSION PRODUCT CHAIN

NLCT = 4.202 NU = 1.302 ZP = 34.83

DEVIATION FROM LCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	4.25E-06 (1.13E-11	- 5.62E-06)	4.29E-08 (1.13E-11 - 5.62E-06)	
32	2.26E-04 (3.22E-06	- 2.72E-03)	2.26E-04 (3.26E-06 - 2.72E-03)	
33	3.26E-02 (6.84E-03	- 8.35E-02)	3.41E-02 (7.06E-03 - 8.41E-02)	
34	5.37E-01 (4.03E-01	- 7.03E-01)	5.71E-01 (4.63E-01 - 7.03E-01)	
35	3.50E-01 (2.87E-01	- 5.12E-01)	9.61E-01 (9.29E-01 - 1.00E+00)	
36	3.53E-02 (7.41E-03	- 1.01E-01)	1.00E+00 (1.00E+00 - 1.00E+00)	
37	1.36E-04 (1.73E-06	- 1.75E-03)	1.00E+00 (1.00E+00 - 1.00E+00)	
38	4.06E-06 (5.12E-12	- 5.86E-06)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 87 FISSION PRODUCT CHAIN

NLCT = 4.110 NU = 1.289 ZP = 34.868

DEVIATION FROM LCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	8.07E-10 (3.45E-14	- 3.30E-07)	8.07E-10 (3.45E-14 - 3.30E-07)	
32	1.35E-05 (4.98E-08	- 3.80E-04)	1.39E-05 (5.06E-08 - 3.80E-04)	
33	6.45E-03 (5.53E-04	- 2.65E-02)	6.50E-03 (5.67E-04 - 2.69E-02)	
34	2.53E-01 (1.92E-01	- 4.00E-01)	2.99E-01 (1.58E-01 - 4.16E-01)	
35	5.46E-01 (4.28E-01	- 6.66E-01)	8.48E-01 (7.51E-01 - 9.57E-01)	
36	1.51E-01 (5.39E-02	- 2.55E-01)	9.98E-01 (9.97E-01 - 1.00E+00)	
37	1.55E-02 (6.67E-05	- 1.00E-02)	1.00E+00 (1.00E+00 - 1.00E+00)	
38	1.53E-06 (1.91E-09	- 7.91E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 88 FISSION PRODUCT CHAIN

NLCT = 4.005 NU = 1.322 ZP = 35.270

DEVIATION FROM LCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	4.40E-07 (3.02E-10	- 3.24E-05)	4.40E-07 (3.02E-10 - 3.24E-05)	
33	6.53E-04 (1.94E-05	- 5.57E-03)	6.93E-04 (1.58E-05 - 5.57E-03)	
34	9.77E-02 (2.77E-02	- 1.91E-01)	9.84E-02 (2.84E-02 - 1.92E-01)	
35	5.07E-01 (3.68E-01	- 6.40E-01)	6.06E-01 (4.67E-01 - 7.34E-01)	
36	3.62E-01 (2.32E-01	- 5.07E-01)	9.88E-01 (9.77E-01 - 1.00E+00)	
37	1.24E-02 (1.47E-03	- 4.21E-02)	1.00E+00 (1.00E+00 - 1.00E+00)	
38	4.00E-05 (2.41E-07	- 8.03E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	
39	3.56E-05 (2.85E-13	- 9.54E-07)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 89 FISSION PRODUCT CHAIN

NLCT = 3.995 NU = 1.364 ZP = 35.677

DEVIATION FROM LCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	7.66E-05 (8.21E-13	- 1.80E-06)	7.86E-09 (8.21E-13 - 1.80E-06)	
33	4.25E-05 (3.13E-07	- 7.66E-04)	4.29E-05 (3.21E-07 - 7.66E-04)	
34	1.58E-02 (2.66E-03	- 6.28E-02)	1.99E-02 (2.70E-03 - 6.28E-02)	
35	3.03E-01 (1.94E-01	- 4.02E-01)	3.23E-01 (2.12E-01 - 4.31E-01)	
36	6.18E-01 (4.69E-01	- 7.87E-01)	9.40E-01 (8.96E-01 - 1.00E+00)	
37	5.52E-02 (1.53E-02	- 1.22E-01)	9.99E-01 (9.99E-01 - 1.00E+00)	
38	6.30E-04 (1.50E-05	- 5.58E-03)	1.00E+00 (1.00E+00 - 1.00E+00)	
39	1.55E-07 (1.06E-10	- 1.65E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

14.6 MEV NEUTRON FISSION OF U-235 - ALTCCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 90 FISSION PRODUCT CHAIN
 NLUCT = 4.063 NU = 1.428 ZP = 36.051
 DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05
 Z FIY RANGE OF FIY FCY RANGE OF FCY
 33 1.54E-06 (2.27E-09 - 7.18E-05) 1.54E-06 (2.27E-09 - 7.18E-05)
 34 2.47E-03 (1.16E-04 - 1.45E-02) 2.47E-03 (1.16E-04 - 1.45E-02)
 35 1.19E-01 (4.54E-02 - 1.98E-01) 1.22E-01 (4.78E-02 - 2.01E-01)
 36 6.83E-01 (5.38E-01 - 8.24E-01) 8.05E-01 (6.05E-01 - 1.00E-01)
 37 1.88E-01 (9.28E-02 - 2.70E-01) 9.53E-01 (7.07E-01 - 1.80E-01)
 38 6.52E-03 (5.01E-04 - 2.87E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 39 7.05E-06 (2.16E-08 - 2.12E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
 40 6.32E-10 (2.34E-14 - 2.94E-07) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 91 FISSION PRODUCT CHAIN
 NLUCT = 4.135 NU = 1.405 ZP = 36.472
 DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05
 Z FIY RANGE OF FIY FCY RANGE OF FCY
 33 4.76E-08 (1.31E-11 - 6.05E-06) 4.76E-08 (1.31E-11 - 6.05E-06)
 34 2.43E-04 (3.58E-06 - 2.86E-03) 2.43E-04 (3.58E-06 - 2.86E-03)
 35 3.52E-02 (7.26E-03 - 8.61E-02) 3.55E-02 (7.51E-03 - 8.64E-02)
 36 5.43E-01 (4.08E-01 - 7.10E-01) 5.78E-01 (4.70E-01 - 7.14E-01)
 37 3.84E-01 (2.80E-01 - 5.05E-01) 9.62E-01 (9.32E-01 - 1.00E+00)
 38 3.76E-02 (6.54E-03 - 9.83E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 39 1.26E-04 (1.55E-06 - 1.66E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
 40 3.65E-08 (7.80E-12 - 5.42E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 92 FISSION PRODUCT CHAIN
 NLUCT = 4.251 NU = 1.465 ZP = 36.886
 DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05
 Z FIY RANGE OF FIY FCY RANGE OF FCY
 33 6.63E-10 (2.54E-14 - 2.87E-07) 6.63E-10 (2.54E-14 - 2.87E-07)
 34 1.21E-05 (4.04E-08 - 3.44E-04) 1.21E-05 (4.11E-08 - 3.44E-04)
 35 5.55E-03 (4.84E-04 - 2.53E-02) 5.96E-03 (4.98E-04 - 2.53E-02)
 36 2.82E-01 (1.43E-01 - 3.97E-01) 2.88E-01 (1.49E-01 - 4.05E-01)
 37 5.52E-01 (4.32E-01 - 6.69E-01) 8.40E-01 (7.39E-01 - 9.50E-01)
 38 1.59E-01 (5.84E-02 - 2.69E-01) 9.98E-01 (9.97E-01 - 1.00E+00)
 39 1.76E-03 (7.77E-05 - 1.08E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 40 1.79E-06 (2.40E-09 - 8.84E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 93 FISSION PRODUCT CHAIN
 NLUCT = 4.364 NU = 1.544 ZP = 37.306
 DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05
 Z FIY RANGE OF FIY FCY RANGE OF FCY
 34 3.15E-07 (1.85E-11 - 2.55E-05) 3.15E-07 (1.85E-11 - 2.55E-05)
 35 5.54E-04 (1.39E-05 - 4.75E-03) 5.54E-04 (1.42E-05 - 4.75E-03)
 36 8.66E-02 (2.30E-02 - 1.76E-01) 8.71E-02 (2.36E-02 - 1.76E-01)
 37 4.93E-01 (3.75E-01 - 6.27E-01) 5.80E-01 (4.46E-01 - 7.17E-01)
 38 4.03E-01 (2.55E-01 - 5.38E-01) 9.85E-01 (9.73E-01 - 1.00E+00)
 39 1.42E-02 (1.87E-03 - 4.69E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 40 5.20E-05 (3.57E-07 - 9.67E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
 41 5.17E-09 (4.54E-13 - 1.24E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 54 FISSION PRODUCT CHAIN
 NLUCT = 4.431 NU = 1.641 ZP = 37.734
 DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09
 Z FIY RANGE OF FIY FCY RANGE OF FCY
 34 4.28E-05 (3.35E-13 - 1.16E-06) 4.28E-05 (3.35E-13 - 1.16E-06)
 35 2.79E-05 (1.65E-07 - 5.65E-04) 2.79E-05 (1.70E-07 - 5.65E-04)
 36 1.53E-02 (1.80E-03 - 5.23E-02) 1.53E-02 (1.83E-03 - 5.23E-02)
 37 2.72E-01 (1.65E-01 - 3.62E-01) 2.88E-01 (1.79E-01 - 3.84E-01)
 38 4.40E-01 (4.50E-01 - 8.06E-01) 9.28E-01 (8.77E-01 - 9.56E-01)
 39 7.12E-02 (2.04E-02 - 1.35E-01) 9.99E-01 (9.58E-01 - 1.00E+00)
 40 8.54E-04 (2.53E-05 - 7.14E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
 41 3.25E-07 (2.30E-10 - 2.35E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 55 FISSION PRODUCT CHAIN
 NLUCT = 4.420 NU = 1.729 ZP = 38.158
 DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05
 Z FIY RANGE OF FIY FCY RANGE OF FCY
 35 8.63E-07 (5.63E-10 - 4.75E-05) 8.63E-07 (5.63E-10 - 4.75E-05)
 36 1.65E-02 (6.66E-05 - 1.12E-02) 1.69E-03 (6.69E-05 - 1.12E-02)
 37 5.68E-02 (3.35E-02 - 1.74E-01) 1.00E-01 (3.56E-02 - 1.76E-01)
 38 6.72E-01 (5.22E-01 - 8.24E-01) 7.72E-01 (6.70E-01 - 8.57E-01)
 39 2.15E-01 (1.17E-01 - 2.95E-01) 9.91E-01 (9.83E-01 - 1.00E+00)
 40 5.11E-03 (8.27E-04 - 3.63E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 41 1.20E-05 (4.77E-08 - 3.10E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
 42 1.22E-05 (6.27E-14 - 5.00E-07) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 56 FISSION PRODUCT CHAIN
 NLUCT = 4.244 NU = 1.713 ZP = 38.542
 DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09
 Z FIY RANGE OF FIY FCY RANGE OF FCY
 35 2.42E-08 (4.83E-12 - 3.74E-06) 2.42E-08 (4.83E-12 - 3.74E-06)
 36 1.52E-04 (1.78E-06 - 2.00E-03) 1.52E-04 (1.81E-06 - 2.06E-03)
 37 2.71E-02 (4.86E-03 - 7.20E-02) 2.72E-02 (5.01E-03 - 7.22E-02)
 38 5.02E-01 (3.63E-01 - 6.62E-01) 5.30E-01 (4.18E-01 - 6.76E-01)
 39 4.21E-01 (3.16E-01 - 5.45E-01) 9.50E-01 (9.11E-01 - 1.00E+00)
 40 4.55E-02 (1.05E-02 - 1.15E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
 41 2.04E-04 (2.14E-06 - 2.33E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
 42 7.26E-06 (2.15E-11 - 8.91E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 57 FISSION PRODUCT CHAIN
 NLUCT = 4.341 NU = 1.732 ZP = 38.939
 DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09
 Z FIY RANGE OF FIY FCY RANGE OF FCY
 35 2.66E-10 (1.27E-14 - 1.86E-07) 2.66E-10 (1.27E-14 - 1.86E-07)
 36 7.68E-06 (2.15E-08 - 2.54E-04) 7.68E-06 (2.19E-08 - 2.54E-04)
 37 4.56E-03 (3.24E-04 - 2.10E-02) 4.56E-03 (3.32E-04 - 2.10E-02)
 38 2.56E-01 (1.19E-01 - 3.67E-01) 2.56E-01 (1.23E-01 - 3.12E-01)
 39 5.55E-01 (4.40E-01 - 6.71E-01) 9.14E-01 (7.03E-01 - 9.28E-01)
 40 1.64E-01 (7.33E-02 - 2.97E-01) 9.98E-01 (9.95E-01 - 1.00E+00)
 41 2.37E-03 (1.21E-04 - 1.33E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 42 2.63E-06 (4.71E-09 - 1.22E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-235 - ALTCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 98 FISSION PRODUCT CHAIN

NUCT = 4.356 NU = 1.838 ZP = 39.370

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	1.72E-07	(7.60E-11 - 1.65E-05)	1.72E-07	(7.60E-11 - 1.65E-05)
37	3.67E-04	(7.54E-06 - 3.55E-03)	3.67E-04	(7.71E-06 - 3.55E-03)
38	6.91E-02	(1.63E-02 - 1.50E-01)	6.94E-02	(1.67E-02 - 1.51E-01)
39	4.65E-01	(3.51E-01 - 5.98E-01)	5.34E-01	(4.09E-01 - 6.85E-01)
40	4.47E-01	(2.99E-01 - 5.93E-01)	9.81E-01	(9.65E-01 - 1.00E+00)
41	1.90E-02	(2.82E-03 - 5.65E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	8.24E-05	(7.09E-07 - 1.34E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	9.56E-09	(1.30E-12 - 1.99E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 99 FISSION PRODUCT CHAIN

NUCT = 4.222 NU = 1.890 ZP = 39.780

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	2.60E-09	(1.65E-13 - 8.12E-07)	2.60E-09	(1.65E-13 - 8.12E-07)
37	1.95E-05	(9.76E-08 - 4.38E-04)	1.95E-05	(1.00E-07 - 4.38E-04)
38	1.23E-02	(1.30E-03 - 4.48E-02)	1.23E-02	(1.32E-03 - 4.49E-02)
39	2.49E-01	(1.43E-01 - 3.32E-01)	2.61E-01	(1.55E-01 - 3.51E-01)
40	6.55E-01	(5.05E-01 - 8.16E-01)	9.17E-01	(8.60E-01 - 9.87E-01)
41	8.22E-02	(2.55E-02 - 1.53E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
42	1.18E-03	(3.84E-05 - 8.66E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	4.59E-07	(4.27E-10 - 3.22E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 100 FISSION PRODUCT CHAIN

NUCT = 4.175 NU = 1.992 ZP = 40.210

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	5.46E-07	(4.89E-10 - 3.43E-05)	5.46E-07	(4.89E-10 - 3.43E-05)
38	1.25E-03	(4.20E-05 - 9.03E-03)	1.25E-03	(4.25E-05 - 9.03E-03)
39	8.48E-02	(2.67E-02 - 1.56E-01)	8.60E-02	(2.80E-02 - 1.58E-01)
40	6.58E-01	(5.08E-01 - 8.18E-01)	7.45E-01	(6.39E-01 - 8.33E-01)
41	2.44E-01	(1.38E-01 - 3.26E-01)	9.88E-01	(9.78E-01 - 1.00E+00)
42	1.17E-02	(1.21E-03 - 4.33E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	1.81E-05	(8.70E-08 - 4.14E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.33E-09	(1.38E-13 - 7.50E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 101 FISSION PRODUCT CHAIN

NUCT = 4.144 NU = 2.117 ZP = 40.648

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	8.28E-09	(9.90E-13 - 1.74E-06)	8.28E-09	(9.90E-13 - 1.74E-06)
38	7.24E-05	(5.85E-07 - 1.22E-03)	7.24E-05	(5.93E-07 - 1.22E-03)
39	1.76E-02	(2.51E-03 - 5.36E-02)	1.77E-02	(2.59E-03 - 5.37E-02)
40	4.35E-01	(2.86E-01 - 5.77E-01)	4.53E-01	(3.25E-01 - 5.99E-01)
41	4.73E-01	(3.58E-01 - 6.07E-01)	9.26E-01	(8.70E-01 - 1.00E+00)
42	7.37E-02	(1.80E-02 - 1.57E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
43	4.13E-04	(8.99E-06 - 3.86E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.05E-07	(5.81E-11 - 1.87E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 102 FISSION PRODUCT CHAIN

NUCT = 4.088 NU = 2.131 ZP = 41.044

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	3.30E-06	(5.91E-09 - 1.37E-04)	3.30E-06	(5.91E-09 - 1.37E-04)
39	2.61E-03	(1.41E-04 - 1.42E-02)	2.62E-03	(1.44E-04 - 1.42E-02)
40	1.53E-01	(7.89E-02 - 3.07E-01)	1.95E-01	(8.15E-02 - 3.10E-01)
41	5.60E-01	(4.45E-01 - 6.73E-01)	7.56E-01	(6.27E-01 - 8.73E-01)
42	2.40E-01	(1.11E-01 - 3.56E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
43	4.15E-03	(2.82E-04 - 1.97E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	6.81E-06	(1.73E-08 - 2.25E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
45	3.01E-10	(5.53E-15 - 1.62E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 103 FISSION PRODUCT CHAIN

NUCT = 4.527 NU = 2.405 ZP = 41.540

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	3.21E-08	(6.46E-12 - 4.94E-06)	3.21E-08	(6.46E-12 - 4.94E-06)
39	1.15E-04	(1.35E-06 - 1.55E-03)	1.15E-04	(1.39E-06 - 1.55E-03)
40	3.57E-02	(6.42E-03 - 9.47E-02)	3.58E-02	(6.53E-03 - 9.49E-02)
41	3.77E-01	(2.72E-01 - 4.97E-01)	4.13E-01	(3.04E-01 - 5.46E-01)
42	5.50E-01	(4.13E-01 - 7.18E-01)	9.63E-01	(9.34E-01 - 1.00E+00)
43	3.65E-02	(7.80E-03 - 8.89E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
44	2.64E-04	(4.06E-06 - 3.03E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	5.38E-08	(1.58E-11 - 6.60E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 104 FISSION PRODUCT CHAIN

NUCT = 4.597 NU = 2.471 ZP = 41.956

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	3.73E-10	(1.17E-14 - 2.01E-07)	3.73E-10	(1.17E-14 - 2.01E-07)
39	4.81E-06	(1.23E-08 - 1.61E-04)	4.81E-06	(1.26E-08 - 1.61E-04)
40	5.12E-03	(3.48E-04 - 2.42E-02)	5.12E-03	(3.53E-04 - 2.43E-02)
41	1.65E-01	(7.81E-02 - 2.50E-01)	1.74E-01	(8.31E-02 - 2.58E-01)
42	6.88E-01	(5.46E-01 - 8.26E-01)	8.62E-01	(7.82E-01 - 9.43E-01)
43	1.35E-01	(5.52E-02 - 2.15E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
44	3.19E-03	(1.71E-04 - 1.74E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	2.30E-06	(4.11E-09 - 9.54E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 105 FISSION PRODUCT CHAIN

NUCT = 4.650 NU = 2.583 ZP = 41.939

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	4.49E-10	(0. - 1.21E-05)	4.49E-10	(0. - 1.21E-05)
39	5.50E-06	(2.36E-13 - 1.59E-03)	5.50E-06	(4.49E-10 - 1.59E-03)
40	5.58E-03	(2.59E-06 - 6.58E-02)	5.58E-03	(8.09E-06 - 6.58E-02)
41	1.75E-01	(2.15E-02 - 3.16E-01)	1.81E-01	(2.70E-02 - 3.34E-01)
42	6.87E-01	(4.71E-01 - 9.10E-01)	8.68E-01	(7.48E-01 - 1.00E+00)
43	1.25E-01	(5.76E-03 - 2.64E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
44	2.52E-03	(5.35E-07 - 4.73E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	2.00E-06	(2.36E-14 - 9.30E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-235 - NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

CCC-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 106 FISSION PRODUCT CHAIN

NLCT = 4.626 NU = 2.595 ZP = 42.333

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
35	1.77E-07 (C.	- 2.60E-04)	1.77E-07	(8.47E-07 - 2.60E-04)
40	5.92E-04 (1.10E-08	- 2.10E-02)	5.93E-04	(1.88E-07 - 2.10E-02)
41	5.73E-02 (1.21E-05	- 1.83E-01)	5.79E-02	(1.80E-03 - 1.85E-01)
42	6.13E-01 (3.85E-01	- 9.20E-01)	6.71E-01	(9.21E-01 - 9.21E-01)
43	3.08E-01 (8.78E-02	- 5.34E-01)	9.79E-01	(9.59E-01 - 1.00E+00)
44	2.68E-02 (6.36E-05	- 1.29E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
45	4.62E-05 (3.61E-11	- 4.88E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
46	8.73E-09 (C.	- 5.98E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 107 FISSION PRODUCT CHAIN

NLCT = 4.577 NU = 2.448 ZP = 42.666

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
39	6.89E-09 (C.	- 4.71E-05)	6.89E-09	(0. - 4.71E-05)
40	6.36E-05 (4.59E-11	- 6.71E-03)	6.36E-05	(6.94E-09 - 6.71E-03)
41	1.63E-02 (5.01E-05	- 1.01E-01)	1.64E-02	(1.14E-04 - 1.01E-01)
42	4.23E-01 (1.21E-01	- 7.34E-01)	4.40E-01	(2.44E-01 - 7.36E-01)
43	4.81E-01 (3.02E-01	- 7.22E-01)	9.21E-01	(8.44E-01 - 1.00E+00)
44	7.86E-02 (1.65E-03	- 2.51E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
45	4.64E-04 (8.60E-09	- 1.65E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	2.43E-07 (C.	- 3.57E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 108 FISSION PRODUCT CHAIN

NLCT = 4.538 NU = 2.494 ZP = 43.074

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
40	2.55E-06 (2.52E-14	- 1.25E-03)	2.55E-06	(2.52E-14 - 1.25E-03)
41	2.21E-03 (3.66E-07	- 3.71E-02)	2.21E-03	(2.91E-06 - 3.72E-02)
42	1.78E-01 (1.27E-02	- 3.70E-01)	1.80E-01	(1.49E-02 - 3.75E-01)
43	5.58E-01 (3.80E-01	- 7.39E-01)	7.38E-01	(5.13E-01 - 9.46E-01)
44	2.58E-01 (3.31E-02	- 4.59E-01)	9.95E-01	(9.90E-01 - 1.00E+00)
45	4.85E-03 (2.48E-06	- 5.54E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	8.71E-06 (4.33E-13	- 2.39E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
47	4.23E-10 (C.	- 1.07E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 109 FISSION PRODUCT CHAIN

NLCT = 4.541 NU = 2.492 ZP = 43.463

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
40	6.94E-08 (C.	- 1.82E-04)	6.94E-08	(4.24E-08 - 1.82E-04)
41	1.57E-04 (1.12E-09	- 1.05E-02)	1.97E-04	(7.00E-08 - 1.05E-02)
42	4.86E-02 (5.07E-04	- 1.98E-01)	4.88E-02	(7.04E-04 - 1.98E-01)
43	4.18E-01 (2.02E-01	- 6.75E-01)	4.67E-01	(2.45E-01 - 7.64E-01)
44	5.05E-01 (2.05E-01	- 6.43E-01)	9.72E-01	(9.45E-01 - 1.00E+00)
45	2.76E-02 (1.88E-04	- 1.30E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
46	1.58E-04 (4.44E-10	- 1.07E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	2.54E-08 (C.	- 9.36E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 110 FISSION PRODUCT CHAIN

NLCT = 4.475 NU = 2.471 ZP = 43.845

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
40	1.25E-05 (C.	- 2.14E-05)	1.25E-05	(6.62E-05 - 2.14E-05)
41	1.16E-05 (1.42E-12	- 2.37E-03)	1.16E-05	(1.29E-09 - 2.37E-03)
42	8.55E-03 (8.28E-06	- 8.35E-02)	9.00E-03	(2.01E-05 - 8.40E-02)
43	2.17E-01 (3.74E-02	- 3.75E-01)	2.26E-01	(4.62E-02 - 4.04E-01)
44	6.72E-01 (4.46E-01	- 8.85E-01)	8.95E-01	(8.04E-01 - 1.00E+00)
45	9.55E-02 (4.98E-03	- 2.35E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
46	1.72E-03 (1.47E-07	- 3.61E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	8.64E-07 (5.52E-15	- 6.05E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 111 FISSION PRODUCT CHAIN

NLCT = 4.235 NU = 2.406 ZP = 44.209

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
41	5.45E-07 (C.	- 4.71E-04)	5.45E-07	(3.39E-21 - 4.71E-04)
42	1.26E-03 (6.87E-08	- 3.08E-02)	1.26E-03	(6.18E-07 - 3.08E-02)
43	8.45E-02 (3.31E-03	- 2.15E-01)	8.62E-02	(4.56E-03 - 2.23E-01)
44	6.59E-01 (4.30E-01	- 9.05E-01)	7.45E-01	(5.51E-01 - 5.46E-01)
45	2.43E-01 (5.02E-02	- 4.26E-01)	9.88E-01	(9.77E-01 - 1.00E+00)
46	1.17E-02 (1.57E-05	- 9.55E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	1.67E-05 (3.86E-12	- 2.96E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
48	2.32E-05 (C.	- 2.93E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 112 FISSION PRODUCT CHAIN

NLCT = 4.228 NU = 2.351 ZP = 44.577

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
41	1.65E-06 (C.	- 7.57E-05)	1.65E-06	(1.06E-22 - 7.57E-05)
42	1.15E-04 (2.27E-10	- 9.27E-03)	1.15E-04	(1.72E-08 - 9.27E-03)
43	2.35E-02 (1.26E-04	- 1.20E-01)	2.37E-02	(2.45E-04 - 1.21E-01)
44	4.45E-01 (1.75E-01	- 8.13E-01)	5.04E-01	(2.89E-01 - 8.04E-01)
45	4.35E-01 (2.31E-01	- 6.94E-01)	9.43E-01	(8.87E-01 - 1.00E+00)
46	5.66E-02 (7.43E-04	- 2.14E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
47	4.25E-04 (2.15E-09	- 1.21E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	1.63E-07 (C.	- 2.26E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 113 FISSION PRODUCT CHAIN

NLCT = 4.223 NU = 2.361 ZP = 44.971

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE OF FIV	FCY	RANGE OF FCY
41	2.54E-10 (C.	- 8.14E-06)	2.54E-10	(1.65E-24 - 8.14E-06)
42	6.02E-06 (1.81E-13	- 1.97E-03)	6.02E-06	(2.54E-10 - 1.97E-03)
43	3.64E-03 (1.40E-06	- 4.92E-02)	3.85E-03	(7.42E-06 - 4.93E-02)
44	2.31E-01 (2.51E-02	- 4.28E-01)	2.35E-01	(2.89E-02 - 4.37E-01)
45	5.61E-01 (3.90E-01	- 7.44E-01)	7.91E-01	(6.13E-01 - 5.51E-01)
46	2.05E-01 (1.73E-02	- 3.91E-01)	9.91E-01	(9.94E-01 - 1.00E+00)
47	2.63E-03 (6.68E-07	- 4.22E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
48	3.74E-06 (5.88E-14	- 1.53E-03)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-235 - NLCT MET-OC

ESTIMATED FRACTIONAL YIELDS

ODC-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 114 FISSION PRODUCT CHAIN

NLCT = 4.278 NU = 2.239 ZP = 45.313

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	2.94E-07 (0.	- 3.96E-04)	2.94E-07 (1.69E-21 - 3.96E-04)	
43	5.28E-04 (1.17E-08 - 1.77E-02)	5.29E-04 (3.06E-07 - 1.77E-02)		
44	8.44E-02 (1.97E-03 - 2.60E-01)	8.49E-02 (2.50E-03 - 2.61E-01)		
45	4.50E-01 (3.12E-01 - 7.25E-01)	5.75E-01 (3.79E-01 - 8.69E-01)		
46	4.10E-01 (1.10E-01 - 7.13E-01)	9.85E-01 (9.70E-01 - 1.00E+00)		
47	1.50E-02 (4.03E-05 - 9.68E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
48	5.49E-05 (3.50E-11 - 6.22E-03)	1.00E+00 (1.00E+00 - 1.00E+00)		
49	5.58E-09 (0.	- 4.21E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 115 FISSION PRODUCT CHAIN

NLCT = 4.104 NU = 2.104 ZP = 45.651

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	1.03E-08 (0.	- 6.54E-05)	1.03E-08 (5.29E-23 - 6.54E-05)	
43	5.20E-05 (4.77E-11 - 5.20E-03)	5.20E-05 (1.04E-08 - 5.20E-03)		
44	2.23E-02 (7.55E-05 - 1.33E-01)	2.23E-02 (1.27E-04 - 1.33E-01)		
45	3.17E-01 (9.46E-02 - 5.47E-01)	3.39E-01 (1.16E-01 - 5.95E-01)		
46	6.06E-01 (3.69E-01 - 9.18E-01)	9.45E-01 (8.92E-01 - 1.00E+00)		
47	5.43E-02 (1.05E-03 - 1.78E-01)	9.99E-01 (9.99E-01 - 1.00E+00)		
48	5.36E-04 (8.66E-09 - 2.00E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
49	1.53E-07 (0.	- 2.41E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 116 FISSION PRODUCT CHAIN

NLCT = 4.000 NU = 2.000 ZP = 46.000

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	2.25E-10 (0.	- 8.39E-06)	2.25E-10 (0.	- 8.39E-06)
43	3.33E-06 (7.37E-14 - 1.22E-03)	3.33E-06 (2.25E-10 - 1.22E-03)		
44	4.05E-03 (1.19E-06 - 5.59E-02)	4.06E-03 (4.52E-06 - 5.60E-02)		
45	1.51E-01 (1.46E-02 - 2.86E-01)	1.55E-01 (1.86E-02 - 3.00E-01)		
46	6.89E-01 (4.84E-01 - 9.16E-01)	8.45E-01 (7.08E-01 - 9.89E-01)		
47	1.51E-01 (1.46E-02 - 2.86E-01)	9.96E-01 (9.92E-01 - 1.00E+00)		
48	4.05E-03 (1.19E-06 - 5.59E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
49	3.33E-06 (7.37E-14 - 1.22E-03)	1.00E+00 (1.00E+00 - 1.00E+00)		

MASS 117 FISSION PRODUCT CHAIN

NLCT = 4.126 NU = 1.967 ZP = 46.377

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	1.18E-07 (0.	- 2.11E-04)	1.18E-07 (0.	- 2.11E-04)
44	4.51E-04 (5.69E-09 - 1.83E-02)	4.51E-04 (1.24E-07 - 1.83E-02)		
45	4.55E-02 (8.20E-04 - 1.71E-01)	5.00E-02 (4.12E-03 - 1.73E-01)		
46	5.53E-01 (3.43E-01 - 9.14E-01)	6.43E-01 (4.17E-01 - 9.08E-01)		
47	3.32E-01 (1.07E-01 - 5.69E-01)	9.75E-01 (9.50E-01 - 1.00E+00)		
48	2.51E-02 (1.42E-01 - 1.42E-01)	1.00E+00 (1.00E+00 - 1.00E+00)		
49	6.36E-05 (7.68E-11 - 5.78E-03)	1.00E+00 (1.00E+00 - 1.00E+00)		
50	1.37E-08 (0.	- 7.63E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 118 FISSION PRODUCT CHAIN

NLCT = 4.286 NU = 1.854 ZP = 46.738

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	3.25E-05 (0.	- 3.16E-05)	3.25E-05 (1.32E-23 - 3.16E-05)	
44	3.75E-05 (1.40E-11 - 5.11E-03)	3.75E-05 (3.27E-09 - 5.11E-03)		
45	1.19E-02 (2.28E-05 - 8.66E-02)	1.20E-02 (6.03E-05 - 8.68E-02)		
46	3.76E-01 (9.15E-02 - 6.58E-01)	3.88E-01 (1.82E-01 - 6.74E-01)		
47	5.11E-01 (3.29E-01 - 7.29E-01)	8.99E-01 (8.01E-01 - 1.00E+00)		
48	1.01E-01 (3.04E-03 - 2.83E-01)	9.99E-01 (9.99E-01 - 1.00E+00)		
49	7.31E-04 (2.55E-08 - 2.09E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
50	4.76E-07 (0.	- 5.12E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 119 FISSION PRODUCT CHAIN

NLCT = 4.198 NU = 1.864 ZP = 47.117

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	1.76E-06 (1.26E-14 - 1.03E-03)	1.76E-06 (1.26E-14 - 1.03E-03)		
45	1.74E-03 (2.04E-07 - 3.28E-02)	1.74E-03 (1.96E-06 - 3.28E-02)		
46	1.58E-01 (9.37E-03 - 3.50E-01)	1.59E-01 (1.11E-02 - 3.55E-01)		
47	5.51E-01 (3.70E-01 - 7.27E-01)	7.11E-01 (4.77E-01 - 9.28E-01)		
48	2.83E-01 (4.25E-02 - 4.93E-01)	9.94E-01 (9.88E-01 - 1.00E+00)		
49	6.01E-03 (4.20E-06 - 6.17E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
50	1.23E-05 (5.73E-13 - 2.86E-03)	1.00E+00 (1.00E+00 - 1.00E+00)		
51	6.75E-10 (0.	- 1.38E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 120 FISSION PRODUCT CHAIN

NLCT = 4.268 NU = 1.901 ZP = 47.521

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	3.51E-08 (0.	- 1.34E-04)	3.91E-08 (2.12E-22 - 1.34E-04)	
45	1.32E-04 (4.35E-10 - 8.51E-03)	1.32E-04 (3.95E-08 - 8.51E-03)		
46	3.66E-02 (2.89E-04 - 1.76E-01)	3.88E-02 (4.21E-04 - 1.76E-01)		
47	3.67E-01 (1.63E-01 - 6.42E-01)	4.26E-01 (1.99E-01 - 7.16E-01)		
48	5.25E-01 (2.51E-01 - 8.78E-01)	9.65E-01 (9.31E-01 - 1.00E+00)		
49	3.43E-02 (3.27E-04 - 1.44E-01)	1.00E+00 (1.00E+00 - 1.00E+00)		
50	2.22E-04 (1.14E-09 - 1.30E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
51	4.46E-08 (0.	- 1.26E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 121 FISSION PRODUCT CHAIN

NLCT = 4.375 NU = 1.959 ZP = 47.933

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	4.61E-10 (0.	- 1.26E-05)	4.81E-10 (3.31E-24 - 1.26E-05)	
45	5.75E-06 (2.66E-13 - 1.63E-03)	5.79E-06 (4.81E-10 - 1.63E-03)		
46	5.75E-03 (2.80E-06 - 6.65E-02)	5.76E-03 (8.58E-06 - 6.69E-02)		
47	1.78E-01 (2.23E-02 - 3.15E-01)	1.84E-01 (2.79E-02 - 3.38E-01)		
48	6.66E-01 (4.69E-01 - 9.09E-01)	8.70E-01 (7.52E-01 - 1.00E+00)		
49	1.27E-01 (9.36E-03 - 2.62E-01)	9.97E-01 (9.94E-01 - 1.00E+00)		
50	2.82E-02 (4.93E-07 - 4.65E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
51	1.90E-06 (2.07E-14 - 9.05E-04)	1.00E+00 (1.00E+00 - 1.00E+00)		

14.6 MEV NEUTRON FISSION OF U-235 - NLCT1 METHOD

ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 122 FISSION PRODUCT CHAIN

NLCT = 4.531 NU = 2.044 ZP = 48.356

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE	CF FIV	FCY	RANGE	CF FIV	FCY
45	1.44E-07	(C.	- 2.33E-04	1.44E-07	(8.47E-02	- 2.33E-04	1.44E-07
46	5.14E-04	(7.81E-09	- 1.96E-02	5.14E-04	(1.51E-07	- 1.96E-02	5.14E-04
47	5.31E-02	(5.94E-04	- 1.77E-01	5.34E-02	(1.51E-03	- 1.79E-01	5.34E-02
48	6.03E-01	(3.63E-01	- 9.17E-01	6.57E-01	(4.33E-01	- 9.13E-01	6.57E-01
49	3.80E-01	(5.76E-02	- 5.53E-01	9.77E-01	(9.54E-01	- 1.00E+00	9.77E-01
50	2.30E-02	(8.12E-05	- 1.35E-01	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
51	5.47E-02	(5.36E-11	- 5.33E-03	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
52	1.11E-08	(C.	- 6.80E-05	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00

MASS 123 FISSION PRODUCT CHAIN

NLCT = 4.536 NU = 2.043 ZP = 48.746

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE	CF FIV	FCY	RANGE	CF FIV	FCY
45	3.00E-09	(C.	- 3.03E-05	3.00E-09	(0.	- 3.03E-05	3.00E-09
46	3.55E-05	(1.22E-11	- 4.96E-03	3.55E-05	(3.01E-09	- 4.96E-03	3.55E-05
47	1.35E-02	(2.10E-05	- 8.52E-02	1.16E-02	(5.64E-05	- 8.54E-02	1.16E-02
48	3.71E-01	(8.82E-02	- 6.49E-01	3.83E-01	(1.75E-01	- 6.67E-01	3.83E-01
49	5.13E-01	(3.31E-01	- 7.29E-01	8.96E-01	(7.96E-01	- 1.00E+00	8.96E-01
50	1.03E-01	(3.24E-03	- 2.87E-01	9.99E-01	(9.98E-01	- 1.00E+00	9.99E-01
51	7.68E-04	(2.85E-08	- 2.14E-02	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
52	5.11E-07	(C.	- 5.31E-04	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00

MASS 124 FISSION PRODUCT CHAIN

NLCT = 4.540 NU = 2.112 ZP = 49.162

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE	CF FIV	FCY	RANGE	CF FIV	FCY
46	1.17E-06	(C.	- 8.28E-04	1.17E-06	(6.78E-21	- 8.28E-04	1.17E-06
47	1.33E-03	(1.08E-07	- 2.86E-02	1.33E-03	(1.28E-06	- 2.86E-02	1.33E-03
48	1.38E-01	(6.67E-03	- 3.29E-01	1.39E-01	(8.00E-03	- 3.32E-01	1.39E-01
49	5.42E-01	(3.58E-01	- 7.17E-01	6.81E-01	(4.55E-01	- 9.20E-01	6.81E-01
50	3.22E-01	(5.49E-02	- 5.43E-01	9.92E-01	(9.95E-01	- 1.00E+00	9.92E-01
51	7.51E-03	(7.27E-06	- 6.90E-02	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
52	1.76E-05	(2.25E-12	- 3.45E-03	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
53	1.12E-09	(C.	- 1.80E-05	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00

MASS 125 FISSION PRODUCT CHAIN

NLCT = 4.624 NU = 2.031 ZP = 49.520

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE	CF FIV	FCY	RANGE	CF FIV	FCY
46	3.52E-08	(C.	- 1.34E-04	3.92E-08	(2.12E-22	- 1.34E-04	3.92E-08
47	1.33E-04	(4.38E-10	- 8.52E-03	1.33E-04	(3.97E-08	- 8.52E-03	1.33E-04
48	3.87E-02	(2.90E-04	- 1.76E-01	3.88E-02	(4.23E-04	- 1.77E-01	3.88E-02
49	3.88E-01	(1.64E-01	- 6.43E-01	4.26E-01	(1.99E-01	- 7.15E-01	4.26E-01
50	5.39E-01	(2.50E-01	- 8.77E-01	9.65E-01	(9.32E-01	- 1.00E+00	9.65E-01
51	3.43E-02	(3.26E-04	- 1.44E-01	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
52	2.32E-04	(1.13E-09	- 1.30E-02	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
53	4.44E-08	(C.	- 1.26E-04	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00

MASS 126 FISSION PRODUCT CHAIN

NLCT = 4.634 NU = 2.060 ZP = 49.922

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE	CF FIV	FCY	RANGE	CF FIV	FCY
46	5.48E-10	(C.	- 1.35E-05	5.48E-10	(3.31E-24	- 1.35E-05	5.48E-10
47	6.36E-06	(3.31E-13	- 1.71E-03	6.36E-06	(5.48E-10	- 1.71E-03	6.36E-06
48	6.11E-03	(3.24E-06	- 6.85E-02	6.12E-03	(9.59E-06	- 6.85E-02	6.12E-03
49	6.85E-01	(2.35E-02	- 3.25E-01	1.89E-01	(2.99E-01	- 3.45E-01	1.89E-01
50	1.63E-01	(4.66E-01	- 9.07E-01	8.74E-01	(7.59E-01	- 1.00E+00	8.74E-01
51	1.23E-01	(8.64E-03	- 2.55E-01	9.97E-01	(9.95E-01	- 1.00E+00	9.97E-01
52	2.65E-03	(4.52E-07	- 4.50E-02	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
53	1.72E-06	(1.77E-14	- 8.55E-04	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00

MASS 127 FISSION PRODUCT CHAIN

NLCT = 4.623 NU = 2.138 ZP = 50.342

DEVIATION FROM LCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIV	RANGE	CF FIV	FCY	RANGE	CF FIV	FCY
47	1.64E-07	(C.	- 2.50E-04	1.64E-07	(8.47E-22	- 2.50E-04	1.64E-07
48	5.62E-04	(5.71E-09	- 2.05E-02	5.62E-04	(1.74E-07	- 2.05E-02	5.62E-04
49	5.57E-02	(1.12E-03	- 1.81E-01	5.63E-02	(1.68E-03	- 1.83E-01	5.63E-02
50	6.10E-01	(3.76E-01	- 5.15E-01	6.66E-01	(4.44E-01	- 5.19E-01	6.66E-01
51	3.13E-01	(5.13E-02	- 5.41E-01	9.78E-01	(9.57E-01	- 1.00E+00	9.78E-01
52	2.15E-02	(6.56E-05	- 1.31E-01	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
53	4.52E-05	(4.18E-11	- 5.04E-03	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
54	5.54E-05	(C.	- 6.27E-05	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00

MASS 128 FISSION PRODUCT CHAIN

NLCT = 4.605 NU = 2.158 ZP = 50.290

DEVIATION FROM LCD = -0.45 +/- .15 SIGMA = .56 +/- .05

Z	FIV	RANGE	CF FIV	FCY	RANGE	CF FIV	FCY
47	2.66E-07	(1.68E-10	- 2.06E-05	2.66E-07	(1.68E-10	- 2.06E-05	2.66E-07
48	7.74E-04	(2.05E-05	- 6.46E-03	7.76E-04	(2.07E-05	- 6.46E-03	7.76E-04
49	6.61E-02	(1.81E-02	- 1.32E-01	6.69E-02	(1.89E-02	- 1.33E-01	6.69E-02
50	6.23E-01	(4.82E-01	- 7.98E-01	6.98E-01	(5.89E-01	- 8.00E-01	6.98E-01
51	2.65E-01	(1.76E-01	- 3.78E-01	9.83E-01	(9.68E-01	- 1.00E+00	9.83E-01
52	1.70E-02	(2.11E-03	- 5.64E-02	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
53	2.23E-05	(2.15E-07	- 6.41E-04	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
54	5.50E-05	(4.86E-13	- 1.35E-06	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00

MASS 129 FISSION PRODUCT CHAIN

NLCT = 4.303 NU = 2.060 ZP = 50.641

DEVIATION FROM LCD = -0.45 +/- .15 SIGMA = .56 +/- .05

Z	FIV	RANGE	CF FIV	FCY	RANGE	CF FIV	FCY
47	8.50E-05	(1.10E-12	- 1.83E-06	8.90E-09	(1.10E-12	- 1.83E-06	8.90E-09
48	7.62E-05	(6.31E-07	- 1.21E-03	7.62E-05	(6.40E-07	- 1.27E-03	7.62E-05
49	4.61E-02	(2.63E-03	- 5.46E-02	1.82E-02	(2.71E-03	- 5.49E-02	1.82E-02
50	4.40E-01	(2.51E-01	- 5.83E-01	4.58E-01	(3.31E-01	- 6.66E-01	4.58E-01
51	4.70E-01	(3.56E-01	- 6.03E-01	9.28E-01	(8.73E-01	- 1.00E+00	9.28E-01
52	7.15E-02	(1.73E-02	- 1.54E-01	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
53	3.54E-04	(8.39E-06	- 3.73E-03	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00
54	1.51E-07	(8.88E-11	- 1.78E-05	1.00E+00	(1.00E+00	- 1.00E+00	1.00E+00

14.6 MEV NEUTRON FISSION CF L-235 - NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

CDD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

PASS 130 FISSION PRODUCT CHAIN

NLCT = 4.089 NU = 2.000 ZP = 51.008

NLCT = 4.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY	FCY	RANGE OF FCY
48	4.46E-06	(9.25E-09 - 1.69E-04)	4.46E-06	(9.25E-09 - 1.69E-04)	4.46E-06	(9.25E-09 - 1.69E-04)
49	3.17E-03	(1.88E-04 - 1.63E-02)	3.18E-03	(1.93E-04 - 1.63E-02)	3.18E-03	(1.93E-04 - 1.63E-02)
50	2.12E-01	(9.12E-02 - 3.27E-01)	2.15E-01	(9.93E-02 - 3.31E-01)	2.15E-01	(9.93E-02 - 3.31E-01)
51	5.62E-01	(4.50E-01 - 6.75E-01)	5.77E-01	(4.64E-01 - 8.94E-01)	5.77E-01	(4.64E-01 - 8.94E-01)
52	2.20E-01	(9.48E-02 - 3.36E-01)	9.97E-01	(9.93E-01 - 1.00E+00)	9.97E-01	(9.93E-01 - 1.00E+00)
53	4.46E-03	(2.12E-04 - 1.73E-02)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
54	5.66E-06	(1.12E-08 - 1.85E-04)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
55	2.00E-10	(6.36E-15 - 1.22E-07)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 131 FISSION PRODUCT CHAIN

NLCT = 4.146 NU = 2.168 ZP = 51.463

NLCT = 4.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY	FCY	RANGE OF FCY
48	6.57E-08	(2.01E-11 - 8.63E-06)	6.97E-08	(2.01E-11 - 8.63E-06)	6.97E-08	(2.01E-11 - 8.63E-06)
49	1.57E-04	(3.01E-06 - 2.88E-03)	1.98E-04	(3.08E-06 - 2.28E-03)	1.98E-04	(3.08E-06 - 2.28E-03)
50	4.87E-02	(1.02E-02 - 1.18E-01)	4.89E-02	(1.04E-02 - 1.18E-01)	4.89E-02	(1.04E-02 - 1.18E-01)
51	4.18E-01	(3.14E-01 - 5.47E-01)	4.67E-01	(3.56E-01 - 6.13E-01)	4.67E-01	(3.56E-01 - 6.13E-01)
52	5.05E-01	(3.66E-01 - 6.66E-01)	9.72E-01	(9.50E-01 - 1.00E+00)	9.72E-01	(9.50E-01 - 1.00E+00)
53	2.76E-02	(4.59E-03 - 7.59E-02)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.57E-04	(1.86E-06 - 2.11E-03)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
55	2.53E-08	(5.15E-12 - 3.86E-06)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 132 FISSION PRODUCT CHAIN

NLCT = 4.184 NU = 2.311 ZP = 51.908

NLCT = 4.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY	FCY	RANGE OF FCY
48	6.35E-10	(2.34E-14 - 2.95E-07)	6.35E-10	(2.34E-14 - 2.95E-07)	6.35E-10	(2.34E-14 - 2.95E-07)
49	7.08E-02	(2.17E-04 - 2.13E-04)	7.08E-02	(2.24E-04 - 2.13E-04)	7.08E-02	(2.24E-04 - 2.13E-04)
50	6.53E-03	(5.02E-04 - 2.88E-02)	6.54E-03	(5.10E-04 - 2.88E-02)	6.54E-03	(5.10E-04 - 2.88E-02)
51	1.89E-01	(9.29E-02 - 2.70E-01)	1.95E-01	(9.93E-02 - 2.80E-01)	1.95E-01	(9.93E-02 - 2.80E-01)
52	6.83E-01	(5.38E-01 - 8.24E-01)	8.79E-01	(8.05E-01 - 9.58E-01)	8.79E-01	(8.05E-01 - 9.58E-01)
53	1.19E-01	(4.53E-02 - 1.97E-01)	9.98E-01	(9.95E-01 - 1.00E+00)	9.98E-01	(9.95E-01 - 1.00E+00)
54	2.66E-03	(1.16E-04 - 1.45E-02)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
55	1.53E-06	(2.26E-09 - 7.16E-05)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 133 FISSION PRODUCT CHAIN

NLCT = 4.238 NU = 2.450 ZP = 52.352

NLCT = 4.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY	FCY	RANGE OF FCY
49	1.49E-07	(7.11E-11 - 1.36E-05)	1.49E-07	(7.11E-11 - 1.36E-05)	1.49E-07	(7.11E-11 - 1.36E-05)
50	5.26E-04	(1.14E-05 - 4.92E-03)	5.26E-04	(1.16E-05 - 4.92E-03)	5.26E-04	(1.16E-05 - 4.92E-03)
51	5.38E-02	(1.21E-02 - 1.15E-01)	5.43E-02	(1.37E-02 - 1.15E-01)	5.43E-02	(1.37E-02 - 1.15E-01)
52	6.05E-01	(4.58E-01 - 7.76E-01)	6.59E-01	(5.49E-01 - 7.73E-01)	6.59E-01	(5.49E-01 - 7.73E-01)
53	3.18E-01	(2.10E-01 - 4.22E-01)	9.77E-01	(9.58E-01 - 1.00E+00)	9.77E-01	(9.58E-01 - 1.00E+00)
54	2.26E-02	(3.23E-03 - 6.87E-02)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
55	1.32E-05	(4.30E-07 - 8.95E-04)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.67E-08	(1.28E-12 - 2.24E-06)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 134 FISSION PRODUCT CHAIN

NLCT = 4.404 NU = 2.649 ZP = 52.820

NLCT = 4.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY	FCY	RANGE OF FCY
49	1.26E-05	(6.55E-14 - 4.80E-07)	1.36E-09	(6.95E-14 - 4.80E-07)	1.36E-09	(6.95E-14 - 4.80E-07)
50	2.02E-05	(8.71E-08 - 4.95E-04)	2.02E-05	(8.85E-08 - 4.95E-04)	2.02E-05	(8.85E-08 - 4.95E-04)
51	8.18E-03	(7.85E-04 - 3.16E-02)	8.20E-03	(8.05E-04 - 3.16E-02)	8.20E-03	(8.05E-04 - 3.16E-02)
52	3.23E-01	(1.77E-01 - 4.37E-01)	3.31E-01	(1.85E-01 - 4.48E-01)	3.31E-01	(1.85E-01 - 4.48E-01)
53	5.35E-01	(4.16E-01 - 6.62E-01)	8.68E-01	(7.81E-01 - 5.71E-01)	8.68E-01	(7.81E-01 - 5.71E-01)
54	1.36E-01	(4.32E-02 - 2.33E-01)	9.99E-01	(9.98E-01 - 1.00E+00)	9.99E-01	(9.98E-01 - 1.00E+00)
55	1.26E-03	(4.38E-05 - 8.21E-03)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.00E-06	(1.01E-09 - 5.83E-05)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 135 FISSION PRODUCT CHAIN

NLCT = 4.204 NU = 2.606 ZP = 53.193

NLCT = 4.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY	FCY	RANGE OF FCY
50	8.50E-07	(8.55E-10 - 5.36E-05)	8.90E-07	(8.55E-10 - 5.36E-05)	8.90E-07	(8.55E-10 - 5.36E-05)
51	1.11E-03	(3.91E-05 - 7.78E-03)	1.11E-03	(4.00E-05 - 7.78E-03)	1.11E-03	(4.00E-05 - 7.78E-03)
52	1.25E-01	(4.06E-02 - 2.27E-01)	1.25E-01	(4.17E-02 - 2.28E-01)	1.25E-01	(4.17E-02 - 2.28E-01)
53	5.23E-01	(4.12E-01 - 6.80E-01)	9.91E-01	(9.83E-01 - 1.00E+00)	9.91E-01	(9.83E-01 - 1.00E+00)
54	3.31E-01	(1.85E-01 - 4.46E-01)	9.91E-01	(9.83E-01 - 1.00E+00)	9.91E-01	(9.83E-01 - 1.00E+00)
55	8.76E-02	(8.61E-04 - 3.36E-02)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
56	2.23E-05	(1.01E-07 - 5.32E-04)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.57E-05	(8.52E-14 - 5.35E-07)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 136 FISSION PRODUCT CHAIN

NLCT = 4.400 NU = 2.619 ZP = 53.611

NLCT = 4.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY	FCY	RANGE OF FCY
50	1.55E-08	(2.22E-12 - 2.93E-06)	1.55E-08	(2.22E-12 - 2.93E-06)	1.55E-08	(2.22E-12 - 2.93E-06)
51	6.54E-05	(6.38E-07 - 1.08E-03)	6.94E-05	(6.54E-07 - 1.08E-03)	6.94E-05	(6.54E-07 - 1.08E-03)
52	2.65E-02	(4.10E-03 - 7.68E-02)	2.65E-02	(4.16E-03 - 7.69E-02)	2.65E-02	(4.16E-03 - 7.69E-02)
53	3.38E-01	(2.30E-01 - 4.46E-01)	3.65E-01	(2.54E-01 - 4.86E-01)	3.65E-01	(2.54E-01 - 4.86E-01)
54	5.87E-01	(4.43E-01 - 7.58E-01)	9.52E-01	(9.16E-01 - 1.00E+00)	9.52E-01	(9.16E-01 - 1.00E+00)
55	4.75E-02	(1.15E-02 - 1.04E-01)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
56	4.16E-04	(8.09E-06 - 4.15E-03)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.05E-07	(4.29E-11 - 1.07E-05)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 137 FISSION PRODUCT CHAIN

NLCT = 4.410 NU = 2.777 ZP = 54.039

NLCT = 4.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY	FCY	RANGE OF FCY
51	2.46E-06	(4.38E-09 - 9.84E-05)	2.46E-06	(4.38E-09 - 9.84E-05)	2.46E-06	(4.38E-09 - 9.84E-05)
52	3.28E-01	(1.79E-04 - 1.78E-02)	3.28E-01	(1.81E-04 - 1.78E-02)	3.28E-01	(1.81E-04 - 1.78E-02)
53	1.23E-01	(5.64E-02 - 2.17E-01)	1.40E-01	(5.96E-02 - 2.22E-01)	1.40E-01	(5.96E-02 - 2.22E-01)
54	6.66E-01	(5.47E-01 - 8.27E-01)	8.28E-01	(7.38E-01 - 9.12E-01)	8.28E-01	(7.38E-01 - 9.12E-01)
55	1.67E-01	(7.66E-02 - 2.46E-01)	9.95E-01	(9.90E-01 - 1.00E+00)	9.95E-01	(9.90E-01 - 1.00E+00)
56	4.55E-03	(3.35E-04 - 2.58E-02)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
57	4.61E-06	(1.15E-08 - 1.57E-04)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)
58	3.53E-10	(1.17E-14 - 1.93E-07)	1.00E+00	(1.00E+00 - 1.00E+00)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-235 - NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

COD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 138 FISSION PRODUCT CHAIN

NLCT = 4.431 NU = 2.863 ZP = 54.463

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	5.22E-08	(1.51E-11 - 6.47E-06)	5.22E-08	(1.51E-11 - 6.47E-06)
52	2.59E-04	(3.94E-06 - 2.99E-03)	2.59E-04	(3.99E-06 - 2.99E-03)
53	3.65E-02	(7.67E-03 - 8.82E-02)	3.67E-02	(7.93E-03 - 8.86E-02)
54	5.48E-01	(4.12E-01 - 7.16E-01)	5.85E-01	(4.77E-01 - 7.19E-01)
55	3.79E-01	(2.74E-01 - 4.99E-01)	9.64E-01	(9.34E-01 - 1.00E+00)
56	3.61E-02	(6.54E-03 - 9.56E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.18E-04	(1.40E-06 - 1.58E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	3.31E-08	(6.76E-12 - 5.06E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 139 FISSION PRODUCT CHAIN

NLCT = 4.325 NU = 2.834 ZP = 54.841

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	1.08E-09	(5.06E-14 - 4.06E-07)	1.08E-09	(5.06E-14 - 4.06E-07)
52	1.71E-05	(6.80E-08 - 4.40E-04)	1.71E-05	(6.91E-08 - 4.40E-04)
53	7.39E-03	(6.72E-04 - 2.94E-02)	7.40E-03	(6.89E-04 - 2.95E-02)
54	3.10E-01	(1.66E-01 - 4.23E-01)	3.17E-01	(1.73E-01 - 4.33E-01)
55	5.42E-01	(4.22E-01 - 6.65E-01)	8.59E-01	(7.68E-01 - 9.66E-01)
56	1.39E-01	(4.77E-02 - 2.46E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
57	1.36E-03	(5.29E-05 - 8.98E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.21E-06	(1.35E-09 - 6.68E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 140 FISSION PRODUCT CHAIN

NLCT = 4.223 NU = 2.788 ZP = 55.213

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	7.44E-07	(6.57E-10 - 4.72E-05)	7.44E-07	(6.57E-10 - 4.72E-05)
53	9.85E-04	(3.27E-05 - 7.15E-03)	9.86E-04	(3.35E-05 - 7.15E-03)
54	1.18E-01	(3.69E-02 - 2.17E-01)	1.19E-01	(3.79E-02 - 2.18E-01)
55	5.27E-01	(4.06E-01 - 6.56E-01)	6.46E-01	(5.01E-01 - 7.65E-01)
56	3.44E-01	(1.96E-01 - 4.61E-01)	9.90E-01	(9.82E-01 - 1.00E+00)
57	9.54E-03	(9.90E-04 - 3.52E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	2.60E-05	(1.27E-07 - 5.92E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
59	1.54E-09	(1.17E-13 - 6.17E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 141 FISSION PRODUCT CHAIN

NLCT = 4.122 NU = 2.674 ZP = 55.558

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	2.67E-08	(4.93E-12 - 4.33E-06)	2.67E-08	(4.93E-12 - 4.33E-06)
53	1.01E-04	(1.12E-06 - 1.42E-03)	1.01E-04	(1.15E-06 - 1.42E-03)
54	3.31E-02	(5.73E-03 - 8.99E-02)	3.32E-02	(5.83E-03 - 9.00E-02)
55	3.67E-01	(2.61E-01 - 4.85E-01)	4.00E-01	(2.91E-01 - 5.31E-01)
56	5.60E-01	(4.21E-01 - 7.29E-01)	9.60E-01	(9.30E-01 - 1.00E+00)
57	3.54E-02	(8.64E-03 - 9.30E-02)	1.00E+00	(9.99E-01 - 1.00E+00)
58	2.57E-04	(4.85E-06 - 3.30E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	6.40E-08	(2.04E-11 - 7.48E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 142 FISSION PRODUCT CHAIN

NLCT = 4.055 NU = 2.667 ZP = 55.946

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	4.18E-10	(1.17E-14 - 2.18E-07)	4.18E-10	(1.17E-14 - 2.18E-07)
53	5.23E-06	(1.39E-08 - 1.71E-04)	5.23E-06	(1.43E-08 - 1.71E-04)
54	5.40E-02	(3.77E-04 - 2.52E-02)	5.40E-02	(3.82E-04 - 2.52E-02)
55	1.73E-01	(8.11E-02 - 2.55E-01)	1.78E-01	(8.64E-02 - 2.62E-01)
56	6.87E-01	(5.45E-01 - 8.25E-01)	8.66E-01	(7.87E-01 - 9.47E-01)
57	1.21E-01	(5.30E-02 - 2.11E-01)	9.97E-01	(9.94E-01 - 1.00E+00)
58	3.02E-02	(1.58E-04 - 1.67E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	2.11E-06	(3.61E-09 - 8.97E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 143 FISSION PRODUCT CHAIN

NLCT = 3.555 NU = 2.631 ZP = 56.322

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	1.98E-07	(1.09E-10 - 1.67E-05)	1.98E-07	(1.09E-10 - 1.67E-05)
54	6.38E-04	(1.53E-05 - 5.63E-03)	6.38E-04	(1.54E-05 - 5.63E-03)
55	5.96E-02	(1.54E-02 - 1.23E-01)	6.03E-02	(1.61E-02 - 1.24E-01)
56	6.18E-01	(4.70E-01 - 7.88E-01)	6.79E-01	(5.68E-01 - 7.86E-01)
57	3.02E-01	(1.93E-01 - 4.01E-01)	9.80E-01	(9.63E-01 - 1.00E+00)
58	1.97E-02	(2.63E-03 - 6.24E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	4.23E-05	(3.07E-07 - 7.66E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
60	7.70E-09	(7.97E-13 - 1.77E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 144 FISSION PRODUCT CHAIN

NLCT = 4.004 NU = 2.748 ZP = 56.757

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	2.67E-09	(1.89E-13 - 7.77E-07)	2.67E-09	(1.89E-13 - 7.77E-07)
54	3.26E-05	(1.78E-07 - 6.96E-04)	3.27E-05	(1.81E-07 - 6.96E-04)
55	1.10E-02	(1.22E-03 - 3.87E-02)	1.10E-02	(1.25E-03 - 3.87E-02)
56	3.64E-01	(2.14E-01 - 4.83E-01)	3.75E-01	(2.33E-01 - 4.97E-01)
57	5.17E-01	(3.57E-01 - 6.46E-01)	8.92E-01	(8.17E-01 - 9.89E-01)
58	1.07E-01	(3.18E-02 - 2.03E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
59	8.20E-04	(2.45E-05 - 6.27E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	5.65E-07	(4.37E-10 - 3.87E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 145 FISSION PRODUCT CHAIN

NLCT = 4.118 NU = 2.842 ZP = 57.183

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	9.74E-07	(9.75E-10 - 5.72E-05)	9.74E-07	(9.75E-10 - 5.72E-05)
55	1.18E-03	(4.27E-05 - 8.11E-03)	1.18E-03	(4.37E-05 - 8.11E-03)
56	1.25E-01	(4.26E-02 - 2.31E-01)	1.30E-01	(4.38E-02 - 2.33E-01)
57	5.36E-01	(4.15E-01 - 6.62E-01)	6.67E-01	(5.20E-01 - 7.83E-01)
58	3.25E-01	(1.79E-01 - 4.35E-01)	9.92E-01	(9.84E-01 - 1.00E+00)
59	8.30E-03	(8.02E-04 - 3.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
60	2.07E-05	(5.02E-08 - 5.04E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
61	1.41E-09	(7.27E-14 - 4.91E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-235 - NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

COD-Even Z CORRECTION FACTOR = 1.15 +/- .15

MASS 146 FISSION PRODUCT CHAIN

NLCT = 4.223 NU = 2.960 ZP = 57.619

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
54	1.43E-C8	(1.97E-12 - 2.77E-06)	1.43E-08	(1.97E-12 - 2.77E-C6)
55	6.55E-C9	(5.86E-07 - 1.04E-03)	6.55E-05	(6.00E-07 - 1.04E-C3)
56	2.56E-02	(3.89E-03 - 7.50E-02)	2.56E-02	(3.96E-03 - 7.51E-C2)
57	3.34E-01	(2.26E-01 - 4.43E-01)	3.59E-01	(2.49E-01 - 4.79E-C1)
58	5.51E-01	(4.47E-01 - 7.62E-01)	9.51E-01	(9.14E-01 - 1.00E+CC)
59	4.88E-02	(1.20E-02 - 1.08E-01)	1.00E+00	(9.99E-01 - 1.00E+CC)
60	4.40E-04	(8.73E-06 - 4.34E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)
61	1.14E-07	(4.8CE-11 - 1.13E-05)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 147 FISSION PRODUCT CHAIN

NLCT = 4.196 NU = 3.076 ZP = 58.054

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
55	2.11E-C6	(3.63E-09 - 8.99E-05)	2.11E-06	(3.63E-09 - 8.99E-C5)
56	3.03E-03	(1.58E-04 - 1.68E-02)	3.03E-03	(1.60E-04 - 1.68E-C2)
57	1.32E-01	(5.30E-02 - 2.11E-01)	1.35E-01	(5.60E-02 - 2.16E-C1)
58	6.87E-01	(5.45E-01 - 8.25E-01)	8.22E-01	(7.30E-01 - 9.06E-C1)
59	1.73E-01	(8.10E-02 - 2.54E-01)	9.95E-01	(9.90E-01 - 1.00E+CC)
60	5.39E-03	(3.76E-04 - 2.51E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)
61	5.21E-06	(1.38E-08 - 1.71E-04)	1.00E+00	(1.00E+00 - 1.00E+CC)
62	4.16E-10	(1.17E-14 - 2.18E-07)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 148 FISSION PRODUCT CHAIN

NLCT = 4.377 NU = 3.371 ZP = 58.559

DEVIATION FROM UCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
55	2.04E-08	(C. - 8.34E-05)	2.04E-08	(1.06E-22 - 8.34E-C5)
56	1.35E-04	(3.08E-10 - 9.90E-03)	1.35E-04	(2.07E-08 - 9.90E-C3)
57	2.53E-02	(1.51E-04 - 1.25E-01)	2.53E-02	(2.86E-04 - 1.25E-C1)
58	4.52E-01	(1.88E-01 - 8.27E-01)	5.17E-01	(2.99E-01 - 8.16E-C1)
59	4.30E-01	(2.18E-01 - 6.86E-01)	9.47E-01	(8.94E-01 - 1.00E+CC)
60	5.30E-02	(6.26E-04 - 2.06E-01)	1.00E+00	(1.00E+00 - 1.00E+CC)
61	2.29E-04	(1.6CE-09 - 1.14E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)
62	8.43E-08	(C. - 2.05E-04)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 149 FISSION PRODUCT CHAIN

NLCT = 4.244 NU = 3.221 ZP = 58.890

DEVIATION FROM UCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
55	6.29E-10	(C. - 1.32E-05)	6.29E-10	(3.31E-24 - 1.32E-C5)
56	1.16E-05	(8.52E-13 - 2.77E-03)	1.16E-05	(6.30E-10 - 2.77E-C3)
57	5.81E-03	(3.86E-06 - 4.06E-02)	5.82E-03	(1.55E-05 - 6.07E-C2)
58	2.79E-01	(3.09E-02 - 4.88E-01)	2.85E-01	(4.94E-02 - 5.01E-C1)
59	5.53E-01	(3.72E-01 - 7.29E-01)	8.37E-01	(6.86E-01 - 1.00E+CC)
60	1.61E-01	(9.85E-03 - 3.54E-01)	9.98E-01	(9.96E-01 - 1.00E+CC)
61	1.81E-03	(2.25E-07 - 3.35E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)
62	1.87E-06	(1.26E-14 - 1.06E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 150 FISSION PRODUCT CHAIN

NLCT = 3.87C NU = 2.944 ZP = 59.172

DEVIATION FROM UCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
56	1.08E-C8	(C. - 7.9CE-C4)	1.08E-06	(6.78E-21 - 7.90E-C4)
57	1.26E-C3	(5.37E-C8 - 2.77E-C2)	1.26E-03	(1.17E-06 - 2.78E-C2)
58	1.24E-C1	(6.19E-C3 - 3.24E-C1)	1.35E-01	(7.44E-03 - 3.28E-C1)
59	5.35E-C1	(3.55E-C1 - 7.15E-C1)	6.74E-01	(4.51E-01 - 5.19E-C1)
60	3.18E-C1	(5.75E-C2 - 5.55E-C1)	9.92E-01	(9.84E-01 - 1.00E+CC)
61	7.87E-C2	(8.17E-C6 - 7.06E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)
62	1.9CE-C2	(2.74E-12 - 3.55E-C3)	1.00E+00	(1.00E+00 - 1.00E+CC)
63	1.25E-C5	(C. - 1.9CE-C5)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 151 FISSION PRODUCT CHAIN

NLCT = 3.862 NU = 2.718 ZP = 59.474

DEVIATION FROM UCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
56	6.23E-C8	(C. - 1.72E-C4)	6.23E-08	(4.24E-22 - 1.72E-C4)
57	1.83E-C4	(5.38E-10 - 1.01E-C2)	1.83E-04	(6.33E-08 - 1.01E-C2)
58	4.66E-C2	(4.57E-C4 - 1.93E-C1)	4.68E-02	(6.39E-04 - 1.54E-C1)
59	4.12E-C1	(1.54E-C1 - 6.7CE-C1)	4.59E-01	(2.36E-01 - 7.55E-C1)
60	5.12E-C1	(2.13E-C1 - 8.5CE-C1)	9.71E-01	(9.42E-01 - 1.00E+CC)
61	2.88E-C2	(2.05E-C4 - 1.33E-C1)	1.00E+00	(1.00E+00 - 1.00E+CC)
62	1.7CE-C4	(5.32E-10 - 1.11E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)
63	2.82E-C5	(C. - 9.91E-C5)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 152 FISSION PRODUCT CHAIN

NLCT = 3.281 NU = 2.507 ZP = 59.781

DEVIATION FROM UCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
56	2.58E-C5	(C. - 3.1CE-C5)	2.58E-09	(1.32E-23 - 3.10E-C5)
57	1.93E-C5	(4.58E-12 - 3.0EE-C3)	1.93E-05	(2.57E-05 - 3.08E-C3)
58	1.22E-C2	(1.75E-C5 - 9.81E-C2)	1.22E-02	(3.68E-05 - 9.82E-C2)
59	2.48E-C1	(5.27E-C2 - 4.34E-C1)	2.60E-01	(6.45E-02 - 4.65E-C1)
60	6.56E-C1	(4.27E-C1 - 9.07E-C1)	9.16E-01	(8.37E-01 - 1.00E+CC)
61	8.26E-C2	(3.08E-C3 - 2.16E-C1)	9.99E-01	(9.98E-01 - 1.00E+CC)
62	1.15E-C3	(6.0CE-C8 - 3.0CE-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)
63	5.05E-C7	(C. - 4.51E-C4)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 153 FISSION PRODUCT CHAIN

NLCT = 3.221 NU = 2.614 ZP = 60.213

DEVIATION FROM UCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
57	5.25E-C7	(C. - 4.62E-C4)	5.25E-07	(3.39E-21 - 4.62E-C4)
58	1.23E-C2	(6.48E-C8 - 3.04E-C2)	1.23E-03	(5.94E-C7 - 3.05E-C2)
59	6.35E-C2	(3.21E-C3 - 2.16E-C1)	8.51E-02	(4.42E-03 - 2.22E-C1)
60	6.57E-C1	(4.58E-C1 - 9.06E-C1)	7.43E-01	(5.48E-01 - 5.45E-C1)
61	2.48E-C1	(5.12E-C2 - 4.3CE-C1)	9.88E-01	(9.76E-01 - 1.00E+CC)
62	1.15E-C2	(1.61E-C5 - 9.65E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)
63	1.88E-C5	(4.16E-12 - 3.01E-C3)	1.00E+00	(1.00E+00 - 1.00E+CC)
64	2.42E-C5	(C. - 3.0CE-C5)	1.00E+00	(1.00E+00 - 1.00E+CC)

14.6 MEV NEUTRON FISSION OF U-235 - NLCT METHOD
ESTIMATED FRACTIONAL YIELDS
CCC-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 154 FISSION PRODUCT CHAIN

NLCT = 3.414 NU = 2.703 ZP = 60.630		DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18	
Z	FIY	RANGE OF FIY	FCY
57	9.23E-09 (C)	- 5.50E-05	9.23E-09 (5.29E-23 - 5.50E-05)
58	7.81E-05 (8.17E-11	- 7.46E-03	7.82E-05 (9.31E-09 - 7.46E-03)
59	1.84E-02 (6.78E-05	- 1.07E-01	1.85E-02 (1.45E-04 - 1.07E-01)
60	4.42E-01 (1.37E-01	- 7.61E-01	4.60E-01 (8.59E-01 - 7.59E-01)
61	4.68E-01 (2.78E-01	- 7.15E-01	9.29E-01 (8.59E-01 - 1.00E+00)
62	7.10E-02 (1.28E-03	- 2.39E-01	1.00E+00 (9.99E-01 - 1.00E+00)
63	3.85E-04 (5.53E-09	- 1.50E-02	1.00E+00 (1.00E+00 - 1.00E+00)
64	1.85E-07 (C)	- 3.08E-04	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 155 FISSION PRODUCT CHAIN

NLCT = 3.180 NU = 2.517 ZP = 60.955		DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18	
Z	FIY	RANGE OF FIY	FCY
57	3.06E-10 (C)	- 8.98E-06	3.06E-10 (C - 8.98E-06)
58	6.89E-06 (2.48E-13	- 2.11E-03	6.89E-06 (3.06E-10 - 2.11E-03)
59	4.18E-03 (1.73E-06	- 5.14E-02	4.19E-03 (8.61E-06 - 5.15E-02)
60	2.41E-01 (2.77E-02	- 4.39E-01	2.45E-01 (3.19E-02 - 4.49E-01)
61	5.40E-01 (3.86E-01	- 7.44E-01	8.05E-01 (6.29E-01 - 1.00E+00)
62	1.52E-01 (1.55E-02	- 3.83E-01	9.97E-01 (9.95E-01 - 1.00E+00)
63	2.59E-03 (5.35E-07	- 4.03E-02	1.00E+00 (1.00E+00 - 1.00E+00)
64	3.26E-06 (4.20E-14	- 1.42E-03	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 156 FISSION PRODUCT CHAIN

NLCT = 3.035 NU = 2.403 ZP = 61.300		DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18	
Z	FIY	RANGE OF FIY	FCY
58	3.33E-07 (C)	- 4.23E-04	3.33E-07 (1.69E-21 - 4.23E-04)
59	5.75E-04 (1.44E-08	- 1.84E-02	5.75E-04 (3.47E-07 - 1.85E-02)
60	8.83E-02 (2.21E-03	- 2.66E-01	8.89E-02 (2.78E-03 - 2.67E-01)
61	4.56E-01 (3.16E-01	- 7.27E-01	5.85E-01 (3.86E-01 - 8.77E-01)
62	4.01E-01 (1.64E-01	- 6.99E-01	9.86E-01 (9.72E-01 - 1.00E+00)
63	1.41E-02 (3.49E-05	- 9.41E-02	1.00E+00 (1.00E+00 - 1.00E+00)
64	4.58E-05 (2.77E-11	- 5.92E-03	1.00E+00 (1.00E+00 - 1.00E+00)
65	4.86E-09 (C)	- 3.91E-05	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 157 FISSION PRODUCT CHAIN

NLCT = 3.050 NU = 2.415 ZP = 61.655		DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18	
Z	FIY	RANGE OF FIY	FCY
58	6.49E-09 (C)	- 5.10E-05	6.49E-09 (2.65E-23 - 5.10E-05)
59	3.75E-05 (2.19E-11	- 4.37E-03	3.75E-05 (6.52E-09 - 4.37E-03)
60	1.83E-02 (4.67E-05	- 1.21E-01	1.83E-02 (1.41E-04 - 1.21E-01)
61	2.73E-01 (7.68E-02	- 5.10E-01	3.11E-01 (9.43E-02 - 5.51E-01)
62	6.25E-01 (3.55E-01	- 9.20E-01	9.36E-01 (8.75E-01 - 1.00E+00)
63	6.29E-02 (1.53E-03	- 1.91E-01	9.99E-01 (9.99E-01 - 1.00E+00)
64	7.25E-04 (1.68E-08	- 2.30E-02	1.00E+00 (1.00E+00 - 1.00E+00)
65	2.30E-07 (C)	- 2.98E-04	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 158 FISSION PRODUCT CHAIN

NLCT = 3.247 NU = 2.571 ZP = 62.145		DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18	
Z	FIY	RANGE OF FIY	FCY
59	5.64E-07 (5.92E-15	- 6.34E-04	9.64E-07 (5.92E-15 - 6.34E-04)
60	1.82E-03 (1.69E-07	- 3.72E-02	1.82E-03 (1.13E-06 - 3.72E-02)
61	1.02E-01 (5.36E-03	- 2.35E-01	1.04E-01 (7.16E-03 - 2.44E-01)
62	6.74E-01 (4.48E-01	- 8.85E-01	7.75E-01 (6.01E-01 - 9.52E-01)
63	2.13E-01 (3.54E-02	- 3.70E-01	9.91E-01 (9.83E-01 - 1.00E+00)
64	8.56E-02 (7.35E-06	- 8.18E-02	1.00E+00 (1.00E+00 - 1.00E+00)
65	1.05E-01 (1.18E-12	- 2.27E-03	1.00E+00 (1.00E+00 - 1.00E+00)
66	1.15E-05 (C)	- 2.01E-05	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 159 FISSION PRODUCT CHAIN

NLCT = 3.292 NU = 2.665 ZP = 62.580		DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18	
Z	FIY	RANGE OF FIY	FCY
59	1.65E-08 (C)	- 7.47E-06	1.65E-08 (1.06E-22 - 7.47E-06)
60	1.11E-04 (2.17E-10	- 9.15E-03	1.17E-04 (1.67E-08 - 9.15E-03)
61	2.32E-02 (1.23E-04	- 1.20E-01	2.34E-02 (2.40E-04 - 1.20E-01)
62	4.75E-01 (1.74E-01	- 8.11E-01	5.02E-01 (2.87E-01 - 8.02E-01)
63	4.40E-01 (2.23E-01	- 6.95E-01	9.42E-01 (8.86E-01 - 1.00E+00)
64	5.73E-02 (7.61E-04	- 2.15E-01	1.00E+00 (9.99E-01 - 1.00E+00)
65	2.62E-04 (2.24E-09	- 1.22E-02	1.00E+00 (1.00E+00 - 1.00E+00)
66	1.06E-07 (C)	- 2.25E-04	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 160 FISSION PRODUCT CHAIN

NLCT = 3.335 NU = 2.643 ZP = 62.953		DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18	
Z	FIY	RANGE OF FIY	FCY
59	3.12E-10 (C)	- 9.08E-08	3.12E-10 (1.65E-24 - 9.08E-08)
60	6.99E-06 (2.56E-13	- 2.12E-03	6.99E-06 (3.12E-10 - 2.13E-03)
61	4.22E-03 (1.77E-06	- 5.16E-02	4.23E-03 (8.75E-06 - 5.17E-02)
62	2.42E-01 (2.80E-02	- 4.40E-01	2.46E-01 (3.22E-02 - 4.50E-01)
63	5.60E-01 (3.86E-01	- 7.42E-01	8.06E-01 (6.30E-01 - 1.00E+00)
64	1.91E-01 (1.53E-02	- 3.82E-01	9.97E-01 (9.95E-01 - 1.00E+00)
65	2.57E-03 (5.26E-07	- 4.01E-02	1.00E+00 (1.00E+00 - 1.00E+00)
66	3.21E-06 (4.20E-14	- 1.41E-03	1.00E+00 (1.00E+00 - 1.00E+00)

MASS 161 FISSION PRODUCT CHAIN

NLCT = 3.270 NU = 2.668 ZP = 63.353		DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18	
Z	FIY	RANGE OF FIY	FCY
60	2.03E-07 (C)	- 3.24E-04	2.03E-07 (8.47E-22 - 3.24E-04)
61	4.11E-04 (6.43E-09	- 1.55E-02	4.11E-04 (2.09E-07 - 1.55E-02)
62	7.25E-02 (1.40E-03	- 2.43E-01	7.39E-02 (1.81E-03 - 2.44E-01)
63	4.73E-01 (2.86E-01	- 7.18E-01	5.47E-01 (3.47E-01 - 8.45E-01)
64	4.36E-01 (1.31E-01	- 7.52E-01	9.82E-01 (9.65E-01 - 1.00E+00)
65	1.77E-02 (6.12E-05	- 1.05E-01	1.00E+00 (1.00E+00 - 1.00E+00)
66	7.25E-05 (6.51E-11	- 7.20E-03	1.00E+00 (1.00E+00 - 1.00E+00)
67	8.24E-09 (C)	- 5.21E-05	1.00E+00 (1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF L-235 - ALICI METHOD
ZF VALUES
(1) FROM DEVIATION FROM UCD - SCALE AL(1) ACCORDING TO NUBAR. (2) FROM CORRELL DELTA ZP.
(3) FROM NETHAWAY DELTA ZP. (4) FROM DEVIATION FROM UCD AND NUBAR.

72	28.98	25.14	28.97	28.79	117	46.85	46.73	46.76	46.38
73	29.37	25.53	29.26	29.18	118	47.12	47.08	47.12	46.74
74	29.76	25.92	29.57	29.57	119	47.52	47.58	47.42	47.12
75	30.15	26.31	30.14	29.95	120	47.90	47.69	47.74	47.52
76	30.54	30.70	30.53	30.32	121	48.29	47.59	48.04	47.93
77	30.93	31.10	30.93	30.71	122	48.68	48.29	48.34	48.36
78	31.32	31.51	31.34	31.12	123	49.07	48.66	48.71	48.75
79	31.71	31.94	31.77	31.54	124	49.46	49.02	48.87	49.14
80	32.13	32.33	32.16	31.93	125	49.85	49.40	49.15	49.52
81	32.56	32.74	32.57	32.38	126	50.24	49.75	49.42	49.97
82	32.91	33.14	32.97	32.77	127	50.63	50.10	50.34	50.34
83	33.27	33.55	33.36	33.20	128	51.02	50.45	50.10	50.29
84	33.73	33.96	33.79	33.64	129	51.41	50.81	50.44	50.64
85	34.18	34.37	34.20	34.08	130	51.80	51.19	50.83	51.01
86	34.57	34.79	34.62	34.48	131	52.19	51.58	51.24	51.46
87	34.96	35.21	35.04	34.87	132	52.58	51.97	51.65	51.91
88	35.38	35.64	35.47	35.27	133	52.97	52.36	52.05	52.35
89	35.81	36.05	35.88	35.68	134	53.36	52.75	52.44	52.82
90	36.24	36.45	36.28	36.09	135	53.75	53.14	52.83	53.19
91	36.67	36.85	36.68	36.47	136	54.14	53.53	53.22	53.61
92	37.08	37.25	37.08	36.89	137	54.53	53.92	53.61	54.04
93	37.27	37.66	37.49	37.31	138	54.92	54.31	54.00	54.46
94	37.70	38.06	37.89	37.73	139	55.31	54.70	54.39	54.84
95	38.15	38.47	38.30	38.16	140	55.70	55.09	54.78	55.21
96	38.54	38.86	38.69	38.54	141	56.09	55.48	55.17	55.56
97	38.92	39.26	39.09	38.94	142	56.48	55.87	55.56	55.95
98	39.33	39.65	39.48	39.37	143	56.87	56.26	55.95	56.32
99	39.74	40.04	39.87	39.78	144	57.26	56.65	56.32	56.76
100	40.16	40.40	40.23	40.21	145	57.65	57.04	56.71	57.18
101	40.59	40.77	40.60	40.65	146	58.04	57.43	57.12	57.62
102	41.01	41.14	40.97	41.04	147	58.43	57.82	57.51	58.05
103	41.43	41.50	41.33	41.54	148	58.82	58.21	57.90	58.46
104	41.86	41.86	41.69	41.96	149	59.21	58.60	58.29	58.89
105	41.85	42.27	42.10	41.94	150	59.60	59.00	58.68	59.32
106	42.42	42.68	42.51	42.33	151	60.00	59.39	59.07	59.78
107	42.82	43.11	42.67	42.67	152	60.39	59.78	59.46	60.21
108	43.37	43.71	43.54	43.07	153	60.78	60.17	60.32	60.64
109	43.85	44.14	43.97	43.46	154	61.17	60.56	61.07	60.96
110	44.26	44.47	44.30	43.84	155	61.56	60.95	61.46	61.30
111	44.67	44.79	44.62	44.21	156	61.95	61.34	61.75	61.69
112	45.07	45.09	44.92	44.58	157	62.34	61.73	62.15	62.15
113	45.48	45.40	45.23	44.97	158	62.73	62.12	62.52	62.58
114	45.74	45.70	45.53	45.31	159	63.12	62.51	62.91	62.95
115	46.06	46.05	46.10	45.65	160	63.51	62.90	63.30	63.35
116	46.35	46.39	46.44	46.00	161	63.90	63.29	63.68	63.73

14.6 PEV NEUTRON FISSION CF L-235 - ALIOT METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS MINUS	PROCESS TYPE	YIELD	PRIMARY REF.	SECONDARY REFERENCES CR COMMENTS	ESTIMATED VALUE	RANGE	FIT
35BR	82		1.600E-03	1.000E-04	1.000E-04	1.000E-04	56FCR1		5.657E-04	14.307E-08 - 2.345E-02	YES
35BR	82		2.400E-03	7.000E-04	7.000E-04	7.000E-04	72NE1	K-N72-1	5.657E-04	14.307E-08 - 2.345E-02	YES
37BR	84		4.200E-04	1.300E-04	1.300E-04	1.300E-04	72NE1	K-N72-1	1.259E-04	11.727E-06 - 1.747E-03	YES
36KR	87		2.770E-01	5.000E-02	5.000E-02	5.000E-02	72BCC1	K-B72-1	1.566E-01	15.391E-02 - 2.593E-01	YES
36KR	88		3.850E-01	8.400E-02	8.400E-02	8.400E-02	72BCC1	K-B72-1	3.817E-01	12.316E-01 - 5.067E-01	YES
36KR	85		6.490E-01	1.200E-01	1.200E-01	1.200E-01	72BCC1	K-B72-1	6.115E-01	14.691E-01 - 7.84E-01	YES
36KR	90		4.980E-01	8.800E-02	8.800E-02	8.800E-02	72BCC1	K-B72-1	6.834E-01	15.378E-01 - 8.237E-01	YES
39 Y	90		2.200E-04	4.000E-05	4.000E-05	4.000E-05	72NE1	K-N72-1	7.654E-06	12.163E-08 - 2.121E-04	YES
36KR	91		3.600E-01	1.000E-02	2.000E-02	2.000E-02	65WCL1	K-B72-1	5.765E-01	14.704E-01 - 7.143E-01	YES
36KR	91		3.520E-01	7.500E-02	7.500E-02	7.500E-02	65WCL1	K-B72-1	5.430E-01	14.077E-01 - 7.144E-01	YES
36KR	92		1.560E-01	1.300E-02	5.000E-03	5.000E-03	65WCL1	K-B72-1	2.819E-01	11.488E-01 - 4.049E-01	YES
36KR	92		1.680E-01	3.000E-02	3.000E-02	3.000E-02	72BCC1	K-B72-1	2.819E-01	11.429E-01 - 3.973E-01	YES
39 Y	92		7.400E-03	1.700E-03	1.700E-03	1.700E-03	65WCL1	K-N72-1	1.758E-03	11.771E-05 - 1.017E-02	YES
36KR	93		3.500E-02	5.000E-03	2.000E-03	2.000E-03	72BCC1	K-B72-1	6.712E-02	12.359E-02 - 1.744E-01	YES
36KR	93		4.200E-02	8.200E-03	8.200E-03	8.200E-03	72BCC1	K-B72-1	8.656E-02	12.304E-02 - 1.737E-01	YES
41NB	96		5.900E-04	2.000E-05	2.000E-05	2.000E-05	56FCR1	K-N72-1	2.636E-04	13.144E-06 - 2.331E-03	YES
41NB	96		7.400E-04	5.000E-05	5.000E-05	5.000E-05	72NE1	K-N72-1	2.376E-04	11.212E-04 - 1.377E-02	YES
41NB	97		6.500E-02	1.500E-02	1.500E-02	1.500E-02	72NE1	K-N72-1	2.550E-04	12.148E-09 - 1.214E-02	AC
47AG	112		5.100E-02	6.000E-03	6.000E-03	6.000E-03	72NE1	K-N72-1	5.650E-01	13.658E-01 - 6.656E-01	YES
52TE	131M		3.500E-01	5.000E-02	5.000E-02	5.000E-02	55WAL1	C65WCL1	2.756E-02	14.987E-03 - 7.260E-02	YES
53	1131		1.600E-02	1.000E-02	1.000E-02	1.000E-02	55WAL1	K-CA73-1-65	1.140E-01	14.533E-02 - 1.975E-01	YES
53	1132		1.600E-01	1.000E-01	1.000E-01	1.000E-01	55WAL1	K-CA73-1-65	6.647E-01	14.580E-01 - 7.755E-01	AC
53	1133		1.400E-01	1.000E-01	1.000E-01	1.000E-01	55WAL1	C65WCL1	3.183E-01	12.095E-01 - 4.225E-01	YES
54XE	133		2.200E-02	7.000E-03	7.000E-03	7.000E-03	72ALE1	K-A72-1	2.258E-02	13.229E-03 - 6.873E-02	YES
54XE	133M		2.510E-02	1.200E-03	1.200E-03	1.200E-03	73FCR1	K-F73-4	2.288E-02	13.229E-03 - 6.873E-02	YES
54XE	133G		5.670E-03	5.600E-04	5.600E-04	5.600E-04	73FCR1	K-F73-4	2.288E-02	13.229E-03 - 6.873E-02	YES
54XE	133G		5.670E-03	5.600E-04	5.600E-04	5.600E-04	73FCR1	K-F73-4	2.288E-02	13.229E-03 - 6.873E-02	YES
54XE	133G	SUM	3.480E-02	1.400E-03	1.400E-03	1.400E-03	73FCR1	K-F73-4	5.370E-01	14.160E-01 - 6.622E-01	YES
53	1134		4.300E-01	2.000E-02	2.000E-02	2.000E-02	55WAL1	K-F73-3	3.315E-01	11.847E-01 - 4.464E-01	YES
54XE	135M		1.698E-01	8.800E-03	8.800E-03	8.800E-03	73FCR1	K-F73-3	3.315E-01	11.847E-01 - 4.464E-01	YES
54XE	135G		5.500E-02	1.500E-02	1.500E-02	1.500E-02	73FCR1	K-F73-3	3.315E-01	11.847E-01 - 4.464E-01	YES
54XE	135		2.790E-01	8.000E-03	8.000E-03	8.000E-03	73FCR1	K-F73-4	3.315E-01	11.847E-01 - 4.464E-01	YES
55CS	136		4.800E-02	5.000E-03	5.000E-03	5.000E-03	56FCR1	K-A72-1	4.750E-02	11.151E-02 - 1.055E-01	YES
55CS	136		4.800E-02	5.000E-03	5.000E-03	5.000E-03	56FCR1	K-A72-1	4.750E-02	11.151E-02 - 1.055E-01	YES
54XE	137		4.810E-02	5.000E-04	5.000E-04	5.000E-04	72KAC1	K-B72-1	4.750E-02	11.151E-02 - 1.055E-01	YES
54XE	138		5.400E-01	8.700E-02	8.700E-02	8.700E-02	72KAC1	K-B72-1	4.750E-02	11.151E-02 - 1.055E-01	YES
54XE	138		7.500E-01	2.000E-02	2.000E-02	2.000E-02	72BCC1	K-B72-1	6.834E-01	15.471E-01 - 8.267E-01	YES
54XE	138		5.260E-01	9.300E-02	9.300E-02	9.300E-02	65WCL1	K-B72-1	5.832E-01	14.768E-01 - 7.154E-01	AC
54XE	139		4.290E-01	9.000E-03	9.000E-03	9.000E-03	72BCC1	K-B72-1	5.485E-01	14.120E-01 - 7.154E-01	YES
54XE	139		3.670E-01	6.300E-02	6.300E-02	6.300E-02	65WCL1	K-B72-1	3.170E-01	11.729E-01 - 4.327E-01	YES
54XE	140		2.400E-01	8.000E-02	8.000E-02	8.000E-02	72BCC1	K-B72-1	3.056E-01	11.657E-01 - 4.232E-01	YES
54XE	140		2.110E-01	3.400E-02	3.400E-02	3.400E-02	65WCL1	K-B72-1	1.188E-01	13.791E-02 - 2.184E-01	YES
57LA	140		7.200E-03	5.000E-04	5.000E-04	5.000E-04	72BCC1	K-B72-1	1.178E-01	13.693E-02 - 2.112E-01	YES
54XE	141		5.620E-02	6.000E-03	6.000E-03	6.000E-03	72NE1	K-N72-1	5.406E-03	19.902E-04 - 3.515E-02	YES
54XE	141		5.620E-02	9.200E-03	9.200E-03	9.200E-03	72BCC1	K-B72-1	3.310E-02	15.732E-03 - 8.958E-02	YES
54XE	142		2.210E-02	3.800E-03	3.800E-03	3.800E-03	72BCC1	K-B72-1	5.358E-03	13.772E-04 - 2.517E-02	YES

14.6 MEV NEUTRON FISSION OF U-235 - ALTC1 METHOD

Z	A ISOMER	EXPTL. VALUE	UNCERTAINTY		PROCESS	TYPE	PRIMARY YIELD	PRIMARY REF.	SECONDARY OR COMMENTS	REFERENCE	ESTIMATED VALUE	ESTIMATED RANGE	FIT
			PLUS	MINUS									
92	235	2.700E-03	3.000E-04	3.000E-04	U235FE	FI	72NET1	K-A72-1			2.568E-03	(5.260E-07 - 4.010E-02)	YES

14.6 MEV NEUTRON FISSION OF U-238 ALTCI METHOD

4.4800	2	92	238	-0	-014.600	1.150	.150					
4	.56	.09	.18	.18	.45	.15	.30	.30	-0	2	-0	-0

NUBAR =4.4800

FOR ZP(1), NU(A) IS FROM U-238 + 12 MEV-PROTONS, ADJUSTED ACCORDING TO NUCLEAR.

ODD-EVEN Z EFFECT = 1.15 +/- .15 .

FOR ZP(4), NU(A) IS FROM NUTCT(A) DIVIDED ACCORDING TO THE NU(A) FUNCTION USED FOR ZP(1).

SIGMA = .560. UNCERTAINTIES FOR REGIONS SYMMETRY TO 129, 130 TO 151, 152 TO 161 ARE +/- .180 .090 .180.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION SYMMETRY TO 129 IS 0.00 +/- .300.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 130-151 IS - .450 +/- .150.

FOR ZP(1) AND ZP(4), DEVIATION FROM UCC IN REGION 152-161 IS - .450 +/- .300.

SAME UNCERTAINTIES ARE USED FOR ZP(2) AND ZP(3).

TYPE OF ZP FUNCTION USED IS 4.

14.6 MEV NEUTRON FISSION OF U-238 NLTC1 METHOD
ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 74 FISSION PRODUCT CHAIN

NLTC1 = 3.898 NU = .812 ZP = 29.248

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	5.41E-07 (C)	- 5.48E-04	5.41E-07 (3.39E-21 - 5.48E-04)	
27	7.56E-04 (3.13E-08	- 2.19E-02	7.97E-04 (5.72E-07 - 2.19E-02)	
28	1.05E-01 (3.40E-03	- 2.89E-01	1.06E-01 (4.20E-03 - 2.91E-01)	
29	5.16E-01 (3.33E-01	- 7.29E-01	6.22E-01 (4.13E-01 - 9.04E-01)	
30	3.67E-01 (8.56E-02	- 6.42E-01	9.89E-01 (9.78E-01 - 1.00E+00)	
31	1.12E-02 (1.96E-05	- 8.40E-02	1.00E+00 (1.00E+00 - 1.00E+00)	
32	3.38E-05 (1.09E-11	- 4.84E-03	1.00E+00 (1.00E+00 - 1.00E+00)	
33	2.81E-09 (C)	- 2.93E-05	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 75 FISSION PRODUCT CHAIN

NLTC1 = 3.902 NU = .813 ZP = 29.633

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
26	1.24E-08 (C)	- 7.21E-05	1.24E-08 (C)	- 7.21E-05
27	5.51E-05 (6.45E-11	- 5.56E-03	5.91E-05 (1.24E-08 - 5.56E-03)	
28	2.40E-02 (5.10E-05	- 1.38E-01	2.41E-02 (1.50E-04 - 1.39E-01)	
29	3.26E-01 (1.02E-01	- 5.61E-01	3.50E-01 (1.25E-01 - 6.12E-01)	
30	5.58E-01 (3.52E-01	- 9.16E-01	9.48E-01 (8.98E-01 - 1.00E+00)	
31	5.12E-02 (9.06E-04	- 1.74E-01	1.00E+00 (9.99E-01 - 1.00E+00)	
32	4.81E-04 (6.64E-09	- 1.89E-02	1.00E+00 (1.00E+00 - 1.00E+00)	
33	1.30E-07 (C)	- 2.21E-04	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 76 FISSION PRODUCT CHAIN

NLTC1 = 3.863 NU = .805 ZP = 30.015

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	2.54E-06 (5.60E-14	- 1.14E-03	2.94E-06 (5.60E-14 - 1.14E-03)	
28	3.74E-03 (9.80E-07	- 5.37E-02	3.74E-03 (3.92E-06 - 5.37E-02)	
29	1.46E-01 (1.33E-02	- 2.78E-01	1.49E-01 (1.70E-02 - 2.91E-01)	
30	6.89E-01 (4.81E-01	- 9.16E-01	8.39E-01 (6.98E-01 - 9.85E-01)	
31	1.57E-01 (1.61E-02	- 2.93E-01	9.96E-01 (9.91E-01 - 1.00E+00)	
32	4.39E-03 (1.45E-06	- 5.83E-02	1.00E+00 (1.00E+00 - 1.00E+00)	
33	3.78E-06 (9.73E-14	- 1.30E-03	1.00E+00 (1.00E+00 - 1.00E+00)	
34	2.67E-10 (C)	- 9.20E-06	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 77 FISSION PRODUCT CHAIN

NLTC1 = 3.772 NU = .786 ZP = 30.393

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	1.02E-07 (C)	- 1.95E-04	1.02E-07 (4.24E-22 - 1.95E-04)	
28	4.08E-04 (4.45E-09	- 1.74E-02	4.08E-04 (1.06E-07 - 1.74E-02)	
29	4.69E-02 (7.22E-04	- 1.67E-01	4.73E-02 (1.13E-03 - 1.68E-01)	
30	5.86E-01 (3.28E-01	- 9.11E-01	6.33E-01 (4.06E-01 - 9.02E-01)	
31	3.40E-01 (1.15E-01	- 5.81E-01	9.73E-01 (9.46E-01 - 1.00E+00)	
32	2.69E-02 (1.20E-04	- 1.47E-01	1.00E+00 (1.00E+00 - 1.00E+00)	
33	7.14E-05 (1.01E-10	- 6.14E-03	1.00E+00 (1.00E+00 - 1.00E+00)	
34	1.62E-08 (C)	- 8.33E-05	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 78 FISSION PRODUCT CHAIN

NLTC1 = 3.551 NU = .740 ZP = 30.760

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	2.55E-05 (C)	- 2.80E-05	2.59E-05 (1.32E-23 - 2.80E-05)	
28	3.15E-05 (5.50E-12	- 4.70E-03	3.19E-05 (2.60E-09 - 4.70E-03)	
29	1.00E-02 (1.75E-05	- 8.26E-02	1.08E-02 (4.58E-05 - 8.27E-02)	
30	3.62E-01 (8.23E-02	- 6.33E-01	3.73E-01 (1.62E-01 - 6.54E-01)	
31	5.10E-01 (3.35E-01	- 7.25E-01	8.91E-01 (7.87E-01 - 1.00E+00)	
32	1.00E-01 (3.63E-03	- 2.93E-01	9.99E-01 (9.98E-01 - 1.00E+00)	
33	8.35E-04 (3.51E-08	- 2.24E-02	1.00E+00 (1.00E+00 - 1.00E+00)	
34	5.61E-07 (C)	- 5.65E-04	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 79 FISSION PRODUCT CHAIN

NLTC1 = 3.780 NU = .768 ZP = 31.163

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	1.16E-06 (C)	- 8.24E-04	1.16E-06 (6.78E-21 - 8.24E-04)	
29	1.32E-03 (1.06E-07	- 2.85E-02	1.33E-03 (1.27E-06 - 2.85E-02)	
30	1.37E-01 (6.63E-03	- 3.25E-01	1.39E-01 (7.55E-03 - 3.32E-01)	
31	5.41E-01 (3.58E-01	- 7.17E-01	6.80E-01 (4.55E-01 - 9.20E-01)	
32	3.12E-01 (5.52E-02	- 5.44E-01	9.92E-01 (9.85E-01 - 1.00E+00)	
33	7.54E-03 (7.35E-06	- 6.91E-02	1.00E+00 (1.00E+00 - 1.00E+00)	
34	1.77E-05 (2.33E-12	- 3.46E-03	1.00E+00 (1.00E+00 - 1.00E+00)	
35	1.13E-09 (C)	- 1.81E-05	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 80 FISSION PRODUCT CHAIN

NLTC1 = 4.278 NU = .926 ZP = 31.601

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	1.72E-08 (C)	- 8.61E-05	1.72E-08 (1.06E-22 - 8.61E-05)	
29	7.44E-05 (1.12E-10	- 6.28E-03	7.45E-05 (1.73E-08 - 6.28E-03)	
30	2.76E-02 (1.27E-04	- 1.48E-01	2.77E-02 (2.01E-04 - 1.49E-01)	
31	3.42E-01 (1.18E-01	- 5.86E-01	3.71E-01 (1.44E-01 - 6.42E-01)	
32	5.83E-01 (3.22E-01	- 9.05E-01	9.54E-01 (9.08E-01 - 1.00E+00)	
33	4.55E-02 (6.85E-04	- 1.65E-01	1.00E+00 (9.99E-01 - 1.00E+00)	
34	3.52E-04 (4.07E-09	- 1.71E-02	1.00E+00 (1.00E+00 - 1.00E+00)	
35	5.65E-08 (C)	- 1.85E-04	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 81 FISSION PRODUCT CHAIN

NLTC1 = 4.005 NU = 1.061 ZP = 32.038

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	2.42E-06 (3.54E-14	- 1.03E-03	2.42E-06 (3.54E-14 - 1.03E-03)	
30	3.30E-03 (7.21E-07	- 5.04E-02	3.30E-03 (3.14E-06 - 5.04E-02)	
31	1.37E-01 (1.14E-02	- 2.71E-01	1.40E-01 (1.46E-02 - 2.82E-01)	
32	6.88E-01 (4.76E-01	- 9.14E-01	8.29E-01 (6.81E-01 - 9.79E-01)	
33	1.66E-01 (1.87E-02	- 3.05E-01	9.95E-01 (9.90E-01 - 1.00E+00)	
34	4.56E-03 (1.95E-06	- 6.20E-02	1.00E+00 (1.00E+00 - 1.00E+00)	
35	4.58E-06 (1.53E-13	- 1.44E-03	1.00E+00 (1.00E+00 - 1.00E+00)	
36	3.45E-10 (C)	- 1.06E-05	1.00E+00 (1.00E+00 - 1.00E+00)	

14.6 MEV NEUTRON FISSION OF U-238 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 82 FISSION PRODUCT CHAIN

NLCT = 4.466 NU = 1.069 ZP = 32.426

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	7.41E-08 (C.	- 1.65E-04)	7.41E-08 (4.24E-22 - 1.65E-04)	
30	3.28E-04 (2.63E-09 - 1.56E-02)	3.28E-04 (7.67E-08 - 1.56E-02)		
31	4.16E-02 (5.33E-04 - 1.58E-01)	4.19E-02 (8.61E-04 - 1.59E-01)		
32	5.68E-01 (2.97E-01 - 9.00E-01)	6.10E-01 (3.82E-01 - 8.89E-01)		
33	3.59E-01 (1.32E-01 - 6.06E-01)	9.69E-01 (9.38E-01 - 1.00E+00)		
34	3.11E-02 (1.70E-04 - 1.58E-01)	1.00E+00 (1.00E+00 - 1.00E+00)		
35	5.10E-05 (1.79E-10 - 6.98E-03)	1.00E+00 (1.00E+00 - 1.00E+00)		
36	2.29E-08 (0. - 1.00E-04)	1.00E+00 (1.00E+00 - 1.00E+00)		

MASS 83 FISSION PRODUCT CHAIN

NLCT = 4.515 NU = 1.055 ZP = 32.806

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	1.58E-09 (0. - 2.16E-05)	1.58E-09 (6.62E-24 - 2.16E-05)		
30	2.25E-05 (4.12E-12 - 3.92E-03)	2.25E-05 (1.59E-09 - 3.92E-03)		
31	8.74E-03 (1.06E-05 - 7.43E-02)	8.76E-03 (3.30E-05 - 7.45E-02)		
32	3.32E-01 (6.51E-02 - 5.81E-01)	3.41E-01 (1.21E-01 - 5.98E-01)		
33	5.33E-01 (3.49E-01 - 7.24E-01)	8.74E-01 (7.54E-01 - 1.00E+00)		
34	1.25E-01 (5.22E-03 - 3.14E-01)	9.99E-01 (9.98E-01 - 1.00E+00)		
35	1.10E-03 (6.84E-08 - 2.59E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
36	8.83E-07 (0. - 7.11E-04)	1.00E+00 (1.00E+00 - 1.00E+00)		

MASS 84 FISSION PRODUCT CHAIN

NLCT = 4.942 NU = 1.241 ZP = 33.262

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
30	4.73E-07 (0. - 5.10E-04)	4.73E-07 (1.69E-21 - 5.10E-04)		
31	7.28E-04 (2.53E-08 - 2.09E-02)	7.29E-04 (4.99E-07 - 2.09E-02)		
32	1.00E-01 (3.03E-03 - 2.83E-01)	1.01E-01 (3.75E-03 - 2.85E-01)		
33	5.10E-01 (3.29E-01 - 7.29E-01)	6.12E-01 (4.05E-01 - 8.97E-01)		
34	3.76E-01 (9.18E-02 - 6.58E-01)	9.88E-01 (9.76E-01 - 1.00E+00)		
35	1.19E-02 (2.30E-05 - 8.67E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
36	3.77E-05 (1.42E-11 - 5.12E-03)	1.00E+00 (1.00E+00 - 1.00E+00)		
37	3.27E-09 (0. - 3.18E-05)	1.00E+00 (1.00E+00 - 1.00E+00)		

MASS 85 FISSION PRODUCT CHAIN

NLCT = 4.977 NU = 1.370 ZP = 33.657

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE	CF FIY	FCY	RANGE	CF FCY
30	6.33E-09	(0. - 5.03E-05)	6.33E-09	(0. - 5.03E-05)		
31	3.68E-05	(2.10E-11 - 4.33E-03)	3.68E-05	(6.35E-09 - 4.33E-03)		
32	1.81E-02	(4.55E-05 - 1.20E-01)	1.81E-02	(8.23E-05 - 1.20E-01)		
33	2.52E-01	(7.55E-02 - 5.08E-01)	3.10E-01	(9.33E-02 - 5.49E-01)		
34	6.26E-01	(3.95E-01 - 9.20E-01)	9.36E-01	(8.74E-01 - 1.00E+00)		
35	6.33E-02	(1.56E-03 - 1.91E-01)	9.99E-01	(9.99E-01 - 1.00E+00)		
36	7.15E-04	(1.74E-08 - 2.31E-02)	1.00E+00	(1.00E+00 - 1.00E+00)		
37	2.35E-07	(0. - 3.02E-04)	1.00E+00	(1.00E+00 - 1.00E+00)		

MASS 86 FISSION PRODUCT CHAIN

NLCT = 4.576 NU = 1.376 ZP = 34.084

DEVIATION FROM UCD = .45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	1.64E-06	(1.48E-14 - 8.37E-04)	1.64E-06	(1.48E-14 - 8.37E-04)
32	2.56E-03	(3.91E-07 - 4.43E-02)	2.57E-03	(2.03E-06 - 4.43E-02)
33	1.21E-01	(8.30E-03 - 2.57E-01)	1.24E-01	(1.08E-02 - 2.66E-01)
34	6.84E-01	(4.65E-01 - 9.06E-01)	8.08E-01	(6.48E-01 - 9.65E-01)
35	1.85E-01	(2.48E-02 - 3.26E-01)	9.94E-01	(9.87E-01 - 1.00E+00)
36	6.25E-03	(3.47E-06 - 7.00E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
37	6.66E-06	(3.69E-13 - 1.75E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
38	5.84E-10	(0. - 1.40E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 87 FISSION PRODUCT CHAIN

NLCT = 4.52E NU = 1.430 ZP = 34.490

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	4.01E-08	(1.02E-11 - 5.36E-06)	4.01E-08	(1.02E-11 - 5.36E-06)
32	2.16E-04	(3.00E-06 - 2.63E-03)	2.16E-04	(3.04E-06 - 2.63E-03)
33	3.32E-02	(6.57E-03 - 8.24E-02)	3.32E-02	(6.78E-03 - 8.26E-02)
34	5.33E-01	(4.00E-01 - 6.95E-01)	5.66E-01	(4.59E-01 - 7.05E-01)
35	3.53E-01	(2.51E-01 - 5.17E-01)	9.59E-01	(9.27E-01 - 1.00E+00)
36	4.04E-02	(7.73E-03 - 1.03E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
37	1.43E-04	(1.86E-06 - 1.81E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
38	4.26E-08	(1.01E-11 - 6.16E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 88 FISSION PRODUCT CHAIN

NLCT = 4.736 NU = 1.470 ZP = 34.890

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
31	6.31E-10	(2.54E-14 - 2.77E-07)	6.31E-10	(2.54E-14 - 2.77E-07)
32	1.16E-05	(3.83E-08 - 3.35E-04)	1.16E-05	(3.89E-08 - 3.35E-04)
33	5.81E-03	(4.68E-04 - 2.45E-02)	5.82E-03	(4.80E-04 - 2.49E-02)
34	2.75E-01	(1.41E-01 - 3.95E-01)	2.85E-01	(1.46E-01 - 4.02E-01)
35	5.53E-01	(4.23E-01 - 6.65E-01)	9.38E-01	(7.36E-01 - 9.48E-01)
36	1.61E-01	(5.95E-02 - 2.71E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
37	1.80E-03	(8.08E-05 - 1.10E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
38	1.66E-06	(2.54E-09 - 9.10E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 89 FISSION PRODUCT CHAIN

NLCT = 4.754 NU = 1.554 ZP = 35.323

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
32	2.65E-07	(1.46E-10 - 2.27E-05)	2.69E-07	(1.46E-10 - 2.27E-05)
33	4.97E-04	(1.18E-05 - 4.40E-03)	4.97E-04	(1.21E-05 - 4.40E-03)
34	8.16E-02	(2.10E-02 - 1.65E-01)	8.21E-02	(2.15E-02 - 1.69E-01)
35	4.66E-01	(3.69E-01 - 6.20E-01)	5.68E-01	(4.37E-01 - 7.09E-01)
36	4.16E-01	(2.66E-01 - 5.53E-01)	9.84E-01	(9.71E-01 - 1.00E+00)
37	1.56E-02	(2.05E-03 - 4.93E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
38	5.65E-05	(4.29E-07 - 1.05E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
39	6.16E-09	(6.43E-13 - 1.41E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-238 NUTCT METH-CD

ESTIMATED FRACTIONAL YIELDS

COD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 90 FISSION PRODUCT CHAIN

NUTCT = 4.737 NU = 1.502 ZP = 35.673

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
32	8.20E-09	(8.73E-13 - 1.85E-06)	8.20E-09	(8.73E-13 - 1.85E-06)
33	4.42E-05	(3.27E-07 - 7.85E-04)	4.42E-05	(3.36E-07 - 7.85E-04)
34	2.02E-02	(2.73E-03 - 6.36E-02)	2.03E-02	(2.78E-03 - 6.36E-02)
35	3.05E-01	(1.96E-01 - 4.05E-01)	3.25E-01	(2.15E-01 - 4.34E-01)
36	6.16E-01	(4.68E-01 - 7.86E-01)	9.41E-01	(8.97E-01 - 1.00E+00)
37	5.85E-02	(1.50E-02 - 1.21E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
38	6.15E-04	(1.44E-05 - 5.49E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
39	1.88E-07	(1.00E-10 - 1.61E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 91 FISSION PRODUCT CHAIN

NUTCT = 4.608 NU = 1.412 ZP = 36.023

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
33	2.76E-06	(5.38E-09 - 1.09E-04)	2.76E-06	(5.38E-09 - 1.09E-04)
34	3.59E-03	(2.04E-04 - 1.89E-02)	3.59E-03	(2.07E-04 - 1.89E-02)
35	1.43E-01	(6.03E-02 - 2.24E-01)	1.46E-01	(6.38E-02 - 2.29E-01)
36	6.89E-01	(5.50E-01 - 8.28E-01)	8.35E-01	(7.47E-01 - 9.19E-01)
37	1.60E-01	(7.20E-02 - 2.42E-01)	9.95E-01	(9.91E-01 - 1.00E+00)
38	4.57E-03	(2.94E-04 - 2.24E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	4.02E-06	(9.42E-09 - 1.42E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
40	2.92E-10	(7.80E-15 - 1.69E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 92 FISSION PRODUCT CHAIN

NUTCT = 4.607 NU = 1.418 ZP = 36.410

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
33	8.64E-08	(3.18E-11 - 9.25E-06)	8.64E-08	(3.18E-11 - 9.25E-06)
34	3.64E-04	(6.58E-06 - 3.80E-03)	3.65E-04	(6.67E-06 - 3.80E-03)
35	4.41E-02	(1.03E-02 - 1.00E-01)	4.44E-02	(1.06E-02 - 1.01E-01)
36	5.77E-01	(4.35E-01 - 7.47E-01)	6.21E-01	(5.11E-01 - 7.46E-01)
37	3.50E-01	(2.43E-01 - 4.63E-01)	9.71E-01	(9.47E-01 - 1.00E+00)
38	2.90E-02	(4.70E-03 - 8.19E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
39	8.10E-05	(8.03E-07 - 1.21E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
40	1.94E-08	(3.08E-12 - 3.44E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 93 FISSION PRODUCT CHAIN

NUTCT = 4.719 NU = 1.582 ZP = 36.858

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
33	8.99E-10	(3.80E-14 - 3.56E-07)	8.99E-10	(3.80E-14 - 3.56E-07)
34	1.50E-05	(5.59E-08 - 4.01E-04)	1.50E-05	(5.68E-08 - 4.01E-04)
35	6.81E-03	(5.95E-04 - 2.78E-02)	6.83E-03	(6.10E-04 - 2.78E-02)
36	2.99E-01	(1.57E-01 - 4.13E-01)	3.06E-01	(1.64E-01 - 4.22E-01)
37	5.46E-01	(4.26E-01 - 6.67E-01)	8.52E-01	(7.57E-01 - 9.60E-01)
38	1.46E-01	(5.16E-02 - 2.54E-01)	9.98E-01	(9.97E-01 - 1.00E+00)
39	1.50E-03	(6.13E-05 - 9.62E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
40	1.41E-06	(1.68E-09 - 7.43E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 94 FISSION PRODUCT CHAIN

NUTCT = 4.701 NU = 1.674 ZP = 37.279

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
34	4.00E-07	(2.70E-10 - 3.06E-05)	4.08E-07	(2.70E-10 - 3.06E-05)
35	6.58E-04	(1.80E-05 - 5.37E-03)	6.59E-04	(1.84E-05 - 5.37E-03)
36	9.51E-02	(2.66E-02 - 1.87E-01)	9.57E-02	(2.72E-02 - 1.88E-01)
37	5.04E-01	(3.85E-01 - 6.31E-01)	6.00E-01	(4.63E-01 - 7.30E-01)
38	3.67E-01	(2.37E-01 - 5.14E-01)	9.87E-01	(9.76E-01 - 1.00E+00)
39	1.26E-02	(1.55E-03 - 4.32E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	4.25E-05	(2.64E-07 - 8.38E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
41	3.68E-09	(3.26E-13 - 1.01E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 95 FISSION PRODUCT CHAIN

NUTCT = 4.687 NU = 1.789 ZP = 37.708

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
34	5.65E-05	(5.06E-13 - 1.42E-06)	5.65E-05	(5.06E-13 - 1.42E-06)
35	3.40E-05	(2.22E-07 - 6.50E-04)	3.40E-05	(2.27E-07 - 6.50E-04)
36	1.72E-02	(2.15E-03 - 5.65E-02)	1.73E-02	(2.19E-03 - 5.69E-02)
37	2.66E-01	(1.78E-01 - 3.80E-01)	3.03E-01	(1.94E-01 - 4.05E-01)
38	6.30E-01	(4.81E-01 - 7.96E-01)	9.34E-01	(8.86E-01 - 9.99E-01)
39	6.56E-02	(1.79E-02 - 1.31E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
40	7.62E-04	(2.00E-05 - 6.35E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
41	2.55E-07	(1.62E-10 - 2.02E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 96 FISSION PRODUCT CHAIN

NUTCT = 4.732 NU = 1.851 ZP = 38.117

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
35	1.24E-06	(1.64E-09 - 6.15E-05)	1.24E-06	(1.64E-09 - 6.15E-05)
36	2.14E-03	(9.40E-05 - 1.32E-02)	2.14E-03	(9.52E-05 - 1.32E-02)
37	1.11E-01	(4.07E-02 - 1.85E-01)	1.13E-01	(4.28E-02 - 1.91E-01)
38	6.80E-01	(5.32E-01 - 8.25E-01)	7.93E-01	(6.95E-01 - 8.78E-01)
39	2.00E-01	(1.01E-01 - 2.81E-01)	9.93E-01	(9.86E-01 - 1.00E+00)
40	7.41E-03	(6.07E-04 - 3.14E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	8.65E-06	(2.92E-08 - 2.45E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
42	8.38E-10	(3.13E-14 - 3.60E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 97 FISSION PRODUCT CHAIN

NUTCT = 4.820 NU = 1.866 ZP = 38.515

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE CF FCY
35	3.15E-08	(7.15E-12 - 4.51E-06)	3.15E-08	(7.15E-12 - 4.51E-06)
36	1.83E-04	(2.34E-06 - 2.34E-03)	1.83E-04	(2.38E-06 - 2.34E-03)
37	3.02E-02	(5.70E-03 - 7.73E-02)	3.02E-02	(5.88E-03 - 7.76E-02)
38	5.19E-01	(3.82E-01 - 6.82E-01)	5.49E-01	(4.41E-01 - 6.51E-01)
39	4.07E-01	(3.05E-01 - 5.33E-01)	9.55E-01	(9.20E-01 - 1.00E+00)
40	4.46E-02	(8.96E-03 - 1.11E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
41	1.65E-04	(2.39E-06 - 2.04E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
42	5.58E-08	(1.45E-11 - 7.35E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-236 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODC-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 98 FISSION PRODUCT CHAIN

NLCT = 4.835 NU = 1.923 ZP = 38.914

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	4.83E-10	(1.59E-14 - 2.29E-07)	4.83E-10	(1.59E-14 - 2.29E-07)
36	5.59E-06	(2.88E-08 - 2.92E-04)	5.59E-06	(2.93E-08 - 2.92E-04)
37	5.15E-03	(3.90E-04 - 2.29E-02)	5.16E-03	(4.00E-04 - 2.29E-02)
38	2.65E-01	(1.29E-01 - 3.81E-01)	2.70E-01	(1.34E-01 - 3.87E-01)
39	5.56E-01	(4.38E-01 - 6.69E-01)	8.26E-01	(7.20E-01 - 9.38E-01)
40	1.72E-01	(6.61E-02 - 2.84E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
41	2.07E-03	(9.90E-05 - 1.21E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	2.30E-06	(3.46E-09 - 1.06E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 99 FISSION PRODUCT CHAIN

NLCT = 4.805 NU = 1.959 ZP = 39.313

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	2.56E-07	(1.69E-10 - 2.44E-05)	2.96E-07	(1.69E-10 - 2.44E-05)
37	5.31E-04	(1.30E-05 - 4.61E-03)	5.31E-04	(1.33E-05 - 4.61E-03)
38	8.46E-02	(2.22E-02 - 1.73E-01)	8.51E-02	(2.28E-02 - 1.74E-01)
39	4.50E-01	(3.73E-01 - 6.24E-01)	5.76E-01	(4.43E-01 - 7.14E-01)
40	4.09E-01	(2.59E-01 - 5.44E-01)	9.85E-01	(9.72E-01 - 1.00E+00)
41	1.49E-02	(1.55E-03 - 4.78E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	5.46E-05	(3.83E-07 - 1.00E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	5.53E-09	(5.47E-13 - 1.31E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 100 FISSION PRODUCT CHAIN

NLCT = 4.701 NU = 1.989 ZP = 39.710

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	5.55E-09	(4.94E-13 - 1.40E-06)	5.55E-09	(4.94E-13 - 1.40E-06)
37	3.35E-05	(2.17E-07 - 6.44E-04)	3.35E-05	(2.23E-07 - 6.44E-04)
38	1.71E-02	(2.13E-03 - 5.65E-02)	1.71E-02	(2.16E-03 - 5.66E-02)
39	2.85E-01	(1.77E-01 - 3.79E-01)	3.02E-01	(1.93E-01 - 4.04E-01)
40	6.31E-01	(4.81E-01 - 7.99E-01)	9.33E-01	(8.85E-01 - 9.99E-01)
41	6.59E-02	(1.81E-02 - 1.32E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
42	7.72E-04	(2.03E-05 - 6.43E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	2.63E-07	(1.66E-10 - 2.04E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 101 FISSION PRODUCT CHAIN

NLCT = 4.605 NU = 2.075 ZP = 40.127

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	1.13E-06	(1.43E-09 - 5.75E-05)	1.13E-06	(1.43E-09 - 5.75E-05)
38	2.01E-03	(8.58E-05 - 1.26E-02)	2.01E-03	(8.69E-05 - 1.26E-02)
39	1.08E-01	(3.89E-02 - 1.85E-01)	1.10E-01	(4.08E-02 - 1.87E-01)
40	6.78E-01	(5.30E-01 - 8.25E-01)	7.88E-01	(6.88E-01 - 8.72E-01)
41	2.05E-01	(1.05E-01 - 2.86E-01)	9.92E-01	(9.85E-01 - 1.00E+00)
42	7.82E-03	(6.58E-04 - 3.27E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	5.43E-06	(3.32E-08 - 2.61E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
44	9.44E-10	(3.91E-14 - 3.92E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 102 FISSION PRODUCT CHAIN

NLCT = 4.306 NU = 2.068 ZP = 40.510

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	3.31E-08	(7.68E-12 - 4.67E-06)	3.31E-08	(7.68E-12 - 4.67E-06)
38	1.85E-04	(2.46E-06 - 2.40E-03)	1.89E-04	(2.50E-06 - 2.40E-03)
39	3.06E-02	(5.86E-03 - 7.83E-02)	3.08E-02	(6.05E-03 - 7.86E-02)
40	5.21E-01	(3.86E-01 - 6.85E-01)	5.52E-01	(4.46E-01 - 6.94E-01)
41	4.04E-01	(3.03E-01 - 5.30E-01)	9.56E-01	(9.21E-01 - 1.00E+00)
42	4.37E-02	(8.70E-03 - 1.05E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
43	1.64E-04	(2.27E-06 - 1.95E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	5.31E-08	(1.35E-11 - 7.10E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 103 FISSION PRODUCT CHAIN

NLCT = 3.571 NU = 1.947 ZP = 40.848

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	1.00E-09	(4.43E-14 - 3.85E-07)	1.00E-09	(4.43E-14 - 3.85E-07)
38	1.62E-05	(6.28E-08 - 4.24E-04)	1.62E-05	(6.38E-08 - 4.24E-04)
39	7.15E-03	(6.39E-04 - 2.86E-02)	7.16E-03	(6.56E-04 - 2.86E-02)
40	3.05E-01	(1.62E-01 - 4.15E-01)	3.12E-01	(1.69E-01 - 4.28E-01)
41	5.44E-01	(4.23E-01 - 6.66E-01)	8.56E-01	(7.64E-01 - 9.64E-01)
42	1.42E-01	(4.93E-02 - 2.45E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
43	1.42E-03	(5.62E-05 - 9.24E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	1.25E-06	(1.47E-09 - 6.98E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 104 FISSION PRODUCT CHAIN

NLCT = 3.512 NU = 2.032 ZP = 41.266

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	4.55E-07	(3.22E-10 - 3.34E-05)	4.59E-07	(3.22E-10 - 3.34E-05)
39	7.13E-04	(2.02E-05 - 5.66E-03)	7.13E-04	(2.07E-05 - 5.68E-03)
40	5.52E-02	(2.84E-02 - 1.93E-01)	9.99E-02	(2.91E-02 - 1.54E-01)
41	5.05E-01	(3.90E-01 - 6.41E-01)	6.09E-01	(4.70E-01 - 7.36E-01)
42	3.15E-01	(2.29E-01 - 5.03E-01)	9.88E-01	(9.77E-01 - 1.00E+00)
43	1.21E-02	(1.43E-03 - 4.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	3.67E-05	(2.29E-07 - 7.84E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
45	3.35E-09	(2.67E-13 - 9.22E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 105 FISSION PRODUCT CHAIN

NLCT = 3.661 NU = 2.186 ZP = 41.710

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	5.52E-09	(4.86E-13 - 1.35E-06)	5.52E-09	(4.86E-13 - 1.35E-06)
39	3.34E-05	(2.16E-07 - 6.42E-04)	3.34E-05	(2.21E-07 - 6.42E-04)
40	1.70E-02	(2.12E-03 - 5.64E-02)	1.71E-02	(2.15E-03 - 5.65E-02)
41	2.05E-01	(1.76E-01 - 3.78E-01)	3.02E-01	(1.92E-01 - 4.03E-01)
42	6.31E-01	(4.81E-01 - 7.99E-01)	9.33E-01	(8.85E-01 - 9.99E-01)
43	6.61E-02	(1.81E-02 - 1.32E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
44	7.74E-04	(2.04E-05 - 6.43E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	2.65E-07	(1.67E-10 - 2.05E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF L-238 NUTCT METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 106 FISSION PRODUCT CHAIN

NUTCT = 3.837 NU = 2.300 ZP = 42.139

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	1.02E-06	(1.23E-09 - 5.36E-05)	1.02E-06	(1.23E-09 - 5.36E-05)
40	1.89E-03	(7.78E-05 - 1.20E-02)	1.89E-03	(7.88E-05 - 1.20E-02)
41	1.04E-01	(3.69E-02 - 1.81E-01)	1.06E-01	(3.88E-02 - 1.83E-01)
42	6.76E-01	(5.27E-01 - 8.24E-01)	7.82E-01	(6.81E-01 - 8.67E-01)
43	2.10E-01	(1.10E-01 - 2.91E-01)	9.92E-01	(9.84E-01 - 1.00E+00)
44	8.28E-03	(7.17E-04 - 3.40E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.03E-05	(3.81E-08 - 2.78E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
46	1.07E-09	(4.70E-14 - 4.29E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 107 FISSION PRODUCT CHAIN

NUTCT = 3.785 NU = 2.281 ZP = 42.516

DEVIATION FROM UCD = .45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	3.11E-08	(7.00E-12 - 4.47E-06)	3.11E-08	(7.00E-12 - 4.47E-06)
40	1.81E-04	(2.31E-06 - 2.33E-03)	1.81E-04	(2.34E-06 - 2.33E-03)
41	2.59E-02	(5.65E-03 - 7.70E-02)	3.01E-02	(5.83E-03 - 7.73E-02)
42	5.18E-01	(3.81E-01 - 6.81E-01)	5.48E-01	(4.40E-01 - 6.90E-01)
43	4.07E-01	(3.06E-01 - 5.34E-01)	9.55E-01	(9.19E-01 - 1.00E+00)
44	4.48E-02	(9.04E-03 - 1.11E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.71E-04	(2.43E-06 - 2.06E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
46	5.66E-08	(1.48E-11 - 7.43E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 108 FISSION PRODUCT CHAIN

NUTCT = 3.542 NU = 2.230 ZP = 42.432

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	7.04E-08	(0. - 1.60E-04)	7.04E-08	(4.24E-22 - 1.60E-04)
40	3.17E-04	(2.42E-09 - 1.53E-02)	3.17E-04	(7.28E-08 - 1.53E-02)
41	4.08E-02	(5.08E-04 - 1.56E-01)	4.12E-02	(8.24E-04 - 1.58E-01)
42	5.65E-01	(2.92E-01 - 8.99E-01)	6.07E-01	(3.78E-01 - 8.86E-01)
43	3.62E-01	(1.35E-01 - 6.10E-01)	9.68E-01	(9.37E-01 - 1.00E+00)
44	3.18E-02	(1.79E-04 - 1.59E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
45	9.45E-05	(1.96E-10 - 7.13E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
46	2.41E-08	(0. - 1.03E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 109 FISSION PRODUCT CHAIN

NUTCT = 3.468 NU = 2.221 ZP = 42.813

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	1.47E-09	(0. - 2.07E-05)	1.47E-09	(0. - 2.07E-05)
40	2.13E-05	(3.61E-12 - 3.81E-03)	2.13E-05	(1.47E-09 - 3.81E-03)
41	8.45E-03	(9.73E-06 - 7.31E-02)	8.47E-03	(3.10E-05 - 7.33E-02)
42	3.28E-01	(6.27E-02 - 5.72E-01)	3.36E-01	(1.15E-01 - 5.89E-01)
43	5.35E-01	(3.51E-01 - 7.22E-01)	8.71E-01	(7.49E-01 - 1.00E+00)
44	1.28E-01	(5.52E-03 - 3.17E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
45	1.15E-03	(7.58E-08 - 2.65E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	9.41E-07	(0. - 7.36E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 110 FISSION PRODUCT CHAIN

NUTCT = 3.532 NU = 2.178 ZP = 43.182

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	5.88E-07	(0. - 7.56E-04)	9.88E-07	(6.78E-21 - 7.56E-04)
41	1.19E-03	(8.19E-08 - 2.70E-02)	1.19E-03	(1.07E-06 - 2.70E-02)
42	1.30E-01	(5.76E-03 - 3.20E-01)	1.31E-01	(6.95E-03 - 3.23E-01)
43	5.37E-01	(3.53E-01 - 7.21E-01)	6.68E-01	(4.46E-01 - 9.18E-01)
44	3.24E-01	(6.09E-02 - 5.66E-01)	9.92E-01	(9.84E-01 - 1.00E+00)
45	8.23E-03	(9.12E-06 - 7.22E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
46	2.04E-05	(3.27E-12 - 3.72E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
47	1.38E-09	(0. - 2.01E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 111 FISSION PRODUCT CHAIN

NUTCT = 3.196 NU = 1.891 ZP = 43.456

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	7.45E-06	(0. - 1.89E-04)	7.45E-06	(4.24E-22 - 1.89E-04)
41	2.07E-04	(1.26E-09 - 1.06E-02)	2.07E-04	(7.58E-08 - 1.08E-02)
42	5.00E-02	(5.43E-04 - 2.00E-01)	5.02E-02	(7.50E-04 - 2.01E-01)
43	4.22E-01	(2.07E-01 - 6.79E-01)	4.72E-01	(2.51E-01 - 7.70E-01)
44	5.01E-01	(1.99E-01 - 8.38E-01)	9.73E-01	(9.46E-01 - 1.00E+00)
45	2.68E-02	(1.75E-04 - 1.28E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
46	1.50E-04	(3.95E-10 - 1.04E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	2.36E-08	(0. - 9.02E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 112 FISSION PRODUCT CHAIN

NUTCT = 3.375 NU = 1.946 ZP = 43.862

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
40	1.06E-05	(0. - 1.93E-05)	1.06E-05	(6.62E-24 - 1.93E-05)
41	1.02E-05	(1.02E-12 - 2.20E-03)	1.02E-05	(1.06E-09 - 2.20E-03)
42	8.24E-03	(6.71E-06 - 8.03E-02)	8.25E-03	(1.70E-05 - 8.03E-02)
43	2.05E-01	(3.39E-02 - 3.63E-01)	2.18E-01	(4.19E-02 - 3.88E-01)
44	6.76E-01	(4.51E-01 - 8.88E-01)	8.93E-01	(7.94E-01 - 1.00E+00)
45	1.05E-01	(5.66E-03 - 2.40E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
46	1.50E-03	(1.88E-07 - 3.80E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
47	1.03E-06	(5.92E-15 - 6.56E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 113 FISSION PRODUCT CHAIN

NUTCT = 3.516 NU = 2.198 ZP = 44.344

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	1.61E-07	(0. - 2.47E-04)	1.61E-07	(8.47E-22 - 2.47E-04)
42	5.55E-04	(9.41E-09 - 2.03E-02)	5.55E-04	(1.70E-07 - 2.03E-02)
43	5.53E-02	(1.10E-03 - 1.80E-01)	5.59E-02	(1.66E-03 - 1.82E-01)
44	6.09E-01	(3.74E-01 - 9.19E-01)	6.64E-01	(4.42E-01 - 9.18E-01)
45	3.14E-01	(5.22E-02 - 5.43E-01)	9.78E-01	(9.57E-01 - 1.00E+00)
46	2.17E-02	(7.12E-05 - 1.32E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
47	4.55E-05	(4.33E-11 - 5.05E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
48	5.75E-09	(0. - 6.35E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-238 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 114 FISSION PRODUCT CHAIN

NLCT = 3.881 NU = 2.090 ZP = 44.687

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
41	5.54E-09 (0.	- 4.19E-05)	5.54E-09 (2.65E-23 - 4.19E-05)	
42	5.46E-05 (3.45E-11	- 6.20E-03)	5.46E-05 (5.57E-09 - 6.20E-03)	
43	1.49E-02 (3.59E-05 - 9.66E-02)		1.50E-02 (9.44E-05 - 9.69E-02)	
44	4.09E-01 (1.10E-01 - 7.12E-01)		4.24E-01 (2.28E-01 - 7.18E-01)	
45	4.50E-01 (3.12E-01 - 7.26E-01)		9.15E-01 (8.32E-01 - 1.00E+00)	
46	8.46E-02 (1.98E-03 - 2.60E-01)		9.99E-01 (9.99E-01 - 1.00E+00)	
47	5.31E-04 (1.19E-08 - 1.77E-02)		1.00E+00 (1.00E+00 - 1.00E+00)	
48	2.56E-07 (0.	- 3.97E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 115 FISSION PRODUCT CHAIN

NLCT = 3.709 NU = 1.939 ZP = 45.014

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	4.22E-06 (7.99E-14 - 1.63E-03)		4.22E-06 (7.99E-14 - 1.63E-03)	
43	3.06E-03 (8.08E-07 - 4.39E-02)		3.07E-03 (5.03E-06 - 4.39E-02)	
44	2.08E-01 (1.90E-02 - 3.98E-01)		2.11E-01 (2.21E-02 - 4.05E-01)	
45	5.62E-01 (3.92E-01 - 7.46E-01)		7.73E-01 (5.72E-01 - 9.72E-01)	
46	2.23E-01 (2.25E-02 - 4.18E-01)		9.96E-01 (9.93E-01 - 1.00E+00)	
47	3.56E-03 (1.17E-06 - 4.74E-02)		1.00E+00 (1.00E+00 - 1.00E+00)	
48	5.35E-06 (1.39E-13 - 1.85E-03)		1.00E+00 (1.00E+00 - 1.00E+00)	
49	2.16E-10 (0.	- 7.46E-06)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 116 FISSION PRODUCT CHAIN

NLCT = 3.915 NU = 1.993 ZP = 45.420

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	1.06E-07 (0.	- 2.29E-04)	1.06E-07 (0.	- 2.29E-04)
43	2.64E-04 (2.24E-09 - 1.23E-02)		2.64E-04 (1.08E-07 - 1.23E-02)	
44	5.74E-02 (7.62E-04 - 2.15E-01)		5.76E-02 (1.02E-03 - 2.15E-01)	
45	4.40E-01 (2.33E-01 - 6.95E-01)		4.98E-01 (2.83E-01 - 7.98E-01)	
46	4.79E-01 (1.74E-01 - 8.11E-01)		9.77E-01 (9.53E-01 - 1.00E+00)	
47	2.33E-02 (1.22E-04 - 1.20E-01)		1.00E+00 (1.00E+00 - 1.00E+00)	
48	1.17E-04 (2.17E-10 - 9.19E-03)		1.00E+00 (1.00E+00 - 1.00E+00)	
49	1.65E-08 (0.	- 7.47E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 117 FISSION PRODUCT CHAIN

NLCT = 4.000 NU = 2.052 ZP = 45.828

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	1.55E-09 (0.	- 2.36E-05)	1.55E-09 (0.	- 2.36E-05)
43	1.35E-05 (1.95E-12 - 2.54E-03)		1.35E-05 (1.55E-09 - 2.54E-03)	
44	9.77E-03 (1.02E-05 - 8.76E-02)		9.79E-03 (2.36E-05 - 8.76E-02)	
45	2.26E-01 (4.11E-02 - 3.93E-01)		2.35E-01 (5.06E-02 - 4.20E-01)	
46	6.68E-01 (4.41E-01 - 8.92E-01)		9.04E-01 (8.13E-01 - 1.00E+00)	
47	9.47E-02 (4.38E-03 - 2.30E-01)		9.98E-01 (9.97E-01 - 1.00E+00)	
48	1.56E-03 (1.16E-07 - 3.44E-02)		1.00E+00 (1.00E+00 - 1.00E+00)	
49	7.61E-07 (0.	- 5.60E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 118 FISSION PRODUCT CHAIN

NLCT = 3.567 NU = 1.932 ZP = 46.166

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	8.03E-07 (0.	- 5.76E-04)	8.03E-07 (3.39E-21 - 5.76E-04)	
44	1.61E-03 (1.26E-07 - 3.50E-02)		1.61E-03 (9.29E-07 - 3.50E-02)	
45	5.64E-02 (4.59E-03 - 2.32E-01)		9.81E-02 (6.19E-03 - 2.37E-01)	
46	6.70E-01 (4.42E-01 - 8.90E-01)		7.68E-01 (5.85E-01 - 9.50E-01)	
47	2.23E-01 (3.97E-02 - 3.88E-01)		9.91E-01 (9.81E-01 - 1.00E+00)	
48	5.46E-03 (5.43E-06 - 8.62E-02)		1.00E+00 (1.00E+00 - 1.00E+00)	
49	1.28E-05 (1.74E-12 - 2.48E-03)		1.00E+00 (1.00E+00 - 1.00E+00)	
50	1.45E-05 (0.	- 2.28E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 119 FISSION PRODUCT CHAIN

NLCT = 3.517 NU = 1.923 ZP = 46.548

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
42	2.28E-08 (0.	- 8.85E-05)	2.28E-08 (0.	- 8.85E-05)
44	1.46E-04 (3.72E-10 - 1.03E-02)		1.46E-04 (2.31E-08 - 1.03E-02)	
45	2.65E-02 (1.69E-04 - 1.27E-01)		2.66E-02 (3.15E-04 - 1.28E-01)	
46	4.65E-01 (1.97E-01 - 8.35E-01)		5.25E-01 (3.05E-01 - 8.24E-01)	
47	4.24E-01 (2.09E-01 - 6.81E-01)		9.49E-01 (8.99E-01 - 1.00E+00)	
48	5.07E-02 (5.62E-04 - 2.02E-01)		1.00E+00 (1.00E+00 - 1.00E+00)	
49	2.12E-04 (1.33E-09 - 1.05E-02)		1.00E+00 (1.00E+00 - 1.00E+00)	
50	7.73E-08 (0.	- 1.93E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 120 FISSION PRODUCT CHAIN

NLCT = 3.771 NU = 1.800 ZP = 46.885

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
43	6.67E-10 (0.	- 1.36E-05)	6.67E-10 (0.	- 1.36E-05)
44	1.21E-05 (9.39E-13 - 2.84E-03)		1.21E-05 (6.68E-10 - 2.84E-03)	
45	5.96E-03 (4.11E-06 - 6.14E-02)		5.97E-03 (1.62E-05 - 6.15E-02)	
46	2.62E-01 (4.21E-02 - 4.92E-01)		2.88E-01 (5.37E-02 - 5.05E-01)	
47	5.52E-01 (3.71E-01 - 7.27E-01)		8.40E-01 (6.91E-01 - 1.00E+00)	
48	1.56E-01 (5.48E-03 - 3.51E-01)		9.98E-01 (9.96E-01 - 1.00E+00)	
49	1.75E-02 (2.09E-07 - 3.30E-02)		1.00E+00 (1.00E+00 - 1.00E+00)	
50	1.78E-06 (1.26E-14 - 1.03E-03)		1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 121 FISSION PRODUCT CHAIN

NLCT = 3.821 NU = 1.764 ZP = 47.256

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	5.01E-07 (0.	- 5.26E-04)	5.01E-07 (3.39E-21 - 5.26E-04)	
45	7.56E-04 (2.77E-08 - 2.13E-02)		7.57E-04 (5.29E-07 - 2.13E-02)	
46	1.02E-01 (3.18E-03 - 2.86E-01)		1.03E-01 (3.94E-03 - 2.87E-01)	
47	5.13E-01 (3.30E-01 - 7.25E-01)		6.16E-01 (4.08E-01 - 9.00E-01)	
48	3.72E-01 (8.91E-02 - 6.52E-01)		9.88E-01 (9.77E-01 - 1.00E+00)	
49	1.16E-02 (2.15E-05 - 8.56E-02)		1.00E+00 (1.00E+00 - 1.00E+00)	
50	3.60E-05 (1.27E-11 - 5.00E-03)		1.00E+00 (1.00E+00 - 1.00E+00)	
51	3.07E-05 (0.	- 3.07E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

14.6 MEV NEUTRON FISSION OF U-238 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

PASS 122 FISSION PRODUCT CHAIN

NLCT = 3.940 NU = 1.729 ZP = 47.628

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	1.31E-08 (0.	- 7.44E-05)	1.31E-08 (5.29E-23 - 7.44E-05)	
45	6.15E-05 (7.09E-11 - 5.68E-03)	6.15E-05 (1.32E-08 - 5.68E-03)		
46	2.46E-02 (9.64E-05 - 1.40E-01)	2.47E-02 (1.58E-04 - 1.40E-01)		
47	3.29E-01 (1.05E-01 - 5.65E-01)	3.54E-01 (1.28E-01 - 6.17E-01)		
48	5.55E-01 (3.47E-01 - 9.15E-01)	9.49E-01 (9.00E-01 - 1.00E+00)		
49	5.03E-02 (8.64E-04 - 1.72E-01)	1.00E+00 (9.99E-01 - 1.00E+00)		
50	4.65E-04 (6.11E-09 - 1.86E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
51	1.24E-07 (0.	- 2.15E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

PASS 123 FISSION PRODUCT CHAIN

NLCT = 3.605 NU = 1.528 ZP = 47.936

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
44	4.68E-10 (0.	- 1.24E-05)	4.68E-10 (3.31E-24 - 1.24E-05)	
45	5.67E-06 (2.54E-13 - 1.61E-03)	5.67E-06 (4.68E-10 - 1.61E-03)		
46	5.68E-03 (2.71E-06 - 6.64E-02)	5.69E-03 (8.38E-06 - 6.65E-02)		
47	1.77E-01 (2.20E-02 - 3.18E-01)	1.83E-01 (2.75E-02 - 3.36E-01)		
48	6.86E-01 (4.70E-01 - 9.10E-01)	8.69E-01 (7.51E-01 - 1.00E+00)		
49	1.28E-01 (9.52E-03 - 2.63E-01)	9.97E-01 (9.94E-01 - 1.00E+00)		
50	2.86E-03 (5.10E-07 - 4.68E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
51	1.94E-06 (2.07E-14 - 9.15E-04)	1.00E+00 (1.00E+00 - 1.00E+00)		

PASS 124 FISSION PRODUCT CHAIN

NLCT = 3.240 NU = 1.323 ZP = 48.241

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	4.11E-07 (0.	- 4.05E-04)	4.11E-07 (1.69E-21 - 4.05E-04)	
46	1.04E-03 (4.31E-08 - 2.80E-02)	1.04E-03 (4.54E-07 - 2.80E-02)		
47	7.70E-02 (2.57E-03 - 2.09E-01)	7.80E-02 (3.60E-03 - 2.13E-01)		
48	6.49E-01 (4.20E-01 - 9.13E-01)	7.27E-01 (5.26E-01 - 9.41E-01)		
49	2.60E-01 (5.93E-02 - 4.55E-01)	9.86E-01 (9.73E-01 - 1.00E+00)		
50	1.36E-02 (2.28E-05 - 1.04E-01)	1.00E+00 (1.00E+00 - 1.00E+00)		
51	2.31E-05 (6.96E-12 - 3.38E-03)	1.00E+00 (1.00E+00 - 1.00E+00)		
52	3.28E-09 (0.	- 3.53E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

PASS 125 FISSION PRODUCT CHAIN

NLCT = 3.264 NU = 1.251 ZP = 48.599

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	1.37E-08 (0.	- 6.76E-05)	1.37E-08 (0.	- 6.76E-05)
46	1.03E-04 (1.58E-10	- 8.59E-03)	1.03E-04 (1.38E-08	- 8.59E-03)
47	2.16E-02 (1.01E-04	- 1.16E-01)	2.17E-02 (2.04E-04	- 1.16E-01)
48	4.67E-01 (1.61E-01	- 7.96E-01)	4.88E-01 (2.77E-01	- 7.89E-01)
49	4.50E-01 (2.48E-01	- 7.03E-01)	9.38E-01 (8.77E-01	- 1.00E+00)
50	6.16E-02 (9.65E-04	- 2.22E-01)	1.00E+00 (9.99E-01	- 1.00E+00)
51	2.99E-04 (3.22E-09	- 1.31E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
52	1.27E-07 (0.	- 2.53E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

PASS 126 FISSION PRODUCT CHAIN

NLCT = 3.578 NU = 1.287 ZP = 48.997

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
45	1.85E-10 (0.	- 6.95E-06)	1.89E-10 (0.	- 6.95E-06)
46	4.66E-06 (1.09E-13	- 1.76E-03)	4.86E-06 (1.89E-10	- 1.76E-03)
47	3.35E-03 (1.00E-06	- 4.55E-02)	3.35E-03 (5.86E-06	- 4.60E-02)
48	2.17E-01 (2.12E-02	- 4.05E-01)	2.20E-01 (2.45E-02	- 4.17E-01)
49	5.62E-01 (3.94E-01	- 7.47E-01)	7.82E-01 (5.89E-01	- 9.78E-01)
50	2.14E-01 (2.05E-02	- 4.06E-01)	9.97E-01 (9.93E-01	- 1.00E+00)
51	3.26E-03 (5.39E-07	- 4.52E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
52	4.65E-06 (1.01E-13	- 1.72E-03)	1.00E+00 (1.00E+00	- 1.00E+00)

PASS 127 FISSION PRODUCT CHAIN

NLCT = 3.431 NU = 1.271 ZP = 49.376

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	1.62E-07 (0.	- 2.87E-04)	1.62E-07 (1.69E-21 - 2.87E-04)	
47	3.52E-04 (4.47E-09 - 1.43E-02)	3.53E-04 (1.67E-07 - 1.43E-02)		
48	6.75E-02 (1.14E-03 - 2.33E-01)	6.79E-02 (1.49E-03 - 2.34E-01)		
49	4.62E-01 (2.67E-01 - 7.11E-01)	5.30E-01 (3.24E-01 - 8.29E-01)		
50	4.51E-01 (1.45E-01 - 7.74E-01)	9.80E-01 (9.61E-01 - 1.00E+00)		
51	1.55E-02 (7.82E-05 - 1.10E-01)	1.00E+00 (1.00E+00 - 1.00E+00)		
52	8.61E-05 (1.03E-10 - 7.85E-03)	1.00E+00 (1.00E+00 - 1.00E+00)		
53	1.06E-08 (0.	- 5.91E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

PASS 128 FISSION PRODUCT CHAIN

NLCT = 3.740 NU = 1.467 ZP = 49.844

DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	1.25E-05 (0.	- 2.14E-05)	1.29E-09 (6.62E-24 - 2.14E-05)	
47	1.16E-05 (1.44E-12 - 2.37E-03)	1.18E-05 (1.29E-09 - 2.37E-03)		
48	5.01E-03 (8.34E-06 - 8.40E-02)	9.02E-03 (2.02E-05 - 8.41E-02)		
49	2.16E-01 (3.75E-02 - 3.75E-01)	2.27E-01 (4.63E-02 - 4.65E-01)		
50	6.72E-01 (4.45E-01 - 8.84E-01)	8.99E-01 (8.04E-01 - 1.00E+00)		
51	5.44E-02 (4.96E-03 - 2.35E-01)	9.98E-01 (9.97E-01 - 1.00E+00)		
52	1.71E-03 (1.46E-07 - 3.61E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
53	8.60E-07 (0.	- 6.04E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

PASS 129 FISSION PRODUCT CHAIN

NLCT = 3.835 NU = 1.535 ZP = 49.798

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	2.15E-09	(1.26E-13 - 7.07E-07)	2.15E-09	(1.26E-13 - 7.07E-07)
47	1.70E-05	(7.97E-08 - 3.97E-04)	1.70E-05	(8.18E-08 - 3.97E-04)
48	1.13E-02	(1.14E-03 - 4.23E-02)	1.13E-02	(1.16E-03 - 4.23E-02)
49	2.40E-01	(1.35E-01 - 3.22E-01)	2.51E-01	(1.46E-01 - 3.39E-01)
50	6.61E-01	(5.10E-01 - 8.15E-01)	9.12E-01	(8.53E-01 - 9.64E-01)
51	8.67E-02	(2.77E-02 - 1.56E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
52	1.31E-03	(4.49E-05 - 9.32E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	5.64E-07	(5.40E-10 - 3.60E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF L-238 NLCTC METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN 2 CORRECTION FACTOR = 1.15 +/- .15

MASS 130 FISSION PRODUCT CHAIN

NLCTC = 3.859 NU = 1.674 ZP = 50.236

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	4.31E-C7	(3.44E-10 - 2.90E-05)	4.31E-07	(3.44E-10 - 2.90E-C5)
48	1.07E-C3	(3.32E-05 - 8.10E-03)	1.07E-03	(3.37E-05 - 8.10E-C3)
49	7.82E-02	(2.36E-02 - 1.48E-01)	7.93E-02	(2.46E-02 - 1.49E-C1)
50	6.50E-C1	(5.00E-01 - 8.13E-01)	7.30E-01	(6.22E-01 - 8.21E-C1)
51	2.57E-C1	(1.50E-01 - 3.41E-01)	9.87E-01	(9.75E-01 - 1.00E+CC)
52	1.33E-C2	(1.46E-03 - 4.73E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)
53	2.21E-05	(1.18E-07 - 4.79E-04)	1.00E+00	(1.00E+00 - 1.00E+CC)
54	3.10E-09	(2.13E-13 - 9.21E-07)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 131 FISSION PRODUCT CHAIN

NLCTC = 3.901 NU = 1.874 ZP = 50.698

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	4.94E-09	(4.63E-13 - 1.20E-06)	4.94E-09	(4.63E-13 - 1.20E-C6)
48	5.04E-05	(3.46E-07 - 9.45E-04)	5.04E-05	(3.45E-07 - 9.45E-C4)
49	1.42E-C2	(1.81E-03 - 4.63E-02)	1.43E-02	(1.87E-03 - 4.64E-C2)
50	4.22E-01	(2.52E-01 - 5.34E-01)	4.17E-01	(2.82E-01 - 5.52E-C1)
51	4.55E-01	(3.77E-01 - 6.28E-01)	9.12E-01	(8.47E-01 - 1.00E+CC)
52	8.79E-C2	(2.36E-02 - 1.78E-01)	9.99E-01	(9.99E-01 - 1.00E+CC)
53	5.69E-C4	(1.45E-05 - 4.84E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)
54	3.28E-C7	(1.97E-10 - 2.62E-05)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 132 FISSION PRODUCT CHAIN

NLCTC = 3.968 NU = 2.022 ZP = 51.140

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	1.43E-C6	(1.72E-09 - 7.52E-05)	1.43E-06	(1.72E-09 - 7.52E-C5)
49	1.52E-C3	(6.22E-05 - 9.69E-03)	1.52E-03	(6.37E-05 - 9.69E-C3)
50	1.47E-C1	(5.20E-02 - 2.55E-01)	1.49E-01	(5.35E-02 - 2.57E-C1)
51	5.47E-01	(4.26E-01 - 6.67E-01)	6.95E-01	(5.53E-01 - 8.12E-C1)
52	2.98E-01	(1.56E-01 - 4.12E-01)	9.93E-01	(9.87E-01 - 1.00E+CC)
53	6.75E-C3	(5.87E-04 - 2.76E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)
54	1.48E-C5	(5.48E-C8 - 3.97E-04)	1.00E+00	(1.00E+00 - 1.00E+CC)
55	8.81E-10	(3.80E-14 - 3.51E-07)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 133 FISSION PRODUCT CHAIN

NLCTC = 4.562 NU = 2.507 ZP = 51.712

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	5.43E-C9	(4.78E-13 - 1.38E-06)	5.43E-09	(4.78E-13 - 1.38E-C6)
49	1.30E-C5	(2.12E-07 - 6.37E-04)	3.30E-05	(2.18E-07 - 6.37E-C4)
50	1.69E-C2	(2.10E-03 - 5.62E-02)	1.70E-02	(2.13E-03 - 5.62E-C2)
51	2.84E-01	(1.76E-01 - 3.77E-01)	3.01E-01	(1.92E-01 - 4.02E-C1)
52	6.32E-01	(4.82E-01 - 8.00E-01)	9.33E-01	(8.85E-01 - 9.99E-C1)
53	6.64E-C2	(1.82E-02 - 1.32E-01)	9.95E-01	(9.98E-01 - 1.00E+CC)
54	7.81E-C4	(2.07E-05 - 6.49E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)
55	2.68E-C7	(1.70E-10 - 2.07E-05)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 134 FISSION PRODUCT CHAIN

NLCTC = 4.636 NU = 2.674 ZP = 52.161

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	8.41E-C1	(5.26E-10 - 4.67E-C5)	8.41E-07	(9.26E-10 - 4.67E-C5)
50	1.66E-C2	(6.43E-C5 - 1.10E-C2)	1.66E-03	(6.51E-C5 - 1.10E-C2)
51	5.75E-C2	(3.35E-C2 - 1.72E-C1)	9.96E-02	(3.51E-C2 - 1.74E-C1)
52	6.71E-C1	(5.22E-C1 - 8.23E-C1)	7.71E-01	(6.68E-01 - 8.56E-C1)
53	2.20E-C1	(1.18E-C1 - 3.00E-C1)	9.91E-01	(9.82E-01 - 1.00E+CC)
54	5.24E-C2	(8.46E-C4 - 3.67E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)
55	1.23E-C5	(4.54E-C8 - 3.16E-C4)	1.00E+00	(1.00E+00 - 1.00E+CC)
56	1.37E-C5	(6.66E-14 - 5.12E-C7)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 135 FISSION PRODUCT CHAIN

NLCTC = 4.798 NU = 2.842 ZP = 52.611

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.21E-C8	(1.74E-12 - 2.25E-C6)	1.21E-08	(1.74E-12 - 2.25E-C6)
50	5.45E-C5	(8.71E-C7 - 1.47E-C3)	9.45E-05	(8.83E-07 - 1.47E-C3)
51	2.00E-C2	(3.15E-C3 - 5.97E-C2)	2.07E-02	(3.28E-03 - 5.98E-C2)
52	4.55E-C1	(3.13E-C1 - 6.05E-C1)	4.80E-01	(3.58E-C1 - 6.34E-C1)
53	4.56E-C1	(3.44E-C1 - 5.86E-C1)	9.35E-01	(8.87E-01 - 1.00E+CC)
54	6.43E-C2	(1.56E-C2 - 1.43E-C1)	1.00E+00	(1.00E+00 - 1.00E+CC)
55	3.23E-C4	(6.24E-C6 - 3.24E-C3)	1.00E+00	(1.00E+00 - 1.00E+CC)
56	1.42E-C7	(5.78E-11 - 1.44E-C5)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 136 FISSION PRODUCT CHAIN

NLCTC = 4.827 NU = 2.907 ZP = 53.020

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	4.01E-C6	(7.89E-C9 - 1.57E-C4)	4.01E-06	(7.89E-09 - 1.57E-C4)
51	2.96E-C3	(1.70E-C4 - 1.55E-C2)	2.97E-03	(1.74E-04 - 1.55E-C2)
52	2.05E-C1	(8.67E-C2 - 3.20E-C1)	2.08E-01	(8.96E-02 - 3.24E-C1)
53	5.62E-C1	(4.48E-C1 - 6.75E-C1)	7.69E-01	(6.44E-01 - 8.87E-C1)
54	2.27E-C1	(1.02E-C1 - 3.43E-C1)	9.96E-01	(9.93E-01 - 1.00E+CC)
55	2.68E-C2	(2.35E-C4 - 1.81E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)
56	5.63E-C6	(1.31E-C8 - 2.00E-C4)	1.00E+00	(1.00E+00 - 1.00E+CC)
57	2.32E-10	(6.36E-15 - 1.35E-C7)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 137 FISSION PRODUCT CHAIN

NLCTC = 4.829 NU = 2.940 ZP = 53.418

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	1.00E-C7	(3.84E-11 - 1.18E-C5)	1.08E-07	(3.84E-11 - 1.18E-C5)
51	2.67E-C4	(4.70E-C6 - 2.83E-C3)	2.67E-04	(4.81E-06 - 2.83E-C3)
52	5.78E-C2	(1.32E-C2 - 1.32E-C1)	5.80E-02	(1.35E-02 - 1.33E-C1)
53	4.41E-C1	(3.32E-C1 - 5.73E-C1)	4.99E-01	(3.82E-C1 - 6.51E-C1)
54	4.77E-C1	(3.33E-C1 - 6.32E-C1)	9.77E-01	(9.57E-01 - 1.00E+CC)
55	2.31E-C2	(3.81E-C3 - 6.46E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)
56	1.16E-C4	(1.18E-C6 - 1.70E-C3)	1.00E+00	(1.00E+00 - 1.00E+CC)
57	1.62E-C6	(2.67E-12 - 2.81E-C6)	1.00E+00	(1.00E+00 - 1.00E+CC)

14.6 MEV NEUTRON FISSION OF U-238 NLCT METHOD

ESTIMATED FRACTIONAL YIELDS

GDC-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

PASS 138 FISSION PRODUCT CHAIN

NLCT = 4.753 NU = 2.894 ZP = 53.785

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
50	2.46E-09	(1.49E-13 - 7.80E-07)	2.46E-09	(1.49E-13 - 7.80E-07)
51	1.88E-05	(9.21E-08 - 4.26E-04)	1.88E-05	(9.46E-08 - 4.26E-04)
52	1.20E-02	(1.25E-03 - 4.41E-02)	1.20E-02	(1.27E-03 - 4.41E-02)
53	2.46E-01	(1.41E-01 - 3.29E-01)	2.58E-01	(1.52E-01 - 3.47E-01)
54	6.57E-01	(5.66E-01 - 8.17E-01)	8.15E-01	(8.58E-01 - 9.86E-01)
55	8.35E-02	(2.61E-02 - 1.54E-01)	9.99E-01	(9.98E-01 - 1.00E+00)
56	1.22E-03	(1.42E-05 - 8.85E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
57	5.22E-07	(4.57E-10 - 3.33E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 139 FISSION PRODUCT CHAIN

NLCT = 4.692 NU = 2.901 ZP = 54.173

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
51	7.57E-07	(7.92E-10 - 4.33E-05)	7.57E-07	(7.92E-10 - 4.33E-05)
52	1.55E-03	(5.79E-05 - 1.05E-02)	1.55E-03	(5.87E-05 - 1.05E-02)
53	5.45E-02	(3.17E-02 - 1.68E-01)	9.61E-02	(3.32E-02 - 1.70E-01)
54	6.68E-01	(5.18E-01 - 8.23E-01)	8.64E-01	(6.61E-01 - 8.50E-01)
55	2.26E-01	(1.23E-01 - 3.06E-01)	9.90E-01	(9.81E-01 - 1.00E+00)
56	5.80E-03	(9.24E-04 - 3.83E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.35E-05	(5.68E-08 - 3.38E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.56E-09	(7.84E-14 - 5.63E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 140 FISSION PRODUCT CHAIN

NLCT = 4.692 NU = 3.021 ZP = 54.604

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
51	1.30E-08	(1.92E-12 - 2.40E-06)	1.30E-08	(1.92E-12 - 2.40E-06)
52	9.90E-05	(9.34E-07 - 1.52E-03)	9.90E-05	(9.47E-07 - 1.52E-03)
53	2.11E-02	(3.32E-03 - 6.08E-02)	2.12E-02	(3.42E-03 - 6.09E-02)
54	4.63E-01	(3.17E-01 - 6.14E-01)	4.85E-01	(3.64E-01 - 6.38E-01)
55	4.52E-01	(3.41E-01 - 5.85E-01)	9.37E-01	(8.89E-01 - 1.00E+00)
56	6.28E-02	(1.56E-02 - 1.41E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
57	3.09E-04	(5.85E-06 - 3.14E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.34E-07	(5.26E-11 - 1.38E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 141 FISSION PRODUCT CHAIN

NLCT = 4.717 NU = 3.136 ZP = 55.033

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
52	3.59E-06	(6.72E-09 - 1.45E-04)	3.59E-06	(6.72E-09 - 1.45E-04)
53	2.76E-03	(1.53E-04 - 1.48E-02)	2.77E-03	(1.56E-04 - 1.48E-02)
54	1.98E-01	(8.23E-02 - 3.13E-01)	2.01E-01	(8.50E-02 - 3.16E-01)
55	5.61E-01	(4.47E-01 - 6.74E-01)	7.62E-01	(6.35E-01 - 8.79E-01)
56	2.34E-01	(1.07E-01 - 3.50E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
57	3.54E-03	(2.60E-04 - 1.90E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	6.26E-06	(1.93E-08 - 2.16E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
59	2.68E-10	(6.36E-15 - 1.50E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 142 FISSION PRODUCT CHAIN

NLCT = 4.660 NU = 3.225 ZP = 55.453

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
52	7.71E-08	(2.33E-11 - 9.27E-06)	7.71E-08	(2.33E-11 - 9.27E-06)
53	2.12E-04	(3.33E-06 - 2.40E-03)	2.12E-04	(3.41E-06 - 2.40E-03)
54	5.66E-02	(1.09E-02 - 1.21E-01)	5.09E-02	(1.11E-02 - 1.21E-01)
55	4.24E-01	(3.18E-01 - 5.52E-01)	4.75E-01	(3.62E-01 - 6.22E-01)
56	4.55E-01	(3.58E-01 - 6.56E-01)	9.73E-01	(9.52E-01 - 1.00E+00)
57	2.65E-02	(4.69E-03 - 7.10E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
58	1.47E-04	(1.68E-06 - 2.01E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
59	2.28E-08	(4.44E-12 - 3.55E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 143 FISSION PRODUCT CHAIN

NLCT = 4.574 NU = 3.173 ZP = 55.817

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
52	1.74E-09	(5.02E-14 - 6.07E-07)	1.74E-09	(5.02E-14 - 6.07E-07)
53	1.46E-05	(6.36E-08 - 3.56E-04)	1.46E-05	(6.53E-08 - 3.56E-04)
54	1.03E-02	(5.51E-04 - 3.95E-02)	1.03E-02	(1.01E-03 - 3.56E-02)
55	2.30E-01	(1.27E-01 - 3.12E-01)	2.41E-01	(1.37E-01 - 3.27E-01)
56	6.66E-01	(5.16E-01 - 8.22E-01)	9.07E-01	(8.45E-01 - 9.80E-01)
57	9.15E-02	(3.03E-02 - 1.65E-01)	9.99E-01	(9.97E-01 - 1.00E+00)
58	1.47E-03	(5.33E-05 - 1.01E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	6.55E-07	(6.98E-10 - 4.07E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 144 FISSION PRODUCT CHAIN

NLCT = 4.692 NU = 3.208 ZP = 56.216

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
53	5.16E-07	(4.50E-10 - 3.30E-05)	5.16E-07	(4.50E-10 - 3.30E-05)
54	1.21E-03	(3.97E-05 - 8.80E-03)	1.21E-03	(4.02E-05 - 8.80E-03)
55	8.32E-02	(2.40E-02 - 1.54E-01)	8.44E-02	(2.71E-02 - 1.56E-01)
56	6.57E-01	(5.06E-01 - 8.17E-01)	7.41E-01	(6.35E-01 - 8.30E-01)
57	2.47E-01	(1.41E-01 - 3.30E-01)	9.88E-01	(9.77E-01 - 1.00E+00)
58	1.21E-02	(1.26E-03 - 4.43E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
59	1.50E-05	(9.34E-08 - 4.25E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
60	2.50E-09	(1.53E-13 - 7.88E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

PASS 145 FISSION PRODUCT CHAIN

NLCT = 4.796 NU = 3.201 ZP = 56.598

DEVIATION FROM UCD = -.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE CF FIY	FCY	RANGE OF FCY
53	1.38E-08	(2.10E-12 - 2.50E-06)	1.38E-08	(2.10E-12 - 2.50E-06)
54	1.03E-04	(9.94E-07 - 1.57E-03)	1.03E-04	(1.01E-06 - 1.57E-03)
55	2.17E-02	(3.45E-03 - 6.18E-02)	2.18E-02	(3.55E-03 - 6.20E-02)
56	4.67E-01	(3.22E-01 - 6.15E-01)	4.89E-01	(3.69E-01 - 6.42E-01)
57	4.45E-01	(3.39E-01 - 5.82E-01)	9.38E-01	(8.91E-01 - 1.00E+00)
58	6.14E-02	(1.45E-02 - 1.38E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
59	2.57E-04	(9.52E-06 - 3.05E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
60	1.24E-07	(4.83E-11 - 1.32E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION CF L-228 NLCTI METMCO
ESTIMATE PRACTICAL YIELDS
CDC-EVEN 2 CORRECTION FACTOR = 1.15 +/- .15

MASS 146 FISSION PRODUCT CHAIN
NLCTI = 4.730 NU = 3.262 ZP = 57.007
DEVIATION FROM LCD = -.45 +/- .15 SIGMA = .56 +/- .05
2 FIV RANGE CF FIV FCY RANGE OF FIV FCY
54 4.50E-06 (5.37E-09 - 1.71E-04) 4.50E-06 (9.37E-09 - 1.71E-04)
55 3.19E-03 (1.50E-04 - 1.64E-02) 3.20E-03 (1.94E-04 - 1.64E-02)
56 2.12E-01 (5.16E-02 - 3.28E-01) 2.15E-01 (9.48E-02 - 3.32E-01)
57 5.62E-01 (4.56E-01 - 6.75E-01) 7.77E-01 (6.54E-01 - 8.94E-01)
58 2.59E-01 (1.64E-02 - 3.35E-01) 9.97E-01 (9.54E-01 - 1.00E+00)
59 3.82E-03 (1.11E-04 - 1.72E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
60 5.52E-06 (1.10E-08 - 1.84E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
61 1.58E-10 (6.36E-15 - 1.20E-07) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 147 FISSION PRODUCT CHAIN
NLCTI = 4.907 NU = 3.483 ZP = 57.476
DEVIATION FROM LCD = -.45 +/- .15 SIGMA = .56 +/- .05
2 FIV RANGE CF FIV FCY RANGE OF FIV FCY
54 6.09E-08 (1.65E-11 - 7.83E-06) 6.09E-08 (1.65E-11 - 7.83E-06)
55 1.80E-04 (2.62E-06 - 2.13E-03) 1.80E-04 (2.68E-06 - 2.13E-03)
56 4.61E-02 (5.45E-03 - 1.13E-01) 4.63E-02 (9.62E-03 - 1.14E-01)
57 4.11E-01 (3.55E-01 - 5.38E-01) 4.58E-01 (3.49E-01 - 6.01E-01)
58 5.13E-01 (3.76E-01 - 6.76E-01) 9.71E-01 (9.47E-01 - 1.00E+00)
59 2.50E-02 (5.41E-03 - 7.56E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
60 1.72E-04 (2.14E-06 - 2.25E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
61 2.89E-08 (6.28E-12 - 4.24E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 148 FISSION PRODUCT CHAIN
NLCTI = 4.978 NU = 3.602 ZP = 57.907
DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18
2 FIV RANGE CF FIV FCY RANGE OF FIV FCY
54 6.43E-10 (1.47E-05) 6.43E-10 (1.62E-04 - 1.47E-05)
55 7.15E-06 (4.37E-13 - 1.82E-03) 7.15E-06 (6.44E-10 - 1.82E-03)
56 6.57E-03 (3.87E-06 - 7.16E-02) 6.58E-03 (1.10E-05 - 7.16E-02)
57 1.89E-01 (2.61E-02 - 3.33E-01) 1.96E-01 (3.25E-02 - 3.53E-01)
58 6.83E-01 (4.63E-01 - 9.03E-01) 8.75E-01 (7.68E-01 - 1.00E+00)
59 1.19E-01 (7.81E-03 - 2.54E-01) 9.98E-01 (9.95E-01 - 1.00E+00)
60 2.44E-03 (3.47E-07 - 4.32E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
61 1.52E-06 (1.18E-14 - 8.05E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 149 FISSION PRODUCT CHAIN
NLCTI = 4.972 NU = 3.603 ZP = 58.293
DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18
2 FIV RANGE CF FIV FCY RANGE OF FIV FCY
54 2.58E-07 (1.69E-04) 2.58E-07 (1.69E-04 - 3.17E-04)
55 7.61E-08 (2.03E-08 - 2.39E-02) 7.62E-08 (2.47E-07 - 2.39E-02)
56 6.55E-02 (1.79E-03 - 1.94E-01) 6.62E-02 (2.45E-03 - 1.97E-01)
57 6.30E-01 (4.03E-01 - 9.20E-01) 6.96E-01 (4.82E-01 - 9.32E-01)
58 2.86E-01 (7.22E-02 - 4.99E-01) 9.83E-01 (9.65E-01 - 1.00E+00)
59 1.73E-02 (4.66E-05 - 1.17E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
60 3.41E-05 (1.75E-11 - 4.15E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
61 5.48E-09 (1.47E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 150 FISSION PRODUCT CHAIN
NLCTI = 4.554 NU = 3.710 ZP = 58.719
DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18
2 FIV RANGE CF FIV FCY RANGE OF FIV FCY
54 4.50E-06 (5.37E-09 - 1.71E-04) 4.50E-06 (9.37E-09 - 1.71E-04)
55 3.19E-03 (1.50E-04 - 1.64E-02) 3.20E-03 (1.94E-04 - 1.64E-02)
56 2.12E-01 (5.16E-02 - 3.28E-01) 2.15E-01 (9.48E-02 - 3.32E-01)
57 5.62E-01 (4.56E-01 - 6.75E-01) 7.77E-01 (6.54E-01 - 8.94E-01)
58 2.59E-01 (1.64E-02 - 3.35E-01) 9.97E-01 (9.54E-01 - 1.00E+00)
59 3.82E-03 (1.11E-04 - 1.72E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
60 5.52E-06 (1.10E-08 - 1.84E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
61 1.58E-10 (6.36E-15 - 1.20E-07) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 151 FISSION PRODUCT CHAIN
NLCTI = 4.648 NU = 3.562 ZP = 59.047
DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18
2 FIV RANGE CF FIV FCY RANGE OF FIV FCY
54 2.21E-06 (4.20E-14 - 1.41E-03) 2.21E-06 (4.20E-14 - 1.41E-03)
55 2.57E-03 (1.52E-07 - 4.01E-02) 2.57E-03 (1.52E-07 - 4.01E-02)
56 1.51E-01 (1.53E-02 - 3.83E-01) 1.54E-01 (1.79E-02 - 3.83E-01)
57 5.62E-01 (3.86E-01 - 7.43E-01) 7.54E-01 (5.40E-01 - 9.58E-01)
58 2.42E-02 (2.81E-02 - 4.41E-01) 9.92E-01 (9.92E-01 - 1.00E+00)
59 4.22E-03 (1.77E-06 - 5.16E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
60 6.55E-06 (2.56E-13 - 2.13E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
61 3.12E-10 (1.00E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 152 FISSION PRODUCT CHAIN
NLCTI = 4.444 NU = 3.360 ZP = 59.362
DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18
2 FIV RANGE CF FIV FCY RANGE OF FIV FCY
54 1.66E-07 (1.00E-04) 1.66E-07 (1.00E-04 - 3.10E-04)
55 3.88E-04 (1.61E-09 - 1.50E-02) 3.88E-04 (1.61E-09 - 1.50E-02)
56 7.12E-02 (1.29E-03 - 2.35E-01) 7.16E-02 (1.68E-03 - 2.40E-01)
57 4.65E-01 (2.79E-01 - 7.15E-01) 5.40E-01 (3.38E-01 - 8.29E-01)
58 4.61E-01 (1.37E-01 - 7.60E-01) 9.92E-01 (9.92E-01 - 1.00E+00)
59 1.82E-02 (6.72E-05 - 1.07E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
60 7.77E-05 (8.06E-11 - 7.44E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
61 5.15E-05 (1.00E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 153 FISSION PRODUCT CHAIN
NLCTI = 4.518 NU = 3.454 ZP = 59.775
DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18
2 FIV RANGE CF FIV FCY RANGE OF FIV FCY
54 2.58E-07 (1.69E-04) 2.58E-07 (1.69E-04 - 3.17E-04)
55 7.61E-08 (2.03E-08 - 2.39E-02) 7.62E-08 (2.47E-07 - 2.39E-02)
56 6.55E-02 (1.79E-03 - 1.94E-01) 6.62E-02 (2.45E-03 - 1.97E-01)
57 6.30E-01 (4.03E-01 - 9.20E-01) 6.96E-01 (4.82E-01 - 9.32E-01)
58 2.86E-01 (7.22E-02 - 4.99E-01) 9.83E-01 (9.65E-01 - 1.00E+00)
59 1.73E-02 (4.66E-05 - 1.17E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
60 3.41E-05 (1.75E-11 - 4.15E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
61 5.48E-09 (1.47E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-238 ALYOT METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.15 +/- .15

MASS 154 FISSION PRODUCT CHAIN

NLCT = 4.415 NU = 3.459 ZP = 60.162

DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	8.34E-07 (0.	- 5.87E-04)	8.34E-07 (0.	- 5.87E-04)
58	1.65E-03 (1.34E-07	- 3.54E-02)	1.65E-03 (9.68E-07	- 3.55E-02)
59	5.76E-02 (4.74E-03	- 2.33E-01)	9.93E-02 (6.38E-03	- 2.39E-01)
60	6.71E-01 (4.44E-01	- 8.88E-01)	7.70E-01 (5.88E-01	- 9.51E-01)
61	2.21E-01 (3.88E-02	- 3.84E-01)	9.91E-01 (9.81E-01	- 1.00E+00)
62	9.29E-03 (8.97E-06	- 8.53E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
63	1.24E-05 (1.61E-12	- 2.44E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
64	1.38E-09 (0.	- 2.22E-05)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 155 FISSION PRODUCT CHAIN

NLCT = 4.208 NU = 3.331 ZP = 60.498

DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	3.73E-08 (0.	- 1.15E-04)	3.73E-08 (2.12E-22	- 1.15E-04)
58	2.05E-04 (8.43E-10	- 1.22E-02)	2.05E-04 (3.81E-08	- 1.23E-02)
59	3.21E-02 (2.75E-04	- 1.39E-01)	3.23E-02 (4.79E-04	- 1.40E-01)
60	5.29E-01 (2.35E-01	- 8.68E-01)	5.61E-01 (3.35E-01	- 8.53E-01)
61	3.57E-01 (1.75E-01	- 6.54E-01)	9.58E-01 (9.17E-01	- 1.00E+00)
62	4.16E-02 (3.47E-04	- 1.83E-01)	1.00E+00 (1.00E+00	- 1.00E+00)
63	1.50E-04 (5.90E-10	- 9.11E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
64	4.70E-08 (0.	- 1.48E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 156 FISSION PRODUCT CHAIN

NLCT = 3.863 NU = 3.058 ZP = 60.777

DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	2.15E-09 (0.	- 2.54E-05)	2.15E-09 (2.65E-23	- 2.54E-05)
58	2.79E-05 (6.92E-12	- 4.38E-03)	2.79E-05 (2.15E-09	- 4.38E-03)
59	9.97E-03 (1.47E-05	- 7.94E-02)	1.00E-02 (4.26E-05	- 7.95E-02)
60	3.50E-01 (7.54E-02	- 6.13E-01)	3.60E-01 (1.46E-01	- 6.33E-01)
61	5.24E-01 (3.41E-01	- 7.28E-01)	8.85E-01 (7.75E-01	- 1.00E+00)
62	1.14E-01 (4.18E-03	- 3.01E-01)	9.99E-01 (9.98E-01	- 1.00E+00)
63	9.30E-04 (4.54E-08	- 2.37E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
64	6.82E-07 (0.	- 6.20E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 157 FISSION PRODUCT CHAIN

NLCT = 3.474 NU = 2.750 ZP = 61.044

DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	3.29E-06 (4.62E-14	- 1.43E-03)	3.29E-06 (4.62E-14	- 1.43E-03)
59	2.61E-03 (5.46E-07	- 4.04E-02)	2.61E-03 (3.83E-06	- 4.04E-02)
60	1.93E-01 (1.56E-02	- 3.84E-01)	1.95E-01 (1.82E-02	- 3.90E-01)
61	5.60E-01 (3.87E-01	- 7.44E-01)	7.56E-01 (5.43E-01	- 9.60E-01)
62	2.40E-01 (2.76E-02	- 4.38E-01)	9.96E-01 (9.92E-01	- 1.00E+00)
63	4.16E-03 (1.70E-06	- 5.13E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
64	6.83E-06 (2.44E-13	- 2.10E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
65	3.02E-10 (0.	- 8.93E-06)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 158 FISSION PRODUCT CHAIN

NLCT = 3.745 NU = 2.965 ZP = 61.511

DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	4.30E-08 (0.	- 1.41E-04)	4.30E-08 (2.12E-22	- 1.41E-04)
59	1.41E-04 (5.09E-10	- 8.81E-03)	1.41E-04 (4.35E-08	- 8.81E-03)
60	4.01E-02 (3.18E-04	- 1.80E-01)	4.03E-02 (4.59E-04	- 1.80E-01)
61	3.52E-01 (1.69E-01	- 6.48E-01)	4.33E-01 (2.06E-01	- 7.27E-01)
62	5.34E-01 (2.43E-01	- 8.73E-01)	9.67E-01 (9.34E-01	- 1.00E+00)
63	3.32E-02 (2.99E-04	- 1.42E-01)	1.00E+00 (1.00E+00	- 1.00E+00)
64	2.18E-04 (9.75E-10	- 1.26E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
65	4.07E-08 (0.	- 1.20E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 159 FISSION PRODUCT CHAIN

NLCT = 3.845 NU = 3.044 ZP = 61.927

DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	5.17E-10 (0.	- 1.31E-05)	5.17E-10 (3.31E-24	- 1.31E-05)
59	6.10E-03 (3.01E-13	- 1.67E-03)	6.10E-06 (5.17E-10	- 1.67E-03)
60	5.55E-03 (3.03E-06	- 6.80E-02)	5.95E-03 (9.12E-06	- 6.80E-02)
61	1.81E-01 (2.32E-02	- 3.23E-01)	1.87E-01 (2.90E-02	- 3.42E-01)
62	6.86E-01 (4.68E-01	- 9.08E-01)	8.72E-01 (7.56E-01	- 1.00E+00)
63	1.25E-01 (8.56E-03	- 2.60E-01)	9.97E-01 (9.95E-01	- 1.00E+00)
64	2.12E-03 (4.53E-07	- 4.57E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
65	1.80E-06 (1.77E-14	- 8.75E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 160 FISSION PRODUCT CHAIN

NLCT = 3.903 NU = 3.050 ZP = 62.329

DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	1.64E-07 (0.	- 2.66E-04)	1.84E-07 (0.	- 2.66E-04)
60	6.08E-04 (1.17E-08	- 2.13E-02)	6.08E-04 (1.96E-07	- 2.13E-02)
61	5.81E-02 (1.25E-03	- 1.84E-01)	5.87E-02 (1.85E-03	- 1.86E-01)
62	6.15E-01 (3.89E-01	- 9.20E-01)	6.74E-01 (4.53E-01	- 9.23E-01)
63	3.06E-01 (8.62E-02	- 5.30E-01)	9.80E-01 (9.59E-01	- 1.00E+00)
64	2.04E-02 (6.08E-05	- 1.27E-01)	1.00E+00 (1.00E+00	- 1.00E+00)
65	4.48E-05 (3.36E-11	- 4.80E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
66	8.37E-05 (0.	- 5.84E-05)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 161 FISSION PRODUCT CHAIN

NLCT = 3.893 NU = 3.082 ZP = 62.711

DEVIATION FROM LCD = -.45 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	4.31E-05 (0.	- 3.67E-05)	4.31E-09 (2.65E-23	- 3.67E-05)
60	4.58E-05 (2.26E-11	- 5.66E-03)	4.58E-05 (4.34E-09	- 5.66E-03)
61	1.34E-02 (3.08E-05	- 9.18E-02)	1.35E-02 (7.65E-05	- 9.21E-02)
62	3.54E-01 (5.81E-02	- 6.87E-01)	4.07E-01 (2.06E-01	- 6.98E-01)
63	5.00E-01 (3.20E-01	- 7.28E-01)	9.08E-01 (8.18E-01	- 1.00E+00)
64	5.15E-02 (2.43E-03	- 2.71E-01)	9.99E-01 (9.99E-01	- 1.00E+00)
65	6.18E-04 (1.71E-08	- 1.92E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
66	2.71E-07 (0.	- 4.46E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

14.6 MEV NEUTRON FISSION OF U-238 ALICI METHOD

ZP VALUES

(1) FROM DEVIATION FROM UCD - SCALE AL(1) ACCORDING TO ALBAR. (2) FROM CORVELL DELTA ZP.
 (3) FROM NETHAWAY DELTA ZP. (4) FROM DEVIATION FROM UCC AND NLICI.

72	28.63	28.51	28.37	28.48	117	46.21	46.10	46.18	45.81
73	28.60	28.76	28.87	28.87	118	46.54	46.45	46.53	46.17
74	28.50	28.90	29.15	29.25	119	46.92	46.75	46.83	46.55
75	29.78	28.66	29.54	28.63	120	47.30	47.06	47.14	46.89
76	30.17	29.93	30.02	30.02	121	47.68	47.36	47.44	47.26
77	30.55	30.33	30.39	30.76	122	48.07	47.66	47.74	47.63
78	30.93	30.68	30.74	30.76	123	48.37	48.03	48.11	47.94
79	31.32	31.31	31.17	31.16	124	48.68	48.19	48.27	48.24
80	31.73	31.70	31.56	31.60	125	48.96	48.47	48.55	48.60
81	32.15	32.11	31.97	32.04	126	49.26	48.77	48.85	49.00
82	32.51	32.51	32.37	32.43	127	49.62	49.08	49.16	49.38
83	32.86	32.92	32.78	32.81	128	49.94	49.42	49.50	49.84
84	33.31	33.33	33.19	33.26	129	50.24	49.78	49.86	50.00
85	33.76	33.74	33.60	33.70	130	50.54	50.15	50.23	50.24
86	34.14	34.16	34.02	34.08	131	50.84	50.56	50.64	50.70
87	34.53	34.58	34.44	34.49	132	51.21	50.97	51.05	51.14
88	34.95	35.01	34.87	34.89	133	51.67	51.41	51.45	51.71
89	35.36	35.42	35.28	35.32	134	52.12	51.88	51.96	52.16
90	35.69	35.82	35.68	35.67	135	52.52	52.22	52.40	52.61
91	36.04	36.22	36.08	36.02	136	52.92	52.74	52.82	53.02
92	36.42	36.62	36.48	36.41	137	53.30	53.15	53.23	53.42
93	36.81	37.03	36.89	36.86	138	53.69	53.55	53.63	53.79
94	37.23	37.43	37.29	37.28	139	54.11	53.95	54.03	54.17
95	37.67	37.84	37.70	37.71	140	54.52	54.35	54.43	54.60
96	38.06	38.23	38.09	38.12	141	54.93	54.75	54.83	55.03
97	38.44	38.63	38.49	38.51	142	55.34	55.15	55.23	55.45
98	38.85	39.02	38.88	38.91	143	55.76	55.54	55.62	55.82
99	39.25	39.41	39.27	39.31	144	56.27	56.04	56.12	56.22
100	39.67	39.77	39.63	39.71	145	56.68	56.44	56.52	56.60
101	40.08	40.14	40.00	40.13	146	57.13	56.76	56.84	57.01
102	40.50	40.51	40.37	40.51	147	57.58	57.22	57.30	57.48
103	40.92	40.87	40.73	40.85	148	58.06	57.64	57.72	57.91
104	41.34	41.23	41.09	41.27	149	58.46	58.05	58.13	58.29
105	41.81	41.64	41.50	41.71	150	58.85	58.46	58.54	58.72
106	42.33	42.05	41.91	42.14	151	59.18	58.85	58.93	59.05
107	42.82	42.48	42.34	42.52	152	59.62	59.25	59.33	59.36
108	43.30	43.08	42.94	43.13	153	60.15	59.64	59.72	59.77
109	43.70	43.37	43.21	43.41	154	60.58	60.23	60.31	60.16
110	44.11	43.84	43.70	43.18	155	61.06	60.72	60.80	60.50
111	44.51	44.16	44.02	43.46	156	61.55	61.15	61.23	61.04
112	44.91	44.46	44.32	43.86	157	62.12	61.65	61.73	61.51
113	45.31	44.77	44.63	44.34	158	62.50	61.84	61.92	61.93
114	45.71	45.07	44.93	44.69	159	62.89	62.23	62.31	62.31
115	46.11	45.42	45.28	45.01	160	63.27	62.62	62.70	62.71
116	46.51	45.76	45.62	45.42	161	63.62	62.97	63.05	63.05

14.6 MEV NEUTRON FISSION OF U-238 ALIC1 METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	UNCERTAINTY MINUS	PROCESS TYPE	PRIMARY YIELD REF.	SECONDARY REFERENCE CR COMMENTS	VALLE	ESTIMATED RANGE	FIT
36KR	87		4.140E-02	1.100E-02	1.000E-02	U238F	728CC1	K-872-1	4.038E-02	(7.730E-03 - 1.033E-01)	YES
36KR	88		2.630E-01	4.000E-02	4.000E-02	U238F	728CC1	K-872-1	1.607E-01	(5.955E-02 - 2.711E-01)	YES
36KR	89		4.550E-01	7.300E-02	7.300E-02	U238F	728CC1	K-872-1	4.163E-01	(2.664E-01 - 5.528E-01)	YES
36KR	90		5.630E-01	8.700E-02	8.700E-02	U238F	728CC1	K-872-1	6.158E-01	(4.676E-01 - 7.658E-01)	YES
36KR	91		6.500E-01	2.000E-02	1.000E-02	U238F	65WCL1		8.354E-01	(7.472E-01 - 9.118E-01)	NC
36KR	91		6.700E-01	8.900E-02	8.900E-02	U238F	65WCL1		8.354E-01	(7.472E-01 - 9.118E-01)	YES
36KR	91		5.680E-01	6.500E-02	6.500E-02	U238F	65WCL1	K-872-1	6.650E-01	(5.495E-01 - 8.277E-01)	YES
36KR	92		4.400E-01	3.000E-02	1.000E-02	U238F	65WCL1		6.211E-01	(5.112E-01 - 7.461E-01)	NC
36KR	92		4.820E-01	1.500E-02	1.500E-02	U238F	65WCL1		6.211E-01	(5.112E-01 - 7.461E-01)	YES
36KR	92		4.150E-01	5.300E-02	5.300E-02	U238F	65WCL1	K-872-1	5.766E-01	(4.346E-01 - 7.473E-01)	YES
36KR	93		1.640E-01	1.600E-02	5.000E-03	U238F	65WCL1		2.590E-01	(1.568E-01 - 4.222E-01)	YES
36KR	93		1.710E-01	2.200E-02	2.200E-02	U238F	65WCL1	K-872-1	3.058E-01	(1.635E-01 - 4.222E-01)	YES
36KR	93		1.890E-01	4.800E-02	4.800E-02	U238F	65WCL1		2.590E-01	(1.568E-01 - 4.222E-01)	YES
36KR	94		3.300E-02	5.000E-03	5.000E-03	U238F	65WCL1		3.058E-01	(1.635E-01 - 4.222E-01)	YES
41NB	96		2.100E-05	2.100E-06	2.100E-06	U238F	72NET2	K-CA73-1-56	8.648E-06	(2.925E-08 - 2.452E-04)	YES
54XE133			3.000E-03	1.300E-03	1.300E-03	U238F	72NET2		7.814E-04	(2.069E-05 - 6.490E-03)	YES
54XE135			5.600E-02	3.700E-02	3.700E-02	U238F	72NET2		6.432E-02	(1.557E-02 - 1.430E-01)	YES
55C5136			3.700E-03	3.000E-04	3.000E-04	U238F	72NET2		3.681E-03	(2.352E-04 - 1.810E-02)	YES
55C5136			5.200E-03	2.000E-04	2.000E-04	U238F	72NET2		3.681E-03	(2.352E-04 - 1.810E-02)	YES
54XE138			5.400E-01	2.000E-02	2.000E-02	U238F	72NET2	K-A72-1	4.774E-01	(3.334E-01 - 6.316E-01)	YES
54XE138			3.230E-01	2.700E-02	2.700E-02	U238F	72NET2	K-CA73-1-56	3.681E-03	(2.352E-04 - 1.810E-02)	YES
54XE138			3.670E-01	4.000E-02	4.000E-02	U238F	72NET2		5.153E-01	(8.579E-01 - 9.865E-01)	YES
54XE138			4.660E-01	3.700E-02	3.700E-02	U238F	72NET2		6.570E-01	(5.062E-01 - 8.172E-01)	NC
55C5138			8.300E-01	5.000E-03	5.000E-03	U238F	72NET2	K-872-1	8.350E-02	(2.610E-02 - 1.543E-01)	YES
53	1135		1.830E-01	2.000E-02	2.000E-02	U238F	62AP01	K-872-1	5.455E-02	(3.168E-02 - 1.677E-01)	YES
54XE135			6.850E-01	2.400E-02	2.400E-02	U238F	65WCL1	K-872-1	7.643E-01	(6.010E-01 - 8.497E-01)	YES
54XE135			4.750E-01	5.000E-03	5.000E-03	U238F	65WCL1		7.643E-01	(6.010E-01 - 8.497E-01)	YES
54XE135			5.410E-01	4.300E-02	4.300E-02	U238F	65WCL1	K-872-1	6.682E-01	(5.183E-01 - 8.226E-01)	YES
55C5135			2.860E-01	1.500E-02	1.500E-02	U238F	70KRI1	K-872-1	2.258E-01	(1.229E-01 - 3.063E-01)	YES
56RA135			5.600E-02	1.300E-02	1.300E-02	U238F	70KRI1	K-872-1	5.803E-03	(9.236E-04 - 3.826E-02)	NC
54XE140			6.110E-01	1.400E-02	8.000E-03	U238F	65WCL1		4.846E-01	(3.637E-01 - 6.382E-01)	YES
54XE140			5.480E-01	1.300E-01	1.300E-01	U238F	65WCL1		4.846E-01	(3.637E-01 - 6.382E-01)	YES
54XE141			2.500E-01	3.000E-02	4.000E-02	U238F	72NET2	K-872-1	4.634E-01	(3.174E-01 - 6.139E-01)	YES
54XE141			1.510E-01	1.800E-02	1.800E-02	U238F	65WCL1		2.008E-01	(8.502E-02 - 3.161E-01)	YES
54XE141			3.020E-01	2.900E-02	2.900E-02	U238F	72NET2	K-872-1	1.580E-01	(8.229E-02 - 3.128E-01)	YES
54XE142			1.100E-01	6.000E-02	6.000E-02	U238F	65WCL1		5.085E-02	(1.107E-02 - 1.213E-01)	YES
54XE142			1.650E-01	3.000E-02	3.000E-02	U238F	72NET2	K-872-1	5.085E-02	(1.107E-02 - 1.213E-01)	NC
65B164			1.290E-03	1.500E-04	1.500E-04	U238F	72NET2	K-CA73-1-56	4.463E-05	(3.356E-11 - 4.804E-03)	YES

14.6 MEV NEUTRON FISSION OF PL-225 NUBAR METHOD

5.0000	2	94	239	-0	-014.600	1.000	.150				
1	.56	.09	.18	.18	99.00	.15	.30	.30	1	2	-0

NUBAR =5.0000

FOR ZP(1), NU(A) IS FROM U-238 + 12 MEV-PROTONS, ADJUSTED ACCORDING TO NUBAR.

ODD-EVEN Z EFFECT = 1.00 +/- .15 .

ZP(4) IS NOT CALCULATED. NUTOT FUNCTION IS NOT AVAILABLE.

SIGMA = .560. UNCERTAINTIES FOR REGIONS SYMMETRY TO 129, 130 TO 151,152 TO 161 ARE +/- .180 .090 .180.

SPECIAL ZP FUNCTION WAS ENTERED. SEE TABLES.

TYPE OF ZP FUNCTION USED IS 1.

14.6 MEV NEUTRON FISSION OF PL-235 ALPAR METHOD

ESTIMATED FRACTIONAL YIELDS

CCC-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 74 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.000 NU = 1.333 ZP = 30.306

DEVIATION FROM LCD = .80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	2.72E-07 (0.	- 3.54E-04)	2.72E-07 (1.69E-21 - 3.54E-04)	
28	6.31E-04 (1.50E-08	- 2.06E-02)	6.32E-04 (2.87E-07 - 2.06E-02)	
29	7.45E-02 (1.81E-03	- 2.26E-01)	7.51E-02 (2.44E-03 - 2.28E-01)	
30	5.61E-01 (3.57E-01	- 8.25E-01)	6.36E-01 (4.20E-01 - 9.09E-01)	
31	3.48E-01 (9.12E-02	- 6.05E-01)	9.84E-01 (9.67E-01 - 1.00E+00)	
32	1.64E-02 (4.20E-05	- 1.08E-01)	1.00E+00 (1.00E+00 - 1.00E+00)	
33	4.45E-05 (2.61E-11	- 5.19E-03)	1.00E+00 (1.00E+00 - 1.00E+00)	
34	5.84E-09 (0.	- 4.58E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 75 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.000 NU = 1.333 ZP = 30.697

DEVIATION FROM LCD = .80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
27	5.67E-09 (0.	- 4.51E-05)	5.67E-09 (0.	- 4.51E-05)
28	4.36E-05 (2.49E-11	- 5.13E-03)	4.36E-05 (5.70E-09	- 5.13E-03)
29	1.62E-02 (4.07E-05	- 1.07E-01)	1.63E-02 (8.43E-05	- 1.08E-01)
30	3.46E-01 (9.00E-02	- 6.03E-01)	3.62E-01 (1.46E-01	- 6.35E-01)
31	5.62E-01 (3.58E-01	- 8.26E-01)	9.24E-01 (8.51E-01	- 1.00E+00)
32	7.52E-02 (1.85E-03	- 2.27E-01)	9.99E-01 (9.99E-01	- 1.00E+00)
33	6.42E-04 (1.57E-08	- 2.08E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
34	2.79E-07 (0.	- 3.59E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 76 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.000 NU = 1.333 ZP = 31.089

DEVIATION FROM LCD = .80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	1.89E-06	(1.78E-14 - 9.86E-04)	1.89E-06	(1.78E-14 - 9.86E-04)
29	2.27E-03	(3.33E-07 - 3.98E-02)	2.27E-03	(2.22E-06 - 3.98E-02)
30	1.44E-01	(5.66E-03 - 3.07E-01)	1.46E-01	(1.19E-02 - 3.14E-01)
31	6.22E-01	(4.22E-01 - 8.23E-01)	7.69E-01	(5.74E-01 - 9.50E-01)
32	2.26E-01	(3.06E-02 - 3.98E-01)	9.94E-01	(9.88E-01 - 1.00E+00)
33	5.86E-03	(3.35E-06 - 6.44E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
34	8.33E-06	(4.87E-13 - 2.15E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
35	5.60E-10	(0. - 1.31E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 77 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.000 NU = 1.333 ZP = 31.481

DEVIATION FROM LCD = .80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	5.12E-08 (0.	- 1.46E-04)	5.12E-08 (0.	- 1.46E-04)
29	2.03E-04 (9.78E-10	- 1.14E-02)	2.03E-04 (5.22E-08	- 1.14E-02)
30	3.98E-02 (3.76E-04	- 1.67E-01)	4.00E-02 (5.78E-04	- 1.68E-01)
31	4.74E-01 (2.20E-01	- 7.72E-01)	5.14E-01 (2.57E-01	- 8.35E-01)
32	4.52E-01 (1.91E-01	- 7.49E-01)	9.66E-01 (9.32E-01	- 1.00E+00)
33	3.42E-02 (2.98E-04	- 1.55E-01)	1.00E+00 (1.00E+00	- 1.00E+00)
34	1.55E-04 (5.18E-10	- 9.96E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
35	3.49E-08 (0.	- 1.19E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 78 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.000 NU = 1.333 ZP = 31.868

DEVIATION FROM LCD = .90 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
28	8.55E-10 (0.	- 1.65E-05)	8.99E-10 (3.31E-24 -	1.69E-05)
29	1.17E-05 (1.09E-12 -	2.58E-03)	1.17E-05 (9.00E-10 -	2.58E-03)
30	7.26E-03 (5.65E-06 -	7.18E-02)	7.27E-03 (1.74E-05 -	7.19E-02)
31	2.48E-01 (3.93E-02 -	4.30E-01)	7.55E-01 (4.64E-02 -	4.48E-01)
32	6.15E-01 (4.11E-01 -	8.05E-01)	8.70E-01 (7.49E-01 -	1.00E+00)
33	1.28E-01 (7.11E-03 -	2.91E-01)	9.98E-01 (9.96E-01 -	1.00E+00)
34	1.75E-03 (1.86E-07 -	3.52E-02)	1.00E+00 (1.00E+00 -	1.00E+00)
35	1.31E-06 (7.11E-15 -	8.11E-04)	1.00E+00 (1.00E+00 -	1.00E+00)

MASS 79 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.000 NU = 1.333 ZP = 32.249

DEVIATION FROM LCD = .78 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	4.55E-07 (0.	- 4.66E-04)	4.55E-07 (1.69E-21 - 4.66E-04)	
30	8.95E-04 (3.49E-08 - 2.47E-02)	8.95E-04 (4.93E-07 - 2.47E-02)		
31	8.57E-02 (2.89E-03 - 2.47E-01)	9.06E-02 (3.78E-03 - 2.90E-01)		
32	5.83E-01 (3.76E-01 - 8.24E-01)	6.73E-01 (4.49E-01 - 9.23E-01)		
33	3.14E-01 (7.34E-02 - 5.50E-01)	9.87E-01 (9.75E-01 - 1.00E+00)		
34	1.27E-02 (2.23E-05 - 9.51E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
35	2.51E-05 (5.50E-12 - 4.15E-03)	1.00E+00 (1.00E+00 - 1.00E+00)		
36	3.21E-09 (0.	- 3.33E-05)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 80 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.050 NU = 1.400 ZP = 32.655

DEVIATION FROM LCD = .77 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
29	8.85E-09 (0.	- 5.72E-05)	8.85E-09 (5.29E-23 - 5.72E-05)	
30	5.57E-05 (5.26E-11 - 6.04E-03)	5.97E-05 (8.90E-09 - 6.05E-03)		
31	1.56E-02 (4.46E-05 - 1.18E-01)	1.96E-02 (1.24E-04 - 1.18E-01)		
32	2.72E-01 (1.10E-01 - 6.43E-01)	3.91E-01 (1.72E-01 - 6.80E-01)		
33	5.43E-01 (3.33E-01 - 8.21E-01)	9.34E-01 (8.71E-01 - 1.00E+00)		
34	6.51E-02 (1.29E-03 - 2.12E-01)	1.00E+00 (9.99E-01 - 1.00E+00)		
35	4.51E-04 (8.22E-09 - 1.81E-02)	1.00E+00 (1.00E+00 - 1.00E+00)		
36	1.88E-07 (0.	- 2.90E-04)	1.00E+00 (1.00E+00 - 1.00E+00)	

MASS 81 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.140 NU = 1.520 ZP = 33.081

DEVIATION FROM LCD = .76 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
20	2.03E-06	(1.78E-14 - 1.02E-03)	2.03E-06	(1.78E-14 - 1.02E-03)
31	2.38E-03	(3.73E-07 - 4.07E-02)	2.38E-03	(2.40E-06 - 4.08E-02)
32	1.48E-01	(1.02E-02 - 3.11E-01)	1.50E-01	(1.26E-02 - 3.17E-01)
33	6.23E-01	(4.24E-01 - 8.25E-01)	7.73E-01	(5.81E-01 - 9.54E-01)
34	2.21E-01	(2.92E-02 - 3.93E-01)	9.94E-01	(9.89E-01 - 1.00E+00)
35	5.62E-02	(3.02E-06 - 6.31E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
36	7.75E-06	(4.16E-13 - 2.08E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
37	5.11E-10	(0. - 1.25E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF PU-239 NLEAR METHOD

ESTIMATED FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 82 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.070 NU = 1.427 ZP = 33.425
 DEVIATION FROM UCD = .75 +/- .30 SIGMA = .56 +/- .18
 Z FIV RANGE OF FIV FCY RANGE OF FCY
 30 8.75E-08 (0. - 1.94E-04) 8.75E-08 (4.24E-22 - 1.94E-04)
 31 2.93E-04 (2.36E-09 - 1.38E-02) 2.93E-04 (8.99E-08 - 1.38E-02)
 32 4.89E-02 (6.30E-04 - 1.85E-01) 4.92E-02 (9.22E-04 - 1.86E-01)
 33 5.04E-01 (2.64E-01 - 7.98E-01) 5.53E-01 (3.08E-01 - 8.64E-01)
 34 4.20E-01 (1.54E-01 - 7.10E-01) 9.72E-01 (9.45E-01 - 1.00E+00)
 35 2.74E-02 (1.49E-04 - 1.59E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
 36 1.06E-04 (2.67E-10 - 8.15E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
 37 2.01E-08 (0. - 8.85E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 83 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.000 NU = 1.333 ZP = 33.770
 DEVIATION FROM UCD = .74 +/- .30 SIGMA = .56 +/- .18
 Z FIV RANGE OF FIV FCY RANGE OF FCY
 30 2.61E-09 (0. - 2.98E-05) 2.61E-09 (1.32E-23 - 2.98E-05)
 31 2.52E-05 (6.71E-12 - 3.85E-03) 2.52E-05 (2.53E-09 - 3.85E-03)
 32 1.16E-02 (1.79E-05 - 9.10E-02) 1.17E-02 (4.31E-05 - 9.11E-02)
 33 3.03E-01 (6.67E-02 - 5.30E-01) 3.15E-01 (8.82E-02 - 5.56E-01)
 34 5.89E-01 (3.82E-01 - 8.22E-01) 9.04E-01 (8.12E-01 - 1.00E+00)
 35 5.53E-02 (3.37E-03 - 2.54E-01) 9.99E-01 (9.98E-01 - 1.00E+00)
 36 1.00E-03 (4.62E-08 - 2.62E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 37 5.46E-07 (0. - 5.11E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 84 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.140 NU = 1.520 ZP = 34.222
 DEVIATION FROM UCD = .73 +/- .30 SIGMA = .56 +/- .18
 Z FIV RANGE OF FIV FCY RANGE OF FCY
 31 5.86E-07 (0. - 5.31E-04) 5.86E-07 (3.39E-21 - 5.31E-04)
 32 1.05E-03 (5.18E-08 - 2.68E-02) 1.05E-03 (6.38E-07 - 2.68E-02)
 33 5.77E-02 (3.59E-03 - 2.57E-01) 9.87E-02 (4.53E-03 - 2.60E-01)
 34 5.52E-01 (3.85E-01 - 8.20E-01) 6.90E-01 (4.63E-01 - 9.28E-01)
 35 2.98E-01 (6.40E-02 - 5.22E-01) 9.89E-01 (9.78E-01 - 1.00E+00)
 36 1.12E-02 (1.64E-05 - 8.93E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 37 2.37E-05 (5.81E-12 - 3.73E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
 38 2.40E-09 (0. - 2.85E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 85 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.280 NU = 1.707 ZP = 34.673
 DEVIATION FROM UCD = .71 +/- .30 SIGMA = .56 +/- .18
 Z FIV RANGE OF FIV FCY RANGE OF FCY
 31 7.30E-09 (0. - 5.16E-05) 7.30E-09 (2.65E-23 - 5.16E-05)
 32 5.21E-05 (3.80E-11 - 5.83E-03) 5.21E-05 (1.74E-09 - 5.63E-03)
 33 1.80E-02 (5.30E-05 - 1.13E-01) 1.81E-02 (1.05E-04 - 1.14E-01)
 34 2.61E-01 (1.01E-01 - 6.26E-01) 3.79E-01 (1.66E-01 - 6.60E-01)
 35 5.51E-01 (3.50E-01 - 8.24E-01) 9.30E-01 (8.82E-01 - 1.00E+00)
 36 6.93E-02 (1.51E-03 - 2.19E-01) 9.99E-01 (9.99E-01 - 1.00E+00)
 37 5.52E-04 (1.09E-08 - 1.92E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 38 2.23E-07 (0. - 3.18E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 86 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.280 NU = 1.707 ZP = 35.053
 DEVIATION FROM UCD = .70 +/- .30 SIGMA = .56 +/- .18
 Z FIV RANGE OF FIV FCY RANGE OF FCY
 22 2.56E-06 (3.20E-17 - 1.16E-03) 2.56E-06 (3.20E-17 - 1.16E-03)
 23 2.71E-03 (5.37E-07 - 4.50E-02) 2.77E-03 (3.10E-06 - 4.40E-02)
 24 1.55E-01 (1.24E-02 - 3.21E-01) 1.61E-01 (1.51E-02 - 3.29E-01)
 25 6.24E-01 (4.30E-01 - 8.30E-01) 7.87E-01 (6.90E-01 - 9.00E-01)
 26 2.06E-01 (2.47E-02 - 3.76E-01) 9.95E-01 (9.95E-01 - 1.00E+00)
 27 4.85E-02 (2.15E-06 - 5.88E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 28 6.25E-06 (2.49E-13 - 1.85E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
 29 3.77E-10 (0. - 1.06E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 87 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.280 NU = 1.707 ZP = 35.434
 DEVIATION FROM UCD = .69 +/- .30 SIGMA = .56 +/- .18
 Z FIV RANGE OF FIV FCY RANGE OF FCY
 22 8.07E-06 (0. - 1.85E-04) 8.07E-06 (8.47E-22 - 1.85E-04)
 23 2.77E-04 (2.07E-09 - 1.34E-02) 2.77E-04 (8.28E-08 - 1.34E-02)
 24 4.74E-02 (5.83E-04 - 1.82E-01) 4.77E-02 (8.59E-04 - 1.83E-01)
 25 4.55E-01 (2.57E-01 - 7.94E-01) 5.47E-01 (3.00E-01 - 8.60E-01)
 26 4.25E-01 (1.66E-01 - 7.16E-01) 9.72E-01 (9.43E-01 - 1.00E+00)
 27 2.84E-02 (1.62E-04 - 1.42E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
 28 1.12E-10 (2.38E-10 - 8.41E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
 29 2.18E-06 (0. - 9.26E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 88 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.350 NU = 1.800 ZP = 35.850
 DEVIATION FROM UCD = .68 +/- .15 SIGMA = .56 +/- .09
 Z FIV RANGE OF FIV FCY RANGE OF FCY
 22 1.10E-05 (4.97E-14 - 4.27E-07) 1.10E-05 (4.97E-14 - 4.27E-07)
 23 1.35E-03 (5.23E-08 - 3.57E-04) 1.36E-03 (5.34E-08 - 3.57E-04)
 24 7.58E-02 (7.65E-04 - 3.21E-02) 7.97E-02 (7.23E-04 - 3.21E-02)
 25 2.58E-01 (1.37E-01 - 3.55E-01) 2.66E-01 (1.45E-01 - 3.66E-01)
 26 6.11E-01 (4.76E-01 - 7.48E-01) 8.77E-01 (7.58E-01 - 9.69E-01)
 27 1.21E-01 (4.21E-02 - 2.12E-01) 9.98E-01 (9.97E-01 - 1.00E+00)
 28 1.66E-02 (6.40E-05 - 1.04E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 29 1.11E-06 (1.28E-09 - 5.95E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 89 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.420 NU = 1.893 ZP = 36.266
 DEVIATION FROM UCD = .67 +/- .15 SIGMA = .56 +/- .09
 Z FIV RANGE OF FIV FCY RANGE OF FCY
 23 3.93E-07 (2.76E-10 - 2.86E-05) 3.93E-07 (2.76E-10 - 2.86E-05)
 24 8.07E-02 (2.29E-05 - 6.44E-03) 8.08E-02 (2.33E-05 - 6.44E-03)
 25 8.56E-02 (2.43E-02 - 1.65E-01) 8.58E-02 (2.51E-02 - 1.66E-01)
 26 5.74E-01 (4.41E-01 - 7.24E-01) 6.62E-01 (5.33E-01 - 7.73E-01)
 27 3.24E-01 (1.96E-01 - 4.53E-01) 9.88E-01 (9.74E-01 - 1.00E+00)
 28 1.97E-02 (1.61E-03 - 4.70E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
 29 3.36E-05 (1.56E-07 - 6.70E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
 40 3.83E-05 (3.02E-13 - 1.04E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF PL-235 ALPAR METHOD
ESTIMATED FRACTIONAL YIELDS
CDC-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 90 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.300 NU = 1.733 ZP = 36.585
DEVIATION FROM LCD = .66 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	1.80E-08	(2.93E-12 - 3.16E-06)	1.80E-08	(2.93E-12 - 3.16E-06)
34	9.82E-05	(9.89E-07 - 1.45E-03)	9.83E-05	(1.01E-06 - 1.45E-03)
35	2.62E-02	(4.29E-03 - 7.37E-02)	2.63E-02	(4.39E-03 - 7.38E-02)
36	4.13E-01	(2.88E-01 - 5.47E-01)	4.40E-01	(3.12E-01 - 5.81E-01)
37	5.09E-01	(3.84E-01 - 6.60E-01)	9.49E-01	(9.10E-01 - 1.00E+00)
38	5.08E-02	(1.17E-02 - 1.16E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
39	3.14E-04	(5.58E-06 - 3.30E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
40	5.69E-08	(3.49E-11 - 1.05E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 91 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.210 NU = 1.613 ZP = 36.920
DEVIATION FROM LCD = .65 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
33	5.08E-10	(1.78E-14 - 2.45E-07)	5.08E-10	(1.78E-14 - 2.45E-07)
34	7.76E-06	(2.28E-08 - 2.39E-04)	7.76E-06	(2.33E-08 - 2.39E-04)
35	5.61E-03	(4.19E-04 - 2.51E-02)	5.62E-03	(4.26E-04 - 2.51E-02)
36	2.21E-01	(1.07E-01 - 3.19E-01)	2.27E-01	(1.13E-01 - 3.27E-01)
37	6.23E-01	(4.91E-01 - 7.49E-01)	8.50E-01	(7.59E-01 - 9.46E-01)
38	1.48E-01	(5.73E-02 - 2.43E-01)	9.98E-01	(9.95E-01 - 1.00E+00)
39	2.39E-03	(1.16E-04 - 1.38E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	2.04E-06	(3.15E-09 - 9.24E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 92 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.210 NU = 1.613 ZP = 37.300
DEVIATION FROM LCD = .64 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	2.86E-07	(1.72E-10 - 2.28E-05)	2.86E-07	(1.72E-10 - 2.28E-05)
35	6.53E-04	(1.67E-05 - 5.54E-03)	6.53E-04	(1.70E-05 - 5.54E-03)
36	7.59E-02	(2.04E-02 - 1.53E-01)	7.65E-02	(2.11E-02 - 1.54E-01)
37	5.63E-01	(4.29E-01 - 7.14E-01)	6.39E-01	(5.10E-01 - 7.58E-01)
38	3.45E-01	(2.16E-01 - 4.58E-01)	9.84E-01	(9.70E-01 - 1.00E+00)
39	1.60E-02	(2.04E-03 - 5.23E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
40	4.28E-05	(2.87E-07 - 8.05E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
41	5.52E-09	(5.15E-13 - 1.35E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 93 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.210 NU = 1.613 ZP = 37.681
DEVIATION FROM LCD = .62 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
34	6.75E-09	(6.89E-13 - 1.56E-06)	6.75E-09	(6.89E-13 - 1.56E-06)
35	4.93E-05	(3.55E-07 - 8.90E-04)	4.93E-05	(3.62E-07 - 8.90E-04)
36	1.75E-02	(2.32E-03 - 5.55E-02)	1.75E-02	(2.37E-03 - 5.56E-02)
37	3.56E-01	(2.27E-01 - 4.73E-01)	3.74E-01	(2.44E-01 - 4.96E-01)
38	5.55E-01	(4.22E-01 - 7.07E-01)	9.28E-01	(8.76E-01 - 1.00E+00)
39	7.11E-02	(1.85E-02 - 1.46E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
40	5.79E-04	(1.39E-05 - 5.09E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
41	2.39E-07	(1.33E-10 - 2.01E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 94 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.300 NU = 1.733 ZP = 38.107
DEVIATION FROM LCD = .61 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	1.62E-06	(2.24E-09 - 7.85E-05)	1.62E-06	(2.24E-09 - 7.85E-05)
36	2.06E-03	(9.29E-05 - 1.24E-02)	2.06E-03	(9.45E-05 - 1.24E-02)
37	1.37E-01	(5.11E-02 - 2.31E-01)	1.39E-01	(5.32E-02 - 2.34E-01)
38	6.15E-01	(4.86E-01 - 7.50E-01)	7.59E-01	(6.42E-01 - 8.59E-01)
39	2.35E-01	(1.18E-01 - 3.33E-01)	9.94E-01	(9.88E-01 - 1.00E+00)
40	6.41E-03	(5.12E-04 - 2.76E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
41	5.66E-06	(3.13E-08 - 2.75E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
42	6.82E-10	(2.49E-14 - 3.02E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 95 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.420 NU = 1.893 ZP = 38.548
DEVIATION FROM LCD = .60 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	2.63E-08	(5.09E-12 - 4.13E-06)	2.63E-08	(5.09E-12 - 4.13E-06)
36	1.28E-04	(1.46E-06 - 1.75E-03)	1.28E-04	(1.49E-06 - 1.75E-03)
37	3.05E-02	(5.41E-03 - 8.18E-02)	3.07E-02	(5.53E-03 - 8.20E-02)
38	4.35E-01	(3.12E-01 - 5.74E-01)	4.66E-01	(3.41E-01 - 6.14E-01)
39	4.90E-01	(3.68E-01 - 6.35E-01)	9.55E-01	(9.21E-01 - 1.00E+00)
40	4.43E-02	(5.51E-03 - 1.06E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
41	2.45E-04	(3.86E-06 - 2.77E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
42	6.76E-08	(2.05E-11 - 8.12E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 96 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.420 NU = 1.893 ZP = 38.928
DEVIATION FROM LCD = .59 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
35	4.62E-10	(1.42E-14 - 2.25E-07)	4.62E-10	(1.42E-14 - 2.25E-07)
36	7.25E-06	(2.06E-08 - 2.26E-04)	7.25E-06	(2.11E-08 - 2.28E-04)
37	5.37E-03	(3.93E-04 - 2.44E-02)	5.38E-03	(4.00E-04 - 2.44E-02)
38	2.17E-01	(1.04E-01 - 3.15E-01)	2.22E-01	(1.09E-01 - 3.22E-01)
39	6.24E-01	(4.93E-01 - 7.45E-01)	8.46E-01	(7.55E-01 - 9.43E-01)
40	1.51E-01	(5.93E-02 - 2.47E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
41	2.50E-03	(1.24E-04 - 1.42E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	2.15E-06	(3.50E-09 - 9.72E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 97 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.420 NU = 1.893 ZP = 39.309
DEVIATION FROM LCD = .58 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	2.65E-07	(1.54E-10 - 2.15E-05)	2.65E-07	(1.54E-10 - 2.15E-05)
37	6.15E-04	(1.54E-05 - 5.34E-03)	6.20E-04	(1.57E-05 - 5.34E-03)
38	7.38E-02	(1.95E-02 - 1.50E-01)	7.44E-02	(2.02E-02 - 1.51E-01)
39	5.55E-01	(4.26E-01 - 7.11E-01)	6.34E-01	(5.04E-01 - 7.54E-01)
40	3.50E-01	(2.21E-01 - 4.64E-01)	9.83E-01	(9.69E-01 - 1.00E+00)
41	1.66E-02	(2.16E-03 - 5.37E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
42	4.55E-05	(3.15E-07 - 8.42E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
43	6.03E-09	(5.86E-13 - 1.44E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF PU-235 NLBAR METHOD

ESTIMATE FRACTIONAL YIELDS

ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 98 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.460 NU = 1.947 ZP = 39.709

DEVIATION FROM LCD = .56 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
36	5.00E-09	(4.44E-13 - 1.26E-06)	5.00E-09	(4.44E-13 - 1.26E-06)
37	3.99E-05	(2.59E-07 - 7.66E-04)	3.99E-05	(2.64E-07 - 7.66E-04)
38	1.54E-02	(1.51E-03 - 5.08E-02)	1.54E-02	(1.95E-03 - 5.09E-02)
39	3.39E-01	(2.10E-01 - 4.50E-01)	3.54E-01	(2.25E-01 - 4.71E-01)
40	5.67E-01	(4.32E-01 - 7.18E-01)	9.21E-01	(8.64E-01 - 9.99E-01)
41	7.83E-02	(2.14E-02 - 1.56E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
42	6.52E-04	(1.82E-05 - 5.77E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
43	3.12E-07	(1.96E-10 - 2.42E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 99 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.500 NU = 2.000 ZP = 40.110

DEVIATION FROM LCD = .55 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	1.58E-06	(2.15E-09 - 7.69E-05)	1.58E-06	(2.15E-09 - 7.69E-05)
38	2.02E-03	(9.04E-05 - 1.23E-02)	2.02E-03	(9.19E-05 - 1.23E-02)
39	1.36E-01	(5.04E-02 - 2.29E-01)	1.38E-01	(5.24E-02 - 2.32E-01)
40	6.19E-01	(4.85E-01 - 7.50E-01)	7.57E-01	(6.46E-01 - 8.57E-01)
41	2.37E-01	(1.19E-01 - 3.34E-01)	9.93E-01	(9.87E-01 - 1.00E+00)
42	6.52E-03	(5.25E-04 - 2.79E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	5.86E-06	(3.25E-08 - 2.84E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
44	7.08E-10	(2.84E-14 - 3.10E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 100 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.570 NU = 2.093 ZP = 40.526

DEVIATION FROM LCD = .54 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	3.27E-08	(7.04E-12 - 4.84E-06)	3.27E-08	(7.04E-12 - 4.84E-06)
38	1.49E-04	(1.83E-06 - 1.95E-03)	1.49E-04	(1.87E-06 - 1.95E-03)
39	3.33E-02	(6.18E-03 - 8.70E-02)	3.35E-02	(6.33E-03 - 8.71E-02)
40	4.48E-01	(3.28E-01 - 5.90E-01)	4.82E-01	(3.58E-01 - 6.33E-01)
41	4.77E-01	(3.58E-01 - 6.25E-01)	9.59E-01	(9.27E-01 - 1.00E+00)
42	4.08E-02	(8.38E-03 - 9.99E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
43	2.11E-04	(3.10E-06 - 2.50E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
44	5.45E-08	(1.49E-11 - 6.97E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 101 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.640 NU = 2.187 ZP = 40.942

DEVIATION FROM LCD = .53 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
37	3.98E-10	(1.42E-14 - 2.05E-07)	3.98E-10	(1.42E-14 - 2.05E-07)
38	6.50E-06	(1.75E-08 - 2.11E-04)	6.50E-06	(1.79E-08 - 2.11E-04)
39	5.51E-03	(3.54E-04 - 2.32E-02)	5.02E-03	(3.60E-04 - 2.32E-02)
40	2.10E-01	(9.91E-02 - 3.09E-01)	2.15E-01	(1.04E-01 - 3.15E-01)
41	6.25E-01	(4.95E-01 - 7.51E-01)	8.41E-01	(7.47E-01 - 9.37E-01)
42	1.57E-01	(6.28E-02 - 2.53E-01)	9.97E-01	(9.95E-01 - 1.00E+00)
43	2.69E-03	(1.39E-04 - 1.50E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	2.46E-06	(4.15E-09 - 1.06E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 102 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.710 NU = 2.280 ZP = 41.258

DEVIATION FROM LCD = .51 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	1.67E-07	(7.81E-11 - 1.55E-05)	1.67E-07	(7.81E-11 - 1.55E-05)
39	4.55E-04	(5.71E-06 - 4.25E-03)	4.55E-04	(9.88E-06 - 4.29E-03)
40	6.24E-02	(1.51E-02 - 1.34E-01)	6.28E-02	(1.55E-02 - 1.34E-01)
41	5.38E-01	(4.07E-01 - 6.90E-01)	6.00E-01	(4.71E-01 - 7.31E-01)
42	3.75E-01	(2.51E-01 - 5.03E-01)	9.79E-01	(9.62E-01 - 1.00E+00)
43	2.06E-02	(2.58E-03 - 6.23E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
44	6.52E-05	(5.37E-07 - 1.05E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.00E-08	(1.24E-12 - 2.07E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 103 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.780 NU = 2.373 ZP = 41.773

DEVIATION FROM LCD = .50 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
38	2.53E-05	(1.63E-13 - 7.72E-07)	2.53E-05	(1.63E-13 - 7.72E-07)
39	2.46E-05	(1.26E-07 - 5.43E-04)	2.46E-05	(1.28E-07 - 5.43E-04)
40	1.15E-02	(1.23E-03 - 4.14E-02)	1.15E-02	(1.25E-03 - 4.14E-02)
41	3.01E-01	(1.74E-01 - 4.01E-01)	3.13E-01	(1.85E-01 - 4.17E-01)
42	5.50E-01	(4.54E-01 - 7.36E-01)	9.03E-01	(8.36E-01 - 9.87E-01)
43	9.62E-02	(2.55E-02 - 1.80E-01)	9.99E-01	(9.58E-01 - 1.00E+00)
44	1.02E-03	(3.27E-05 - 7.61E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
45	5.61E-07	(4.67E-10 - 3.68E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 104 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.860 NU = 2.480 ZP = 42.154

DEVIATION FROM LCD = .49 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	7.45E-07	(7.16E-10 - 4.53E-05)	7.49E-07	(7.16E-10 - 4.53E-05)
40	1.24E-03	(4.35E-05 - 8.71E-03)	1.24E-03	(4.42E-05 - 8.71E-03)
41	1.06E-01	(3.44E-02 - 1.92E-01)	1.07E-01	(3.56E-02 - 1.94E-01)
42	6.00E-01	(4.64E-01 - 7.42E-01)	7.07E-01	(5.82E-01 - 8.09E-01)
43	2.63E-01	(1.58E-01 - 3.81E-01)	9.90E-01	(9.81E-01 - 1.00E+00)
44	5.65E-03	(5.77E-04 - 3.73E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
45	1.52E-05	(8.72E-08 - 4.55E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
46	1.75E-05	(5.55E-14 - 6.03E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 105 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.050 NU = 2.733 ZP = 42.671

DEVIATION FROM LCD = .48 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
39	7.45E-05	(7.96E-13 - 1.68E-06)	7.45E-05	(7.96E-13 - 1.68E-06)
40	5.25E-05	(3.53E-07 - 9.35E-04)	5.29E-05	(4.01E-07 - 9.35E-04)
41	1.62E-02	(2.47E-03 - 5.72E-02)	1.82E-02	(2.52E-03 - 5.72E-02)
42	3.62E-01	(2.33E-01 - 4.80E-01)	3.80E-01	(2.50E-01 - 5.05E-01)
43	5.51E-01	(4.18E-01 - 7.03E-01)	9.31E-01	(8.79E-01 - 1.00E+00)
44	6.65E-02	(1.76E-02 - 1.43E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
45	5.46E-04	(1.28E-05 - 4.88E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
46	2.15E-07	(1.16E-10 - 1.88E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF PL-235, ALEAR METHOD
ESTIMATED FRACTIONAL YIELDS
CCO-EVEN 2 CORRECTION FACTOR = 1.00 +/- .15

PASS 106 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.350 NU = 3.133 ZP = 43.204
DEVIATION FROM LCC = .46 +/- .15 SIGMA = .56 +/- .05
Z FLY RANGE CF FLY FCY RANGE OF FLY FCY RANGE CF FLY FCY
40 6.50E-07 (6.33E-10 - 4.27E-05) 6.90E-07 (6.33E-10 - 4.27E-05)
41 1.17E-03 (4.01E-05 - 8.30E-03) 1.17E-03 (4.01E-05 - 8.30E-03)
42 1.03E-01 (3.29E-02 - 1.89E-01) 1.04E-01 (3.31E-02 - 1.93E-01)
43 2.68E-01 (4.61E-01 - 7.41E-01) 7.02E-01 (5.76E-01 - 8.04E-01)
44 2.68E-01 (4.61E-01 - 7.41E-01) 9.90E-01 (9.80E-01 - 1.00E+00)
45 1.03E-02 (1.04E-02 - 3.04E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
46 2.06E-05 (9.70E-08 - 4.79E-04) 1.00E+00 (1.00E+00 - 1.00E+00)
47 1.57E-09 (1.14E-13 - 6.47E-07) 1.00E+00 (1.00E+00 - 1.00E+00)

PASS 107 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.380 NU = 3.173 ZP = 43.523
DEVIATION FROM LCC = .37 +/- .15 SIGMA = .56 +/- .05
Z FLY RANGE CF FLY FCY RANGE OF FLY FCY RANGE CF FLY FCY
40 3.36E-08 (7.32E-12 - 4.93E-06) 3.36E-08 (7.32E-12 - 4.93E-06)
41 1.51E-04 (1.88E-06 - 1.97E-03) 1.51E-04 (1.92E-06 - 1.97E-03)
42 3.37E-02 (6.27E-03 - 8.76E-02) 3.38E-02 (6.33E-03 - 8.78E-02)
43 4.50E-01 (3.29E-01 - 5.92E-01) 4.83E-01 (3.61E-01 - 6.35E-01)
44 4.76E-01 (3.57E-01 - 6.23E-01) 9.59E-01 (9.27E-01 - 1.00E+00)
45 6.04E-02 (8.25E-03 - 9.92E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
46 7.08E-04 (3.62E-06 - 2.84E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
47 5.31E-08 (1.44E-11 - 6.84E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

PASS 108 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.720 NU = 3.627 ZP = 43.720
DEVIATION FROM LCC = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FLY RANGE CF FLY FCY RANGE OF FLY FCY RANGE CF FLY FCY
40 6.44E-09 (C. - 3.96E-05) 4.44E-09 (2.65E-23 - 3.96E-05)
41 3.67E-05 (1.45E-11 - 4.69E-03) 3.67E-05 (4.46E-09 - 4.69E-03)
42 1.46E-02 (3.15E-05 - 1.02E-01) 1.47E-02 (6.82E-05 - 1.02E-01)
43 3.32E-01 (8.04E-02 - 5.80E-01) 3.47E-01 (1.27E-01 - 6.10E-01)
44 5.71E-01 (3.66E-01 - 8.26E-01) 9.18E-01 (8.59E-01 - 1.00E+00)
45 8.12E-02 (2.25E-03 - 2.36E-01) 9.59E-01 (9.59E-01 - 1.00E+00)
46 7.42E-04 (2.22E-08 - 2.24E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
47 3.46E-07 (C. - 4.02E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

PASS 109 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.920 NU = 3.893 ZP = 44.217
DEVIATION FROM LCC = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FLY RANGE CF FLY FCY RANGE OF FLY FCY RANGE CF FLY FCY
40 6.14E-07 (C. - 5.44E-04) 6.14E-07 (3.39E-21 - 5.44E-04)
41 1.09E-03 (5.58E-08 - 2.72E-02) 1.09E-03 (6.70E-07 - 2.73E-02)
42 5.53E-02 (3.73E-02 - 2.59E-01) 1.00E-01 (4.82E-03 - 2.62E-01)
43 5.53E-01 (3.86E-01 - 8.19E-01) 6.94E-01 (4.95E-01 - 9.28E-01)
44 2.65E-01 (6.23E-02 - 5.17E-01) 9.85E-01 (9.78E-01 - 1.00E+00)
45 1.09E-02 (1.54E-05 - 8.03E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
46 1.09E-02 (1.54E-05 - 8.03E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
47 2.28E-05 (5.29E-12 - 3.65E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
48 2.27E-09 (C. - 2.77E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

PASS 110 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.960 NU = 3.947 ZP = 44.625
DEVIATION FROM LCC = C.CC +/- .30 SIGMA = .56 +/- .18
Z FLY RANGE CF FLY FCY RANGE OF FLY FCY RANGE CF FLY FCY
40 1.15E-06 (C. - 6.58E-05) 1.15E-06 (1.15E-08 10. - 6.58E-05)
41 1.15E-06 (C. - 6.58E-05) 1.15E-06 (1.15E-08 10. - 6.58E-05)
42 1.15E-06 (C. - 6.58E-05) 1.15E-06 (1.15E-08 10. - 6.58E-05)
43 2.18E-02 (8.47E-05 - 1.25E-01) 2.18E-02 (1.15E-04 - 1.25E-01)
44 2.68E-01 (4.61E-01 - 7.41E-01) 7.02E-01 (5.76E-01 - 8.04E-01)
45 5.21E-01 (3.11E-01 - 8.11E-01) 9.40E-01 (8.82E-01 - 1.00E+00)
46 5.55E-02 (1.03E-03 - 2.03E-01) 1.00E+00 (9.59E-01 - 1.00E+00)
47 1.47E-04 (5.55E-09 - 1.66E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
48 1.47E-04 (5.55E-09 - 1.66E-02) 1.00E+00 (1.00E+00 - 1.00E+00)

PASS 111 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.000 NU = 4.000 ZP = 45.042
DEVIATION FROM LCC = C.CC +/- .30 SIGMA = .56 +/- .18
Z FLY RANGE CF FLY FCY RANGE OF FLY FCY RANGE CF FLY FCY
40 2.63E-04 (2.91E-14 - 1.22E-03) 2.83E-06 (3.91E-14 - 1.22E-03)
41 2.55E-02 (6.28E-07 - 4.55E-02) 2.95E-03 (3.46E-06 - 4.55E-02)
42 1.45E-01 (1.34E-02 - 3.25E-01) 1.67E-01 (1.63E-02 - 3.34E-01)
43 6.21E-01 (4.33E-01 - 8.32E-01) 7.93E-01 (6.14E-01 - 9.69E-01)
44 2.62E-01 (2.30E-02 - 3.65E-01) 9.95E-01 (9.91E-01 - 1.00E+00)
45 4.66E-02 (1.85E-06 - 5.70E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
46 5.63E-04 (1.55E-13 - 1.76E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
47 3.26E-10 (C. - 9.85E-06) 1.00E+00 (1.00E+00 - 1.00E+00)

PASS 112 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.030 NU = 4.040 ZP = 45.445
DEVIATION FROM LCC = C.CC +/- .30 SIGMA = .56 +/- .18
Z FLY RANGE CF FLY FCY RANGE OF FLY FCY RANGE CF FLY FCY
40 6.51E-06 (C. - 1.72E-04) 6.57E-08 (4.24E-22 - 1.72E-04)
41 2.55E-04 (1.63E-09 - 1.28E-02) 2.50E-04 (7.13E-08 - 1.28E-02)
42 4.46E-02 (5.07E-04 - 1.71E-01) 4.51E-02 (7.56E-04 - 1.78E-01)
43 4.51E-01 (2.44E-01 - 7.88E-01) 5.36E-01 (2.86E-01 - 8.52E-01)
44 4.23E-01 (1.70E-01 - 7.27E-01) 9.76E-01 (9.40E-01 - 1.00E+00)
45 3.01E-02 (1.89E-04 - 1.46E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
46 1.25E-04 (3.07E-10 - 8.88E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
47 2.54E-06 (C. - 1.00E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

PASS 113 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.070 NU = 4.093 ZP = 45.862
DEVIATION FROM LCC = C.CC +/- .30 SIGMA = .56 +/- .18
Z FLY RANGE CF FLY FCY RANGE OF FLY FCY RANGE CF FLY FCY
40 5.76E-10 (C. - 1.74E-05) 9.70E-10 (1.32E-23 - 1.74E-05)
41 1.24E-05 (1.24E-12 - 2.65E-03) 1.25E-05 (9.71E-10 - 2.65E-03)
42 7.51E-03 (6.14E-06 - 4.37E-02) 7.52E-03 (1.88E-02 - 4.56E-01)
43 2.55E-02 (4.08E-02 - 2.55E-02) 2.55E-02 (4.82E-02 - 4.56E-01)
44 6.14E-01 (4.05E-01 - 8.04E-01) 8.73E-01 (7.54E-01 - 1.00E+00)
45 1.25E-01 (6.76E-03 - 2.86E-01) 9.98E-01 (9.97E-01 - 1.00E+00)
46 1.72E-03 (1.65E-07 - 3.45E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
47 1.23E-06 (7.11E-15 - 7.85E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF PL-235 ALBAR METHOD
ESTIMATE FRACTIONAL YIELDS
CDC-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 114 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.800 NU = 3.733 ZP = 46.112
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FIY RANGE OF FIY FCY RANGE OF FCY
43 1.55E-06 (1.07E-14 - 8.86E-04) 1.55E-06 (1.07E-14 - 8.86E-04)
44 1.99E-03 (2.42E-07 - 3.72E-02) 1.99E-03 (1.79E-06 - 3.72E-02)
45 1.35E-01 (8.18E-03 - 2.98E-01) 1.37E-01 (1.03E-02 - 3.04E-01)
46 6.19E-01 (4.16E-01 - 8.16E-01) 7.56E-01 (5.53E-01 - 9.44E-01)
47 2.38E-01 (3.51E-02 - 4.15E-01) 9.93E-01 (9.87E-01 - 1.00E+00)
48 6.59E-03 (4.7E-06 - 8.84E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
49 1.00E-05 (7.60E-13 - 2.38E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
50 7.26E-10 (0. - 1.50E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 115 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.640 NU = 3.520 ZP = 46.420
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FIY RANGE OF FIY FCY RANGE OF FCY
43 9.20E-08 (0. - 1.99E-04) 9.20E-08 (0. - 1.99E-04)
44 3.03E-04 (2.56E-09 - 1.41E-02) 3.03E-04 (9.45E-08 - 1.41E-02)
45 4.58E-02 (6.60E-04 - 1.87E-01) 5.01E-02 (9.62E-04 - 1.88E-01)
46 5.06E-01 (2.68E-01 - 8.00E-01) 5.57E-01 (3.13E-01 - 8.66E-01)
47 4.17E-01 (1.51E-01 - 7.06E-01) 9.73E-01 (9.46E-01 - 1.00E+00)
48 2.68E-02 (1.41E-04 - 1.38E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
49 1.02E-04 (1.50E-10 - 8.00E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
50 1.51E-08 (0. - 8.61E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 116 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.510 NU = 3.347 ZP = 46.744
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FIY RANGE OF FIY FCY RANGE OF FCY
43 3.46E-09 (0. - 3.46E-05) 3.46E-09 (0. - 3.46E-05)
44 3.07E-05 (1.08E-11 - 4.27E-03) 3.07E-05 (3.47E-09 - 4.27E-03)
45 1.31E-02 (2.42E-05 - 9.67E-02) 1.32E-02 (5.48E-05 - 9.68E-02)
46 3.18E-01 (7.61E-02 - 5.57E-01) 3.31E-01 (1.08E-01 - 5.84E-01)
47 5.80E-01 (3.74E-01 - 8.25E-01) 9.11E-01 (8.27E-01 - 1.00E+00)
48 8.77E-02 (2.73E-03 - 2.44E-01) 9.99E-01 (9.98E-01 - 1.00E+00)
49 8.57E-04 (3.15E-08 - 2.41E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
50 4.30E-07 (0. - 4.51E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 117 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.550 NU = 3.400 ZP = 47.157
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FIY RANGE OF FIY FCY RANGE OF FCY
44 1.05E-06 (0. - 7.22E-04) 1.05E-06 (6.78E-06 - 7.22E-04)
45 1.55E-03 (1.31E-07 - 3.27E-02) 1.55E-03 (1.18E-06 - 3.27E-02)
46 1.19E-01 (5.91E-03 - 2.82E-01) 1.20E-01 (7.44E-03 - 2.86E-01)
47 6.10E-01 (4.04E-01 - 8.04E-01) 7.30E-01 (5.13E-01 - 9.36E-01)
48 2.62E-01 (4.52E-02 - 4.56E-01) 9.92E-01 (9.84E-01 - 1.00E+00)
49 8.21E-03 (7.64E-06 - 7.64E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
50 1.43E-05 (1.75E-12 - 2.86E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
51 1.18E-09 (0. - 1.95E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 118 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.420 NU = 3.227 ZP = 47.480
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FIY RANGE OF FIY FCY RANGE OF FCY
44 5.12E-06 (0. - 1.44E-04) 5.12E-06 (0. - 1.44E-04)
45 2.03E-04 (5.80E-10 - 1.14E-02) 2.03E-04 (5.22E-08 - 1.14E-02)
46 3.76E-02 (3.76E-04 - 1.67E-01) 4.00E-02 (5.79E-04 - 1.68E-01)
47 4.74E-01 (2.42E-01 - 7.72E-01) 5.14E-01 (2.57E-01 - 8.35E-01)
48 4.52E-01 (1.51E-01 - 7.48E-01) 9.66E-01 (9.32E-01 - 1.00E+00)
49 3.42E-02 (2.58E-04 - 1.55E-01) 1.00E+00 (1.00E+00 - 1.00E+00)
50 1.55E-04 (5.17E-10 - 9.95E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
51 3.46E-06 (0. - 1.15E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 119 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.420 NU = 3.227 ZP = 47.872
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FIY RANGE OF FIY FCY RANGE OF FCY
44 8.63E-10 (0. - 1.65E-05) 8.63E-10 (0. - 1.65E-05)
45 1.14E-05 (1.02E-12 - 2.54E-03) 1.14E-05 (8.64E-10 - 2.54E-03)
46 7.13E-03 (5.61E-06 - 7.11E-02) 7.14E-03 (1.68E-05 - 7.12E-02)
47 2.44E-01 (3.85E-02 - 4.26E-01) 2.53E-01 (4.55E-02 - 4.44E-01)
48 6.10E-01 (4.10E-01 - 8.10E-01) 8.69E-01 (7.47E-01 - 1.00E+00)
49 1.25E-01 (7.31E-03 - 2.92E-01) 9.98E-01 (9.96E-01 - 1.00E+00)
50 1.62E-03 (1.55E-07 - 3.55E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
51 1.35E-06 (7.11E-15 - 8.25E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 120 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.410 NU = 3.213 ZP = 48.255
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FIY RANGE OF FIY FCY RANGE OF FCY
45 4.20E-07 (0. - 4.58E-04) 4.20E-07 (0. - 4.58E-04)
46 8.44E-04 (3.03E-08 - 2.35E-02) 8.44E-04 (4.50E-07 - 2.39E-02)
47 8.65E-02 (2.67E-03 - 2.43E-01) 8.78E-02 (3.51E-03 - 2.46E-01)
48 5.75E-01 (3.73E-01 - 8.25E-01) 6.67E-01 (4.44E-01 - 5.21E-01)
49 3.20E-01 (7.71E-02 - 5.55E-01) 9.87E-01 (9.73E-01 - 1.00E+00)
50 1.32E-02 (2.49E-05 - 9.73E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
51 3.13E-05 (1.13E-11 - 4.32E-03) 1.00E+00 (1.00E+00 - 1.00E+00)
52 3.56E-05 (0. - 3.52E-05) 1.00E+00 (1.00E+00 - 1.00E+00)

MASS 121 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.400 NU = 3.200 ZP = 48.645
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18
Z FIY RANGE OF FIY FCY RANGE OF FCY
45 5.71E-05 (0. - 6.02E-05) 9.77E-09 (5.29E-23 - 6.03E-05)
46 6.40E-03 (6.21E-11 - 6.21E-03) 6.40E-03 (9.83E-05 - 6.27E-03)
47 2.04E-02 (7.16E-05 - 1.20E-01) 7.04E-02 (1.35E-04 - 1.21E-01)
48 3.77E-01 (1.15E-01 - 6.51E-01) 3.98E-01 (1.75E-01 - 6.89E-01)
49 3.35E-01 (3.25E-01 - 8.15E-01) 9.37E-01 (8.75E-01 - 1.00E+00)
50 6.25E-02 (1.18E-03 - 2.05E-01) 1.00E+00 (9.99E-01 - 1.00E+00)
51 4.62E-04 (7.10E-09 - 1.75E-02) 1.00E+00 (1.00E+00 - 1.00E+00)
52 1.71E-07 (0. - 2.77E-04) 1.00E+00 (1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF PU-235 ALBAR METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 122 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.400 NU = 3.200 ZP = 49.037
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	2.95E-06	(4.26E-14 - 1.25E-03)	2.95E-06	(4.26E-14 - 1.25E-03)
47	3.03E-03	(6.71E-07 - 4.61E-02)	3.03E-03	(3.62E-06 - 4.61E-02)
48	1.66E-01	(1.38E-02 - 3.27E-01)	1.69E-01	(1.68E-02 - 3.36E-01)
49	6.27E-01	(4.34E-01 - 8.32E-01)	7.96E-01	(6.19E-01 - 9.71E-01)
50	2.00E-01	(2.23E-02 - 3.66E-01)	9.96E-01	(9.9E-01 - 1.00E+00)
51	4.48E-03	(1.74E-06 - 5.62E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
52	5.44E-06	(1.78E-13 - 1.72E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	3.11E-10	(0. - 9.56E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 123 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.230 NU = 2.973 ZP = 49.340
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	1.98E-07	(0. - 2.99E-04)	1.98E-07	(8.47E-22 - 2.99E-04)
47	5.10E-04	(8.99E-09 - 1.84E-02)	5.10E-04	(2.07E-07 - 1.84E-02)
48	6.64E-02	(1.36E-03 - 2.14E-01)	6.69E-02	(1.86E-03 - 2.16E-01)
49	5.46E-01	(3.39E-01 - 8.22E-01)	6.13E-01	(3.95E-01 - 8.99E-01)
50	3.68E-01	(1.07E-01 - 6.37E-01)	9.81E-01	(9.62E-01 - 1.00E+00)
51	1.91E-02	(6.07E-05 - 1.16E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
52	5.72E-05	(4.75E-11 - 5.91E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
53	8.32E-09	(0. - 5.53E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 124 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.070 NU = 2.760 ZP = 49.648
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	9.50E-09	(0. - 5.94E-05)	9.50E-09	(5.29E-23 - 5.94E-05)
47	6.27E-05	(5.93E-11 - 6.21E-03)	6.28E-05	(9.56E-09 - 6.21E-03)
48	2.01E-02	(6.56E-05 - 1.20E-01)	2.02E-02	(1.32E-04 - 1.20E-01)
49	3.76E-01	(1.13E-01 - 6.49E-01)	3.96E-01	(1.74E-01 - 6.87E-01)
50	5.40E-01	(3.27E-01 - 8.20E-01)	9.36E-01	(8.74E-01 - 1.00E+00)
51	6.35E-02	(1.21E-03 - 2.10E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
52	4.70E-04	(7.39E-09 - 1.77E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	1.76E-07	(0. - 2.80E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 125 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.840 NU = 2.453 ZP = 49.919
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
46	5.12E-10	(0. - 1.25E-05)	5.12E-10	(3.31E-24 - 1.25E-05)
47	7.80E-06	(4.19E-13 - 2.08E-03)	7.80E-06	(5.12E-10 - 2.08E-03)
48	5.63E-03	(3.03E-06 - 6.31E-02)	5.63E-03	(1.08E-05 - 6.32E-02)
49	2.21E-01	(2.52E-02 - 3.93E-01)	2.27E-01	(3.47E-02 - 4.08E-01)
50	6.23E-01	(4.24E-01 - 8.25E-01)	8.50E-01	(7.13E-01 - 1.00E+00)
51	1.47E-01	(1.02E-02 - 3.10E-01)	9.98E-01	(9.95E-01 - 1.00E+00)
52	2.38E-03	(3.72E-07 - 4.07E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	2.03E-06	(1.78E-14 - 1.02E-03)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 126 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.640 NU = 2.187 ZP = 50.206
DEVIATION FROM UCD = 0.00 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	6.72E-07	(0. - 5.71E-04)	6.73E-07	(3.39E-21 - 5.71E-04)
48	1.15E-02	(6.46E-08 - 2.81E-02)	1.15E-03	(7.37E-07 - 2.81E-02)
49	1.02E-01	(4.04E-03 - 2.63E-01)	1.04E-01	(5.19E-03 - 2.66E-01)
50	5.56E-01	(3.89E-01 - 8.17E-01)	7.00E-01	(4.71E-01 - 9.30E-01)
51	2.95E-01	(5.51E-02 - 5.07E-01)	9.90E-01	(9.79E-01 - 1.00E+00)
52	1.04E-02	(1.37E-05 - 8.62E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	2.10E-05	(4.39E-12 - 3.50E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	2.03E-05	(0. - 2.61E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 127 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.600 NU = 2.133 ZP = 50.517
DEVIATION FROM UCD = -0.06 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	3.56E-06	(0. - 1.02E-04)	3.56E-06	(2.32E-22 - 1.20E-04)
48	1.58E-04	(5.37E-10 - 1.00E-02)	1.58E-04	(3.62E-08 - 1.00E-02)
49	3.45E-02	(2.64E-04 - 1.56E-01)	3.46E-02	(4.21E-04 - 1.57E-01)
50	4.53E-01	(1.93E-01 - 7.50E-01)	4.88E-01	(2.30E-01 - 8.09E-01)
51	4.73E-01	(2.18E-01 - 7.70E-01)	9.60E-01	(9.21E-01 - 1.00E+00)
52	3.54E-02	(3.68E-04 - 1.67E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
53	2.00E-04	(5.43E-10 - 1.12E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	5.01E-06	(0. - 1.44E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 128 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.570 NU = 2.093 ZP = 50.502
DEVIATION FROM UCD = -0.45 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	4.14E-08	(5.55E-12 - 5.72E-06)	4.14E-08	(9.95E-12 - 5.72E-06)
48	1.75E-04	(2.34E-06 - 2.16E-03)	1.75E-04	(2.38E-06 - 2.16E-03)
49	3.66E-02	(7.11E-03 - 9.27E-02)	3.68E-02	(7.29E-03 - 9.29E-02)
50	4.62E-01	(3.44E-01 - 6.06E-01)	4.98E-01	(3.77E-01 - 6.54E-01)
51	6.64E-01	(3.46E-01 - 6.05E-01)	9.63E-01	(9.33E-01 - 1.00E+00)
52	3.72E-02	(7.30E-03 - 9.38E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
53	1.60E-04	(2.44E-06 - 2.23E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
54	4.22E-06	(1.06E-11 - 5.90E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 129 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.570 NU = 2.093 ZP = 50.883
DEVIATION FROM UCD = -0.46 +/- .15 SIGMA = .56 +/- .09

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
47	7.69E-10	(2.84E-14 - 3.25E-07)	7.69E-10	(2.84E-14 - 3.25E-07)
48	1.05E-05	(3.59E-08 - 2.96E-04)	1.05E-05	(3.63E-08 - 2.96E-04)
49	6.77E-03	(5.56E-04 - 2.87E-02)	6.78E-03	(5.56E-04 - 2.87E-02)
50	2.41E-01	(1.22E-01 - 3.30E-01)	2.47E-01	(1.29E-01 - 3.47E-01)
51	6.18E-01	(4.84E-01 - 7.45E-01)	8.65E-01	(7.80E-01 - 9.58E-01)
52	1.23E-01	(4.88E-02 - 2.26E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
53	1.54E-03	(8.48E-05 - 1.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	1.40E-06	(1.55E-09 - 7.35E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF PL-235 ALBAR METHOD
ESTIMATED FRACTIIONAL YIELDS
COD- EVEN 2 CORRECTION FACTOR = 1.00 +/- .15

MASS 130 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.570 NU = 2.093 ZP = 51.263
DEVIATION FROM LCD = -.47 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	4.03E-07	(2.86E-10 - 2.91E-05)	4.03E-07	(2.86E-10 - 2.91E-05)
49	8.21E-04	(2.35E-05 - 6.51E-03)	8.22E-04	(2.39E-05 - 6.51E-03)
50	8.57E-02	(2.47E-02 - 1.66E-01)	8.65E-02	(2.55E-02 - 1.67E-01)
51	5.77E-01	(4.42E-01 - 7.27E-01)	6.64E-01	(5.35E-01 - 7.74E-01)
52	3.22E-01	(1.94E-01 - 4.28E-01)	9.86E-01	(9.74E-01 - 1.00E+00)
53	1.36E-02	(1.58E-03 - 4.66E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
54	3.24E-05	(1.90E-07 - 6.61E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
55	3.72E-09	(2.88E-13 - 1.02E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 131 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.720 NU = 2.293 ZP = 51.719
DEVIATION FROM LCD = -.49 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
48	4.49E-09	(3.80E-13 - 1.17E-06)	4.49E-09	(3.80E-13 - 1.17E-06)
49	3.70E-05	(2.31E-07 - 7.26E-04)	3.70E-05	(2.36E-07 - 7.26E-04)
50	1.47E-02	(1.79E-03 - 4.92E-01)	1.47E-02	(1.82E-03 - 4.93E-01)
51	3.33E-01	(2.04E-01 - 4.42E-01)	3.48E-01	(2.18E-01 - 4.62E-01)
52	5.71E-01	(4.36E-01 - 7.21E-01)	9.18E-01	(8.60E-01 - 9.58E-01)
53	8.09E-02	(2.26E-02 - 1.60E-01)	9.99E-01	(9.99E-01 - 1.00E+00)
54	7.37E-04	(2.77E-05 - 6.03E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
55	3.43E-07	(2.25E-10 - 2.59E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 132 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 1.850 NU = 2.467 ZP = 52.166
DEVIATION FROM LCD = -.50 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	9.67E-07	(1.04E-09 - 5.43E-05)	9.67E-07	(1.04E-09 - 5.43E-05)
50	1.47E-03	(5.60E-05 - 9.80E-03)	1.47E-03	(5.69E-05 - 9.83E-03)
51	1.16E-01	(3.93E-02 - 2.04E-01)	1.17E-01	(4.07E-02 - 2.06E-01)
52	6.07E-01	(4.72E-01 - 7.46E-01)	7.25E-01	(6.02E-01 - 8.24E-01)
53	2.67E-01	(1.44E-01 - 3.63E-01)	9.91E-01	(9.84E-01 - 1.00E+00)
54	8.58E-03	(7.94E-04 - 3.38E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
55	1.53E-05	(6.26E-08 - 3.89E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.31E-09	(6.39E-14 - 4.82E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 133 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.000 NU = 2.667 ZP = 52.622
DEVIATION FROM LCD = -.51 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
49	1.24E-08	(1.68E-12 - 2.41E-06)	1.24E-08	(1.68E-12 - 2.41E-06)
50	7.55E-05	(6.68E-07 - 1.20E-03)	7.55E-05	(6.80E-07 - 1.20E-03)
51	2.25E-02	(3.40E-03 - 6.62E-02)	2.25E-02	(3.47E-03 - 6.63E-02)
52	3.51E-01	(2.64E-01 - 5.19E-01)	4.14E-01	(2.85E-01 - 5.48E-01)
53	5.28E-01	(3.99E-01 - 6.80E-01)	9.42E-01	(8.98E-01 - 1.00E+00)
54	5.81E-02	(1.44E-02 - 1.27E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
55	3.59E-04	(7.99E-06 - 3.91E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.38E-07	(5.89E-11 - 1.35E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 124 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.140 NU = 2.853 ZP = 52.074
DEVIATION FROM LCD = -.53 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	2.16E-04	(3.42E-09 - 9.62E-05)	2.16E-04	(3.42E-09 - 9.62E-05)
51	2.46E-03	(1.23E-04 - 1.42E-02)	2.48E-03	(1.25E-04 - 1.42E-02)
52	1.50E-01	(5.85E-02 - 2.46E-01)	1.53E-01	(6.14E-02 - 2.46E-01)
53	6.24E-01	(4.93E-01 - 7.45E-01)	7.77E-01	(6.64E-01 - 8.77E-01)
54	2.16E-01	(1.05E-01 - 3.16E-01)	9.95E-01	(9.90E-01 - 1.00E+00)
55	5.42E-03	(3.58E-04 - 2.45E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	7.35E-04	(2.10E-08 - 2.30E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
57	4.72E-10	(1.42E-14 - 2.32E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 125 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.180 NU = 2.907 ZP = 52.474
DEVIATION FROM LCD = -.54 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	5.45E-06	(1.49E-11 - 6.97E-06)	5.45E-06	(1.49E-11 - 6.97E-06)
51	2.11E-04	(3.10E-06 - 2.50E-03)	2.11E-04	(3.15E-06 - 2.50E-03)
52	4.00E-02	(8.38E-03 - 9.95E-02)	4.10E-02	(8.59E-03 - 1.00E-01)
53	4.77E-01	(3.50E-01 - 6.25E-01)	5.18E-01	(3.95E-01 - 6.70E-01)
54	4.46E-01	(3.28E-01 - 5.90E-01)	9.67E-01	(9.39E-01 - 1.00E+00)
55	3.22E-02	(6.18E-03 - 8.70E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
56	1.45E-04	(1.03E-06 - 1.95E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
57	3.27E-08	(7.04E-12 - 4.84E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 126 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.210 NU = 2.947 ZP = 52.870
DEVIATION FROM LCD = -.55 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
50	8.66E-10	(3.55E-14 - 3.64E-07)	8.66E-10	(3.55E-14 - 3.64E-07)
51	1.16E-05	(4.13E-08 - 3.15E-04)	1.16E-05	(4.22E-08 - 3.19E-04)
52	7.21E-03	(6.11E-04 - 3.00E-02)	7.22E-03	(6.23E-04 - 3.00E-02)
53	2.47E-01	(1.28E-01 - 3.45E-01)	2.55E-01	(1.35E-01 - 3.55E-01)
54	6.15E-01	(4.81E-01 - 7.45E-01)	8.70E-01	(7.87E-01 - 9.63E-01)
55	1.26E-01	(4.61E-02 - 2.21E-01)	9.98E-01	(9.96E-01 - 1.00E+00)
56	1.60E-03	(7.60E-05 - 1.13E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	1.22E-06	(1.66E-09 - 6.78E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 127 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.210 NU = 2.947 ZP = 54.250
DEVIATION FROM LCD = -.56 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	4.52E-07	(3.40E-10 - 3.16E-05)	4.53E-07	(3.40E-10 - 3.16E-05)
52	8.66E-04	(2.64E-05 - 6.80E-03)	8.88E-04	(2.69E-05 - 6.88E-03)
53	8.53E-02	(2.63E-02 - 1.71E-01)	9.02E-02	(2.71E-02 - 1.72E-01)
54	5.82E-01	(4.46E-01 - 7.30E-01)	6.72E-01	(5.44E-01 - 7.80E-01)
55	3.15E-01	(1.87E-01 - 4.18E-01)	9.87E-01	(9.76E-01 - 1.00E+00)
56	1.26E-02	(1.45E-03 - 4.47E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
57	2.54E-05	(1.64E-07 - 6.17E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
58	3.25E-09	(2.38E-13 - 9.24E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF PL-235 ALBAR METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 138 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.210 NU = 2.947 ZP = 54.631
DEVIATION FROM UCD = -.57 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
51	1.13E-08	(1.48E-12 - 1.15E-03)	1.13E-08	(1.48E-12 - 2.26E-C6)
52	7.10E-05	(6.11E-07 - 1.15E-03)	7.10E-05	(6.22E-07 - 1.15E-C3)
53	2.17E-02	(3.22E-03 - 6.46E-02)	2.18E-02	(3.29E-03 - 6.46E-C2)
54	3.86E-01	(2.58E-01 - 5.12E-01)	4.08E-01	(2.79E-01 - 5.41E-C1)
55	5.32E-01	(4.02E-01 - 6.84E-01)	9.40E-01	(8.94E-01 - 1.00E+CC)
56	5.98E-02	(1.41E-02 - 1.30E-01)	1.00E+00	(9.99E-01 - 1.00E+CC)
57	4.21E-04	(8.67E-06 - 4.07E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)
58	1.50E-07	(6.62E-11 - 1.43E-05)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 139 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.300 NU = 3.067 ZP = 55.057
DEVIATION FROM UCD = -.59 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	2.49E-06	(4.24E-09 - 1.07E-04)	2.49E-06	(4.24E-09 - 1.07E-C4)
53	2.72E-03	(1.41E-04 - 1.51E-02)	2.72E-03	(1.44E-04 - 1.51E-C2)
54	1.57E-01	(6.32E-02 - 2.54E-01)	1.60E-01	(6.59E-02 - 2.57E-C1)
55	6.26E-01	(4.96E-01 - 7.51E-01)	7.86E-01	(6.75E-01 - 8.86E-C1)
56	2.09E-01	(9.85E-02 - 3.08E-01)	9.95E-01	(9.90E-01 - 1.00E+CC)
57	4.97E-03	(3.49E-04 - 2.31E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)
58	6.40E-06	(1.71E-08 - 2.09E-04)	1.00E+00	(1.00E+00 - 1.00E+CC)
59	3.50E-10	(1.07E-14 - 2.02E-07)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 140 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.350 NU = 3.133 ZP = 35.462
DEVIATION FROM UCD = -.60 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	6.12E-08	(1.77E-11 - 7.57E-06)	6.12E-08	(1.77E-11 - 7.57E-C6)
53	2.29E-04	(3.49E-06 - 2.64E-03)	2.29E-04	(3.55E-06 - 2.64E-C3)
54	4.26E-02	(8.97E-03 - 1.03E-01)	4.29E-02	(9.20E-03 - 1.03E-C1)
55	4.84E-01	(3.64E-01 - 6.32E-01)	5.27E-01	(4.02E-01 - 6.77E-C1)
56	4.41E-01	(3.19E-01 - 5.82E-01)	9.68E-01	(9.42E-01 - 1.00E+CC)
57	3.18E-02	(5.75E-03 - 8.42E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)
58	1.37E-04	(1.62E-06 - 1.84E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)
59	2.91E-08	(5.91E-12 - 4.44E-06)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 141 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.400 NU = 3.200 ZP = 55.868
DEVIATION FROM UCD = -.61 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
52	9.03E-10	(3.91E-14 - 3.70E-07)	9.03E-10	(3.91E-14 - 3.70E-C7)
53	1.18E-05	(4.22E-08 - 3.22E-04)	1.18E-05	(4.31E-08 - 3.22E-C4)
54	7.27E-03	(6.19E-04 - 3.02E-02)	7.29E-03	(6.31E-04 - 3.02E-C2)
55	2.48E-01	(1.29E-01 - 3.46E-01)	2.56E-01	(1.36E-01 - 3.56E-C1)
56	6.15E-01	(4.80E-01 - 7.49E-01)	8.70E-01	(7.88E-01 - 9.63E-C1)
57	1.28E-01	(4.57E-02 - 2.20E-01)	9.98E-01	(9.97E-01 - 1.00E+CC)
58	1.78E-03	(7.49E-05 - 1.12E-02)	1.00E+00	(1.00E+00 - 1.00E+CC)
59	1.30E-06	(1.62E-09 - 6.71E-05)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 142 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.720 NU = 3.627 ZP = 56.411
DEVIATION FROM UCD = -.63 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	1.01E-C7	(3.71E-11 - 1.00E-C5)	1.01E-07	(3.71E-11 - 1.00E-C5)
54	3.22E-C4	(5.81E-C6 - 3.37E-03)	3.23E-04	(5.92E-06 - 3.37E-C3)
55	5.16E-C2	(1.20E-C2 - 1.18E-C1)	5.20E-02	(1.23E-02 - 1.18E-C1)
56	5.11E-C1	(3.85E-C1 - 6.63E-C1)	5.63E-01	(4.36E-01 - 7.04E-C1)
57	4.11E-C1	(2.85E-C1 - 5.44E-C1)	9.74E-01	(9.53E-01 - 1.00E+CC)
58	2.58E-C2	(4.18E-C3 - 7.25E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)
59	5.54E-C5	(5.47E-C7 - 1.42E-03)	1.00E+00	(1.00E+00 - 1.00E+CC)
60	1.73E-C6	(2.75E-12 - 3.06E-C6)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 143 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.740 NU = 3.653 ZP = 56.801
DEVIATION FROM UCD = -.64 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
53	1.07E-C5	(1.07E-13 - 6.23E-C7)	1.87E-09	(1.07E-13 - 6.23E-C7)
54	1.58E-C5	(5.18E-C8 - 4.67E-C4)	1.98E-05	(9.36E-08 - 4.67E-C4)
55	1.01E-C2	(1.01E-C3 - 3.78E-C2)	1.01E-02	(1.03E-03 - 3.78E-C2)
56	2.05E-01	(1.60E-C1 - 3.83E-C1)	2.95E-01	(1.70E-01 - 3.57E-C1)
57	5.55E-C1	(4.62E-C1 - 7.42E-C1)	8.94E-01	(8.23E-01 - 9.60E-C1)
58	1.05E-C1	(3.37E-C2 - 1.91E-C1)	9.99E-01	(9.98E-01 - 1.00E+CC)
59	1.21E-C3	(4.18E-C5 - 8.55E-C3)	1.00E+00	(1.00E+00 - 1.00E+CC)
60	7.20E-C7	(6.75E-10 - 4.40E-C5)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 144 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.800 NU = 3.733 ZP = 57.212
DEVIATION FROM UCD = -.65 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	6.40E-C7	(5.67E-10 - 4.05E-C5)	6.40E-07	(5.67E-10 - 4.05E-C5)
55	1.12E-C3	(3.72E-C5 - 8.05E-C3)	1.12E-03	(3.78E-05 - 8.05E-C3)
56	1.01E-C1	(3.16E-C2 - 1.85E-C1)	1.02E-01	(3.27E-02 - 1.67E-C1)
57	5.55E-C1	(4.58E-C1 - 7.35E-C1)	6.96E-01	(5.70E-01 - 8.00E-C1)
58	2.53E-C1	(1.67E-C1 - 3.92E-C1)	9.89E-01	(9.80E-01 - 1.00E+CC)
59	1.07E-C2	(1.11E-C3 - 3.95E-C2)	1.00E+00	(1.00E+00 - 1.00E+CC)
60	2.20E-C5	(1.07E-C7 - 5.02E-C4)	1.00E+00	(1.00E+00 - 1.00E+CC)
61	2.16E-C5	(1.31E-13 - 6.91E-C7)	1.00E+00	(1.00E+00 - 1.00E+CC)

MASS 145 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 2.850 NU = 3.800 ZP = 57.618
DEVIATION FROM UCD = -.66 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
54	1.25E-C6	(1.79E-12 - 2.45E-C6)	1.29E-08	(1.79E-12 - 2.49E-C6)
55	7.75E-C5	(7.00E-C7 - 1.23E-C3)	7.79E-05	(7.13E-07 - 1.23E-C3)
56	2.25E-C2	(3.49E-C3 - 6.70E-C2)	2.30E-02	(3.57E-03 - 6.71E-C2)
57	3.54E-C1	(2.66E-C1 - 5.22E-C1)	4.17E-01	(2.88E-01 - 5.52E-C1)
58	5.26E-C1	(3.97E-C1 - 6.78E-C1)	9.42E-01	(8.99E-01 - 1.00E+CC)
59	5.72E-C2	(1.40E-C2 - 1.26E-C1)	1.00E+00	(9.99E-01 - 1.00E+CC)
60	3.88E-C4	(7.66E-C6 - 3.84E-C3)	1.00E+00	(1.00E+00 - 1.00E+CC)
61	1.32E-C7	(5.53E-11 - 1.31E-C5)	1.00E+00	(1.00E+00 - 1.00E+CC)

14.6 MEV NEUTRON FISSION OF PL-235 ALBAR METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 146 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.000 NU = 4.000 ZP = 50.074
DEVIATION FROM UCD = -.68 +/- .15 SIGMA = .56 +/- .05

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	2.15E-06	(3.39E-09 - 9.59E-05)	2.15E-06	(3.39E-09 - 9.59E-05)
56	2.47E-03	(1.22E-04 - 1.41E-02)	2.47E-03	(1.24E-04 - 1.41E-02)
57	1.50E-01	(5.87E-02 - 2.45E-01)	1.53E-01	(6.12E-02 - 2.49E-01)
58	6.24E-01	(4.93E-01 - 7.49E-01)	7.76E-01	(6.63E-01 - 8.77E-01)
59	2.18E-01	(1.05E-01 - 3.16E-01)	9.95E-01	(9.90E-01 - 1.00E+00)
60	5.44E-03	(4.00E-04 - 2.46E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
61	7.39E-06	(2.12E-08 - 2.31E-04)	1.00E+00	(1.00E+00 - 1.00E+00)
62	4.75E-10	(1.42E-14 - 2.33E-07)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 147 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.130 NU = 4.173 ZP = 58.521
DEVIATION FROM UCD = -.69 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
55	3.45E-08	(0. - 1.18E-04)	3.45E-08	(2.12E-22 - 1.18E-04)
56	1.54E-04	(5.09E-10 - 9.92E-03)	1.54E-04	(3.50E-08 - 9.92E-03)
57	3.40E-02	(2.55E-04 - 1.55E-01)	3.42E-02	(4.09E-04 - 1.56E-01)
58	4.51E-01	(1.90E-01 - 7.48E-01)	4.85E-01	(2.28E-01 - 8.06E-01)
59	4.74E-01	(2.20E-01 - 7.77E-01)	9.60E-01	(9.20E-01 - 1.00E+00)
60	3.59E-02	(3.80E-04 - 1.68E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
61	2.04E-04	(9.95E-10 - 1.15E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	5.17E-08	(0. - 1.46E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 148 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.350 NU = 4.467 ZP = 59.012
DEVIATION FROM UCD = -.70 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	3.62E-06	(6.75E-14 - 1.39E-03)	3.62E-06	(6.75E-14 - 1.39E-03)
57	3.45E-03	(9.23E-07 - 4.93E-02)	3.46E-03	(4.54E-06 - 4.93E-02)
58	1.77E-01	(1.63E-02 - 3.37E-01)	1.80E-01	(1.97E-02 - 3.47E-01)
59	6.28E-01	(4.39E-01 - 8.34E-01)	8.08E-01	(6.39E-01 - 9.79E-01)
60	1.88E-01	(1.51E-02 - 3.52E-01)	9.96E-01	(9.92E-01 - 1.00E+00)
61	3.55E-03	(1.28E-06 - 5.27E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
62	4.46E-06	(1.14E-13 - 1.55E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
63	2.37E-10	(0. - 8.25E-06)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 149 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.370 NU = 4.493 ZP = 59.403
DEVIATION FROM UCD = -.72 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	1.09E-07	(0. - 2.17E-04)	1.09E-07	(4.24E-22 - 2.17E-04)
57	3.39E-04	(3.37E-09 - 1.49E-02)	3.39E-04	(1.12E-07 - 1.49E-02)
58	5.31E-02	(2.73E-04 - 1.92E-01)	5.34E-02	(1.11E-03 - 1.94E-01)
59	5.15E-01	(2.83E-01 - 8.06E-01)	5.69E-01	(3.30E-01 - 8.74E-01)
60	4.06E-01	(1.41E-01 - 6.92E-01)	9.75E-01	(9.50E-01 - 1.00E+00)
61	2.50E-02	(1.18E-04 - 1.33E-01)	1.00E+00	(1.00E+00 - 1.00E+00)
62	9.03E-05	(1.41E-10 - 7.50E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
63	1.60E-08	(0. - 7.83E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 150 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.400 NU = 4.533 ZP = 59.799
DEVIATION FROM UCD = -.73 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
56	1.53E-05	(0. - 2.53E-05)	1.93E-09	(1.32E-23 - 2.53E-05)
57	2.03E-05	(4.01E-12 - 3.43E-03)	2.03E-05	(1.93E-05 - 3.43E-03)
58	1.02E-02	(1.30E-05 - 8.51E-02)	1.02E-02	(3.32E-05 - 8.52E-02)
59	2.87E-01	(5.76E-02 - 5.02E-01)	2.97E-01	(6.76E-02 - 5.24E-01)
60	5.58E-01	(3.51E-01 - 8.16E-01)	8.95E-01	(7.95E-01 - 1.00E+00)
61	1.04E-01	(4.20E-03 - 2.65E-01)	9.95E-01	(9.98E-01 - 1.00E+00)
62	1.15E-03	(6.94E-08 - 2.85E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
63	7.04E-07	(0. - 5.85E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 151 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.280 NU = 4.373 ZP = 60.118
DEVIATION FROM UCD = -.74 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	1.47E-06	(1.07E-14 - 8.62E-04)	1.47E-06	(1.07E-14 - 8.62E-04)
58	1.53E-02	(2.24E-07 - 3.66E-02)	1.93E-03	(1.69E-06 - 3.66E-02)
59	1.23E-01	(7.85E-03 - 2.96E-01)	1.35E-01	(9.76E-03 - 3.02E-01)
60	6.18E-01	(4.14E-01 - 8.14E-01)	7.52E-01	(5.48E-01 - 9.41E-01)
61	2.41E-01	(3.64E-02 - 4.15E-01)	9.93E-01	(9.86E-01 - 1.00E+00)
62	6.75E-03	(4.80E-06 - 6.94E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
63	1.05E-05	(8.45E-13 - 2.44E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
64	7.75E-10	(0. - 1.56E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 152 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.400 NU = 4.533 ZP = 60.559
DEVIATION FROM UCD = -.75 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
57	2.24E-08	(0. - 9.60E-05)	2.34E-08	(0. - 9.60E-05)
58	1.18E-04	(2.67E-10 - 8.62E-03)	1.18E-04	(2.37E-08 - 8.62E-03)
59	2.52E-02	(1.74E-04 - 1.44E-01)	2.93E-02	(2.91E-04 - 1.44E-01)
60	4.25E-01	(1.64E-01 - 7.21E-01)	4.58E-01	(2.09E-01 - 7.72E-01)
61	4.56E-01	(2.51E-01 - 7.91E-01)	9.54E-01	(9.08E-01 - 1.00E+00)
62	4.62E-02	(5.47E-04 - 1.80E-01)	1.00E+00	(9.99E-01 - 1.00E+00)
63	2.65E-04	(1.86E-09 - 1.31E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	7.55E-08	(0. - 1.79E-04)	1.00E+00	(1.00E+00 - 1.00E+00)

MASS 153 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.700 NU = 4.933 ZP = 61.092
DEVIATION FROM UCD = -.77 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	1.84E-06	(1.42E-14 - 9.73E-04)	1.84E-06	(1.42E-14 - 9.73E-04)
59	2.24E-03	(3.20E-07 - 3.95E-02)	2.24E-03	(2.16E-06 - 3.95E-02)
60	1.42E-01	(9.46E-03 - 3.06E-01)	1.45E-01	(1.17E-02 - 3.13E-01)
61	6.22E-01	(4.21E-01 - 8.22E-01)	7.67E-01	(5.71E-01 - 9.49E-01)
62	2.27E-01	(3.12E-02 - 4.00E-01)	9.94E-01	(9.88E-01 - 1.00E+00)
63	5.55E-03	(3.48E-06 - 6.45E-02)	1.00E+00	(1.00E+00 - 1.00E+00)
64	8.53E-06	(5.15E-13 - 2.18E-03)	1.00E+00	(1.00E+00 - 1.00E+00)
65	5.75E-10	(0. - 1.33E-05)	1.00E+00	(1.00E+00 - 1.00E+00)

14.6 MEV NEUTRON FISSION OF PL-235 ALPAR METHOD
ESTIMATED FRACTIONAL YIELDS
ODD-EVEN Z CORRECTION FACTOR = 1.00 +/- .15

MASS 154 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.800 NU = 5.067 ZP = 61.523
DEVIATION FROM UCD = -.78 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	3.37E-08 (0.	- 1.17E-04)	3.37E-08 (2.12E-22	- 1.17E-04)
59	1.52E-04 (4.89E-10	- 9.83E-03)	1.52E-04 (3.42E-08	- 9.83E-03)
60	3.37E-02 (2.49E-04	- 1.54E-01)	3.39E-02 (4.01E-04	- 1.55E-01)
61	4.50E-01 (1.89E-01	- 7.46E-01)	4.84E-01 (2.27E-01	- 8.04E-01)
62	4.76E-01 (2.22E-01	- 7.74E-01)	9.59E-01 (9.20E-01	- 1.00E+00)
63	4.03E-02 (3.89E-04	- 1.68E-01)	1.00E+00 (1.00E+00	- 1.00E+00)
64	2.07E-04 (1.03E-09	- 1.16E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
65	5.30E-08 (0.	- 1.48E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 155 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.800 NU = 5.067 ZP = 61.903
DEVIATION FROM UCD = -.79 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
58	6.11E-10 (0.	- 1.37E-05)	6.11E-10 (3.31E-24	- 1.37E-05)
59	8.87E-06 (5.65E-13	- 2.23E-03)	8.87E-06 (6.11E-10	- 2.23E-03)
60	6.10E-03 (3.69E-06	- 6.57E-02)	6.11E-03 (1.26E-05	- 6.58E-02)
61	2.30E-01 (3.21E-02	- 4.02E-01)	2.36E-01 (3.81E-02	- 4.19E-01)
62	6.21E-01 (4.20E-01	- 8.21E-01)	8.57E-01 (7.25E-01	- 1.00E+00)
63	1.41E-01 (9.14E-03	- 3.04E-01)	9.98E-01 (9.96E-01	- 1.00E+00)
64	2.18E-03 (3.00E-07	- 3.89E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
65	1.77E-06 (1.42E-14	- 9.52E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 156 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.800 NU = 5.067 ZP = 62.284
DEVIATION FROM UCD = -.80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	3.31E-07 (0.	- 3.92E-04)	3.31E-07 (1.69E-21	- 3.92E-04)
60	7.20E-04 (2.06E-08	- 2.20E-02)	7.20E-04 (3.51E-07	- 2.20E-02)
61	7.99E-02 (2.16E-03	- 2.34E-01)	8.06E-02 (2.88E-03	- 2.36E-01)
62	5.69E-01 (3.65E-01	- 8.26E-01)	6.50E-01 (4.31E-01	- 9.15E-01)
63	3.35E-01 (8.24E-02	- 5.85E-01)	9.85E-01 (9.70E-01	- 1.00E+00)
64	1.49E-02 (3.33E-05	- 1.03E-01)	1.00E+00 (1.00E+00	- 1.00E+00)
65	3.80E-05 (1.80E-11	- 4.78E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
66	4.68E-09 (0.	- 4.07E-05)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 157 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.800 NU = 5.067 ZP = 62.676
DEVIATION FROM UCD = -.80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
59	7.07E-09 (0.	- 5.07E-05)	7.07E-09 (2.65E-23	- 5.07E-05)
60	5.10E-05 (3.61E-11	- 5.57E-03)	5.10E-05 (7.11E-09	- 5.57E-03)
61	1.78E-02 (5.13E-05	- 1.13E-01)	1.79E-02 (1.02E-04	- 1.13E-01)
62	3.59E-01 (9.94E-02	- 6.23E-01)	3.77E-01 (1.64E-01	- 6.57E-01)
63	5.53E-01 (3.51E-01	- 8.24E-01)	9.29E-01 (8.61E-01	- 1.00E+00)
64	7.01E-02 (1.55E-03	- 2.20E-01)	9.99E-01 (9.99E-01	- 1.00E+00)
65	5.63E-04 (1.14E-08	- 1.94E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
66	2.30E-07 (0.	- 3.23E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 158 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.800 NU = 5.067 ZP = 63.068
DEVIATION FROM UCD = -.80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
60	2.27E-06 (2.49E-14	- 1.08E-03)	2.27E-06 (2.49E-14	- 1.08E-03)
61	2.56E-03 (4.43E-07	- 4.22E-02)	2.56E-03 (2.71E-06	- 4.23E-02)
62	1.53E-01 (1.12E-02	- 3.15E-01)	1.55E-01 (1.37E-02	- 3.23E-01)
63	6.25E-01 (4.27E-01	- 8.26E-01)	7.80E-01 (5.92E-01	- 9.59E-01)
64	2.15E-01 (2.70E-02	- 3.85E-01)	9.95E-01 (9.89E-01	- 1.00E+00)
65	5.26E-02 (2.58E-06	- 6.16E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
66	7.02E-06 (3.27E-13	- 1.97E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
67	4.42E-10 (0.	- 1.15E-05)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 159 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.800 NU = 5.067 ZP = 63.459
DEVIATION FROM UCD = -.80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
60	6.25E-06 (0.	- 1.63E-04)	6.29E-06 (4.24E-22	- 1.63E-04)
61	2.23E-04 (1.37E-09	- 1.23E-02)	2.33E-04 (6.43E-08	- 1.23E-02)
62	4.31E-02 (4.59E-04	- 1.74E-01)	4.33E-02 (6.92E-04	- 1.75E-01)
63	4.86E-01 (2.38E-01	- 7.83E-01)	5.29E-01 (2.76E-01	- 8.46E-01)
64	4.40E-01 (1.76E-01	- 7.34E-01)	9.68E-01 (9.37E-01	- 1.00E+00)
65	3.14E-02 (2.10E-04	- 1.45E-01)	1.00E+00 (1.00E+00	- 1.00E+00)
66	1.34E-04 (3.65E-10	- 9.23E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
67	2.82E-08 (0.	- 1.06E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 160 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.800 NU = 5.067 ZP = 63.851
DEVIATION FROM UCD = -.80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
60	1.05E-05 (0.	- 1.87E-05)	1.09E-05 (6.62E-24	- 1.87E-05)
61	1.34E-05 (1.51E-12	- 2.77E-03)	1.34E-05 (1.09E-09	- 2.77E-03)
62	7.50E-03 (6.96E-06	- 7.50E-02)	7.92E-03 (2.04E-05	- 7.50E-02)
63	2.57E-01 (4.33E-02	- 4.48E-01)	2.65E-01 (5.11E-02	- 4.67E-01)
64	6.11E-01 (4.06E-01	- 8.02E-01)	8.77E-01 (7.61E-01	- 1.00E+00)
65	1.22E-01 (6.26E-03	- 2.84E-01)	9.98E-01 (9.97E-01	- 1.00E+00)
66	1.62E-02 (1.46E-07	- 3.34E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
67	1.12E-06 (7.11E-15	- 7.46E-04)	1.00E+00 (1.00E+00	- 1.00E+00)

MASS 161 FISSION PRODUCT CHAIN

NU BAR = 5.000 NU REF = 3.800 NU = 5.067 ZP = 64.243
DEVIATION FROM UCD = -.80 +/- .30 SIGMA = .56 +/- .18

Z	FIY	RANGE OF FIY	FCY	RANGE OF FCY
61	4.85E-07 (0.	- 4.80E-04)	4.85E-07 (3.39E-21	- 4.80E-04)
62	9.28E-04 (3.81E-08	- 2.51E-02)	9.29E-04 (5.23E-07	- 2.51E-02)
63	9.14E-02 (3.03E-03	- 2.49E-01)	9.24E-02 (3.96E-03	- 2.52E-01)
64	5.85E-01 (3.78E-01	- 8.23E-01)	6.77E-01 (4.52E-01	- 9.24E-01)
65	3.11E-01 (7.13E-02	- 5.44E-01)	9.88E-01 (9.75E-01	- 1.00E+00)
66	1.24E-02 (2.08E-05	- 9.38E-02)	1.00E+00 (1.00E+00	- 1.00E+00)
67	2.78E-05 (8.51E-12	- 4.05E-03)	1.00E+00 (1.00E+00	- 1.00E+00)
68	3.01E-09 (0.	- 3.21E-05)	1.00E+00 (1.00E+00	- 1.00E+00)

14.6 MEV NEUTRON FISSION CF PL-235

ZP VALUES

(1) FROM DEVIATION FROM UCD - SCALE N (A) ACCORDING TO N.B.A.P. (2) FROM CORRECTION DELTA TO

117	47.16	46.59	47.16	C.00
118	47.48	47.34	47.51	C.00
119	47.87	47.64	47.81	C.00
120	48.26	47.55	48.12	C.00
121	48.64	48.25	48.42	C.00
122	48.04	48.55	48.72	C.00
123	49.34	48.92	49.05	C.00
124	49.65	49.08	49.25	C.00
125	49.92	49.36	49.53	C.00
126	50.21	49.66	49.83	C.00
127	50.52	49.57	50.14	C.00
128	50.50	50.31	50.48	C.00
129	50.88	50.67	50.84	C.00
130	51.26	51.04	51.21	C.00
131	51.72	51.45	51.62	C.00
132	52.17	51.66	52.03	C.00
133	52.62	52.30	52.47	C.00
134	53.07	52.77	52.94	C.00
135	53.47	53.21	53.38	C.00
136	53.87	53.63	53.80	C.00
137	54.25	54.04	54.21	C.00
138	54.63	54.44	54.61	C.00
139	55.06	54.84	55.01	C.00
140	55.46	55.24	55.41	C.00
141	55.87	55.64	55.81	C.00
142	56.41	56.04	56.21	C.00
143	56.80	56.43	56.60	C.00
144	57.21	56.83	57.00	C.00
145	57.62	57.23	57.40	C.00
146	58.07	57.65	57.82	C.00
147	58.52	58.11	58.28	C.00
148	58.91	58.53	58.70	C.00
149	59.40	58.94	59.11	C.00
150	59.80	59.35	59.52	C.00
151	60.12	59.74	59.91	C.00
152	60.56	60.14	60.31	C.00
153	61.05	60.53	60.70	C.00
154	61.52	60.92	61.05	C.00
155	61.90	61.28	61.45	C.00
156	62.28	61.61	61.78	C.00
157	62.68	61.96	62.13	C.00
158	63.07	62.34	62.51	C.00
159	63.46	62.73	62.90	C.00
160	63.85	63.12	63.25	C.00
161	64.24	63.51	63.68	C.00

14.6 MEV NEUTRON FISSION OF PL-239 NLFAR METHOD

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY		PROCESS	TYPE	PRIMARY YIELD	PRIMARY REF.	SECONDARY REFERENCE OR COMMENTS	ESTIMATED		FIT
				PLUS	MINUS						VALUE	RANGE	
54	X	E133	1.200E-01	1.000E-03	1.000E-03	PU23SH	FI	72ALE1	K-A72-1	5.6C9E-02 (1.437E-C2 - 1.275E-C1)	YES		
54	X	E135	4.600E-01	3.000E-02	3.000E-02	PU239H	FI	72ALE1	K-A72-1	4.4E1E-01 (3.275E-C1 - 5.859E-C1)	YES		
55	C	S136	1.580E-01	1.600E-02	1.600E-02	PU23SH	FI	72KNO1	K-K72-2	1.2E4E-01 (4.609E-C2 - 2.207E-C1)	YES		
55	C	S136	1.510E-01	8.000E-03	8.000E-03	PU239H	FI	72PRI1	K-CN73-1-63 PRINDLE	1.2E4E-01 (4.609E-C2 - 2.207E-C1)	YES		

OTHER INDEPENDENT AND CUMULATIVE YIELDS

Z	A	ISCHER	EXPL. VALUE	UNCERTAINTY PLUS	MINUS	PROCESS YIELD	TYPE	PRIMARY REF.	SECONDARY REFERENCE CR COMMENTS
36KR 87			3.600E-01	3.000E-02	3.000E-02	U235T	IN	72EPR1	K-E72-1 PERCENT
36KR 88			1.200E+00	1.000E-01	1.000E-01	U235T	IN	72EPR1	K-E72-1 PERCENT
36KR 89			3.200E+00	1.900E-01	1.900E-01	U235T	IN	72EPR1	K-E72-1 PERCENT
36KR 90			3.700E+00	4.800E-01	4.800E-01	U235T	IN	72EPR1	K-E72-1 PERCENT
36KR 91			3.230E+00	9.000E-02	9.000E-02	U235T	IN	72EPR1	K-E72-1 PERCENT
36KR 92			1.480E+00	7.000E-02	7.000E-02	U235T	IN	72EPR1	K-E72-1 PERCENT
36KR 93			5.300E-01	3.000E-02	3.000E-02	U235T	IN	72EPR1	K-E72-1 PERCENT
36KR 94			2.600E-01	2.000E-02	2.000E-02	U235T	IN	72EPR1	K-E72-1 PERCENT
54XE137			2.570E+00	4.000E-01	4.000E-01	U235T	IN	72EPR1	K-E72-1 PERCENT
54XE138			5.030E+00	6.200E-01	6.200E-01	U235T	IN	72EPR1	K-E72-1 PERCENT
54XE139			5.160E+00	5.000E-01	5.000E-01	U235T	IN	72EPR1	K-E72-1 PERCENT
54XE140			2.520E+00	4.300E-01	4.300E-01	U235T	IN	72EPR1	K-E72-1 PERCENT
54XE141			1.190E+00	1.900E-01	1.900E-01	U235T	IN	72EPR1	K-E72-1 PERCENT
54XE142			6.300E-01	1.000E-01	1.000E-01	U235T	IN	72EPR1	K-E72-1 PERCENT
54XE143			2.700E-01	8.000E-02	7.000E-02	U235T	IN	72EPR1	K-E72-1 PERCENT
58CE145			6.100E-01	0.	0.	U235T	IN	67FAS1	K-CA73-1-24 NOT FI.
37AR 85			7.600E-20	4.800E-02	4.800E-02	U238F	IN	73ACL1	K-B73-2 PERCENT
37AR 91			7.400E-01	2.600E-01	2.600E-01	U238F	IN	73ACL1	K-B73-2 PERCENT
37AR 92			8.500E-01	2.900E-01	2.900E-01	U238F	IN	73ACL1	K-B73-2 PERCENT
37AR 93			2.250E+00	6.200E-01	6.200E-01	U238F	IN	73ACL1	K-B73-2 PERCENT
37AR 94			1.810E+00	5.400E-01	5.400E-01	U238F	IN	73ACL1	K-B73-2 PERCENT
37AR 95			1.350E+00	4.200E-01	4.200E-01	U238F	IN	73ACL1	K-B73-2 PERCENT
37AR 97			7.200E-02	2.200E-02	2.200E-02	U238F	IN	73ACL1	K-B73-2 PERCENT
55CS138			6.160E-02	4.600E-02	4.600E-02	U238F	IN	73ACL1	K-B73-2 PERCENT
55CS139			3.680E-01	8.500E-02	8.500E-02	U238F	IN	73ACL1	K-B73-2 PERCENT
55CS141			1.860E+00	3.500E-01	3.500E-01	U238F	IN	73ACL1	K-B73-2 PERCENT
55CS142			2.050E+00	4.100E-01	4.100E-01	U238F	IN	73ACL1	K-B73-2 PERCENT
55CS143			1.570E+00	4.300E-01	4.300E-01	U238F	IN	73ACL1	K-B73-2 PERCENT
55CS145			5.500E-01	1.100E-01	1.100E-01	U238F	IN	73ACL1	K-B73-2 PERCENT
55CS146			1.210E-01	3.300E-02	3.300E-02	U238F	IN	73ACL1	K-B73-2 PERCENT
36KR 87			8.400E-01	1.500E-01	1.500E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
36KR 88			1.340E+00	2.600E-01	2.600E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
36KR 89			2.550E+00	4.400E-01	4.400E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
36KR 90			2.450E+00	4.200E-01	4.200E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
36KR 91			1.760E+00	3.300E-01	3.300E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
36KR 92			8.100E-01	1.400E-01	1.400E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
36KR 93			2.160E-01	4.000E-02	4.000E-02	U235T	IN	72ECC1	K-B72-1 PERCENT
54XE135			2.600E-01	5.000E-02	5.000E-02	U235T	IN	72ALE1	K-B72-1 PERCENT
54XE137			3.130E+00	5.000E-01	5.000E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
54XE138			2.600E+00	4.500E-01	4.500E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
54XE139			1.800E+00	3.000E-01	3.000E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
54XE140			9.600E-01	1.500E-01	1.500E-01	U235T	IN	72ECC1	K-B72-1 PERCENT
54XE141			2.500E-01	4.000E-02	4.000E-02	U235T	IN	72ECC1	K-B72-1 PERCENT
54XE142			5.150E-02	1.500E-02	1.500E-02	U235T	IN	72ECC1	K-B72-1 PERCENT
36KR 87			7.500E-02	2.000E-02	2.000E-02	U238T	IN	72ECC1	K-B72-1 PERCENT
36KR 88			6.000E-01	7.000E-02	7.000E-02	U238T	IN	72ECC1	K-B72-1 PERCENT
36KR 89			1.400E+00	1.900E-01	1.900E-01	U238T	IN	72ECC1	K-B72-1 PERCENT
36KR 90			1.880E+00	2.200E-01	2.200E-01	U238T	IN	72ECC1	K-B72-1 PERCENT
36KR 91			2.040E+00	2.200E-01	2.200E-01	U238T	IN	72ECC1	K-B72-1 PERCENT
36KR 92			1.600E+00	2.000E-01	2.000E-01	U238T	IN	72ECC1	K-B72-1 PERCENT
36KR 93			7.300E-01	9.000E-02	9.000E-02	U238T	IN	72ECC1	K-B72-1 PERCENT
5158124			2.400E-02	5.000E-03	5.000E-03	U238T	IN	65RA01	K-B72-1 PERCENT

OTHER INDEPENDENT AND CUMULATIVE YIELDS

Z	A	ISOMER	EXPL. VALUE	UNCERTAINTY PLUS	UNCERTAINTY MINUS	PROCESS TYPE YIELD	PRIMARY REF.	SECONDARY REFERENCE CR COMMENTS
51S126			1.000E-02	4.000E-03	4.000E-03	U238F	IN 65RAQ1	
55C5136			4.500E-02	8.000E-03	8.000E-03	U238F	IN 65RAQ1	
54XE137			1.660E+00	1.200E-01	1.200E-01	U238F	IN 728CC1	K-872-1 PERCENT
54XE138			2.350E+00	1.700E-01	1.700E-01	U238F	IN 728CC1	K-872-1 PERCENT
54XE139			2.660E+00	1.800E-01	1.800E-01	U238F	IN 728CC1	K-872-1 PERCENT
54XE140			2.520E+00	1.700E-01	1.700E-01	U238F	IN 728CC1	K-872-1 PERCENT
54XE141			1.280E+00	1.100E-01	1.100E-01	U238F	IN 728CC1	K-872-1 PERCENT
54XE142			6.800E-01	9.000E-02	9.000E-02	U238F	IN 728CC1	K-872-1 PERCENT
54XE135			3.210E-02	1.500E-03	1.500E-03	PU241T	FI 71PAW1	K-CN73-1-14
54XE136			9.400E-01	1.000E-02	1.000E-02	CM245T	FC 71TRC2	K-T71-3
52TE132			5.600E-01	8.000E-02	8.000E-02	CM245T	FC 71TRC2	K-T71-3
37RB 86			1.400E-04	3.500E-05	3.500E-05	CM245T	FI 67GUNI	
54XE135			1.700E-01	1.000E-02	1.000E-02	CM245T	FI 73PAR2	K-F73-2
54XE136			9.770E-01	4.000E-03	4.000E-03	CM245T	FC 71TRC2	K-T71-3
36KR 85			8.700E-01	1.000E-02	1.000E-02	A242M	FC 71WCL1	K-W71-1 71WCL1
36KR 90			6.600E-01	1.000E-02	1.000E-02	A242M	FC 71WCL1	K-W71-1 71WCL1
36KR 91			3.300E-01	1.000E-02	1.000E-02	A242M	FC 71WCL1	K-W71-1 71WCL1
36KR 92			1.300E-01	1.000E-02	1.000E-02	A242M	FC 71WCL1	K-W71-1 71WCL1
36KR 93			2.700E-02	3.000E-03	3.000E-03	A242M	FC 71WCL1	K-W71-1 71WCL1
54XE133M			6.020E-03	5.000E-04	5.000E-04	A242M	FC 71WCL1	K-W71-1 71WCL1
54XE133G			1.730E-03	2.000E-04	2.000E-04	A242M	FI 70FCR2	K-F72-2 71WCL1
54XE133M SUM			7.750E-03	5.400E-04	5.400E-04	A242M	FI 70FCR2	K-F72-2 71WCL1
54XE133M			5.470E-02	4.300E-03	4.300E-03	A242M	FI 70FCR2	K-F72-2 71WCL1
54XE135G			5.390E-02	7.100E-03	7.100E-03	A242M	FI 70FCR2	K-F72-2 71WCL1
54XE135 SUM			1.485E-01	5.100E-03	5.100E-03	A242M	FI 70FCR2	K-F72-2 71WCL1
54XE135			5.000E-01	1.000E-02	1.000E-02	A242M	FC 71WCL1	K-W71-1 71WCL1
54XE140			2.800E-02	1.000E-02	1.000E-02	A242M	FC 71WCL1	K-W71-1 71WCL1
54XE141			8.200E-02	4.000E-03	4.000E-03	A242M	FC 71WCL1	K-W71-1 71WCL1
54XE142			2.400E-02	3.000E-03	3.000E-03	A242M	FC 71WCL1	K-W71-1 71WCL1
54XE143			3.200E-03	3.000E-04	3.000E-04	A242M	FC 71WCL1	K-W71-1 71WCL1
54XE144			1.200E-03	1.000E-04	1.000E-04	A242M	FC 71WCL1	K-W71-1 71WCL1
35RR 82			1.270E-02	2.900E-04	2.900E-04	CF249T	FI 72KUR1	K-K72-3
46PD111M			8.300E-02	5.000E-03	5.000E-03	CF249T	FI 73NET1	K-CN73-1-33
47AO112			3.500E-02	8.000E-03	8.000E-03	CF249T	FI 73NET1	K-CN73-1-33
52TE132			7.600E-01	2.000E-02	2.000E-02	CF249T	FC 71TRC2	K-T71-3
52TE132M AB.			5.000E-01	0.	0.	CF249T	FC 71TRC2	K-T73-2
52TE133C AB.			1.500E-01	0.	0.	CF249T	FC 71TRC2	K-T73-2
53 1133 AB.			2.500E-01	0.	0.	CF249T	FC 71TRC2	K-T73-2
52TE134			2.500E-01	6.000E-02	6.000E-02	CF249T	FC 71TRC2	K-T73-2
54XE135			3.600E-01	3.000E-02	3.000E-02	CF249T	FI 73PAR2	K-F73-2
55C5136			5.500E-02	1.100E-02	1.100E-02	CF249T	FI 65FLY1	K-K72-3
55C5136			7.500E-02	3.000E-03	3.000E-03	CF249T	FI 72KUR1	K-K72-3
55C5138			3.700E-01	4.000E-02	4.000E-02	CF249T	FI 72E1C1	K-K72-3
57LA14			3.500E-02	1.000E-03	1.000E-03	CF249T	FI 72TR01	K-K72-3
61PM15C			8.000E-03	9.000E-04	9.000E-04	CF249T	FI 73GUNI	K-C73-1
53 1133			1.500E-02	0.	0.	TP232F	FI 71CEN2	K-C71-1
53 1134			1.300E-02	0.	0.	TP232F	FI 71CEN2	K-C71-1
53 1135			1.500E-01	3.000E-02	3.000E-02	TP232F	FI 71CEN2	K-C71-1
53 1137			7.500E-01	9.000E-02	9.000E-02	TP232F	FC 71GR11	K-CN71-2-63 GRIM
37RB 86			1.550E-05	3.200E-06	3.200E-06	TP232M	FI 73NET1	K-CN73-1-51
35ER 87			8.200E-01	1.000E-01	1.000E-01	TP232M	FC 71GR11	K-CN71-2-63 GRIM
36KR 87			8.730E-02	1.900E-02	1.900E-02	TH232H	FI 728CC1	K-872-1

OTHER INDEPENDENT AAC CUMULATIVE YIELDS

Z	A	ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	UNCERTAINTY MINUS	PROCESS	TYPE	PRIMARY YIELD REF.	SECONDARY REFERENCE CR COMMENTS
36KR	87		4.600E-01	9.000E-02	9.000E-02	TH232H	IN	72BCC1	K-B72-1 PERCENT
36KR	86		3.570E-01	5.200E-02	5.200E-02	TH232H	FI	72BCC1	K-B72-1 PERCENT
36KR	88		1.580E+00	3.000E-01	3.000E-01	TH232H	IN	72BCC1	K-B72-1 PERCENT
36KR	85		4.710E-01	7.600E-02	7.600E-02	TH232H	FI	72BCC1	K-B72-1 PERCENT
36KR	85		2.760E+00	3.000E-01	3.000E-01	TH232H	IN	72BCC1	K-B72-1 PERCENT
36KR	90		6.240E-01	9.300E-02	9.300E-02	TH232H	FI	72BCC1	K-B72-1 PERCENT
36KR	90		3.620E+00	4.000E-01	4.000E-01	TH232H	IN	72BCC1	K-B72-1 PERCENT
36KR	91		5.410E-01	6.400E-02	6.400E-02	TH232H	FI	72BCC1	K-B72-1 PERCENT
36KR	91		3.130E+00	2.000E-01	2.000E-01	TH232H	IN	72BCC1	K-B72-1 PERCENT
36KR	92		3.570E-01	5.100E-02	5.100E-02	TH232H	FI	72BCC1	K-B72-1 PERCENT
36KR	92		2.630E+00	2.000E-01	2.000E-01	TH232H	IN	72BCC1	K-B72-1 PERCENT
36KR	93		1.280E-01	2.300E-02	2.300E-02	TH232H	FI	72BCC1	K-B72-1 PERCENT
36KR	93		7.600E-01	1.000E-01	1.000E-01	TH232H	IN	72BCC1	K-B72-1 PERCENT
41NB	95		3.400E-02	8.000E-03	8.000E-03	TH232H	FI	72BCC1	K-B72-1 PERCENT
41NB	96		1.760E-02	4.000E-03	4.000E-03	TH232H	FI	72BCC1	K-B72-1 PERCENT
41NB	96		5.400E-06	3.000E-06	3.000E-06	TH232H	FI	72BCC1	K-B72-1 PERCENT
43TC	95M		1.800E-02	4.000E-03	4.000E-03	TH232H	FI	72BCC1	K-B72-1 PERCENT
47RH106			7.200E-03	1.400E-03	1.400E-03	TH232H	FI	72BCC1	K-B72-1 PERCENT
47RH112			1.200E-02	3.000E-03	3.000E-03	TH232H	FI	72BCC1	K-B72-1 PERCENT
49IN115M			1.500E-02	3.000E-03	3.000E-03	TH232H	FI	72BCC1	K-B72-1 PERCENT
49IN117			1.200E-02	2.600E-03	2.600E-03	TH232H	FI	72BCC1	K-B72-1 PERCENT
49IN117	SUM		1.400E-02	4.000E-03	4.000E-03	TH232H	FI	72BCC1	K-B72-1 PERCENT
51SB124			1.600E-02	3.000E-03	3.000E-03	TH232H	FI	72BCC1	K-B72-1 PERCENT
51SB124			6.800E-02	1.700E-02	1.700E-02	TH232H	IN	65RAC1	PERCENT
51SB126			1.600E-01	3.000E-02	3.000E-02	TH232H	FI	72BCC1	PERCENT
51SB126			1.700E-02	4.000E-03	4.000E-03	TH232H	IN	65RAC1	PERCENT
53	113C	SUM	1.500E-02	4.000E-03	4.000E-03	TH232H	FI	72BCC1	PERCENT
53	1132		3.600E-02	7.000E-03	7.000E-03	TH232H	FI	72BCC1	PERCENT
53	1132		3.260E-02	5.900E-03	5.900E-03	TH232H	FI	72BCC1	PERCENT
53	1133		8.000E-02	2.000E-02	2.000E-02	TH232H	FI	71CEN2	K-CA73-1-74(K-R73-1)
53	1133		1.200E-01	3.000E-02	3.000E-02	TH232H	FI	72BCC1	K-C71-1
53	1134	SUM	9.500E-02	2.500E-02	2.500E-02	TH232H	FI	72BCC1	K-C71-1
53	1134		1.520E-01	5.000E-03	5.000E-03	TH232H	FI	71CEN2	K-C71-1
55CS134M			7.500E-03	8.000E-04	8.000E-04	TH232H	FI	71CEN2	K-C71-1
53	1135		4.700E-01	8.000E-02	8.000E-02	TH232H	FI	72BCC1	K-C71-1
55CS135M			2.600E-02	5.000E-03	5.000E-03	TH232H	FI	72BCC1	K-C71-1
54XE135			12.600E-02	0.	0.	TH232H	FI	72BCC1	PERCENT
55CS136			2.600E-02	3.000E-03	3.000E-03	TH232H	FI	72BCC1	PERCENT
55CS136			5.800E-02	1.600E-02	1.600E-02	TH232H	IN	65RAC1	PERCENT
55CS136			2.230E-03	1.500E-04	1.500E-04	TH232H	FI	72BCC1	PERCENT
53	1137		5.600E-01	8.000E-02	8.000E-02	TH232H	FI	72BCC1	PERCENT
54XE137			3.270E-01	5.500E-02	5.500E-02	TH232H	FI	72BCC1	PERCENT
54XE137			1.860E+00	2.500E-01	2.500E-01	TH232H	IN	72BCC1	PERCENT
54XE138			4.750E-01	1.140E-01	1.140E-01	TH232H	FI	72BCC1	PERCENT
54XE138			2.750E+00	6.000E-01	6.000E-01	TH232H	IN	72BCC1	PERCENT
54XE139			5.830E-01	9.700E-02	9.700E-02	TH232H	FI	72BCC1	PERCENT
54XE139			3.380E+00	4.500E-01	4.500E-01	TH232H	IN	72BCC1	PERCENT
54XE140			5.450E-01	8.900E-02	8.900E-02	TH232H	FI	72BCC1	PERCENT
54XE140			3.120E+03	4.000E-01	4.000E-01	TH232H	IN	72BCC1	PERCENT
54XE141			2.580E-01	4.400E-02	4.400E-02	TH232H	FI	72BCC1	PERCENT
54XE141			1.440E+00	2.000E-01	2.000E-01	TH232H	IN	72BCC1	PERCENT
54XE142			1.390E-01	2.800E-02	2.800E-02	TH232H	FI	72BCC1	PERCENT

OTHER INDEPENDENT AND CUMULATIVE YIELDS

Z	A ISOMER	EXPTL. VALUE	UNCERTAINTY PLUS	UNCERTAINTY MINUS	PROCESS	TYPE YIELD	PRIMARY REF.	SECONDARY OR COMMENTS	REFERENCE
54	XE142	7.300E-01	1.300E-01	1.300E-01	T232H	IN	72BCC1	K-872-1	PERCENT
36	KR 87	6.390E-01	1.200E-01	1.200E-01	U233FE	FI	72BCC1	K-872-1	ALL ICC HIGH
36	KR 87	1.910E+00	3.000E-02	3.000E-02	U233FE	IN	72BCC1	K-872-1	PERCENT
36	KR 88	8.150E-01	1.300E-01	1.300E-01	U233FE	FI	72BCC1	K-872-1	
36	KR 88	2.570E+00	4.000E-01	4.000E-01	U233FE	IN	72BCC1	K-872-1	PERCENT
36	KR 89	7.960E-01	1.500E-01	1.500E-01	U233FE	FI	72BCC1	K-872-1	
36	KR 89	3.170E+00	5.000E-01	5.000E-01	U233FE	IN	72BCC1	K-872-1	PERCENT
36	KR 90	5.150E-01	8.000E-02	8.000E-02	U233FE	FI	72BCC1	K-872-1	
36	KR 90	2.300E+00	3.000E-01	3.000E-01	U233FE	IN	72BCC1	K-872-1	PERCENT
36	KR 91	2.500E-01	4.100E-02	4.100E-02	U233FE	FI	72BCC1	K-872-1	
36	KR 91	1.200E+00	1.500E-01	1.500E-01	U233FE	IN	72BCC1	K-872-1	PERCENT
36	KR 92	9.530E-02	2.200E-02	2.200E-02	U233FE	FI	72BCC1	K-872-1	
36	KR 92	4.700E-01	1.000E-01	1.000E-01	U233FE	IN	72BCC1	K-872-1	PERCENT
36	KR 93	1.910E-02	6.000E-03	6.000E-03	U233FE	FI	72BCC1	K-872-1	
36	KR 93	1.000E-01	3.000E-02	3.000E-02	U233FE	IN	72BCC1	K-872-1	PERCENT
41	NB 96	4.100E-03	4.900E-04	4.900E-04	U233FE	FI	72NET2	K-CA73-1-56	
55	CS136	1.740E-01	1.100E-02	1.100E-02	U233FE	FI	72NET1		
54	XE137	6.120E-01	8.400E-02	8.400E-02	U233FE	FI	72BCC1	K-872-1	
54	XE137	3.150E+00	3.000E-01	3.000E-01	U233FE	IN	72BCC1	K-872-1	PERCENT
54	XE138	3.580E-01	6.400E-02	6.400E-02	U233FE	FI	72BCC1	K-872-1	
54	XE138	1.920E+00	2.000E-01	2.000E-01	U233FE	IN	72BCC1	K-872-1	PERCENT
54	XE139	2.040E-01	2.500E-02	2.500E-02	U233FE	FI	72BCC1	K-872-1	
54	XE139	9.800E-01	1.000E-01	1.000E-01	U233FE	IN	72BCC1	K-872-1	PERCENT
54	XE140	9.730E-02	1.200E-02	1.200E-02	U233FE	FI	72BCC1	K-872-1	
54	XE140	3.500E-01	4.000E-02	4.000E-02	U233FE	IN	72BCC1	K-872-1	PERCENT
54	XE141	2.250E-02	5.300E-03	5.300E-03	U233FE	FI	72BCC1	K-872-1	
54	XE141	9.400E-02	2.000E-02	2.000E-02	U233FE	IN	72BCC1	K-872-1	PERCENT
65	TB160	4.200E-03	1.000E-03	1.000E-03	U233FE	FI	72NET2	K-CA73-1-56	
41	NB 96	1.540E-03	1.000E-04	1.000E-04	U234FE	FI	72NET2	K-CA73-1-56	
55	CS136	9.500E-02	6.000E-03	6.000E-03	U234FE	FI	72NET2	K-CA73-1-56	
41	NB 96	2.700E-04	3.000E-05	3.000E-05	U236FE	FI	72NET2	K-CA73-1-56	
51	SB126	9.600E-02	1.000E-02	1.000E-02	U236FE	FI	72NET2	K-CA73-1-56	
55	CS136	2.200E-02	2.000E-03	2.000E-03	U236FE	FI	72NET2	K-CA73-1-56	
55	CS136	1.200E-01	2.000E-02	2.000E-02	CM242S	FI	54STE2	C62WAF1	
52	TE131	4.300E-01	0.	0.	CM242S	FI	60CRC1		
37	RB 86	6.200E-03	1.700E-03	1.700E-03	CM244S	FI	72FLY2	K-CA73-1-32(K-F72-1)	
55	CS136	1.680E-02	2.700E-03	2.700E-03	CM244S	FI	72FLY2	K-CA73-1-32(K-F72-1)	
35	PR 82	L2.700E-04	0.	0.	CF252S	FI	65GLN1		
37	RB 86	5.400E-05	1.000E-05	1.000E-05	CF252S	FI	65GLN1		
41	NB 95M	2.900E-01	2.900E-02	2.900E-02	CF252S	FC	71FAR1	K-CA73-1-28	
47	AG112	9.000E-03	4.000E-03	4.000E-03	CF252S	FI	70TRC1		
46	PD115M	3.300E-02	0.	0.	CF252S	FC	70TRC2	C7CTMC2	
47	AG115	5.500E-01	0.	0.	CF252S	FI	70TRC2	C7CTRC2	
48	CD115M	8.000E-02	0.	0.	CF252S	FC	70TRC2	C7CTRC2	
48	CD115M	3.000E-02	0.	0.	CF252S	FI	70TRC2	C7CTRC2	
54	I130	L1.200E-03	0.	0.	CF252S	FI	65SR11		
51	SB131	6.500E-01	3.000E-02	3.000E-02	CF252S	FC	71TRC1		
52	TE131M	1.500E-01	1.000E-02	1.000E-02	CF252S	FC	71TRC1		
52	TE131	1.400E-01	3.000E-02	3.000E-02	CF252S	FI	70TRC2	C7CTMC2	
53	I134	2.600E-01	3.000E-02	3.000E-02	CF252S	FI	70TRC1		
55	CS136	6.000E-03	0.	0.	CF252S	FI	60NER1	C62WAF1	
55	CS136	4.600E-03	1.000E-03	1.000E-03	CF252S	FI	65GLN1		

OTHER INDEPENDENT AND CUMULATIVE YIELDS

Z	A	ISCMR	EXPTL. VALUE	UNCERTAINTY PLUS	MINUS	PROCESS	TYPE	PRIMARY YIELD	REF.	SECONDARY REFERENCE OR COMMENTS
55CS13E			1.100E-01	3.000E-02	3.000E-02	CF252S	FI	7CTRCL		
54XE139			6.700E-01	1.000E-02	1.000E-02	CF252S	FC	62WAF1		K-CA13-1-7
54XE140			4.500E-01	1.000E-02	1.000E-02	CF252S	FC	62WAF1		
54XE141			1.720E-01	5.000E-03	5.000E-03	CF252S	FC	62WAF1		
54XE144			17.000E-03		0.	CF252S	FC	62WAF1		
61PM15C			8.400E-03	4.000E-03	4.000E-03	CF252S	FI	69GLN1		
54XE139			8.700E-01	3.000E-02	3.000E-02	CF254S	FC	7CwCL2		K-h7C-2
54XE140			6.500E-01	3.000E-02	3.000E-02	CF254S	FC	7CwCL2		K-h7C-2
54XE141			3.500E-01	2.000E-02	3.000E-02	CF254S	FC	7CwCL2		K-h7C-2
54XE143			12.000E-02		0.	CF254S	FC	7CwCL2		K-h7C-2
53 1132			2.000E-01	2.000E-02	2.000E-02	FM254S	FI	73FAR1		K-t73-1
53 1134			5.800E-01	3.000E-02	4.000E-02	FM254S	FI	73FAR1		K-t73-1
54XE135			2.800E-01	1.000E-02	1.000E-02	FM254S	FI	73FAR1		K-t73-1
57LA14C			2.300E-02	9.000E-03	9.000E-03	FM254S	FI	73FAR1		K-t73-1

YIELD REFERENCES

- 49GLE2 GLENDENIN, L. E., THE DISTRIBUTION OF NUCLEAR CHARGE IN FISSION, LABORATORY FOR NUCLEAR SCIENCE, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, TECHNICAL REPORT NC. 35 (DECEMBER 1949) AND UNPUBLISHED WORK CITED IN REF. 55STEL.
- 49STAI STANLEY, C. W., AND KATCOFF, S., THE PROPERTIES OF 86-SECOND 1136, J. CHEM. PHYS., 17, 653 (1949).
- 51HCA3 HOAGLAND, E. J., AND SUGARMAN, N., INDEPENDENT FISSION YIELD OF ^{235}U $\times$ ^{135}I , PAPER 147, PP. 1035-1042, LOC. CIT. REF. 51COR1.
- 51KAT3 KATCOFF, S., FISSION YIELD OF 30H TE131M, PAPER 137, PP. 56C-581 LOC. CIT. REF. 51COR1.
- 51SCH1 SCHUMAN, R. P., INDEPENDENT FISSION YIELD OF 33H CE143, PAPER 182, PP. 1191-1192, LOC. CIT. REF. 51COR1.
- 51SWA1 SHARTOLT, J. A., AND SULLIVAN, W. H., ABSENCE OF LONG LIVED RHODIUM IN FISSION II. UPPER LIMIT TO THE FISSION YIELD OF ^{210}Po $\times$ ^{132}I , PAPER 118, PP. 856-859, LOC. CIT. REF. 51COR1.
- 53BRD1 BROWN, F., AND YAFFE, L., THE INDEPENDENT YIELD OF ^{135}I PRODUCED IN THE FISSION OF NATURAL URANIUM BY PILE NEUTRONS, CAN. J. CHEM., 31, 242-249 (1953).
- 53FOR1 FORD, G. P., AND STANLEY, C. W., THE FRACTION OF THE MASS 141 CHAIN FORMED INDEPENDENTLY AS LA141 IN THE THERMAL NEUTRON FISSION OF U235, AECC-3551 (1953).
- 53KAT1 KATCOFF, S., AND RUBINSON, W., YIELD OF ^{133}I IN THE THERMAL NEUTRON FISSION OF U-235, PHYS. REV., 91, 1458-1469 (SEPT. 15, 1953). SUPERCEDES BNL-1485 (1953).
- 53PAP1 PAPPAS, A. C., A RADIOCHEMICAL STUDY OF FISSION YIELDS IN THE REGION OF SPECTRAL PERTURBATIONS AND THE EFFECT OF CLCSEC SHELLS IN FISSION, MIT-LNS-63 OR AECU 2806 (1953).
- 54STE2 STEINBERG, E. P., AND GLENDENIN, L. E., RADIOCHEMICAL INVESTIGATION OF THE SPONTANEOUS FISSION OF CM242, PHYS. REV., 95, NO. 2, 431-39 (1954). REPLACES AECC-3520 (1953).
- 55REE1 REED, G. W., U235 THERMAL NEUTRON FISSION YIELDS AT MASSES 50 AND 51, PHYS. REV., 98, 1327-1329 (JUNE 1, 1955). CORRECTED TO SR-90 HALF-LIFE OF 28.8Y.
- 55WAH1 WAHL, A. C., FISSION OF U-235 BY 14-MEV NEUTRONS: NUCLEAR CHARGE DISTRIBUTIONS AND YIELD FINE STRUCTURE, PHYS. REV., 99, 730-739 (1955). CUMULATIVE YIELDS RELATIVE TO U-235 THERMAL YIELD OF SAME NUCLIDE.
- 56FOR1 FORD, G. P., AND GILMORE, J. S., MASS YIELDS FROM FISSION BY NEUTRONS BETWEEN THERMAL AND 14.7 MEV, UNIVERSITY OF CALIFORNIA LOS ALAMOS, ALBUQUERQUE, NEW MEXICO, LA-1597, (1956). FISSION SPECTRUM NEUTRONS WERE OBTAINED BY IRRADIATION INSIDE AND ENRICHED U-235 CAPSULE.
- 56KEN1 KENNETT, T. J., AND THODE, H. G., MASS SPECTROMETRICALLY DETERMINED INDEPENDENT YIELDS OF I-129, I-130, BR-80, AND BR-82 FOR U-233, U-235, AND PU-239 FISSION, PHYS. REV., 103, 323-327 (1956).
- 56PAP1 PAPPAS, A. C., AND WILES, D. R., NEW SHORT-LIVED ISOTOPES OF TIN FORMED IN FISSION, J. INORG. NUCL. CHEM., 2, 65-70 (1956).
- 57GRU1 GRUMMITT, W. E., AND MILTON, G. M., THE INDEPENDENT YIELDS OF 140LA, 140Y, AND 141Y IN THE THERMAL NEUTRON FISSION OF 235U AND 233U, J. INORG. NUCL. CHEM., 5, 93-104 (1957).
- 58WAH1 WAHL, A. C., NUCLEAR-CHARGE DISTRIBUTION IN FISSION: CUMULATIVE YIELDS OF SHORT-LIVED KRYPTON AND XENON ISOTOPES FROM THERMAL-NEUTRON FISSION OF U235, J. INORG. NUCL. CHEM., 6, 263-277 (1958) SEE ALSO REFS 69WAH1 AND 66RAU1 FOR CORRECTIONS.
- 59CHU1 CHU, Y. Y., CHARGED-PARTICLE-INDUCED FISSION: A MASS SPECTROMETRIC STUDY, UNIVERSITY OF CALIFORNIA LAWRENCE RADIATION LABORATORY, BERKELEY, CALIFORNIA, UCRL-8926, 1959, P. 32. RELATIVE VALUES NORMALIZED TO AC-145.
- 59KJE1 KJELBERG, A., AND PAPPAS, A. C., FAST RADIOCHEMICAL ISOLATION OF FISSION PRODUCT ARSENIC AND THE INDEPENDENT YIELD OF ARSENIC-78 IN THERMAL NEUTRON FISSION OF URANIUM-235, J. INORG. NUCL. CHEM., 11, 173-180 (1959).
- 59TRO1 TRCUINER, D. E., PH. D. THESIS WASHINGTON UNIV., ST. LOUIS, 1959.
- 60BAE1 BAERG, A. P., BARTHOLOMEW, R. M., AND BETTS, R. F., SEARCH FOR INDEPENDENT FORMATION OF CS134M IN FISSION, CAN. J. CHEM., 38, 2147-2151 (1960).
- 60CRD1 CRALL, I. F., COLLECTED INDEPENDENT FISSION YIELDS FOR THERMAL NEUTRON FISSION OF U-233, PU-239, AND U-235, 14 MEV NEUTRON FISSION OF U-235, PILE NEUTRON FISSION OF U-235, PILE NEUTRON FISSION OF U-238, TH-232, AND AM-241, AND SPONTANEOUS FISSION OF CM-242, AERE-R 3205 (1960).
- 60GLE1 GLENDENIN, L. E., PRIVATE COMMUNICATION TO I. F. CRALL CITED IN 60CRD1.
- 60GRU1 GRUMMITT, W. E., NUSSIS, M., LAHAIE, G., CONTRIBUTION NO. 16 AT THIRD SYMPOSIUM ON NUCLEAR AND RADIOCHEMISTRY, CHALK RIVER, ONTARIO, (SEPT. 1960).
- 60KAT1 KATCOFF, S., FISSION-PRODUCT YIELDS FROM NEUTRON-INDUCED FISSION, NUCLEONICS, 18, NO. 11, 201-208 (NOVEMBER 1960).
- 60KR11 KRISYUK, I. T., LEPNEV, G. P., PLATONOVA, N. B., YIELDS OF CS135 AND BA135 IN U238 FISSION BY 14 MEV NEUTRONS, RADIOTKHIMIYA 2, 743-745 (1960).
- 60NFR1 NERVIK, W. E., SPONTANEOUS FISSION YIELDS OF CF252, PHYS. REV., 119, NO. 5, 1665-1690 (SEPTEMBER 1, 1960).
- 60SAN1 SANTRY, C. C., AND YAFFE, L., ABSOLUTE THERMAL NEUTRON FISSION YIELDS OF U233, CAN. J. CHEM., 38, 421-438 (1960).

YIELD REFERENCES

- 6CSAT1 SATTIZAH, J. E., KNIGHT, J. D., AND KAHN, M., SHORT-LIVED ERMIAN AND SELENIUM NUCLIDES FROM FISSION, J. INCRG. NUCL. CHEM., 12, 206-222 (1960). SELENIUM-87 ASSUMED TO BE SELENIUM-86, ACCORDING TO L. TEMPLINSON AND F. F. FUMELS, REF. 68TOM1.
- 6CWCL1 WOLFSBERG, K., NETHAWAY, D. R., MALAN, H. P., AND WAHL, A. C., IDENTIFICATION OF ^{142}Xe AND MEASUREMENT OF ITS CUMULATIVE YIELD FROM THERMAL NEUTRON FISSION OF ^{235}U , J. INCRG. NUCL. CHEM., 12, 201-205 (1960).
- 61CR01 CRALL, I. F., THE INDEPENDENT YIELD OF Nb-96 IN THE THERMAL NEUTRON FISSION OF U-233 , U-235 , AND Pu-239 , J. INCRG. NUCL. CHEM., 16, 358-361 (1961).
- 61GR11 GRUMMITT, W. E., AND MILTON, G. W., THE INDEPENDENT YIELD OF ^{136}Cs IN THE THERMAL NEUTRON FISSION OF ^{235}U , ^{233}U AND ^{235}Pu , J. INCRG. NUCL. CHEM., 20, 6-11 (1961).
- 61HER1 HEHRMANN, G., RESULTS OF CHEMICAL INVESTIGATIONS IN NUCLEAR FISSION, IN GERMAN, FABILITATIONSSCHRIFT, LAIV. MAINZ, (1961).
- 62AP01 APCLLONCVA, A. N., KRISYUK, I. T., USHATSKII, V. N., DETERMINATION OF INDIVIDUAL YIELDS OF $A = 139$ ISOBARS IN URANIUM FISSION BY 14 MEV NEUTRONS, RADICKHIMIYA 4, 587-591 (1962). NSA 17C21C76 (1963).
- 62AP02 APCLLONCVA, A. N., KRISYUK, I. T., USHATSKII, V. N., PARTIAL YIELDS OF ISOBARS WITH A MASS NUMBER OF 138, RADICKHIMIYA 4, 711-714 (1962). NSA 17015306 (1963).
- 62CR01 CRALL, I. F., AND WILLIS, H. M., THE FISSION PRODUCTS SE-81 AND SE-83, J. INCRG. NUCL. CHEM., 24, 221-227 (1962). SUPERCEDES AERE-R4148 (1962).
- 62WAH1 WAHL, A. C., FERGUSON, R. L., NETHAWAY, D. R., TROUTNER, C. E., AND WOLFSBERG, K., NUCLEAR-CHARGE DISTRIBUTION IN LOW-ENERGY FISSION, PHYS. REV., 126, 1112-1127 (1962). (AS ADJUSTED BY 65WAH1)
- 63CR01 CRALL, I. F., AND WILLIS, H. M., THE YIELDS OF THE ISOBARS OF SE-81 AND SE-83 IN THE THERMAL NEUTRON FISSION OF Pu-239 , J. INCRG. NUCL. CHEM., 25, 1213-1218 (1963).
- 63RCB1 ROBERTS, F. P., WHEELWRIGHT, E. J., VAN TUYL, H. P., DETECTION OF ^{146}Pm AMONG THE PRODUCTS OF URANIUM FISSION, J. INCRG. NUCL. CHEM., 25, 1298-1300 (1963) REF 63ZY51 STATES THAT Pm-146 VALUE SHOULD BE TREATED AS LESS THAN VALUE SINCE NO CORRECTION FOR ^{146}Pm (N, GAMMA) WAS MADE.
- 63TR01 TROUTNER, D. E., FERGUSON, R. L., AND KELLEY, G. D., YIELDS AND HALF-LIVES IN THE MASS-95 FISSION PRODUCT CHAIN, PHYS. REV., 130, 1466-1470 (MAY 15, 1963).
- 63WAH1 WAHL, A. C., AND NETHAWAY, D. R., NUCLEAR CHARGE DISTRIBUTION IN SYMMETRIC FISSION Sn121-- INDEPENDENT YIELD, PHYS. REV., 131, 830-831 (15 JULY 1963) SN 121 DATA CORRECTED IN REF. 65WAH1.
- 64TR01 TROUTNER, D. E., WAHL, A. C., AND FERGUSON, R. L., INDEPENDENT FISSION YIELD OF Sb127 , PHYS. REV., 134, B1027-B1029 (8 JUNE 1964).
- 65KON1 KONECNY, E., OPCMER, H., GUNTHER, H., AND GOBEL, H., PRIMARY DISTRIBUTIONS OF NUCLEAR CHARGE FOR FISSION-FRAGMENT MASSES 132, 134, 136 AND 137 FROM THERMAL FISSION OF U-235 , PHYSICS AND CHEMISTRY OF FISSION, VOL. 1 INTERNATIONAL ATOMIC ENERGY AGENCY, VIENNA, PAGES 401-413, (1965).
- 65NIE1 NIECE, L. H., INDEPENDENT YIELDS OF Zr-95 FROM THERMAL NEUTRON FISSION OF U-235 AND U-233 , ORNL-TM-1333 (1965). PRELIMINARY TO 70NIE1.
- 65SAR1 SARANTITES, D. G., GORDON, G. E., AND CORYELL, C. D., RATIOS OF INDEPENDENT YIELD ISOBARS $\text{Te-131} - \text{Te-131m}$ IN FISSION, PHYS. REV., 138, B353-B364 (1965).
- 65STR1 STROM, P. O., GRANT, G. R., AND PAPPAS, A. C., INDEPENDENT YIELDS OF ^{124}Sb AND ^{126}Sb IN THERMAL NEUTRON INDUCED FISSION AND THEIR IMPLICATION ON THE EMPIRICAL ZP FUNCTION, CAN. J. CHEM., 43, 2493-2507 (1965).
- 65WE12 WEISS, H. V., NEAR-SYMMETRIC FISSION-IDENTIFICATION AND YIELD OF Ce121 PHYS. REV., 135, B304-B306 (26 JULY 1965) REPORTS SAME DATA AS REF. 65WE11.
- 65WOL1 WOLFSBERG, K., NUCLEAR CHARGE DISTRIBUTION IN FISSION: FRACTIONAL YIELDS OF KRYPTON AND XENON ISOTOPES FROM THERMAL NEUTRON FISSION OF U-233 AND Pu-239 AND FROM 14-MEV NEUTRON FISSION OF U-235 AND U-238 , PHYS. REV., 137, B929-B935 (1965).
- 66ARA1 ARAS, A. K., AND GORDON, G. E., THE FRACTIONAL CHAIN YIELD OF Sb-126 IN THERMAL NEUTRON FISSION OF U-235 , J. INCRG. NUCL. CHEM., 28, 763-770 (1966). MEASURED RELATIVE TO $\text{Sb-127} = 0.13$ PERCENT, REPLACES PIT-505-52, PAGE 21 (1965).
- 66BAE1 BAECKMANN, A. V., AND FEUERSTEIN, H., TECHNETIUM FROM FISSION II IN GERMAN, RADICHIIM. ACTA, 5, NO. 4, 234-235 (1966).
- 66ERD1 ERDAL, B. R., PH. D. THESIS, WASHINGTON UNIVERSITY, ST. LOUIS, 1966, UNIVERSITY MICROFILM NO. 67-7035. FISSION YIELDS INCLUDING ^{123}Sb .
- 66FLY1 FLYNN, K. F., GLENDENIN, L. E., PRIVATE COMMUNICATION TO 69WAH1 (1966).
- 66GOE1 GOEKING, C. F., D KELLEY, G. D., PRIVATE COMMUNICATION TO 65WAH1 (1966).
- 66GRA1 GRAU, A., STUDY ON THE DISTRIBUTION OF NUCLEAR CHARGE IN THE FISSION CHAIN OF URANIUM-238, TITLE TRANSLATED FROM THE ORIGINAL GERMAN, DOCTORAL THESIS, A FACSIMILE REPORT REPRODUCED BY THE U. S. ATOMIC ENERGY COMMISSION, DIVISION OF TECHNICAL INFORMATION, OAK RIDGE NATIONAL LABORATORY, OAK RIDGE, TENNESSEE, NP-16155, JULY 13, 1966.

YIELD REFERENCES

- 66KON1 KONECNY, E., GUNTHER, H., AND SIEGERT, G., FINE STRUCTURE IN FISSION FRAGMENT CHARGE DISTRIBUTION, ARKIV FYSIK, 36, NO. 40, 319-323 (1966). ALSO, PROCEEDINGS OF THE LYSEKIL SYMPOSIUM, SESSION VI, NUCLIDES FAR OFF THE STABILITY LINE, PAPER 7, CONF-668017, (1966).
- 66MCH1 MC HUGH, J. A., THE INDEPENDENT YIELDS OF RB-86, CS-132, CS-134, AND CS-136 IN THE THERMAL NEUTRON FISSION OF U-233, J. INORG. NUCL. CHEM., 28, 1787-1790 (1966).
- 66NCR2 NORRIS, A. E., AND WAHL, A. C., NUCLEAR CHARGE DISTRIBUTION IN FISSION Y92, Y93, Y94, AND Y95 INDEPENDENT YIELDS, PHYS. REV., 146 926-931 (JUNE 17, 1966). (AS ADJUSTED BY REF. 69WAH1).
- 66OKA1 OKAZAKI, A., WALKER, W. H., AND BIGHAM, C. B., THE RATIO OF THE DIRECT TO THE CUMULATIVE YIELD OF 135XE IN THE THERMAL NEUTRON FISSION OF 233U, 235U, 239PU AND 241PU, CAN. J. PHYS., 44, 237-246 (1966).
- 66RUN1 RUNNALLS, N. G., YIELDS FROM HIGHLY ASYMMETRIC FISSION FRACTIONAL CUMULATIVE YIELDS OF BA-143, BA-144, AND CE-147 FROM THERMAL-NEUTRON INDUCED FISSION OF U-235, PH. D. THESIS, UNIVERSITY OF MISSOURI, COLUMBIA (1966). SEE 69RUN1 AND 69WAH1.
- 66SIL1 SILBERT, M. D., AND TOMLINSON, R. H., YIELDS OF FISSION-RECCIL BROMINE BY DELAYED-NEUTRON STUDIES RADIOCHIM. ACTA, 5, NO. 4, 223-227 (1966).
- 66STR1 STROM, P. C., LOVE, D. L., GREENDALE, A. E., DELUCCHI, A. A., SAM, C., AND BALLOL, N. E., NUCLEAR CHARGE DISTRIBUTION OF FISSION PRODUCT CHAINS OF MASS NUMBERS 131-133, PHYS. REV., 144, 584-593 (1966).
- 66WAH1 WAHL, A. C., NORRIS, A. E., AND FERGUSON, R. L., NUCLEAR CHARGE DISTRIBUTION IN FISSION Y92 AND Y93 INDEPENDENT YIELDS, PHYS. REV., 146, 931-934 (JUNE 27, 1966).
- 66YCS1 YOSHIDA, H., PAISS, Y., AND AMIEL, S., DETERMINATION OF INDEPENDENT YIELDS OF 131I AND 133I IN THERMAL NEUTRON FISSION OF 235U, IA-1128, PP. 63-64 (JANUARY 1, 1966).
- 67FAS1 FASCHING, J. L., AND CORYELL, C. D., INDEPENDENT FISSION YIELDS OF LA AND CE ISOTOPES, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, LABORATORY FOR NUCLEAR SCIENCE, REPORT MIT-605-108, PP. 21-23, (DEC. 31, 1967).
- 67GUN1 GUNTER, F. R. VON FLYNN, K. F., AND GLENCENIN, L. E., DISTRIBUTION OF MASS AND CHARGE IN FISSION OF 245CM, PHYS. REV. 161, NC. 4, PP. 1192-1195 (1967).
- 67WUN1 WUNDERLICH, F., MEASUREMENT OF INDEPENDENT IODINE FISSION YIELDS IN THERMAL FISSION OF 235U, RADIOCHIM. ACTA, 7, 105-114 (1967). IN GERMAN.
- 68BAC1 BACHMANN, K., DETERMINATION OF THE INDEPENDENT YIELD OF PY-148M AND PY-148 IN THE THERMAL FISSION OF U235, IN GERMAN. RADIOCHIM. ACTA, 9, HEFT 1, 27-31 (1968). NSA 220 42C65 (1969).
- 68DEL1 DELUCCHI, A. A., GREENDALE, A. E., STROM, P. C., CUMULATIVE FISSION YIELD AND HALF-LIFE OF SB-134, PHYS. REV., 173, 1159-1165 (SEPTEMBER 20, 1968). NSA 220 50613 (1968).
- 68MAR1 MARMEL, P. DEL IDENTIFICATION OF NEW ARSENIC ISOTOPES IN FISSION 83AS AND 84AS, J. INORG. NUCL. CHEM., 30, 2873-2880 (1968). NSA 230 05861 (1969).
- 68RCC1 ROCHE, M. F., FERGUSON, R. L., AND TRCUTNER, D. E., NUCLEAR CHARGE DISTRIBUTION IN FISSION YIELD OF PALLADIUM-115 FROM THERMAL-NEUTRON FISSION OF URANIUM-235, CRNL 3994, PP. 7-8 (MAY 20, 1966). SEE ALSO M. F. ROCHE, THE INDEPENDENT YIELD OF 112AG AND THE CUMULATIVE YIELD OF 115PD IN THERMAL-NEUTRON INDUCED 233U AND 235U FISSION, (TIE-245CO) THESIS ST. LOUIS UNIV., MO. (JAN 1968) NSA 220 32579 (1968).
- 68TOM1 TOMLINSON, L., AND HURDUS, M. H., DELAYED NEUTRON PRECURSORS III, SELENIUM-87, J. INORG. NUCL. CHEM., 30, 1995-2002 (1968). NSA 220 48543 (1968). SE87 YIELD SUPERCEDED BY AUTHCR S RECENT WORK 71TOM1.
- 68WEI1 WEISS, H. V., ELZIE, J. L., AND FRESCO, J. M., IDENTIFICATION AND YIELD OF 5.0-SEC 117FC IN THE THERMAL NEUTRON FISSION OF 235U, PHYS. REV., 172, 1269-1271 (AUGUST 20, 1968). NSA 220 44736 (1968).
- 69BLA1 BLANCHOT, J., CARRAZ, L. C., CAVALLINI, P., CADELLE, A., AND MCLISSA, A., APPLICATION OF NEW FAST CHEMICAL SEPARATIONS TO THE DETERMINATION OF CHARGE DISTRIBUTION IN LOW-ENERGY FISSION, IN FRENCH. IAEA 2ND SYMPOSIUM ON THE PHYSICS AND CHEMISTRY OF FISSION, VIENNA (JULY 1969) STI/PUB/234 PP. EC2-EI1CCCNF-69C708.
- 69BRA1 BRAUN, C., AND AMIEL, S., SEPARATION OF SHORT-LIVED BROMINE AND IODINE FISSION PRODUCTS, AND MEASUREMENT OF THEIR NUCLEAR PROPERTIES, RESEARCH LABORATORIES REPORT JANUARY-DECEMBER 1968, IA-1190, ISRAEL ATOMIC ENERGY COMMISSION, JULY 1969, PP. 104-106. SUPERCEDED BY 69BRA2.
- 69BRA2 BRAUN, C., AND AMIEL, S., DETERMINATION OF INDEPENDENT FISSION YIELDS OF SHORT-LIVED HALOGENS IN THE THERMAL FISSION OF 235U, IA-1218, 93-94 (1969).
- 69CHA1 J. CHALMANT, E. ROECKL, Y. EL-NIR, R. KLAPISCH, PRIVATE COMMUNICATION TO A. C. WAHL (1965). SEE 69WAH1.
- 69DEN1 DENSCHLAG, H. O., INDEPENDENT YIELD OF 135I IN THE THERMAL NEUTRON FISSION OF 235U, THE HALF-LIFE OF 135TE, J. INORG. NUCL. CHEM., 31, 1873-1882 (1969). NSA 230 37226 (1969).
- 69FAS1 FASCHING, J. L., AND CORYELL, C. D., THE FRACTIONAL INDEPENDENT CHAIN YIELD OF 284-C 144CE, IN CHEMISTRY PROGRESS REPORT DECEMBER 31, 1969, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASS., MIT-605-154, PP. 15-16, AND PG. 27, (DEC 1969).

YIELD REFERENCES

- 69FLY1 FLYNN, K. F., AND GUNTEN, H. R. VON DISTRIBUTION OF MASS AND CHARGE IN THE FISSION OF CF-249 WITH THERMAL NEUTRONS, HELVETICA CHIMICA ACTA, 52, FASC. 8, 2216-2221 (1969). IN GERMAN.
- 69GUN1 GUNTEN, H. R. VON FLYNN, K. F., AND GLENNENIN, L. F., INDEPENDENT YIELDS OF BR-82, RE-86, CS-136, AND FM-150 IN SPONTANEOUS FISSION OF CF-252, J. INORG. NUCL. CHEM., 31, 3257-3261 (1969). NSA 24C 06932 (1970).
- 69HAS1 HASTINGS, J. D., TROUTNER, D. E., AND FERGUSON, R. L., FRACTIONAL CUMULATIVE YIELDS OF PC-103, PC-105, AND PC-106 FROM THERMAL-NEUTRON INDUCED FISSION OF U-235, RADIOCHIMICA ACTA, 11, NO. 1, 51-56 (1969). SEE PRELIMINARY DATA IN ORNL-3594 P. 11 (MAY 20, 1966). NSA 230 31006 (1969).
- 69PAR1 PARS, B., GORDON, G. E., AND WENZEL, A., BRANCHING RATIO OF ^{133}Sb DECAY TO ^{133}Te ISOMERS, J. INORG. NUCL. CHEM., 31, 585-590 (1969).
- 69RAD1 RAC, A. S., RAD, M. N., AND KURCDA, P. K., INDEPENDENT YIELDS OF ^{124}Sb , ^{126}Sb , AND ^{136}Cs IN 14.8-MEV NEUTRON-INDUCED FISSION OF THORIUM AND URANIUM, J. INORG. NUCL. CHEM., 31, 551-557 (1969). NSA 230 17116 (1969). REPLACES CRC-3235-12, PAGE 20 (JANUARY 31, 1967).
- 69RLN1 RUSSELLS, N. G., TROUTNER, D. E., AND FERGUSON, R. L., CHARGE DISTRIBUTION IN FISSION: FRACTIONAL CUMULATIVE FISSION YIELDS OF BARIUM-143 AND -144 FROM THERMAL-NEUTRON INDUCED FISSION OF URANIUM-235, PHYS. REV., 179, 1188-1193 (MARCH 20, 1969).
- 69SR11 SRINIVASAN, B., ALEXANDER, E. C., JR., MANUEL, O. K., AND TROUTNER, D. E., XENON AND KRYPTON FROM THE SPONTANEOUS FISSION OF CF-252, PHYS. REV., 179, NO. 4, 1166-1169 (20 MARCH 1969). NSA 23C 31037 (1969).
- 69WAH1 WAHL, A. C., NORRIS, A. E., ROUSE, R. A., AND WILLIAMS, J. C., PRELIMINARY DATA FROM THERMAL-NEUTRON INDUCED FISSION OF ^{235}U - A CORRELATION OF RADIOCHEMICAL CHARGE AND MASS DISTRIBUTION DATA. PREPRINT OF PAPER SM-122/116 PRESENTED AT THE IAEA SECOND SYMPOSIUM ON THE PHYSICS AND CHEMISTRY OF FISSION, VIENNA (JULY 1965). CCC-1162-35 STI/PUB/234 CCNF-690702. P. 813.
- 69WE11 WEISS, H. V., BALLCU, N. E., ELZIE, J. L., AND FRESCO, J. M., NUCLEAR CHARGE DISTRIBUTION IN SYMMETRIC FISSION OF ^{235}U WITH THERMAL NEUTRONS: YIELDS OF ^{117}Ag , ^{118}Ag AND ^{118}Pd , PHYS. REV., 180, NO. 4, 1893-1896 (20 DEC. 1969).
- 70DEL1 DELUCCHI, A. A., AND GREENDALE, A. E., FISSION YIELDS OF SEVERAL ISOTOPES AND HALF-LIFE AND FISSION YIELD OF ^{135}Te , PHYS. REV. C, 1, NO. 4, 1491-1497 (APRIL 1970).
- 70FAH1 FAHLAND, J., LANGE, G., AND HERRMANN, G., INDEPENDENT YIELDS OF ^{124}Sb , ^{126}Sb , AND ^{16}Te IN FISSION OF ^{235}U BY THERMAL NEUTRONS, IN GERMAN. J. INORG. NUCL. CHEM., 32, 3145-3157 (1970). NSA 25C 15038 (1971).
- 70FOR1 FORMAN, L., BALESTRINI, S. J., WOLFSBERG, K., AND JETER, T. R., ON-LINE INVESTIGATION OF INDEPENDENT CS YIELDS IN ^{236}U FISSION: IDENTIFICATION OF ^{145}Cs , LA-CC-11500, 13 PAGES (OCTOBER 31, 1970). CERN-70-30 VOL 1 PP. 589-599. NSA 250 28307 (1971). INTERNATIONAL CONFERENCE ON THE PROPERTIES OF NUCLEI FAR FROM BETA STABILITY, LEYDIN, SWITZERLAND (31 AUG 1973).
- 70FCR2 FORD, G. P., WOLFSBERG, K., UNPUBLISHED PRELIMINARY RESULTS (DECEMBER 1970).
- 70KON1 KONECNY, E., GUNTHER, H., ROSLER, H., SIEGERT, G., AND EWALT, F., NUCLEAR CHARGE DISTRIBUTION OF HEAVY FISSION FRAGMENTS FROM THERMAL-NEUTRON-INDUCED FISSION OF ^{235}U , Z. PHYSIK, 231, 59-97 (1970).
- 70KRA1 KRATZ, J. V., AND HERRMANN, G., HALF-LIVES, FISSION YIELDS AND NEUTRON EMISSION PROBABILITIES OF ^{87}Se AND ^{88}Se , AND EVIDENCE FOR ^{87}As , J. INORG. NUCL. CHEM., 32, 3713-3723 (1970). NSA 25C 20327 (1971).
- 70KRA2 KRATZ, J. V., HALBWERTSZEITEN, SPALTAUSBEUTEN UND NEUTRONEMISSIONSWAHRSCHENLICHKEITEN VON SELF-87 UND SELEN-88, ANNUAL REPORT, 1969, MAINZ UNIV. WEST GERMANY. BMBW-FBK-70-19, PP. 16-21 (OCT. 1970). SEE 70KRA1.
- 70LIN1 LIN, C., AND WAHL, A. C., ^{132}Sn HALF-LIFE AND FRACTIONAL CUMULATIVE YIELD FROM THERMAL NEUTRON INDUCED FISSION OF ^{235}U , J. INORG. NUCL. CHEM., 32, 2501-2507 (1970). NSA 24C 49906 (1970).
- 70MAR1 MARMON, P. DEL AND PERRICOS, D. C., IDENTIFICATION OF ^{88}Se AND SEARCH FOR DELAYED NEUTRON EMISSION FROM ^{87}Se AND ^{88}Se , J. INORG. NUCL. CHEM., 32, 705-712 (1970). NSA 24C 28758 (1970).
- 70NIE1 NIECE, L. H., TROUTNER, D. E., AND FERGUSON, R. L., INDEPENDENT YIELDS OF ^{95}Zr FROM THERMAL-NEUTRON FISSION OF ^{235}U AND ^{238}U , PHYS. REV. C, 1, NO. 1, 312-315 (JANUARY 1970). NSA 24C 24582 (1970).
- 70QAI1 QAIM, S. M., AND DENSCHLAG, F. C., INDEPENDENT YIELDS OF ^{132}I , ^{134}I , AND ^{135}I IN THE THERMAL NEUTRON INDUCED FISSION OF ^{235}U AND ^{239}Pu EFFECT OF THE 82-NEUTRON SHELL CLOSURE ON CHARGE DISTRIBUTION, J. INORG. NUCL. CHEM., 32, 1767-1773 (1970). NSA 240 47652 (1970). SUPERCEDES 69CEN2.
- 70RLN1 RUSSELLS, N. G., AND TROUTNER, D. E., NUCLEAR CHARGE DISTRIBUTION IN FISSION: INDEPENDENT YIELDS OF ^{132}I , ^{133}I , AND ^{134}I FROM THERMAL NEUTRON FISSION OF ^{235}U , PHYS. REV. C, 1, NO. 1, 316-322 (JAN. 1970). NSA 240 24581 (1970).
- 70TRA1 TRACY, B. L., AND THODE, H. G., INDEPENDENT YIELDS OF ^{80}Br , ^{82}Br , ^{128}I AND ^{130}I FROM THE THERMAL NEUTRON FISSION OF ^{235}U , ^{239}Pu , ^{238}U , AND ^{238}Pu , CAN. J. PHYS., 48, NO. 14, 1708-1715 (1970).
- 70TRO1 TROUTNER, D. E., EICHOR, M., AND PACE, C. H., NUCLEAR CHARGE DISTRIBUTION IN FISSION: INDEPENDENT YIELDS OF ^{132}I , ^{134}I AND ^{135}I FROM SPONTANEOUS FISSION OF CF-252, PHYS. REV. C, 1, NO. 3, 1044-1052 (1970). REPLACES ORNL-4306, PAGE 34 (1968).

YIELD REFERENCES

- 7CTR02 TRCUTNER, D. E., EICHOR, M., HARBCUR, R. M., PAGE, C. F., AND RUNNALLS, N. G., FRACTIONAL INDEPENDENT AND CUMULATIVE YIELDS OF SOME PRODUCTS OF SPONTANEOUS FISSION OF 252-CALIFORNIUM, PAPER 23, NUCLEAR SECTION, 159TH NATIONAL MEETING AMERICAN CHEMICAL SOCIETY, HOUSTON, TEXAS, (FEB. 22-27, 1970). SUPERCEDES CRNL-4306-24 PAGE 5 (1968).
- 70HE11 WEINREICH, R., KIEFER, W., HERRMANN, G., GERMAN CHEMICAL SOCIETY MEETING ON GENERAL RADIOCHEMISTRY, NUCLEAR-, RADIO- AND RADIATION CHEMISTRY GROUP, KARLSRUHE, MAY 4-6, 1970.
- 71BIR1 BIRGLL, C., AND LYLE, S. J., THE RADIOCHEMICAL DETERMINATION OF CUMULATIVE YIELDS AT MASS 129 IN NUCLEAR FISSION, RADIOCHIM. ACTA, 16, NO. 2, 103-104 (1971). NSA 260 15285 (1972).
- 71DEN1 DENSCHLAG, H. J., CONCERNING SHELL EFFECTS ON THE CHARGE DISTRIBUTION IN NUCLEAR FISSION, HABILITATIONSSCHRIFT UNIVERSITÄT MAINZ 1971.
- 71DFW2 DENSCHLAG, H. J., AND CAIM, S. M., INDEPENDENT YIELDS OF 133I, 134I, AND 135I IN THE FISSION OF 232TH INDUCED BY REACTOR NEUTRONS AND 14.8 MEV NEUTRON CHARGE DISTRIBUTION IN LOW AND MEDIUM ENERGY FISSION, J. INORG. NUCL. CHEM., 33, 3645-3661 (1971). NSA 26014159 (1972).
- 71EIC1 EICHOR, M., AND TRCUTNER, D. E., NUCLEAR CHARGE DISTRIBUTION IN FISSION INDEPENDENT YIELDS OF 139BA AND 140BA, J. INORG. NUCL. CHEM., 33, 1543-1552 (1971). NSA 250 46095 (1971).
- 71GR11 GRIMM, W., DISSERTATION, UNIVERSITÄT, MAINZ, W. GERMANY (1971). SEE 73GR11.
- 71HAR1 HARBCUR, R. M., AND TRCUTNER, D. E., FRACTIONAL CUMULATIVE YIELD OF 2.6 MIN 99M NR FROM LOW ENERGY NEUTRON FISSION OF 233U, 235U, 238U AND SPONTANEOUS FISSION OF 252CF, J. INORG. NUCL. CHEM., 33, 1-8 (1971). NSA 250 20406 (1971).
- 71HAW1 HAWKINGS, R. C., EDWARDS, W. J., AND CLMSTEAD, W. J., INDEPENDENT YIELDS OF MASS-135 XENONS IN THE THERMAL NEUTRON FISSION OF U-233, U-235, PU-239, AND PU-241, CAN. J. PHYS., 49, 785-803 (1971). NSA 250 34087 (1971). SUPERCEDES EANDC-CAN32L (1967).
- 71KRA1 KRAPPEL, W., SEUFERT, H., AND STEGEMANN, D., A METHOD OF NONDESTRUCTIVE MEASUREMENT OF THE ABSOLUTE CUMULATIVE DARIUM-140 YIELD OF URANIUM IRRADIATED IN THERMAL AND FAST NEUTRON SPECTRA, NUCLEAR TECHNOLOGY, 12, 226-234 (CCT. 1971). NSA 250 50733 (1971).
- 71KRA2 KRATZ, J. V., PRIVATE COMMUNICATION TO 71DEN1 (1971).
- 71MCL1 MCLAUGHLIN, T. P., MEASUREMENTS OF ABSOLUTE FISSION PRODUCT YIELDS FROM THERMAL FISSION OF 235U, UNIV. OF ARIZONA THESIS (SEPTEMBER 14, 1971), UNIVERSITY MICROFILM CATALOG NO. 71-14505. NSA 250 53600 (1971).
- 71OKA1 OKAZAKI, A., WALKER, W. H., AND BIGHAM, C. E., ERRATUM TO THE RATIO OF THE DIRECT TO THE CUMULATIVE YIELD OF 135XE IN THE THERMAL NEUTRON FISSION OF 233U, 235U, 239PU, AND 241PU, CAN. J. PHYS., 49, 498-499 (1971). CORRECTS AND SUPERCEDES WORK REPORTED IN CAN. J. PHYS. 44, 237-246 (1966). SUPERCEDES, CORRECTS, AND REPLACES 65B1G1 AND 66OKA1.
- 71ROCI ROCHE, M. F., AND TRCUTNER, D. E., AND FERGUSON, R. L., THE INDEPENDENT YIELD OF 112AG FROM THERMAL NEUTRON INDUCED FISSION OF 233U AND 235U, RADIOCHIM. ACTA 16, NO. 2, 66-71 (1971). NSA 260 14158 (1972).
- 71TOM1 TOMLINSON, L., AND HURDUS, M. H., DELAYED NEUTRON PRECURSORS - IVC 87SE, 88SE AND 89SE HALF-LIVES, NEUTRON EMISSION PROBABILITIES AND FISSION YIELDS, J. INORG. NUCL. CHEM., 33, 3605-3620 (1971). NSA 260 24326 (1972).
- 71TRO1 TRCUTNER, D. E., AND RUNNALLS, N. G., NUCLEAR CHARGE DISTRIBUTION IN FISSION FRACTIONAL CUMULATIVE YIELDS OF 131SB AND 131M-TE FROM SPONTANEOUS FISSION OF 252CF, J. INORG. NUCL. CHEM., 33, 2271-2279 (1971).
- 71TRO2 TRCUTNER, D. E., AND HARBOUR, R. M., NUCLEAR CHARGE DISTRIBUTION IN FISSION FRACTIONAL CUMULATIVE YIELDS OF 132TE AND 134TE FROM THERMAL INDUCED FISSION OF 245CM AND 249CF, PHYS. REV. C, 4, NO. 2, 5C5-5C7 (AUGUST 1971). NSA 250 50755 (1971).
- 71TRO3 TRCUTNER, D. E., COMPARISON OF NUCLEAR CHARGE DISTRIBUTION IN THERMAL-NEUTRON INDUCED FISSION OF 233U AND 235U, J. INORG. NUCL. CHEM., 33, NO. 12, 4327-4333 (DEC 1971). NSA 260 14161 (1972).
- 71WOL1 WOLFSBERG, K., AND FORD, G. P., THERMAL-NEUTRON FISSION OF AM-242MC MASS AND CHARGE DISTRIBUTION, PHYS. REV. C, 3, NO. 3, 1333-1337 (MARCH 1971). ALSO PUBLISHED AS LA-CC-12142 (JUNE 1, 1970). NSA 250 31273 (1971).
- 71WOL2 WOLFSBERG, K., A NEW NUCLIDE, XE-1450 MEASUREMENT OF ITS FRACTIONAL CUMULATIVE YIELD FROM THERMAL NEUTRON FISSION OF U-235, J. INORG. NUCL. CHEM., 33, 587-589 (1971). NSA 250 20470 (1971).
- 72ALE1 ALEXANDER, P., INDEPENDENT YIELDS OF 133, 135XE IN THE FISSION OF 235L, 238L, AND 235PL BY 14 MEV NEUTRONS, NUCL. PHYS., A198, NO. 1, 228-236 (1972). NSA 27008665 (1972).
- 72BAL1 BALLCU, A. E., KAYE, J. H., AND REEDER, P. L., FISSION YIELDS OF ALKALI METAL AND RARE GAS ISOTOPES IN THERMAL NEUTRON FISSION OF 235U, PAPER 2, CHARLES D. CORYELL MEMORIAL SYMPOSIUM, 163RD ACS NATIONAL MEETING, BOSTON, MASS. (APRIL 9-14, 1972).
- 72BER1 BERGE, L. A., PH. D. THESIS, UNIVERSITY OF MISSOURI (1972).
- 72BOC1 BOCCQUET, J. P., BRISSOT, R., CRANCON, T., MUCSSA, A., ON-LINE MEASUREMENTS OF RARE-GAS FISSION YIELDS IN 14 MEV NEUTRON FISSION, NUCL. PHYS. A189, 556-576 (1972). NSA 260 47030 (1972). FOR FULL 164 PG. THESIS SEE 71BOC1.
- 72CHA1 CHAUMONT, J., ON LINE MASS SPECTROMETRY TECHNIQUE (SEE 70CHA1) CITED BY 72BAL1.

YIELD REFERENCES

- 72EPR1 EHRENBERG, B., AMIEL, S., INDEPENDENT YIELDS OF KRYPTON AND XENON ISOTOPES IN THERMAL-NEUTRON FISSION OF ^{235}U . OBSERVATION OF AN ODD-EVEN EFFECT IN THE ELEMENT YIELD DISTRIBUTION. PHYS. REV. C, 6, NO. 2, 618-628 (AUG 1972).
- 72FLY2 FLYNN, K. F., SRINIVASAN, B., MANUEL, C. K., GLENDEIN, L. E., DISTRIBUTION OF MASS AND CHARGE IN SPONTANEOUS FISSION OF ^{244}Cm . PHYS. REV. C. 2211-2214 (1972).
- 72GLN1 GUNTHER, H., SIEGERT, G., FERGUSON, R. L., EWALD, F., KONECNY, E., FISSION-FRAGMENT CHARGE DISTRIBUTION IN THERMAL-NEUTRON INDUCED FISSION OF ^{236}Pu AND ^{235}U . NUCL. PHYS., A196, NO. 2, 401-411 (1972). NSA 27013566 (1973). MASS REGION 131-140 ESPECIALLY 132-SN. (DOURLY MAGIC).
- 72IZA1 IZAK, I., AMIEL, S., HALF LIVES AND GAMMA RAYS OF TEN ISOTOPES OF MASSES 129, 130, 131 AND 132. J. INORG. NUCL. CHEM. 34, 1465-1477 (1972). NSA 260 34911 (1972).
- 72KN01 KNOBELSCH, G. W., THE LOS ALAMOS SCIENTIFIC LABORATORY, UNIVERSITY OF CALIFORNIA, UNPUBLISHED RESULTS (1972).
- 72KUR1 KURCHATOV, B. V., MOROZOV, L. N., NOVOCRODSEVA, V. I., ET. AL., MASS DISTRIBUTION OF THE FISSION PRODUCTS FROM ^{249}Cf EXPOSED TO SLOW NEUTRONS. YAC. FIZ. 14, 943 (1972). (PAGE 526 IN THE ENGLISH TRANSLATION).
- 72MAR1 MARMEL, P. DEL FETTSWEISS, P., IDENTIFICATION OF NEW GERMANIUM ISOTOPES IN FISSION DECAY PROPERTIES AND NUCLEAR CHARGE DISTRIBUTION IN THE A = 78 TO 84 MASS REGION. NUCL. PHYS. A194, 14C-16C (1972).
- 72MEE1 MEEK, P. E., RIDER, B. F., COMPILATION OF FISSION PRODUCT YIELDS, VALLECITOS NUCLEAR CENTER - 1972. GENERAL ELECTRIC COMPANY REPORT NEDC-12154 (JANUARY 1972).
- 72NAE1 NAUMANN, R., FOLGER, H., AND DENSCHLAG, H. O., DETERMINATION OF THE NUCLEAR CHARGE DISTRIBUTION IN THE CHAIN 132 FROM THERMAL NEUTRON FISSION OF ^{235}U AND ^{233}U . J. INORG. NUCL. CHEM., 34, 1785-1797 (1972). NSA 260 44324 (1972).
- 72NET1 NETHAWAY, D. R., AND MENDOZA, B., FISSION OF ^{234}U AND ^{236}U WITH 14.8-MEV NEUTRONS. UCRL-73937 (JANUARY 1972). PUBLISHED IN PHYS. REV. C, 6, NO. 5, 1821-1826 (NOV 1972). NSA 27006671 (1973).
- 72NET2 NETHAWAY, D. R., AND MENDOZA, B., COMPARISON OF YIELDS FROM FISSION OF ^{233}U , ^{234}U , ^{235}U , ^{236}U , AND ^{238}U WITH 14.8-MEV NEUTRONS. UCRL-73936 (APRIL 1972). SUPERCEDES U232 DATA IN TCNE11. PUBLISHED IN PHYS. REV. C. 6, NO. 5, 1827-1837 (NOV 1972).
- 72PRI1 PRINDLE, A. L., LAWRENCE LIVERMORE LABORATORY OF THE UNIVERSITY OF CALIFORNIA, PRIVATE COMMUNICATION TO 72NET2.
- 72RA01 RAC, S. A., CHARGE DISTRIBUTION IN THE FISSION OF T-222. PHYS. REV. C, 5, NO. 1, 171-177 (JANUARY 1972). NSA 26014150 (1972).
- 72REE1 REEDER, P. L., BATTTELLE-NORTH-WEST PACIFIC NORTHWEST LABORATORIES, PRIVATE COMMUNICATION TO 73AM11, (1972).
- 72TRO1 TROUTNER, D. E., AND HARBOUR, R. M., NUCLEAR CHARGE DISTRIBUTION IN FISSION FRACTIONAL INDEPENDENT YIELD OF ^{140}La FROM THERMAL-NEUTRON INDUCED FISSION OF ^{249}Cf . J. INORG. NUCL. CHEM., 34, 8C1-8C9 (1972). NSA 260 29721 (1972).
- 72WAH1 WAHL, A. C., DENIG, R., CUMULATIVE YIELD OF 83-SEC ^{136}I FROM THERMAL-NEUTRON INDUCED FISSION OF ^{235}U . J. INORG. NUCL. CHEM. 34, 2413-2418 (1972). NSA 260 54626 (1972).
- 72WCL1 WOLFSBERG, K., FORD, G. P., THE LOS ALAMOS SCIENTIFIC LABORATORY UNIVERSITY OF CALIFORNIA, PRELIMINARY UNPUBLISHED VALUES (DECEMBER 1972).
- 73AM11 AMIEL, S., FELDSSTEIN, H., A SYSTEMATIC ODD-EVEN EFFECT IN THE INDEPENDENT YIELD DISTRIBUTIONS OF NUCLIDES FROM THERMAL NEUTRON FISSIONS OF ^{235}U . IAEA/SM-174/25, IAEA THIRD SYMPOSIUM ON THE PHYSICS AND CHEMISTRY OF FISSION, ROCHESTER, N. Y. USA (AUGUST 13-17, 1973).
- 73BAL1 BALESTRINI, S. J., FORMAN, L., DEVELOPMENTS IN AREAS OF ON-LINE FISSION-YIELD AND DIRECT MASS MEASUREMENTS AT THE LOS ALAMOS SCIENTIFIC LABORATORY. LA-UR-73-838 (1973). NSA 280141C2 (1973).
- 73FOR1 FORD, G. P., WOLFSBERG, K., LOS ALAMOS SCIENTIFIC LABORATORY, UNIVERSITY OF CALIFORNIA, UNPUBLISHED PRELIMINARY RESULTS (APRIL, JUNE, SEPTEMBER 1973).
- 73FOR2 FORMAN, L., BALESTRINI, S. J., WOLFSBERG, K., JETER, T. R., PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON THE PROPERTIES OF NUCLEI FAR FROM BETA STABILITY (1973).
- 73FCW1 FOWLER, M. M., WAHL, A. C., YIELDS AND GENETIC HISTORIES OF ^{126}Sb , ^{125}Sb AND ^{130}Sb FROM THERMAL-NEUTRON INDUCED FISSION OF ^{235}U . SUBMITTED TO J. INORG. NUCL. CHEM. (1973).
- 73GLN1 GUNTHER, H., Eidg. INSTITUT FÜR REACTORFORSCHUNG, WÜRENLINGEN, SWITZERLAND, PERSONAL COMMUNICATION TO K. WOLFSBERG, UNIVERSITY OF CALIFORNIA, LOS ALAMOS SCIENTIFIC LABORATORY (AUGUST 1973).
- 73HAR1 HARBOUR, R. M., MACMURDO, K. W., TROUTNER, D. E., KERN, M. V., MASS AND NUCLEAR CHARGE DISTRIBUTIONS FROM SPONTANEOUS FISSION OF ^{254}Fm . PHYS. REV. C, 8, 1488-1493 (OCTOBER 1973).
- 73KRA1 KRATZ, J. V., FRANZ, H., HERRMANN, G., DELAYED-NEUTRONS FROM ARSENIC ISOTOPES ^{74}As , ^{75}As , AND ^{76}As . J. INORG. NUCL. CHEM. 35, 1407-1417 (1973). NSA 2801335 (1973).
- 73KRA2 KRATZ, J. V., HERRMANN, G., YIELDS OF SHORT-LIVED FISSION PRODUCTS IN THE 50-NEUTRON SHELL REGION IN THERMAL-NEUTRON INDUCED FISSION OF ^{235}U . IAEA/SM-174/14, IAEA THIRD SYMPOSIUM ON THE PHYSICS AND CHEMISTRY OF FISSION, ROCHESTER, N. Y. USA (AUGUST 13-17, 1973).

YIELD REFERENCES

- 73KRA3 KRATZ, K. L., JAHRESBERICHT, UNIVERSITAT MAINZ (1973).
 73NET1 NETHAWAY, D., LAWRENCE LIVERMORE LABORATORY, UNIVERSITY OF CALIFORNIA, UNPUBLISHED WORK 1973. 1973).
 73RA01 RAC, S. A., KURODA, P. K., CHARGE DISTRIBUTION IN NEUTRON-INDUCED FISSION OF THORIUM, J. INORG. NUCL. CHEM. 35, 1443-1449 (1973). NSA 2801384 (1973).
 73TRO1 TROUTNER, D. E., HARBOUR, R. M., FRACTIONAL INDEPENDENT YIELDS OF 111M-PC AND 112-AG FROM THERMAL-NEUTRON-INDUCED FISSION OF 249CF, J. INORG. NUCL. CHEM. 35, 11-17 (1973).
 73TRO3 TROUTNER, D., PERSONAL COMMUNICATION TO K. WOLFSBERG, (OCTOBER 12, 1973).
 73UME1 UMEZAWA, H., INDEPENDENT ISOMERIC YIELD RATIO OF 140PM IN THE THERMAL-NEUTRON INDUCED FISSION OF 233U, J. INORG. NUCL. CHEM. 35, 353 (1973).
 73VEN1 VENEZIA, A., PH. D. THESIS, HEBREW UNIVERSITY, JERUSALEM. (1973).
 73WAL3 WALKER, W. H., STATUS OF FISSION PRODUCT YIELD DATA FOR THERMAL REACTORS, AECL-4704, IAEA PANEL ON FISSION PRODUCT NUCLEAR DATA, BOLOGNA, ITALY, (NOVEMBER 26-30, 1973).
 73WCL1 WOLFSBERG, K., FORD, G. P., ERDAL, B. R., PRIVATE COMMUNICATION TO B. F. RIDER, OCTOBER 1973.
 K-K60-1 I. KRISLYK ET. AL., RADIOCHIMIA 2, 743 (1960). 60KRIS1.
 K-G60-2 W. GRUMMITT, PAPER 16, 00 SYMP. . . , CHALK R., FROM NETHAWAY REF.2 5-73. 60GRU2.
 K-K62-1 A. APOLONOVA ET. AL., RADIOCHIMIA 4, 587 (1962). 62APC1.
 K-K62-2 A. APOLONOVA ET. AL., RADIOCHIMIA 4, 711 (1962). 62APC2.
 K-K70-1 V. KRATZ AND G. HERRMANN, JINC 32, 3713 (1970). 70KRA1.
 K-W70-2 K. WOLFSBERG AND G. P. FORD, UNPUBLISHED RESULTS, 1970. 70WCL2.
 K-D71-1 H. DENSCHLAG AND S. QAIM, JINC 33, 3649 (1971). 71DEN2.
 K-D71-2 H. D. DENSCHLAG, HABILITATIONSSCHRIFT, MAINZ, 1971. 71DEN1.
 K-E71-1 E. EICHOR AND D. TROUTNER, JINC 33, 1543 (1971). 71EIC1.
 K-N71-1 R. NAELMANN ET. AL., JINC 34, 1785 (1972). 72NAE1.
 K-O71-1 A. OKAZAKI, CAN. J. PHYS. 49, 498 (1971). CORRECTS 66OKA1. 71OKA1.
 K-R71-1 M. ROCHE AND D. TROUTNER RADIOCHIM. ACTA 16, 66 (1971). 71RCC1.
 K-T71-1 C. TOMLINSON AND M. HURDIS, JINC 33, 3609 (1971). 71TCW1.
 K-T71-2 C. TROUTNER, JINC 33, 4327 (1971). 71TRO1.
 K-T71-3 C. TROUTNER AND R. M. HARBOUR, PHYS. REV. C 4, 505 (1971). 71TRC2.
 K-T71-4 D. TROUTNER, 161ST ACS MEETING (1971). 71TRC3.
 K-W71-1 K. WOLFSBERG AND G. FORD, PHYS. REV. C 3, 1333 (1971). 71WCL1.
 K-A72-1 P. ALEXANDER, NUCL. PHYS. A198, 228 (1972). 72ALE1.
 K-B72-1 J. BCCLET ET. AL., NUCL. PHYS. A189, 556 (1972). 72BCC1.
 K-B72-2 L. A. BERGE, PH. D. THESIS, L. CF MC. (1972). FROM K-173-2. 72BER1.
 K-E72-1 B. EHRENBERG AND S. AMIEL, PHYS. REV. C 6, 618 (1972). 72EHR1.
 K-E72-2 SAME AS K-E72-1. 72EHR1.
 K-E72-3 M. E. EICHOR, PH D THESIS, U. CF MC., 1972. 72EIC1.
 K-F72-1 K. F. FLYNN ET. AL., PHYS. REV. C, 2211 (1972). 72FLY2.
 K-F72-2 G. P. FORD AND K. WOLFSBERG, PRELIMINARY RESULTS, 12-72. 70FOR2.
 K-K72-2 CALCULATED FROM RESULTS OF G. KNOBELOCH AND 1972 M. AND R. YIELDS. 72KNC1.
 K-K72-3 V. KLICHAYOV, ET. AL., YAD. FIZ. 14, 943 (1972). TRANS P.528. 72KLR1.
 K-M72-1 P. DEL MAROL AND P. FETTHEISS, NUCL. PHYS. A194, 140 (1972). 72MAR1.
 K-N72-1 D. NETHAWAY AND B. MENDOZA, PHYS. REV. C 6, 1827 (1972). 72NE11.
 K-P72-1 A. PRIADLE, PRIVATE COMMUNICATION IN K-N73-1. 72PRI1.
 K-R72-1 S. RAD, PHYS. REV. C 5, 171 (1972). 72RA01.
 K-T72-2 C. TROUTNER AND R. M. HARBOUR, JINC 34, 801 (1972). 73TRC1.
 K-W72-2 A. C. WAHL AND R. DENIG, JINC 34, 2413 (1972). 72WAH1.
 K-W72-3 K. WOLFSBERG, UNPUBLISHED RESULTS, 12-72. 72WOL1.
 K-A73-1 S. AMIEL AND H. FELDSTEIN, IAEA/SM-174/25 (1973). MCCHESTER CONF. 73AM11.
 K-B73-1 S. BALESTRINI, PERSONAL COMMUNICATION, 9-73. RELATIVE TO S. 73BAL1.
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 K-F73-3 G. P. FORD AND K. WOLFSBERG, PRELIMINARY RESULTS, 3-73. 73FCR1.
 K-F73-4 G. P. FORD AND K. WOLFSBERG, PRELIMINARY RESULTS, 6-73. 73FCR1.

YIELD REFERENCES

K-F73-5 G. P. FORD AND K. WELFSBERG, PRELIMINARY RESULTS, 9-73. 73FCR1.
 K-G73-1 H. VON GLTEN, PERSONAL COMMUNICATION, 8-73. 73GUN1.
 K-H73-1 R. HARBOLR, ET. AL., PHYS. REV. C 8, 1488 (1973). 73HAR1.
 K-H73-2 R. HARBOLR ET AL., 166TH ACS MEETING, CHICAGO, 1973. 73HAR2.
 K-K73-2 V. KRATZ AND G. HERRMANN, IAEA/SM-174/14(1973). ROCHESTER CONF. 73KHA2.
 K-K73-3 V. KRATZ ET. AL., JINC 335, 1407 (1973). 73KRA1.
 K-N73-1 D. NETHAWAY 1973. COMPILATION. 73NET1.
 K-N73-2 D. NETHAWAY, PRELIMINARY RESULTS IN K-N73-1. 73NET1.
 K-R73-1 S. A. RAC AND P. K. KURODA, JINC 35, 1443(1973). 73RAC1.
 K-S73-1 H. D. SHARMA, PERSONAL COMMUNICATION TO TROUTNER, 9-20-73-K-173-2. SEE K-P73-1 AND K-P74-1. 73SHA1.
 K-T73-1 C. E. TROUTNER AND R. M. HARBOUR, JINC 35, 1 (1973). 73TRC1.
 K-T73-2 D. TROUTNER, PERSONAL COMMUNICATION, 10-12-73. 73TRC2.
 K-U73-1 H. UPEZAWA, JINC 35, 353(1973). 73UPE1.
 K-W73-1 W. H. WALKER, AECL 4704, PAPER 11A, IAEA-BOLOGNA, NOV. 1973. 73WAL3.
 K-P73-1 R. W. PARSONS AND H. D. SHARMA, RADIOCEM. RADIOANAL. LETTERS 15, 335 (1973). REPLACES K-S73-1 IN PART.
 K-P74-1 R. W. PARSONS AND H. D. SHARMA, NOTE SUBMITTED TO JINC. RECEIVED BY K. W. 2-17-74. REPLACES K-S73-1 IN PART.