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ANALYSIS OF ZPPR/FTR SHIELD EXPERIMENTS:
NEUTRON DISTRIBUTION

E. T. BOULETTE

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ANALYSIS OF ZPPR/FTR SHIELD EXPERIMENTS:
NEUTRON DISTRIBUTION

E. T. Boulette

ABSTRACT

Two-dimensional diffusion theory calculations are shown to predict realistically the measured neutron-induced reaction rates [$^{238}\text{U}(n,f)$, $^{239}\text{Pu}(n,f)$, $^{10}\text{B}(n,\alpha)$, $^{23}\text{Na}(n,\gamma)$, $^{55}\text{Mn}(n,\gamma)$] throughout the core, reflector, and radial shield of test assembly FTR-2, which was loaded in the Zero Power Plutonium Reactor facility operated by Argonne National Laboratory. In the areas where disagreement between the calculations and measurements was noted, the measurements provide a basis for any required empirical adjustments in design calculations to assure that the Fast Test Reactor radial shield will perform satisfactorily.

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TABLE OF CONTENTS

INTRODUCTION	1
SUMMARY	3
DISCUSSION	4
Background	4
Experiment Description	5
Spectrometer Results	13
Reaction Rate Measurements	16
Reaction Rate Calculations	17
REFERENCES	28
ACKNOWLEDGMENT	27
APPENDIX A COMPILATION OF MEASUREMENTS	A1
APPENDIX B HOMSET CROSS-SECTION LIBRARY	B1
References	B54

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LIST OF FIGURES

1	ZPPR Assembly with FPR Shield Loading - Neg No. 51625-1	6
2	Areal Profile of ZPPR Assembly FTR-2 (Section BB) - Neg No. 52839-1	7
3	Axial Cross Section of ZPPR Assembly FTR-2 (Section AA) - Neg No. 52839-3	8
4	X-Y Map of Material Zones - Neg No. 52839-6 (a) With Stored Fuel (b) Without Stored Fuel	10
5	R-Z Map of Material Zones - Neg no. 52839-7 (a) With Stored Fuel (b) Without Stored Fuel	11
6	Spectrum in the Radial Reflector - Neg No. 52839-8	14
7	Spectrum in the Shield Sector - Neg No. 52839-9	15
8	^{238}U Counter Response Calculations With and Without θ -Buckling - Neg No. 52714-2	19
9	^{238}U Fission Counter Response Distribution - Neg No. 52714-3	21
10	$^{23}\text{Na}(n,\gamma)$ Reaction Rate Distribution - Neg No. 52714-1	24
11	$^{23}\text{Na}(n,\gamma)$ Reaction Rate Versus Lethargy in the Core and in the Shield - Neg No. 52839-2	25
A-1	$^{10}\text{B}(n,\alpha)$ Radial Reaction Rate Distribution at Z = 3 in. - Neg No. 52131-9 (a) With Stored Fuel (b) Without Stored Fuel	A3
A-2	$^{10}\text{B}(n,\alpha)$ Radial Reaction Rate Distribution at Z = 14 in. - Neg No. 52131-6 (a) With Stored Fuel (b) Without Stored Fuel	A4
A-3	$^{10}\text{B}(n,\alpha)$ Radial Reaction Rate Distribution at Z = 22 in. - Neg No. 52131-2 (a) With Stored Fuel (b) Without Stored Fuel	A5
A-4	$^{239}\text{Pu}(n,f)$ Radial Reaction Rate Distribution at Z = 3 in. - Neg No. 52131-8 (a) With Stored Fuel (b) Without Stored Fuel	A6

A-5	$^{239}\text{Pu}(n,f)$ Radial Reaction Rate Distribution at Z = 14 in. - Neg No. 52131-7 (a) With Stored Fuel (b) Without Stored Fuel	A7
A-6	$^{239}\text{Pu}(n,f)$ Radial Reaction Rate Distribution at Z = 22 in. - Neg No. 52131-1 (a) With Stored Fuel (b) Without Stored Fuel	A8
A-7	$^{238}\text{U}(n,f)$ Radial Reaction Rate Distribution at Z = 3 in. - Neg No. 52131-3 (a) With Stored Fuel (b) Without Stored Fuel	A9
A-8	$^{238}\text{U}(n,f)$ Radial Reaction Rate Distribution at Z = 14 in. - Neg No. 52131-5 (a) With Stored Fuel (b) Without Stored Fuel	A10
A-9	$^{238}\text{U}(n,f)$ Radial Reaction Rate Distribution at Z = 22 in. - Neg No. 52131-4 (a) With Stored Fuel (b) Without Stored Fuel	A11
A-10	$^{23}\text{Na}(n,\gamma)$ Radial Reaction Rate Distribution at Z = 3 in. - Neg No. 52192-15 (a) With Stored Fuel (b) Without Stored Fuel	A12
A-11	$^{23}\text{Na}(n,\gamma)$ Radial Reaction Rate Distribution at Z = 14 in. - Neg No. 52192-1 (a) With Stored Fuel (b) Without Stored Fuel	A13
A-12	$^{23}\text{Na}(n,\gamma)$ Radial Reaction Rate Distribution at Z = 22 in. - Neg No. 52192-6 (a) With Stored Fuel (b) Without Stored Fuel	A14
A-13	$^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at R $\approx$ 13 in. - Neg No. 52192-5 (a) With Stored Fuel (b) Without Stored Fuel	A15
A-14	$^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at R $\approx$ 43 in. - Neg No. 52192-2 (a) With Stored Fuel (b) Without Stored Fuel	A16
A-15	$^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at R $\approx$ 52 in. - Neg No. 52192-11 (a) With Stored Fuel (b) Without Stored Fuel	A17

A-16	$^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at R $\approx$ 56 in. - Neg No. 52192-10 (a) With Stored Fuel (b) Without Stored Fuel	A18
A-17	$^{55}\text{Mn}(n,\gamma)$ Radial Reaction Rate Distribution at Z = 3 in. - Neg No. 52192-4 (a) With Stored Fuel (b) Without Stored Fuel	A19
A-18	$^{55}\text{Mn}(n,\gamma)$ Radial Reaction Rate Distribution at Z = 14 in. - Neg No. 52192-3 (a) With Stored Fuel (b) Without Stored Fuel	A20
A-19	$^{55}\text{Mn}(n,\gamma)$ Radial Reaction Rate Distribution at Z = 22 in. - Neg No. 52192-7 (a) With Stored Fuel (b) Without Stored Fuel	A21
A-20	$^{55}\text{Mn}(n,\gamma)$ Axial Reaction Rate Distribution at R $\approx$ 13 in. - Neg No. 52192-8 (a) With Stored Fuel (b) Without Stored Fuel	A22
A-21	$^{55}\text{Mn}(n,\gamma)$ Axial Reaction Rate Distribution at R $\approx$ 43 in. - Neg No. 52192-12 (a) With Stored Fuel (b) Without Stored Fuel	A23
A-22	$^{55}\text{Mn}(n,\gamma)$ Axial Reaction Rate Distribution at R $\approx$ 52 in. - Neg No. 52192-9 (a) With Stored Fuel (b) Without Stored Fuel	A24
A-23	$^{55}\text{Mn}(n,\gamma)$ Axial Reaction Rate Distribution at R $\approx$ 56 in. - Neg No. 52192-13 (a) With Stored Fuel (b) Without Stored Fuel	A25

ANALYSIS OF ZPPR/FTR SHIELD EXPERIMENTS:
NEUTRON DISTRIBUTION

E. T. Boulette

INTRODUCTION

Shielding experiments were carried out in the Zero Power Plutonium Reactor (ZPPR) by Argonne National Laboratory (ANL) to provide the FFTF project with an evaluation basis for the conceptual design of the Fast Test Reactor (FTR) radial shield. The FTR is unique from the shielding standpoint in that reflectors will be used rather than breeder blankets. In addition, irradiated fuel and other reactor components are to be stored within the reactor vessel during subsequent operating cycles to permit decay prior to removal from the primary heat transport system. Only stainless steel is to be in contact with the sodium in the primary heat transport system; thus, any shields located within the sodium must consist only of stainless steel or must be clad in stainless steel. The goal is to employ only stainless steel to circumvent any problems associated with the use of clad shield materials. Experimental data for sodium-steel shields were obtained previously in the Shield Test and Irradiation Reactor facility operated by Atomics International;⁽¹⁻³⁾ however, those experiments employed a fission plate source and a geometry not characteristic of the FTR. There was a need to determine the attenuation characteristics of the conceptual shield design in order to establish its feasibility, especially in light of the requirement to locate irradiated fuel in the sodium annulus surrounding the shield. In addition, the ZPPR shield experiments provide experimental data for determining the applicability of various analytical techniques and nuclear data sets for use in the

design of FTR shields. This report provides an evaluation of the use of two-dimensional diffusion theory as embodied in the computer program 2DBS⁽⁴⁾ coupled with the HOMSET cross section library for calculating the neutron flux distribution around the core and within the reactor vessel, based on the experimental data obtained in the ZPPR/FTR shield experiments. Evaluation of a gamma calculational technique is the subject of a separate report.⁽⁵⁾

SUMMARY

Based on the results achieved in this study, it is concluded that diffusion theory using the HOMSET cross sections will realistically describe the spectral and spatial distribution of the neutron flux in the reflectors and radial shield of the FTR. The calculated fission rate in the experimental stored fuel zone was found to be about 30% lower than the measured rate. Although this difference can be attributed in part to the proximity of the stored fuel zone to the physical boundary of the experimental assembly and the uncertainty associated with the analytical treatment of this boundary, it indicates that consideration must be given to this effect in the actual FTR design. Good agreement was achieved between the calculated and the measured fast neutron distribution (^{238}U fission) in regions containing fuel; however, in non-fueled zones the calculations underpredict the ^{238}U fission rate even when low order transport corrections are included. An empirical correction in the HOMSET capture cross section for ^{23}Na was required to achieve agreement between experimental results and calculations. The correction indicates a potential energy-dependent bias in existing cross-section measurements of this reaction, with the high-energy cross section being high with respect to the low-energy region. The neutron spectra in the reflector and in the shield are realistically calculated in the energy range measured using hydrogen recoil spectroscopy. Apparent inconsistencies at lower energies may be due, in part, to uncertainties in the measurements rather than the calculations.

DISCUSSION

BACKGROUND

Shielding experiments were carried out in the Zero Power Plutonium Reactor (ZPPR) by Argonne National Laboratory (ANL) in support of the conceptual shield design of the Fast Test Reactor (FTR). The principal objectives of the experiment were:

- to provide an evaluation of the FTR conceptual radial shield design
- to provide activation measurements directly applicable to the FTR
- to investigate the impact of in-vessel storage of fuel on FTR design.

Assembly FTR-2 in the ZPPR was loaded to approximate many of the basic features of the FTR. In particular, it consisted of a 1000-liter two-zone core surrounded by a 1-foot thick nickel reflector and a 2-foot thick stainless steel-sodium shield. No attempt was made in the ZPPR loading to account for the hexagonal geometry of the FTR core, radial reflector, and radial shield. Rather, the X-Y loading was such as to allow analytical treatment in R-Z geometry. Also, the FTR shield is surrounded by an annular sodium zone in which fuel and other reactor components may be stored. The ZPPR facility is not large enough to incorporate this feature; therefore, provisions were made to include a stored fuel zone within the experimental shield. Measurements were made with and without fuel in the shield zone.

The neutron distribution was measured by obtaining reaction rate traverses of ^{239}Pu and ^{238}U with fission counters, and of ^{10}B with a BF_3 counter. Radial reaction rate distributions were measured at three elevations from the core midplane.

In addition, sodium and manganese foils were dispersed in the assembly and irradiated. The selection of these counters and foils was based not only on their distinctive response functions, but also because of the impact of these reaction rates on the FTR design. The sodium and manganese foil results can be used to estimate activation of sodium and structural components in the FTR. The fission counter results yield information on the heat generation in the stored fuel zone.

In addition to these measurements, neutron spectra in the reflector and shield were measured over the energy range from 329 eV to 2.37 MeV with a proportional proton-recoil spectrometer.

EXPERIMENT DESCRIPTION

The ZPPR facility with the FTR-2 assembly loading⁽⁶⁻⁸⁾ is depicted in Figure 1. The fixed half and the movable half are identically loaded. The areal profile of the actual loading is depicted in Figure 2, and the cross-sectional profile through the shield midplane is shown in Figure 3. The stored fuel is shown in position in both of these figures; however, measurements were made with and without stored fuel in the shield.

The assembly loading consisted of positioning drawers (2 in. x 2 in. x 48 in.) into both halves of the assembly. Each drawer contained an array of platelets varying in dimensions from about 1/8 in. x 2 in. x 1 in. to 1/2 in. x 2 in. x 8 in.^(6,8,9) Platelets were made of Pu, U_3O_8 , Ni, stainless steel, Fe_2O_3 , and Na and Na_2CO_3 canned in stainless steel. The platelets were stacked in each drawer, and the drawers were arranged to approximate the material compositions of the FTR. The result is a heterogeneous mixture in each zone.

FIGURE 1. *ZPPR Assembly with FTR Shield Loading*

FIGURE 2. *Areal Profile of ZPPR Assembly FTR-2 (Section BB)*

-----ELEVATIONS AT WHICH MEASUREMENTS WERE MADE

FIGURE 3. Axial Cross Section of ZPPR Assembly FTR-2 (Section AA)

However, as will be shown later, the heterogeneity is sufficiently fine as to allow a zonal dependent homogeneous treatment in the analysis. Detailed descriptions of the drawer loadings are found in References 6, 8, and 9.

Preliminary analysis indicated that these experiments could be adequately analyzed by using diffusion theory as opposed to transport theory. Since diffusion theory calculations require significantly less computational time than transport theory calculations, especially in two-dimensional geometry, diffusion theory was used in this analysis. The two-dimensional diffusion theory code used was 2DBS.⁽⁴⁾ As will be shown later, only the $^{238}\text{U}(n,f)$ reaction rate calculations made with diffusion theory were significantly different from those made with transport theory.

Rigorous treatment of these experiments requires three-dimensional calculations, and these are not presently practical. Two-dimensional calculations were made in X-Y and R-Z geometry. The X-Y calculations rigorously treat the finite transverse dimensions of the shield and stored fuel zones, but not the length. The R-Z calculations treat the shield and stored fuel zones as annuli; and therefore, accommodate the axial leakage but not the transverse leakage.

The nuclear data used in all calculations were extracted from the 31-group transport corrected HOMSET library. A listing of the library is found in Appendix B of this report.

In Figures 4 and 5 are illustrated the geometric models used in the calculations. The material compositions by zone are tabulated in Table 1. The empty matrix and the ZPPR support structure were included in the calculation to approximate the actual boundaries. The material compositions used for these zones are 13 vol% stainless steel for the matrix and

FIGURE 4(a). X-Y Map of Material Zones (With Stored Fuel)

FIGURE 4(b). X-Y Map of Material Zones (Without Stored Fuel)

FIGURE 5(a). R-Z Map of Material Zones (With Stored Fuel)

FIGURE 5(b). R-Z Map of Material Zones (Without Stored Fuel)

TABLE 1. *Material Compositions by Zone (atoms/barn-cm)*

<u>Nuclide</u>	<u>Depleted Zone</u>	<u>Core</u>	<u>Radial Reflector</u>	<u>Axial Reflector</u>	<u>Shield</u>	<u>Stored Fuel</u>
²³⁵ U	0.0000120	0.0000131	-----	-----	-----	0.0000133
²³⁸ U	0.0096771	0.0059766	-----	-----	-----	0.0061128
²³⁹ Pu	-----	0.0012737	-----	-----	-----	0.0014153
²⁴⁰ Pu	-----	0.0001688	-----	-----	-----	0.0001876
²⁴¹ Pu	-----	0.0000278	-----	-----	-----	0.0000310
C	0.0008514	0.0010944	0.0001547	0.0000284	0.0000264	0.0007295
O	0.0152671	0.0152206	-----	-----	-----	0.0152920
Cr	0.0020978	0.0025348	0.0019747	0.0022823	0.0102972	0.0025351
Fe	0.0121299	0.0130662	0.0071580	0.0081683	0.0380490	0.0143480
Ni	0.0009453	0.0011631	0.0460037	0.0189744	0.0045539	0.0011633
Na	0.0080440	0.0085302	0.0065078	0.0133588	0.0059617	0.0008003

Empty matrix - 13 vol% stainless steel

Support structure - 100 vol% stainless steel

100 vol% stainless steel for the support structure. The bottom and left boundary conditions imposed on the geometric models were reflective; whereas, the top and right boundary conditions were vacuum. The X-Y calculations included an axial buckling of $6.0 \times 10^{-4} \text{ cm}^{-2}$ in the depleted zone, the core, and the reflector and yielded values for k_{eff} that agreed to within a few percent with the values obtained from the R-Z calculations.

SPECTROMETER RESULTS

Proton-recoil spectrometer measurements⁽¹⁰⁾ were made in the reflector and shield at the locations indicated in Figure 2. The measurements extended over the energy range from 329 eV to 2.37 MeV and were made with no stored fuel in the shield. The results of the measurements in the radial reflector are compared with the calculations in Figure 6. Since the measurements were not made on an absolute basis, the calculations were normalized so that the area under the calculated curve was equal to the area under the experimental curve in the energy range from 329 eV to 2.37 MeV. The same normalization was made for the shield spectrum. The reflector spectrum clearly indicates the high content of nickel, which has strong resonances at ~ 15.5 keV and ~ 65 keV. Notice also that the iron window (26.5 keV) is suppressed--most probably due to the nickel resonances. The sodium resonance at 2.85 keV is also clearly evident.

The results of the spectrometer measurements in the shield are shown in Figure 7. The agreement between the experiment and the calculation is comparable to the reflector results. Note, however, that the iron window peak at 26.5 keV is now significant and is clearly evident in both the measurement and the calculation.

FIGURE 6. *Spectrum in the Radial Reflector*

FIGURE 7. *Spectrum in the Shield Sector*

Overall, the agreement with the spectrometer measurements is relatively good. However, there is a definite bias centered about the 2.85 keV sodium resonance. Because of the arbitrary normalization required, it is not possible to determine whether the discrepancy is above the sodium resonance or below it. It should be noted, however, that the uncertainty in proton-recoil spectrometer measurements increases with decreasing energy; especially for energies below 1 keV.⁽¹¹⁾ This is principally due to the uncertainty associated with the function W, the proton energy loss per ion pair.

REACTION RATE MEASUREMENTS

Measurements⁽⁹⁾ of the radial reaction rate distributions of ^{239}Pu and ^{238}U with fission counters and of ^{10}B with a BF_3 counter were made along three elevations from the core midplane: at 3 inches, at 14 inches, and at 22 inches. These locations are indicated in Figure 3, and were selected to provide an indication of the axial distribution of the neutron flux. Measurements were taken with and without the stored fuel present in the shield, and were normalized to unity at the center of the depleted zone. In addition to these counter response measurements, sodium and manganese foils were dispersed and irradiated in a plane axially bisecting the shield sector. Measurements⁽¹²⁾ were made on an absolute basis at the three elevations indicated in Figure 3, and additional foils were positioned at intermediate elevations in the stored fuel zone and in the shield. Again, measurements were made with and without stored fuel in the shield. An absolute measurement⁽¹²⁾ of the $^{239}\text{Pu}(n,f)$ reaction rate at the center of the depleted zone was taken for each foil irradiation to allow comparisons of analytical results on an absolute basis. All measured reaction rate distributions are illustrated in Appendix A.

REACTION RATE CALCULATIONS

The calculated reaction rate distributions are compared with the measurements in Appendix A. The $^{23}\text{Na}(n,\gamma)$ and the $^{55}\text{Mn}(n,\gamma)$ reaction rate calculations are compared to the measurements on an absolute basis; whereas, the $^{239}\text{Pu}(n,f)$, $^{238}\text{U}(n,f)$, and the $^{10}\text{B}(n,\alpha)$ calculated distributions were normalized to the experimental data at about 39 cm from the core centerline. The following discussion describes the analytical problems encountered in making these calculations. Figures 2 and 3 clearly indicate the three-dimensionality of the experimental arrangement. However, since a three-dimensional treatment is at present not practical, efforts were made to couple two-dimensional calculations to accommodate the three-dimensionality of the problem. To treat this large a problem with current 3-D codes requires mesh spacings so large as to jeopardize the calculational accuracy.

A cylindrical R-Z approximation of the depleted zone, core, and reflector was made by calculating effective radii of the zones based on the actual zone volumes. However, the shield and stored fuel zone had to be approximated by annuli whose thicknesses were equal to the actual thicknesses of the material zones at the shield midplane. To accommodate the finite transverse dimensions of the shield sector and stored fuel zone, calculations were made in X-Y and R-Z geometries as depicted in Figures 4(a) and 5(a), respectively. A direct comparison of each reaction rate at $Y = 0$ and $R = 0$ was then made. The disagreement in the shield and stored fuel was assumed to be an indication of the 0-buckling (transverse leakage) associated with the finite dimensions of the material zones. Spatially dependent 0-buckling ratios for each reaction rate were then calculated based on these comparisons, and used to correct the radial distributions at all elevations in the R-Z calculations

with stored fuel in the shield. The Θ -buckling correction factors for the finite transverse dimension of the shield were found to be insignificant; therefore, corrections were made only when stored fuel was present. In Figure 8 are plotted the $^{238}\text{U}(n,f)$ radial reaction rate distributions at the 3-inch elevation with and without the Θ -buckling correction. The magnitude of the correction is about 20% in the stored fuel zone. Note also that the corrected curve yields a minimum in the shield at approximately the same radial position as the measured results; whereas, the uncorrected results shift the minimum closer to the core. In general, the Θ -buckling correction improved the agreement of all reaction rate distributions at all elevations.

Analytical treatment of the ^{238}U fission chamber measurements was more complex than that of the other reaction rate measurements. The ^{238}U fission process has a threshold in the vicinity of 0.8 MeV. Although two-dimensional diffusion theory was used for all calculations in this work, the transport of high energy neutrons (in the MeV range) is not adequately treated by diffusion theory. Therefore, spatially dependent transport-to-diffusion correction factors for the $^{238}\text{U}(n,f)$ reaction rate were calculated with the one-dimensional discrete ordinates code ANISN.⁽¹³⁾ The geometry assumed in the calculations was cylindrical, and the material zone compositions were based on the appropriate atom densities in Table 1. As in the X-Y 2DBS calculations, an axial buckling factor of $6.0 \times 10^{-4} \text{ cm}^{-2}$ in the depleted zone, core, and radial reflector accounted for the axial leakage. Two ANISN calculations normalized to the same fission rate were made: a diffusion theory calculation and a transport theory calculation with an S_8 quadrature. Both calculations employed nuclear data from the HOMSET library. The spatially dependent $^{238}\text{U}(n,f)$

FIGURE 8. ^{328}U Counter Response Calculations With and Without θ -Buckling

correction factors were then calculated by taking the ratios of the transport solution to the diffusion solution at each radial mesh point. In Figure 9 is plotted the $^{238}\text{U}(n,f)$ reaction rate distributions with and without the transport-to-diffusion correction. In the core and its vicinity, the correction is insignificant; however, the magnitude of the correction factor has a maximum near the outer surface of the shield where it is about a factor of 2. From these results, it is clear that diffusion theory will adequately calculate the $^{238}\text{U}(n,f)$ reaction rate in regions containing fissionable material. However, when the reaction is greatly dependent upon flux transported through many mean free paths of material, diffusion theory is inadequate. Based on these conclusions, no attempt was made to correct the $^{238}\text{U}(n,f)$ reaction rate distributions with stored fuel in the shield. Similar transport-to-diffusion correction factors for all other measured reaction rate distributions were found to be insignificant and were not used in the analysis.

The ^{238}U fission chamber⁽⁹⁾ used in the experiment contained 14 ppm of the isotope ^{235}U . Such a low content of ^{235}U does not contribute significantly to the fission rate response of the chamber near the core where the ^{238}U response is high. However, the attenuation of the ^{238}U response through the reflector and shield is much greater than that of the ^{235}U response; and therefore, a valid comparison with experimental results in these regions must include this fission rate component. In addition to the transport-corrected $^{238}\text{U}(n,f)$ distribution, Figure 9 also depicts the calculated distribution of the sum of the transport corrected $^{238}\text{U}(n,f)$ and the contribution of the $^{235}\text{U}(n,f)$. It is clear from the measurements and the calculations that the change in slope near the shield outer surface of the ^{238}U chamber response distribution is due

FIGURE 9. ^{238}U Fission Counter Response Distribution

primarily to the ^{235}U content of the chamber. In the outer region of the shield, diffusion calculations indicate that the contribution to the chamber response of the ^{235}U content is about a factor of 2 greater than that of the ^{238}U isotope. Since the $^{235}\text{U}(n,f)$ contribution to the chamber response dominates in the outer region of the shield, it is clear that the isotopic composition of the fission chamber must be well known. For example, if the ^{235}U isotopic component were 56 ppm instead of the reported 14 ppm the calculated distribution would agree to within 10% with the measured distribution.

The ^{238}U results are shown in Figures A-7 through A-9. None of the calculations included the transport correction; however, all have been corrected for the ^{235}U content in the fission chamber. The transport correction is calculated to be insignificant when stored fuel is present in the shield, and it is only a relatively minor correction when no stored fuel is present. The θ -buckling correction factors, however, have been applied to all reaction rates calculations in which a stored fuel zone was present in the shield. In Figures A-1 through A-6 are plotted the results of the ^{10}B and ^{239}Pu measurements and calculations. The calculations are consistently low in the reflector region by about 10 to 20%. In addition, there is considerable disagreement near the shield outer boundary, especially when stored fuel is present. Some of this disagreement is most assuredly attributable to the treatment of the facility support structure. The structure is made of steel in a rather complex design. The approximation used in the calculation was of necessity very simple: 3 inches of steel extending along the entire length of the right boundary. However, since the agreement is very good at locations well into the shield, it is believed that the disagreement near the boundary

is not due to errors in the nuclear data but that it is due to the two-dimensional treatment of a highly complex three-dimensional physical boundary.

The sodium and manganese foil measurements⁽¹²⁾ were made on an absolute basis. The foils were irradiated for 48 minutes and the results were reported in terms of absolute disintegration rates at the time of reactor shutdown. During each irradiation, an absolute measurement⁽¹²⁾ of the ^{239}Pu fission rate in the center of the depleted zone was made. This allows a direct comparison of the calculations with the absolute measurements.

In Figure 10 is plotted the $^{23}\text{Na}(n,\gamma)$ radial reaction rate distribution at the 3-inch elevation. The initial calculations made with 2DBS and using the HOMSET data yielded the upper curve labeled "HOMSET." The presence of a strong bias in the core, where most of the reaction rate is due to high energy neutrons, prompted an investigation of the $^{23}\text{Na}(n,\gamma)$ reaction rate dependence on the energy of the captured neutron in the core and in the shield. The results are plotted in Figure 11. Whereas all of the reaction rate in the core is attributable to neutrons with energies in excess of 0.5 keV, only about 15% of the total reaction rate in the shield is due to these high energy neutrons. Based on this reasoning, the $^{23}\text{Na}(n,\gamma)$ capture cross section above 0.5 keV was empirically adjusted in a uniform manner so as to enhance the calculated agreement. The neutron flux distributions were recalculated using the HOMSET library with the adjusted sodium cross sections. The flux distributions were insignificantly perturbed by this adjustment; however, the $^{23}\text{Na}(n,\gamma)$ reaction rate distributions obtained showed much better agreement. All other reaction rates were recalculated using the adjusted cross sections with no noticeable change in results. All calculations shown in Appendix A were made with these adjusted cross sections.

FIGURE 10. $^{23}\text{Na}(n, \gamma)$ Reaction Rate Distribution

FIGURE 11. $^{23}\text{Na}(n,\gamma)$ Reaction Rate Versus Lethargy in the Core and in the Shield

The results of the sodium and manganese foil measurements and the calculations are shown in Figures A-10 through A-23. These include radial distributions at the three elevations (3-, 14-, and 22-inch) as well as axial distributions in the core, shield, and stored fuel region. The manganese results, similar to the sodium results, indicate biasing between the regions of hard and soft neutron spectra. Similar adjustments in the cross section could be made to improve the comparative agreement. Efforts are presently being made to isolate and explain the sources of seemingly consistent disagreements.

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APPENDIX A

COMPILATION OF MEASUREMENTS

APPENDIX A

COMPILATION OF MEASUREMENTS

In Figures A-1 through A-23 are plotted the experimental results as well as the corresponding calculations for the $^{10}\text{B}(\text{n},\alpha)$, $^{239}\text{Pu}(\text{n},\text{f})$, $^{238}\text{U}(\text{n},\text{f})$, $^{23}\text{Na}(\text{n},\gamma)$, and $^{55}\text{Mn}(\text{n},\gamma)$ reaction rate distributions. All calculations were made using the HOMSET data contained in Appendix B with the exception that the $^{23}\text{Na}(\text{n},\gamma)$ cross sections were empirically adjusted as discussed in the report. All calculations in which stored fuel was present in the shield were corrected to account for the finite transverse dimensions of the stored fuel zone, as described in the report. All ^{238}U calculations were corrected to include the contribution to the fission chamber response of the ^{235}U content in the chamber. No corrections were included in these plots to account for transport theory-diffusion theory calculational differences. These differences were found to be insignificant for all reaction rates other than $^{238}\text{U}(\text{n},\text{f})$, for which the differences were minor.

Above each figure are indicated the material zones in which the corresponding measurements were made. The abbreviations used are as follows:

DEP	Central depleted zone
CORE	^{239}Pu enriched peripheral zone
R. REFL	Radial reflector
A. REFL	Axial reflector
SHIELD	Radial shield sector
FUEL	Stored fuel zone
MATRIX	Empty matrix
S	Structural support plate

In general, the lower figure is completely labeled, whereas the upper figure on each page contains only the different zone introduced by the addition of stored fuel.

FIGURE A-1(a). $^{10}\text{B}(n,\alpha)$ Radial Reaction Rate Distribution at $Z = 3$ in. (With Stored Fuel)

FIGURE A-1(b). $^{10}\text{B}(n,\alpha)$ Radial Reaction Rate Distribution at $Z = 3$ in. (Without Stored Fuel)

FIGURE A-2(a). $^{10}\text{B}(n,\alpha)$ Radial Reaction Rate Distribution at $Z = 14$ in. (With Stored Fuel)

FIGURE A-2(b). $^{10}\text{B}(n,\alpha)$ Radial Reaction Rate Distribution at $Z = 14$ in. (Without Stored Fuel)

FIGURE A-3(a). $^{10}\text{B}(n,\alpha)$ Radial Reaction Rate Distribution at $Z = 22$ in. (With Stored Fuel)

FIGURE A-3(b). $^{10}\text{B}(n,\alpha)$ Radial Reaction Rate Distribution at $Z = 22$ in. (Without Stored Fuel)

FIGURE A-4(a). $^{239}\text{Pu}(n,f)$ Radial Reaction Rate Distribution at $Z = 3$ in. (With Stored Fuel)

FIGURE A-4(b). $^{239}\text{Pu}(n,f)$ Radial Reaction Rate Distribution at $Z = 3$ in. (Without Stored Fuel)

FIGURE A-5(a). $^{239}\text{Pu}(n,f)$ Radial Reaction Rate Distribution at $Z = 14$ in. (With Stored Fuel)

FIGURE A-5(b). $^{239}\text{Pu}(n,f)$ Radial Reaction Rate Distribution at $Z = 14$ in. (Without Stored Fuel)

FIGURE A-6(a). $^{239}\text{Pu}(n,f)$ Radial Reaction Rate Distribution at $Z = 22$ in. (With Stored Fuel)

FIGURE A-6(b). $^{239}\text{Pu}(n,f)$ Radial Reaction Rate Distribution at $Z = 22$ in. (Without Stored Fuel)

FIGURE A-7(a). $^{238}\text{U}(n,f)$ Radial Reaction Rate Distribution at $Z = 3$ in. (With Stored Fuel)

FIGURE A-7(b). $^{238}\text{U}(n,f)$ Radial Reaction Rate Distribution at $Z = 3$ in. (Without Stored Fuel)

FIGURE A-8(a). $^{238}\text{U}(n,f)$ Radial Reaction Rate Distribution at $Z = 14$ in. (With Stored Fuel)

FIGURE A-8(b). $^{238}\text{U}(n,f)$ Radial Reaction Rate Distribution at $Z = 14$ in. (Without Stored Fuel)

FIGURE A-9(a). $^{238}\text{U}(n,f)$ Radial Reaction Rate Distribution at $Z = 22$ in. (With Stored Fuel)

FIGURE A-9(b). $^{238}\text{U}(n,f)$ Radial Reaction Rate Distribution at $Z = 22$ in. (Without Stored Fuel)

FIGURE A-10(a). $^{23}\text{Na}(n, \gamma)$ Radial Reaction Rate Distribution at $Z = 3$ in. (With Stored Fuel)

FIGURE A-10(b). $^{23}\text{Na}(n, \gamma)$ Radial Reaction Rate Distribution at $Z = 3$ in. (Without Stored Fuel)

FIGURE A-11(a). $^{23}\text{Na}(n,\gamma)$ Radial Reaction Rate Distribution at $Z = 14$ in. (With Stored Fuel)

FIGURE A-11(b). $^{23}\text{Na}(n,\gamma)$ Radial Reaction Rate Distribution at $Z = 14$ in. (Without Stored Fuel)

FIGURE A-12(a). $^{23}\text{Na}(n,\gamma)$ Radial Reaction Rate Distribution at $Z = 22$ in. (With Stored Fuel)

FIGURE A-12(b). $^{23}\text{Na}(n,\gamma)$ Radial Reaction Rate Distribution at $Z = 22$ in. (Without Stored Fuel)

FIGURE A-13(a). $^{23}\text{Na}(n, \gamma)$ Axial Reaction Rate Distribution at $R \approx 13$ in. (With Stored Fuel)

FIGURE A-13(b). $^{23}\text{Na}(n, \gamma)$ Axial Reaction Rate Distribution at $R \approx 13$ in. (Without Stored Fuel)

FIGURE A-14(a). $^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 43$ in. (With Stored Fuel)

FIGURE A-14(b). $^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 43$ in. (Without Stored Fuel)

FIGURE A-15(a). $^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 52$ in. (With Stored Fuel)

FIGURE A-15(b). $^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 52$ in. (Without Stored Fuel.)

FIGURE A-16(a). $^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 56$ in. (With Stored Fuel)

FIGURE A-16(b). $^{23}\text{Na}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 56$ in. (Without Stored Fuel)

FIGURE A-17(a). $^{55}\text{Mn}(n, \gamma)$ Radial Reaction Rate Distribution at $Z = 3$ in. (With Stored Fuel)

FIGURE A-17(b). $^{55}\text{Mn}(n, \gamma)$ Radial Reaction Rate Distribution at $Z = 3$ in. (Without Stored Fuel)

FIGURE A-18(a). $^{55}\text{Mn}(n, \gamma)$ Radial Reaction Rate Distribution at $Z = 14$ in. (With Stored Fuel)

FIGURE A-18(b). $^{55}\text{Mn}(n, \gamma)$ Radial Reaction Rate Distribution at $Z = 14$ in. (Without Stored Fuel)

FIGURE A-19(a). $^{55}\text{Mn}(n,\gamma)$ Radial Reaction Rate Distribution at $Z = 22$ in. (With Stored Fuel)

FIGURE A-19(b). $^{55}\text{Mn}(n,\gamma)$ Radial Reaction Rate Distribution at $Z = 22$ in. (Without Stored Fuel)

FIGURE A-20(a). $^{55}\text{Mn}(n, \gamma)$ Axial Reaction Rate Distribution at $R \approx 13$ in. (With Stored Fuel)

FIGURE A-20(b). $^{55}\text{Mn}(n, \gamma)$ Axial Reaction Rate Distribution at $R \approx 13$ in. (Without Stored Fuel)

FIGURE A-21(a). $^{55}\text{Mn}(n, \gamma)$ Axial Reaction Rate Distribution at $R \approx 43$ in. (With Stored Fuel)

FIGURE A-21(b). $^{55}\text{Mn}(n, \gamma)$ Axial Reaction Rate Distribution at $R \approx 43$ in. (Without Stored Fuel)

FIGURE A-22(a). $^{55}\text{Mn}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 52$ in. (With Stored Fuel)

FIGURE A-22(b). $^{55}\text{Mn}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 52$ in. (Without Stored Fuel)

FIGURE A-23(a). $^{55}\text{Mn}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 56$ in. (With Stored Fuel)

FIGURE A-23(b). $^{55}\text{Mn}(n,\gamma)$ Axial Reaction Rate Distribution at $R \approx 56$ in. (Without Stored Fuel)

APPENDIX B

HOMSET CROSS-SECTION LIBRARY

APPENDIX B

HOMSET CROSS-SECTION LIBRARY

The HOMSET cross-section library is a 31-group transport corrected P_0 library whose format is amenable to the diffusion code 2DBS^(B-1) and to the discrete ordinates transport theory codes DOT^(B-2) and ANISN.^(B-3) The library has evolved over the past few years to include most of the data required for design analyses of the FFTF. Its formulation represents a merger of data from two basic sources. The top 26 groups, covering the energy range from 10 MeV to 0.4 eV, were reduced from a 68-group library imported from ORNL in HRG^(B-4) using the calculated slowing-down spectrum in the material of interest. The lower 5 groups, from 0.4 eV to 0.0 eV, were converted from the last 5 groups of the MAC library.^(B-5, B-6) The resulting group structure is indicated in Table B-1.

The results in this report indicate that the HOMSET library is adequate for shield design analysis for the FTR. The library originated prior to the time the necessary codes for processing of ENDF/B data into suitable format were available. These codes have been developed since that time, and consideration is being given to generating a suitable library based on ENDF/B data.

In the following tables are listed the microscopic cross sections for the various materials of interest to the FFTF. In addition to these, HOMSET contains macroscopic cross sections for fuel oxides, stainless steels, boron carbide, and other compounds of interest. The first line of each table identifies (a) the nuclide symbol and (b) the material composition employed to generate the infinite slowing-down spectrum that was used.

to collapse the cross sections from 68 to 26 groups. The first column on the left of each table identifies the type of cross section, where

ABSORP = σ_a , the microscopic absorption cross section (barns)

TRANSPORT = σ_{tr} , the microscopic transport cross section (barns)

G TO G = $\sigma_{g \rightarrow g}$, the microscopic self-scattering cross section (barns) $\sigma_{g \rightarrow g} = \sigma_{tr} - \sigma_a - \sum_i \sigma_{g \rightarrow i} + i$

G-I TO G = $\sigma_{g-i \rightarrow g}$, the microscopic down scattering cross section from group g-i to group g (barns).

The transport cross section is defined as

$$\sigma_{tr} = \sigma_T - \bar{\mu} \sigma_s$$

where σ_T = the microscopic total cross section (barns)
 σ_s = the microscopic total scattering cross section (barns)
 $\bar{\mu}$ = the average cosine of the neutron scattering angle per collision in the laboratory system.

The cross sections in Group 31 (thermal energy) have been corrected for temperature dependence. Unless specified in the material identification line, the cross sections have been corrected to 447°C.

TABLE B-1. HOMSET 31-Group Structure

GP	E Upper		E Lower		Δu
1	10.0	MeV	6.065	MeV	0.500
2	6.065	MeV	3.679	MeV	0.500
3	3.679	MeV	2.231	MeV	0.500
4	2.231	MeV	1.353	MeV	0.500
5	1.353	MeV	0.8209	MeV	0.500
6	820.9	keV	387.7	KeV	0.750
7	387.7	keV	183.2	keV	0.750
8	183.2	keV	67.38	keV	1.000
9	67.38	keV	24.79	keV	1.000
10	24.79	keV	19.3	keV	0.250
11	19.3	keV	9.119	keV	0.750
12	9.119	keV	3.355	keV	0.942
13	3.355	keV	1.234	keV	1.058
14	1.234	keV	0.454	keV	1.649
15	454.0	eV	275.4	eV	0.500
16	275.4	eV	214.5	eV	0.250
17	214.5	eV	101.3	eV	0.750
18	101.3	eV	61.44	eV	0.500
19	61.44	eV	29.02	eV	0.750
20	29.02	eV	13.71	eV	0.750
21	13.71	eV	10.68	eV	0.250
22	10.68	eV	3.928	eV	1.000
23	3.928	eV	1.445	eV	1.000
24	1.445	eV	0.8764	eV	0.500
25	0.8764	eV	0.6826	eV	0.250
26	0.6826	eV	0.4140	eV	0.500
27	0.4140	eV	0.2775	eV	0.400
28	0.2775	eV	0.1860	eV	0.400
29	0.1860	eV	0.1247	eV	0.400
30	0.1247	eV	0.07595	eV	0.496
31	0.07595	eV	0.0	eV	-----

B -HCMSET. SPECTRUM: 3QNA,20SS,50C+.00018

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5254-01	1.2572-01	7.5727-02	9.8243-02	5.4596-02	1.0179-01	2.1525-01	4.5516-01	8.6440-01	1.1400+00	1.3320+00
TRANSPORT	9.9515-01	1.6312+00	1.7757+00	1.8875+00	1.4865+00	2.6186+00	3.2022+00	3.5542+00	4.4450+00	4.8321+00	5.0382+00
G TO G	3.5821-01	8.5419-01	9.0256-01	1.0019+00	9.7602-01	1.6827+00	2.2784+00	2.4807+00	2.9668+00	1.2144+00	2.8126+00
G-1 TC G	0.0000	4.8441-01	6.5131-01	7.9741-01	7.8732-01	4.5586-01	8.3420-01	7.0856-01	6.1839-01	5.5710-01	2.4777+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.6684-02
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.7014+00	2.8246+00	4.4243+00	6.3952+00	7.7020+00	9.9307+00	1.3536+01	1.8537+01	2.6950+01	3.4516+01	4.7230+01
TRANSPORT	5.4223+00	6.5806+00	7.9840+00	9.9439+00	1.1273+01	1.4007+01	1.7156+01	2.2027+01	3.0846+01	3.7675+01	5.1063+01
G TO G	3.2437+00	2.8323+00	2.8733+00	2.1627+00	1.0750+00	3.1588+00	2.2364+00	2.5809+00	2.9951+00	6.5142-01	3.1923+00
G-1 TC G	8.9357-01	4.7715-01	9.1772-01	6.8641-01	1.2423+00	2.4958+00	9.1800-01	1.3834+00	9.0943-01	8.1191-01	2.5079+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.4371-01	0.0000	0.0000	0.0000	0.0000	8.9340-02
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	7.7458+01	1.1295+02	1.3651+02	1.6407+02	1.9550+02	2.3880+02	2.9170+02	3.6400+02	4.6950+02		
TRANSPORT	8.1035+01	1.1650+02	1.3974+02	1.6744+02	1.9930+02	2.4260+02	2.9550+02	3.6780+02	4.7330+02		
G TO G	2.9690+00	2.2364+00	7.1936-01	2.0775+00	2.0980+00	2.0100+00	2.0550+00	2.4040+00	3.8000+00		
G-1 TC G	6.4130-01	6.0832-01	1.1921+00	2.5087+00	1.2920+00	1.7020+00	1.7900+00	1.7450+00	1.3960+00		
G-2 TC G	0.0000	0.0000	0.0000	1.2939-01	0.0000	0.0000	0.0000	0.0000	0.0000		

C -HOMSET, SPECTRUM: 30NA,20SS,50C,0.0001B

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	2.2881-07	2.8828-07	3.7117-07	4.7261-07	6.0242-07	8.2919-07	1.1988-06	1.8614-06	3.0645-06	4.1720-06	5.3757-06
TRANSPORT	9.5489-01	1.3500+00	1.7526+00	1.7444+00	2.2739+00	2.9196+00	3.5802+00	4.1052+00	4.3545+00	4.3539+00	4.3899+00
G TO G	3.0322-01	7.2535-01	1.0503+00	1.0652+00	1.4441+00	2.1876+00	2.7612+00	3.4057+00	3.6954+00	1.6108+00	3.4267+00
G-1 TC G	0.0000	3.5834-01	6.0322-01	7.0231-01	6.7915-01	8.2984-01	7.3194-01	8.1903-01	6.9953-01	6.2174-01	2.7431+00
G-2 TC G	0.0000	0.0000	1.0726-01	3.8753-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.7347-02
G-3 TC G	0.0000	0.0000	0.0000	7.9108-02	7.7507-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	4.7238-02	5.8130-03	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	3.7266-02	2.8966-03	0.0000	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.7677-02	1.0199-03	0.0000	0.0000	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.7872-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	8.1547-06	1.4517-05	2.2743-05	3.2863-05	3.9580-05	5.1035-05	6.9560-05	9.5271-05	1.3847-04	1.7740-04	2.4274-04
TRANSPORT	4.4233+00	4.4405+00	4.2344+00	4.2245+00	4.1617+00	4.8812+00	4.3014+00	4.1619+00	4.6005+00	3.7173+00	4.5331+00
G TO G	3.9274+00	3.4619+00	3.5022+00	2.7459+00	1.3786+00	3.9019+00	2.8258+00	3.1920+00	3.6398+00	9.2161-01	3.8561+00
G-1 TC G	9.6323-01	4.9587-01	9.7855-01	7.3213-01	1.3845+00	2.7831+00	9.7929-01	1.4755+00	9.6975-01	9.0356-01	2.7955+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	9.4109-02	0.0000	0.0000	0.0000	0.0000	5.7056-02
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.9806-04	5.8045-04	7.0160-04	8.4316-04	1.0160-03	1.2420-03	1.5170-03	1.8930-03	2.4430-03		
TRANSPORT	4.2575+00	4.2671+00	3.7654+00	4.0388+00	4.4970+00	4.5090+00	4.5180+00	4.5250+00	4.5320+00		
G TO G	3.8104+00	2.8634+00	9.6983-01	2.6698+00	2.6640+00	2.5570+00	2.6300+00	3.0120+00	4.5300+00		
G-1 TC G	6.3274-01	6.4674-01	1.3199+00	2.7948+00	1.3688+00	1.8320+00	1.9310+00	1.8860+00	1.5110+00		
G-2 TC G	0.0000	0.0000	0.0000	8.3150-02	0.0000	0.0000	0.0000	0.0000	0.0000		

NA -HOMSET. SPECTRUM: 30NA,20SS,50C,.0001B

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.4870-01	2.0141-03	1.1725-04	1.3812-04	1.9489-04	3.0614-04	7.1515-04	1.3653-03	2.4036-03	1.6480-03	1.2886-03
TRANSPORT	1.4674+00	1.5226+00	1.8439+00	2.3133+00	2.8762+00	3.8429+00	3.8927+00	3.2423+00	4.4467+00	4.1480+00	4.8628+00
G TO G	4.5872-01	7.0914-01	1.0500+00	1.6343+00	1.8897+00	3.3638+00	3.2955+00	2.9168+00	4.1239+00	2.6978+00	4.2060+00
G-1 TC G	0.0000	4.1654-01	4.5602-01	6.2985-01	6.6127-01	9.3896-01	4.3917-01	5.9645-01	3.2412-01	3.2038-01	1.4486+00
G-2 TC G	0.0000	0.0000	1.8489-01	1.6602-01	4.6905-02	1.7044-02	4.7287-02	3.6839-02	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	1.3001-01	1.0061-01	7.6362-02	0.0000	0.0000	2.5186-03	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	7.1184-02	6.7043-02	2.6118-02	4.0543-03	0.0000	9.8074-05	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.3388-02	1.5882-02	1.1894-02	3.1101-04	0.0000	1.4092-04
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.9756-03	5.0055-03	2.0969-03	5.0891-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0745-03	7.1943-04	1.7450-04	8.8135-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.3635-04	4.5167-05	2.7109-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.7286-05	5.4373-05
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.2815-05
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	3.1662-03	2.8828-02	5.1884-03	5.1143-03	5.6210-03	6.8777-03	9.4182-03	1.2826-02	1.8742-02	2.4180-02	3.2913-02
TRANSPORT	1.5029+01	3.0655+01	3.2593+00	2.9273+00	2.8443+00	3.2416+00	2.9792+00	2.9329+00	3.1118+00	2.7282+00	3.1054+00
G TO G	1.1456+01	3.0128+01	2.9959+00	2.4020+00	1.7928+00	2.8883+00	2.4468+00	2.5764+00	2.7520+00	1.6475+00	2.8301+00
G-1 TC G	6.5549-01	3.5704+00	4.9844-01	2.5815-01	5.2017-01	1.0459+00	3.4635-01	5.2299-01	3.4368-01	3.4109-01	1.0565+00
G-6 TC G	5.7640-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	0.0000	1.6343-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	4.5640-05	0.0000	3.7963-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	1.1637-04	1.1931-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	1.3587-05	2.5906-05	2.7522-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	5.5792-02	7.9636-02	9.6020-02	1.1446-01	1.4570-01	1.7800-01	2.1740-01	2.7120-01	3.0320-01		
TRANSPORT	3.0268+00	2.9776+00	2.8060+00	3.0065+00	3.7450+00	3.8780+00	3.9830+00	4.0850+00	4.1690+00		
G TO G	2.7417+00	2.4018+00	1.6507+00	2.4098+00	2.8350+00	2.8750+00	2.9470+00	3.1500+00	3.8660+00		
G-1 TC G	2.4238-01	2.2929-01	4.9615-01	1.0593+00	4.8220-01	7.6400-01	8.2550-01	8.1920-01	6.6380-01		

CR -HOMSET. SPECTRUM: 301A, 20SS, 50C, .00018

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.4969-02	2.0703-03	1.6263-03	2.1107-03	3.3443-03	4.0000-03	4.0713-03	5.5674-03	4.9330-03	7.0400-03	1.2768-02
TRANSPORT	1.7372+00	1.6022+00	2.6030+00	2.3590+00	2.2931+00	2.6371+00	2.6373+00	4.9062+00	4.3453+00	2.9428+00	4.8961+00
G TO G	4.4814-01	4.7462-01	1.7483+00	2.6522+00	2.1038+00	2.4602+00	2.4728+00	4.8310+00	4.2244+00	2.4842+00	4.5047+00
G-1 TO G	0.0000	2.5253-01	2.8364-01	4.1265-01	2.2768-01	1.8596-01	1.7289-01	1.6043-01	6.9705-02	1.1602-01	4.5163-01
G-2 TO G	0.0000	0.0000	3.2361-01	3.2740-01	1.9618-01	5.0321-02	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TO G	0.0000	0.0000	0.0000	3.0671-01	2.5005-01	1.6630-01	1.9273-02	0.0000	0.0000	0.0000	0.0000
G-4 TO G	0.0000	0.0000	0.0000	0.0000	2.0233-01	1.8588-01	5.7161-02	6.2761-03	0.0000	0.0000	0.0000
G-5 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	1.3585-01	5.8420-02	1.7615-02	9.7811-04	0.0000	0.0000
G-6 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9821-02	1.7205-02	2.6672-03	6.3041-05	0.0000
G-7 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1323-02	2.5444-03	1.7031-04	7.6430-05
G-8 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6442-03	1.6124-04	2.0595-04
G-9 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0356-04	1.9455-04
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2480-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	3.9524-02	5.8125-02	2.3740-02	2.6096-02	3.1330-02	4.0343-02	5.5077-02	7.5468-02	1.0995-01	1.4092-01	1.9276-01
TRANSPORT	1.7775+01	4.5271+00	4.1024+00	4.6947+00	4.0435+00	4.3029+00	4.1615+00	4.1566+00	4.2786+00	4.0421+00	4.3418+00
G TO G	1.7318+01	4.2567+00	3.9224+00	3.7539+00	3.3790+00	4.0521+00	3.7909+00	3.8728+00	3.9644+00	3.2695+00	4.0041+00
G-1 TO G	3.7867-01	4.1729-01	2.1231-01	1.5626-01	3.1477-01	6.3315-01	2.1045-01	3.1552-01	2.0827-01	2.0422-01	6.3163-01
G-2 TO G	1.9244-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TO G	5.1716-05	2.6224-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TO G	4.8763-05	7.0431-06	3.5357-07	2.1794-08	1.1784-08	7.8562-09	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.1530-01	4.6136-01	5.5510-01	6.6723-01	9.7740-01	1.1940+00	1.4580+00	1.8190+00	2.3460+00		
TRANSPORT	4.3958+00	4.5159+00	4.4000+00	4.6022+00	3.9400+00	4.1570+00	4.4210+00	4.7820+00	5.3090+00		
G TO G	3.9429+00	3.7622+00	3.2224+00	3.6523+00	2.6740+00	2.6700+00	2.6770+00	2.7340+00	2.9630+00		
G-1 TO G	1.4487-01	1.3765-01	2.9228-01	6.2252-01	2.8270-01	2.7810-01	2.9240-01	2.8510-01	2.2810-01		

FE -HOMSET. SPECTRUM: 30NA,20SS,50C,.00018

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	3.2778-02	3.1693-03	1.6125-03	2.2219-03	3.9034-03	5.8256-03	6.4243-03	7.3871-03	8.3855-03	8.9030-03	9.5475-03
TRANSPCRT	1.8208+00	2.1000+00	2.2666+00	2.2300+00	1.9212+00	2.7211+00	2.7353+00	3.7855+00	8.5633+00	1.4189+00	4.5106+00
G TO G	3.6381-01	6.6479-01	1.1951+00	1.3894+00	1.4077+00	2.5112+00	2.6371+00	3.6422+00	7.9753+00	1.2080+00	4.2091+00
G-1 TC G	0.0000	5.7735-02	2.9191-01	6.1346-01	5.4039-01	3.0423-01	2.0401-01	9.1868-02	1.3594-01	5.7959-01	2.0199-01
G-2 TC G	0.0000	0.0000	1.0225-01	4.1436-01	7.2754-02	2.9362-01	1.7008-01	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.6902-01	3.5837-01	2.4549-01	4.3534-03	3.5276-02	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.6451-01	2.7214-01	1.2181-01	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.9647-01	8.7507-02	1.6362-02	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3421-01	7.7507-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0709-02	1.3064-02	1.6704-02	2.3502-02	2.8110-02	3.5601-02	4.6976-02	6.4548-02	9.4411-02	1.2100-01	1.6509-01
TRANSPCRT	7.0105+00	6.8769+00	9.4195+00	1.0607+01	1.0641+01	1.1243+01	1.0831+01	1.0768+01	1.1050+01	1.0484+01	1.1082+01
G TO G	6.8673+00	6.5002+00	9.0404+00	9.8097+00	9.0559+00	1.0694+01	1.0011+01	1.0196+01	1.0453+01	8.8057+00	1.0561+01
G-1 TC G	2.9192-01	1.3248-01	3.6361-01	3.6242-01	7.7402-01	1.8569+00	5.1258-01	7.7216-01	5.0728-01	5.0218-01	1.5569+00
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.6949-01	3.9442-01	4.7700-01	5.7377-01	7.2620-01	8.8700-01	1.0830+00	1.3510+00	1.5240+00		
TRANSPCRT	1.1029+01	1.1189+01	1.0940+01	1.1213+01	1.2550+01	1.2690+01	1.2890+01	1.3160+01	1.3870+01		
G TO G	1.0422+01	1.0066+01	8.8058+00	9.9306+00	1.0770+01	1.0720+01	1.0750+01	1.0960+01	1.2350+01		
G-1 TC G	3.5624-01	3.3700-01	7.2921-01	1.5569+00	7.0870-01	1.0320+00	1.0850+00	1.0580+00	8.6410-01		

NT -HOMSET, SPECTRUM: 30NA,20SS,50C,.0001B

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	4.2572-01	3.2545-01	6.1971-01	2.2549-02	7.0274-03	7.7084-03	8.6836-03	1.3073-02	2.0446-02	2.2730-02	2.1020-02
TRANSPORT	2.2211+00	2.5247+00	3.0712+00	2.5885+00	2.8538+00	3.2101+00	4.6526+00	5.7790+00	9.8428+00	1.7528+01	3.4534+01
G TO G	2.8284-01	7.2147-01	1.4246+00	2.0523+00	2.6357+00	3.0358+00	4.4204+00	5.5050+00	9.4167+00	1.5120+01	3.3958+01
G-1 TC G	0.0000	2.3893-01	4.0148-01	4.1166-01	3.0634-01	2.0459-01	1.6658-01	2.2354-01	2.6088-01	4.0558-01	2.3855+00
G-2 TC G	0.0000	0.0000	3.8250-01	4.0423-01	2.6657-01	1.3398-01	4.5361-03	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	3.8162-01	3.2098-01	2.3513-01	5.2785-02	1.5947-03	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.6000-01	2.4519-01	3.3024-02	1.7439-02	2.5864-04	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.7851-01	7.8503-02	2.5937-02	2.7385-03	1.6887-05	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.3126-02	2.3337-02	3.9554-03	1.7694-04	2.0545-05
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5223-02	3.4681-03	2.5316-04	2.1465-04
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.2191-03	2.2010-04	3.0631-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3998-04	2.6575-04
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6873-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.5611-02	2.6284-02	2.7062-02	3.9001-02	4.6980-02	6.0586-02	8.2553-02	1.1308-01	1.6437-01	2.1063-01	2.8804-01
TRANSPORT	1.8978+01	1.5289+01	1.5164+01	1.6411+01	1.6386+01	1.7272+01	1.6673+01	1.6875+01	1.7397+01	1.6561+01	1.7472+01
G TO G	1.8394+01	1.4665+01	1.4536+01	1.5247+01	1.4061+01	1.6461+01	1.5460+01	1.6003+01	1.6481+01	1.4019+01	1.6651+01
G-1 TC G	5.5508-01	5.6868-01	6.5784-01	5.4089-01	1.1257+00	2.2777+00	7.4990-01	1.1297+00	7.5971-01	7.5207-01	2.3317+00
G-7 TC G	5.1935-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	5.4085-05	7.0902-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	7.6976-05	7.3772-06	9.6515-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	6.6605-05	1.0476-05	9.9357-07	1.0186-07	2.3877-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	4.7245-01	6.8904-01	8.3252-01	1.0007+00	1.1530+00	1.4090+00	1.7210+00	2.1470+00	2.7690+00		
TRANSPORT	1.7419+01	1.7689+01	1.7183+01	1.7767+01	1.7810+01	1.8070+01	1.8380+01	1.8800+01	1.9430+01		
G TO G	1.6442+01	1.5908+01	1.4019+01	1.5705+01	1.5270+01	1.5210+01	1.5230+01	1.5520+01	1.6660+01		
G-1 TC G	5.3351-01	5.0470-01	1.0521+00	2.3317+00	1.0610+00	1.3850+00	1.4560+00	1.4200+00	1.1360+00		

U235 -HOMSET. SPECTRUM: 50C,20SS,30NA 4/30/69

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
FISSION	1.5826+00	1.2054+00	1.2912+00	1.3011+00	1.2292+00	1.1702+00	1.3293+00	1.5976+00	2.0846+00	2.5195+00	2.9578+00
ABSORP	1.5938+00	1.2267+00	1.3274+00	1.3617+00	1.3313+00	1.3152+00	1.5836+00	2.0413+00	2.8077+00	3.4670+00	4.1141+00
NU SIGF	5.4761+00	3.6642+00	3.5639+00	3.4126+00	3.1383+00	2.9276+00	3.2841+00	3.9203+00	5.0998+00	6.1577+00	7.2269+00
TRANSPORT	3.9819+00	4.0933+00	4.8880+00	5.0510+00	5.2401+00	5.9309+00	8.0395+00	1.0480+01	1.2425+01	1.3643+01	1.4366+01
G TO G	3.7838-01	8.6164-01	1.6605+00	2.1144+00	2.6186+00	3.5792+00	5.7281+00	8.1527+00	9.5395+00	9.8296+00	1.0138+01
G-1 TC G	0.0000	3.3507-02	1.0316-01	2.1025-01	2.9636-01	5.4154-01	5.7773-01	5.5765-01	2.4391-01	7.8084-02	3.4638-01
G-2 TC G	0.0000	0.0000	1.7152-01	3.1188-01	4.1192-01	6.1919-01	4.5646-01	3.6013-01	1.4041-01	1.5356-02	0.0000
G-3 TC G	0.0000	0.0000	0.0000	4.2927-01	5.1078-01	7.0578-01	4.2819-01	2.3660-01	8.2731-02	1.1097-02	2.0422-02
G-4 TC G	0.0000	0.0000	0.0000	0.0000	5.2699-01	6.5532-01	3.8859-01	1.9013-01	4.7095-02	6.0605-03	1.4243-02
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	5.4784-01	2.9779-01	1.5279-01	3.4871-02	3.2883-03	7.6130-03
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.1608-01	1.0590-01	2.6284-02	2.3700-03	4.0755-03
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.1419-02	1.7283-02	1.7493-03	2.9156-03
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1217-02	1.1307-03	2.1396-03
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.2475-04	1.3764-03
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.7923-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
FISSION	4.0546+00	6.7359+00	1.0738+01	1.5117+01	2.5100+01	2.1247+01	2.2318+01	4.8308+01	4.8007+01	4.7201+01	4.0546+01
ABSORP	5.7357+00	9.5267+00	1.6369+01	2.4818+01	3.7336+01	3.4358+01	3.5602+01	7.4812+01	7.7013+01	1.1945+02	7.1405+01
NU SIGF	9.9045+00	1.6449+01	2.6222+01	3.6915+01	6.1294+01	5.1884+01	5.4501+01	1.1797+02	1.1723+02	1.1526+02	9.9014+01
TRANSPORT	1.6206+01	1.9997+01	2.6813+01	3.5261+01	4.7761+01	4.4895+01	4.6055+01	8.9315+01	8.0498+01	1.3215+02	8.2879+01
G TO G	1.0413+01	1.0354+01	1.0358+01	1.0267+01	1.0068+01	1.0422+01	1.0278+01	1.4341+01	1.1374+01	1.2264+01	1.1387+01
G-1 TC G	1.1416-01	5.7352-02	1.1667-01	8.6173-02	1.7562-01	3.5644-01	1.1474-01	1.7483-01	1.6202-01	1.1103-01	4.3655-01
G-4 TC G	5.6912-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	3.8181-03	8.1780-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-6 TC G	1.9931-03	5.3764-04	1.1316-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TO G	1.0513-03	2.7725-04	7.3831-05	1.1279-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	7.4591-04	1.4514-04	3.7881-05	7.3449-05	2.5794-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	5.4396-04	1.0252-04	1.9774-05	3.7789-05	1.6802-06	3.1133-06	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TO G	3.4811-04	7.4497-05	1.3960-05	1.9591-05	8.5974-07	2.0221-06	5.5804-07	2.5797-07	3.2910-08	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
FISSION	1.9438+01	5.5778+01	5.5425+01	7.5781+01	1.5820+02	1.8030+02	1.9570+02	2.6090+02	3.1790+02		
ABSORP	2.8744+01	6.8960+01	6.1174+01	8.4779+01	1.8793+02	2.2328+02	2.3484+02	3.0516+02	3.8368+02		
NU SIGF	4.7468+01	1.3621+02	1.3535+02	1.8506+02	3.8917+02	4.4354+02	4.8142+02	6.4181+02	7.8206+02		
TRANSPORT	4.0794+01	8.2330+01	7.4904+01	9.8863+01	2.0390+02	2.3930+02	2.5080+02	3.2120+02	3.9970+02		
G TO G	1.1959+01	1.3159+01	1.3258+01	1.3870+01	1.5640+01	1.5650+01	1.5660+01	1.5730+01	1.5960+01		
G-1 TO G	8.7299-02	9.2176-02	2.1075-01	4.7186-01	2.1460-01	3.3170-01	3.4870-01	3.4000-01	2.7200-01		

B -HOMSET SPEC 30NA,20SS,50C,.0001B 20 DEG. C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5254-01	1.2572-01	7.5727-02	9.8243-02	5.4596-02	1.0179-01	2.1525-01	4.5516-01	8.6440-01	1.1400+00	1.3320+00
TRANSPORT	9.9515-01	1.6312+00	1.7757+00	1.8875+00	1.4865+00	2.6186+00	3.2022+00	3.5542+00	4.4450+00	4.8321+00	5.0382+00
G TO G	3.5821-01	8.5419-01	9.0256-01	1.6019+00	9.7602-01	1.6827+00	2.2784+00	2.4807+00	2.9668+00	1.2144+00	2.8126+00
G-1 TC G	0.0000	4.8441-01	6.5131-01	7.9741-01	7.8732-01	4.5586-01	8.3420-01	7.0856-01	6.1839-01	5.5710-01	2.4777+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.6684-02
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.7014+00	2.8246+00	4.4243+00	6.3952+00	7.7020+00	9.9307+00	1.3536+01	1.8537+01	2.6950+01	3.4516+01	4.7230+01
TRANSPORT	5.4223+00	6.5806+00	7.9640+00	9.9439+00	1.1273+01	1.4007+01	1.7156+01	2.2027+01	3.0846+01	3.7675+01	5.1063+01
G TO G	3.2437+00	2.8283+00	2.8733+00	2.1627+00	1.0750+00	3.1588+00	2.2364+00	2.5809+00	2.9951+00	6.5142-01	3.1923+00
G-1 TC G	8.9357-01	4.7715-01	9.1772-01	6.8641-01	1.2423+00	2.4958+00	9.1800-01	1.3834+00	9.0943-01	8.1191-01	2.5079+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.4371-01	0.0000	0.0000	0.0000	0.0000	8.9340-02
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	7.7458-01	1.1295+02	1.3651+02	1.6407+02	1.9550+02	2.3880+02	2.9170+02	3.6400+02	7.3570+02		
TRANSPORT	6.1035-01	1.1650+02	1.3974+02	1.6744+02	1.9930+02	2.4260+02	2.9550+02	3.6780+02	7.3950+02		
G TO G	2.9690+00	2.2364+00	7.1936-01	2.0775+00	2.0980+00	2.0100+00	2.0550+00	2.4040+00	3.8000+00		
G-1 TC G	6.4130-01	6.0832-01	1.1921+00	2.5087+00	1.2920+00	1.7020+00	1.7900+00	1.7450+00	1.3960+00		
G-2 TC G	0.0000	0.0000	0.0000	1.2939-01	0.0000	0.0000	0.0000	0.0000	0.0000		

C -HOMSET SPEC 30NA,20SS,50C+.00018 20 DEG. C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	2.2681-07	2.8828-07	3.7117-07	4.7261-07	6.0242-07	8.2919-07	1.1988-06	1.8614-06	3.0645-06	4.1720-06	5.3757-06
TRANSPORT	9.5489-01	1.3500+00	1.7526+00	1.7444+00	2.2739+00	2.9196+00	3.5802+00	4.1052+00	4.3545+00	4.3539+00	4.3899+00
G TO G	3.0322-01	7.2539-01	1.0503+00	1.0652+00	1.4441+00	2.1876+00	2.7612+00	3.4057+00	3.6954+00	1.6108+00	3.4267+00
G-1 TC G	0.0000	3.5834-01	6.0322-01	7.0231-01	6.7915-01	8.2984-01	7.3194-01	8.1903-01	6.9953-01	6.2174-01	2.7431+00
G-2 TC G	0.0000	0.0000	1.0726-01	3.6753-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.7347-02
G-3 TC G	0.0000	0.0000	0.0000	7.9108-02	7.7507-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	4.7238-02	5.8130-03	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	3.7266-02	2.8966-03	0.0000	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.7677-02	1.0199-03	0.0000	0.0000	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.7872-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	8.1547-06	1.4517-05	2.2740-05	3.2863-05	3.9580-05	5.1035-05	6.9560-05	9.5271-05	1.3847-04	1.7740-04	2.4274-04
TRANSPORT	4.4233+00	4.4405+00	4.2344+00	4.2245+00	4.1617+00	4.8812+00	4.3014+00	4.1619+00	4.6005+00	3.7173+00	4.5331+00
G TO G	3.9274+00	3.4619+00	3.5022+00	2.7459+00	1.3786+00	3.9019+00	2.8258+00	3.1920+00	3.6398+00	9.2161-01	3.8501+00
G-1 TC G	9.6323-01	4.9587-01	9.7855-01	7.3213-01	1.3045+00	2.7831+00	9.7929-01	1.4755+00	9.6975-01	9.0356-01	2.7955+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	9.4109-02	0.0000	0.0000	0.0000	0.0000	5.7056-02
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.9206-04	5.8045-04	7.0160-04	8.4316-04	1.0160-03	1.2420-03	1.5170-03	1.8930-03	3.8260-03		
TRANSPORT	4.2575+00	4.2671+00	3.7654+00	4.0388+00	4.4970+00	4.5090+00	4.5180+00	4.5250+00	4.5330+00		
G TO G	3.6104+00	2.8634+00	9.6983-01	2.6698+00	2.6640+00	2.5770+00	2.6305+00	3.0120+00	4.5290+00		
G-1 TC G	6.8274-01	6.4674-01	1.3199+00	2.7948+00	1.3680+00	1.8320+00	1.9310+00	1.8860+00	1.5110+00		
G-2 TC G	0.0000	0.0000	0.0000	8.3150-02	0.0000	0.0000	0.0000	0.0000	0.0000		

CR -HOMSET SPEC 30NA,20SS,50C,.0001B 20 DEG. C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.4969-02	2.0703-03	1.6862-03	2.1107-03	3.3443-03	4.0000-03	4.0713-03	5.5674-03	4.9330-03	7.0400-03	1.2768-02
TRANSPORT	1.7372+00	1.6022+00	2.6030+00	2.3590+00	2.2931+00	2.6371+00	2.6373+00	4.9062+00	4.3453+00	2.9428+00	4.8961+00
G TO G	4.4814-01	4.7462-01	1.7482+00	2.0522+00	2.1038+00	2.4602+00	2.4728+00	4.8310+00	4.2244+00	2.4842+00	4.5047+00
G-1 TC G	0.0000	2.5252-01	2.8364-01	4.1265-01	2.2768-01	1.8596-01	1.7289-01	1.6043-01	6.9705-02	1.1602-01	4.5163-01
G-2 TC G	0.0000	0.0000	3.2361-01	3.2740-01	1.9618-01	5.0321-02	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	3.0671-01	2.5005-01	1.6630-01	1.9273-02	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.0233-01	1.8588-01	5.7161-02	6.2761-03	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.3585-01	5.8420-02	1.7615-02	9.7811-04	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9821-02	1.7205-02	2.6672-03	6.3041-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1323-02	2.5444-03	1.7031-04	7.6430-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6442-03	1.6124-04	2.0595-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0356-04	1.9455-04
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2480-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	3.9524-02	5.8125-02	2.3740-02	2.6096-02	3.1330-02	4.0343-02	5.5077-02	7.5468-02	1.0995-01	1.4092-01	1.9276-01
TRANSPORT	1.7775+01	4.5271+00	4.1024+00	4.0947+00	4.0435+00	4.3029+00	4.1615+00	4.1566+00	4.2786+00	4.0421+00	4.3418+00
G TO G	1.7318+01	4.2567+00	3.9224+00	3.7539+00	3.3790+00	4.0521+00	3.7909+00	3.8728+00	3.9644+00	3.2695+00	4.0041+00
G-1 TC G	3.7867-01	4.1729-01	2.1231-01	1.5626-01	3.1477-01	6.3315-01	2.1045-01	3.1552-01	2.0827-01	2.0422-01	6.3163-01
G-8 TC G	1.9244-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	5.1716-05	2.6224-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	4.3763-05	7.0431-06	3.5357-07	2.1794-08	1.1784-08	7.8562-09	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.1590-01	4.6136-01	5.5510-01	6.6723-01	9.7740-01	1.1940+00	1.4580+00	1.8190+00	3.6780+00		
TRANSPORT	4.3958+00	4.5159+00	4.4000+00	4.6022+00	3.9400+00	4.1570+00	4.4210+00	4.7820+00	6.6410+00		
G TO G	3.9429+00	3.7622+00	3.2224+00	3.6523+00	2.6740+00	2.6700+00	2.6770+00	2.7340+00	2.9630+00		
G-1 TC G	1.4487-01	1.3705-01	2.9228-01	6.2252-01	2.8470-01	2.810-01	2.9240-01	2.8510-01	2.2810-01		

FE -HOMSET SPEC 30NA,20SS,5UC,.0001B 20 DEG. C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	3.2778-02	3.1693-03	1.6125-03	2.2219-03	3.9034-03	5.8256-03	6.4243-03	7.3871-03	8.3855-03	8.9030-03	9.5475-03
TRANSPORT	1.8208+00	2.1000+00	2.2666+00	2.2300+00	1.9212+00	2.7211+00	2.7353+00	3.7855+00	8.5633+00	1.4189+00	4.5106+00
G TO G	3.6381-01	6.6479-01	1.1951+00	1.3894+00	1.4077+00	2.5112+00	2.6371+00	3.6422+00	7.9753+00	1.2080+00	4.2091+00
G-1 TC G	0.0000	5.7735-02	2.9191-01	6.1346-01	5.4039-01	3.0423-01	2.0401-01	9.1868-02	1.3594-01	5.7959-01	2.0199-01
G-2 TC G	0.0000	0.0000	1.0225-01	4.1436-01	7.2754-02	2.9362-01	1.7008-01	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.6902-01	3.5837-01	2.4549-01	4.3534-03	3.5276-02	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.6451-01	2.7214-01	1.2181-01	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.9647-01	8.7507-02	1.6362-02	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3421-01	7.7507-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0709-02	1.3064-02	1.6704-02	2.3502-02	2.8110-02	3.5601-02	4.6976-02	6.4548-02	9.4411-02	1.2100-01	1.6509-01
TRANSPORT	7.0105+00	6.8769+00	9.4195+00	1.0607+01	1.0641+01	1.1243+01	1.0831+01	1.0768+01	1.1050+01	1.0484+01	1.1082+01
G TO G	6.8673+00	6.5002+00	9.0404+00	9.8097+00	9.0559+00	1.0694+01	1.0011+01	1.0196+01	1.0453+01	8.8057+00	1.0561+01
G-1 TC G	2.9192-01	1.3248-01	3.6361-01	3.6242-01	7.7402-01	1.5569+00	5.1258-01	7.7216-01	5.0728-01	5.0218-01	1.5569+00
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.6949-01	3.9442-01	4.7700-01	5.7377-01	7.2620-01	8.8700-01	1.0830+00	1.3510+00	2.3880+00		
TRANSPORT	1.1029+01	1.1189+01	1.0840+01	1.1213+01	1.2530+01	1.2690+01	1.2890+01	1.3160+01	1.4740+01		
G TO G	1.0422+01	1.0066+01	8.8058+00	9.9306+00	1.0770+01	1.0720+01	1.0750+01	1.0960+01	1.2350+01		
G-1 TC G	3.5624-01	3.3700-01	7.2921-01	1.5569+00	7.0870-01	1.0320+00	1.0850+00	1.0580+00	8.6410-01		

NI -HGMSET SPEC 30NA,20SS,50C,.0001B 20 DEG. C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	4.2572-01	3.2545-01	6.1971-01	2.2549-02	7.0274-03	7.7084-03	8.6836-03	1.3073-02	2.0446-02	2.2730-02	2.1020-02
TRANSPORT	2.2211+00	2.5247+00	3.0712+00	2.5885+00	2.8538+00	3.2101+00	4.6526+00	5.7790+00	9.8428+00	1.7528+01	3.4534+01
G TO G	2.8284-01	7.2147-01	1.4246+00	2.0523+00	2.6357+00	3.0358+00	4.4204+00	5.5050+00	9.4167+00	1.5120+01	3.3958+01
G-1 TC G	0.0300	2.3893-01	4.0148-01	4.1166-01	3.0634-01	2.0459-01	1.6658-01	2.2354-01	2.6088-01	4.0558-01	2.3855+00
G-2 TC G	0.0300	0.0000	3.8250-01	4.0423-01	2.6657-01	1.3398-01	4.5361-03	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	3.8162-01	3.2098-01	2.3513-01	5.2785-02	1.5947-03	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.6000-01	2.4519-01	8.3024-02	1.7439-02	2.5864-04	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.7851-01	7.8503-02	2.5937-02	2.7385-03	1.6887-05	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.3126-02	2.3337-02	3.9554-03	1.7694-04	2.0545-05
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5223-02	3.4681-03	2.5316-04	2.1465-04
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.2191-03	2.2010-04	3.0631-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3998-04	2.6575-04
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6873-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.5611-02	2.6224-02	2.7068-02	3.9001-02	4.6980-02	6.0586-02	8.2553-02	1.1308-01	1.6437-01	2.1063-01	2.8804-01
TRANSPORT	1.8978+01	1.5289+01	1.5104+01	1.6411+01	1.6386+01	1.7272+01	1.6673+01	1.6875+01	1.7397+01	1.6561+01	1.7472+01
G TO G	1.8394+01	1.4605+01	1.4536+01	1.5247+01	1.4061+01	1.6461+01	1.5460+01	1.6003+01	1.6481+01	1.4019+01	1.6651+01
G-1 TC G	5.5508-01	5.6868-01	6.5784-01	5.4089-01	1.1257+00	2.2777+00	7.4990-01	1.1297+00	7.5971-01	7.5207-01	2.3317+00
G-2 TC G	5.1935-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	5.4085-05	7.0902-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	7.6976-05	7.3772-06	9.6515-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	6.6605-05	1.0476-05	9.9367-07	1.0186-07	2.3877-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	4.1245-01	6.8904-01	8.3252-01	1.0007+00	1.1530+00	1.4090+00	1.7210+00	2.1470+00	4.3400+00		
TRANSPORT	1.7419+01	1.7669+01	1.7183+01	1.7767+01	1.7810+01	1.8070+01	1.8380+01	1.8800+01	2.1000+01		
G TO G	1.6442+01	1.5908+01	1.4019+01	1.5705+01	1.5270+01	1.5210+01	1.5230+01	1.5520+01	1.6660+01		
G-1 TC G	5.3351-01	5.0470-01	1.0921+00	2.3317+00	1.0610+00	1.3850+00	1.4560+00	1.4200+00	1.1360+00		

C -HONSET, SPECTRUM: CORE

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.7584-01	5.4723-02	6.7222-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TRANSPORT	6.9911-01	1.2022+00	1.1279+00	2.0265+00	4.2461+00	3.9193+00	4.0554+00	3.4599+00	3.5305+00	3.6411+00	3.6411+00
G TO G	2.3569-01	6.2139-01	9.4796-01	1.3662+00	3.0905+00	2.9190+00	3.4271+00	3.0499+00	3.2137+00	1.8238+00	3.1157+00
G-1 TC G	0.0000	2.0240-01	5.2610-01	1.7985-01	6.6063+01	1.1557+00	1.0003+00	6.2827-01	4.1002-01	3.1678-01	1.8173+00
G-2 TC G	0.0000	0.0000	1.7894-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.0555-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.0697-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.6900-02	0.0000	0.0000	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.6569-03	0.0000	0.0000	0.0000	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.4858-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
TRANSPORT	3.6411+00	3.6412+00	3.5774+00	3.5094+00	3.2740+00	4.1607+00	3.6246+00	3.6264+00	3.6851+00	3.0856+00	3.6097+00
G TO G	3.4633+00	3.0898+00	3.3512+00	2.8202+00	1.4241+00	3.9428+00	3.2454+00	3.4903+00	3.6161+00	1.2558+00	3.4781+00
G-1 TC G	5.2542-01	1.7786-01	5.5143-01	2.2622-01	6.8901-01	1.8508+00	2.1784-01	3.7915-01	1.3608-01	6.9071-02	1.8298+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.7789-04	0.0000	0.0000	0.0000	0.0000	1.7206-06
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	0.0000	0.0000	0.0000	0.0000	5.7080-05	6.9720-05	8.5160-05	1.0620-04	1.3710-04		
TRANSPORT	3.5911+00	3.6438+00	3.0953+00	3.6136+00	3.8170+00	3.8170+00	3.8970+00	3.9203+00	4.7060+00		
G TO G	3.4039+00	3.5351+00	1.2544+00	3.4539+00	2.6510+00	2.5760+00	2.6770+00	2.9380+00	4.7060+00		
G-1 TC G	1.3157-01	1.8720-01	1.0866-01	1.8309+00	1.5970-01	1.1660+00	1.2410+00	1.2200+00	9.8160-01		
G-2 TC G	0.0000	0.0000	0.0000	3.3740-06	0.0000	0.0000	0.0000	0.0000	0.0000		

NA -HOMSET. SPECTRUM: CORE

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5182-01	1.9684-03	1.1705-04	1.3821-04	1.9571-04	3.0962-04	7.3169-04	1.3669-03	2.3887-03	1.6480-03	1.2928-03
TRANSPORT	1.4669+00	1.5268+00	1.8294+00	2.3138+00	2.8872+00	3.8874+00	3.9141+00	3.2448+00	4.4998+00	4.1480+00	4.8124+00
G TO G	4.6535-01	7.0894-01	1.0508+00	1.6291+00	1.8817+00	3.4843+00	3.2789+00	2.9188+00	4.2524+00	2.6978+00	4.2351+00
G-1 TC G	0.0000	4.0743-01	4.5998-01	6.1136-01	6.6673+01	9.5638-01	3.5814-01	6.3455-01	3.2470-01	2.4498-01	1.4486+00
G-2 TC G	0.0000	0.0000	1.8451-01	1.6622-01	5.0168-02	1.7230-02	4.9010-02	4.1560-02	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	1.2945-01	1.0078-01	7.6754-02	0.0000	0.0000	2.8610-03	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	7.0781-02	6.7196-02	2.5920-02	3.9967-05	0.0000	7.5245-05	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.3103-02	1.5918-02	1.1682-02	3.0659-04	0.0000	1.0812-04
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.9042-03	5.0175-03	2.0505-03	5.0169-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0517-03	7.2120-04	1.6979-04	8.6883-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.3305-04	4.5279-05	2.6285-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.7078-05	5.4508-05
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.2564-05
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	2.5275-03	2.6583-02	5.3542-03	5.0850-03	5.6210-03	6.5308-03	9.0751-03	1.1878-02	1.6997-02	2.4180-02	2.9170-02
TRANSPORT	1.2518+01	2.5349+01	3.4143+00	2.9313+00	2.7992+00	3.3227+00	3.0223+00	3.0309+00	3.0772+00	2.7282+00	3.0506+00
G TO G	1.0369+01	2.4853+01	3.2787+00	2.5266+00	1.7477+00	3.1892+00	2.7931+00	2.9397+00	3.0201+00	1.6475+00	2.9454+00
G-1 TC G	5.7605-01	2.1464+00	4.6953-01	1.3018-01	3.9962-01	1.0459+00	1.2694-01	2.2003-01	7.9286-02	4.0155-02	1.0565+00
G-6 TC G	4.4223-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	0.0000	1.2538-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	4.4401-05	0.0000	2.9126-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	1.1227-04	1.1762-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	1.3621-05	2.4865-05	2.7131-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	5.3334-02	7.5573-02	9.6020-02	1.0949-01	1.4570-01	1.7800-01	2.1740-01	2.7120-01	3.0320-01		
TRANSPORT	3.0648+00	3.1115+00	2.8060+00	3.1352+00	3.7450+00	3.8780+00	3.9830+00	4.0850+00	4.1690+00		
G TO G	2.9601+00	2.9727+00	1.6507+00	2.9326+00	2.8350+00	2.8745+00	2.9464+00	3.1500+00	3.8660+00		
G-1 TC G	7.6089-02	1.1138-01	6.3153-02	1.0593+00	9.3100-02	7.6400-01	8.2550-01	8.1920-01	6.6380-01		

CR -HOMSET. SPECTRUM: CORE

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5683-02	2.0570-03	1.6802-03	2.1127-03	3.3645-03	4.0000-02	4.0759-03	5.5740-03	4.8332-03	7.0400-03	1.2399-02
TRANSPORT	1.7368+00	1.5562+00	2.6090+00	2.3550+00	2.2976+00	2.5611+00	2.6434+00	4.8793+00	4.5022+00	2.9428+00	4.7006+00
G TO G	4.4995-01	4.2805-01	1.7544+00	2.0469+00	2.1015+00	2.4244+00	2.4686+00	4.8039+00	4.4087+00	2.4842+00	4.3555+00
G-1 TC G	0.0000	2.5153-01	2.2347-01	4.0764-01	2.2936-01	1.9273-01	1.3265-01	1.7068-01	6.9829-02	8.8718-02	4.5163-01
G-2 TC G	0.0000	0.0000	3.2412-01	3.2745-01	1.9867-01	5.0092-02	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	3.0613-01	2.5028-01	1.6804-01	1.9193-02	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.0153-01	1.8616-01	5.7675-02	6.2513-03	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.3513-01	5.8529-02	1.7760-02	9.7435-04	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9572-02	1.7241-02	2.6881-03	6.2801-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1248-02	2.5498-03	1.7163-04	7.6139-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6328-03	1.6159-04	2.0753-04	1.9497-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0283-04	1.9497-04
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2393-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	3.9075-02	5.9604-02	2.4555-02	2.5721-02	3.1330-02	3.8209-02	5.3068-02	6.9582-02	1.0016-01	1.4092-01	1.7036-01
TRANSPORT	1.7668+01	4.4780+00	4.1304+00	4.0980+00	4.0152+00	4.3448+00	4.1904+00	4.2015+00	4.2593+00	4.0421+00	4.2920+00
G TO G	1.7378+01	4.2184+00	4.0270+00	3.8305+00	3.3507+00	4.2295+00	4.0045+00	4.0838+00	4.1351+00	3.2695+00	4.0762+00
G-1 TC G	3.3278-01	2.5086-01	2.0000-01	7.8799-02	2.4182-01	6.3315-01	7.7132-02	1.3274-01	4.8048-02	2.4042-02	6.3163-01
G-8 TC G	1.9171-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	5.2112-05	2.6124-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TO G	4.8870-05	7.0967-06	3.5224-07	2.1485-08	1.2652-08	8.4345-09	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.0065-01	4.3822-01	5.5510-01	6.3674-01	9.7740-01	1.1940+00	1.4580+00	1.8190+00	2.3460+00		
TRANSPORT	4.4082+00	4.5422+00	4.4000+00	4.6455+00	3.9400+00	4.1570+00	4.4210+00	4.7820+00	5.3090+00		
G TO G	4.0410+00	4.0668+00	3.2224+00	3.9542+00	2.6740+00	2.6700+00	2.6770+00	2.7340+00	2.9630+00		
G-1 TC G	4.5479-02	6.6571-02	3.7228-02	6.2252-01	5.4600+02	2.7810-01	2.9240-01	2.8510-01	2.2810-01		

FE -HOMSET. SPECTRUM: CORE

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	3.3643-02	3.1245-03	1.6064-03	2.2243-03	3.9311-03	5.8046-03	6.4418-03	7.3861-03	8.3587-03	8.9030-03	9.5190-03
TRANSPORT	1.8184+00	2.1162+00	2.2779+00	2.2302+00	1.9164+00	2.6170+00	2.7379+00	3.7876+00	7.8046+00	1.4189+00	4.3698+00
G TO G	3.6443-01	6.8022-01	1.2153+00	1.3893+00	1.4018+00	2.4547+00	2.6337+00	3.6440+00	7.3530+00	1.2080+00	4.1037+00
G-1 TC G	0.0000	5.5787-02	2.9562-01	5.9311-01	5.3755-01	3.0366-01	1.5652-01	9.7736-02	1.3618-01	4.4319-01	2.0199-01
G-2 TC G	0.0000	0.0000	1.0257-01	4.1765-01	7.8111-02	2.9684-01	1.7045-01	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.7028-01	3.5865-01	2.5326-01	4.2916-03	3.6561-02	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.6514-01	2.6773-01	1.2047-01	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.9457-01	8.5631-02	1.6094-02	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3200-01	7.5631-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0565-02	1.3076-02	1.5990-02	2.3168-02	2.8110-02	3.4100-02	4.5252-02	5.9898-02	8.5725-02	1.2100-01	1.4619-01
TRANSPORT	7.2804+00	6.8844+00	9.2389+00	1.0583+01	1.0571+01	1.1369+01	1.0898+01	1.0914+01	1.0594+01	1.0484+01	1.0986+01
G TO G	7.1901+00	6.5288+00	9.0402+00	9.9648+00	8.9863+00	1.1147+01	1.0528+01	1.0737+01	1.0649+01	8.8057+00	1.0728+01
G-1 TC G	2.5654-01	7.9644-02	3.4252-01	1.8276-01	5.9464+01	1.5569+00	1.8786-01	3.2486-01	1.1703-01	5.9119-02	1.5569+00
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.5754-01	3.7398-01	4.7700-01	5.4733-01	7.2620-01	8.8700-01	1.0830+00	1.3510+00	1.5240+00		
TRANSPORT	1.1079+01	1.1244+01	1.0840+01	1.1390+01	1.2530+01	1.2690+01	1.2850+01	1.3160+01	1.3870+01		
G TO G	1.0657+01	1.0778+01	8.8058+00	1.0706+01	1.0772+01	1.0718+01	1.0750+01	1.0945+01	1.2346+01		
G-1 TC G	1.1183-01	1.6370-01	9.2879-02	1.5569+00	1.3680-01	1.0320+00	1.0850+00	1.0580+00	8.6410-01		

U235 -HOMSET, SPECTRUM: CORE

4/30/69

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
FISSION	1.5924+00	1.2056+00	1.2900+00	1.3010+00	1.2283+00	1.1669+00	1.3333+00	1.5972+00	2.0615+00	2.5195+00	2.9353+00
ABSORP	1.6635+00	1.2269+00	1.3260+00	1.3617+00	1.3308+00	1.3086+00	1.5902+00	2.0406+00	2.7727+00	3.4670+00	4.0809+00
NU SIGF	5.5265+00	3.6629+00	3.5645+00	3.4119+00	3.1354+00	2.9209+00	3.2933+00	3.9194+00	5.0436+00	6.1577+00	7.1719+00
TRANSPORT	3.9968+00	4.1043+00	4.9221+00	5.0540+00	5.2416+00	5.8842+00	8.0876+00	1.0480+01	1.2331+01	1.3643+01	1.4332+01
G TO G	3.8403-01	5.7211-01	1.6958+00	2.1173+00	2.6178+00	3.5592+00	5.7595+00	8.1530+00	9.4984+00	9.8296+00	1.0151+01
G-1 TC G	0.0000	3.3653-02	1.0312-01	2.1036-01	2.9639-01	5.4250-01	5.6563-01	5.6560-01	2.4408-01	5.9570-02	3.4638-01
G-2 TC G	0.0000	0.0000	1.7347-01	3.1122-01	4.1373-01	6.1892-01	4.5720-01	3.5431-01	1.4208-01	1.5367-02	0.0000
G-3 TC G	0.0000	0.0000	0.0000	4.3089-01	5.1054-01	7.0582-01	4.2837-01	2.3736-01	8.0808-02	1.1246-02	2.0435-02
G-4 TC G	0.0000	0.0000	0.0000	0.0000	5.2662-01	6.5578-01	3.8755-01	1.9029-01	4.7288-02	5.9051-03	1.4441-02
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	5.4582-01	2.9823-01	1.5217-01	3.4909-02	3.3027-03	7.4126-03
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.1487-01	1.0610-01	2.6158-02	2.3728-03	4.0936-03
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.0951-02	1.7318-02	1.7405-03	2.9190-03
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1138-02	1.1331-03	2.1287-03
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.1953-04	1.3793-03
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.7286-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
FISSION	3.9701+00	6.7622+00	9.9298+00	1.4759+01	2.5100+01	2.1222+01	2.1737+01	5.0793+01	4.6752+01	4.7201+01	8.5658+01
ABSORP	5.6106+00	9.5454+00	1.5538+01	2.4261+01	3.7336+01	3.4352+01	3.6243+01	7.5046+01	7.2454+01	1.1945+02	1.2117+02
NU SIGF	9.6986+00	1.6513+01	2.4249+01	3.6041+01	6.1294+01	5.1825+01	5.3081+01	1.2404+02	1.1417+02	1.1526+02	2.0918+02
TRANSPORT	1.6081+01	2.0016+01	2.5996+01	3.4705+01	4.7746+01	4.4913+01	4.6711+01	9.0603+01	8.3831+01	1.3215+02	1.3341+02
G TO G	1.0436+01	1.0360+01	1.0414+01	1.0308+01	1.0054+01	1.0518+01	1.0393+01	1.5517+01	1.1363+01	1.2264+01	1.2218+01
G-1 TC G	9.9998-02	3.4404-02	1.1049-01	4.4029-02	1.3577-01	3.5644-01	4.3086-02	7.4180-02	3.9637-02	1.3492-02	4.3655-01
G-4 TC G	5.6944-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	3.8728-03	2.1823-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-6 TC G	1.9392-03	5.4548-04	1.1322-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	1.0560-03	2.6963-04	7.4914-05	1.1285-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	7.4681-04	1.4580-04	3.6837-05	7.4529-06	2.5905-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	5.4114-04	1.0265-04	1.9865-05	3.6729-06	1.7052-06	3.1150-06	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	3.4886-04	7.4109-05	1.3978-05	1.9688-06	8.3748-07	2.0517-06	5.5839-07	2.5804-07	3.3328-08	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
FISSION	2.1530+01	4.5013+01	5.5425+01	6.7575+01	1.5920+02	1.8030+02	1.9570+02	2.6090+02	3.1790+02		
ABSORP	3.2114+01	5.9009+01	6.1174+01	7.5105+01	1.8793+02	2.2328+02	2.3484+02	3.0516+02	3.8368+02		
NU SIGF	5.2577+01	1.0992+02	1.3535+02	1.6502+02	3.8917+02	4.4354+02	4.8142+02	6.4181+02	7.8206+02		
TRANSPORT	4.3472+01	7.2292+01	7.4904+01	8.9175+01	2.0390+02	2.3930+02	2.5080+02	3.2120+02	3.9970+02		
G TO G	1.1828+01	1.3235+01	1.3258+01	1.4030+01	1.5640+01	1.5650+01	1.5660+01	1.5730+01	1.5960+01		
G-1 TC G	1.7848-02	3.0198-02	4.7275-02	4.7186-01	3.9800-02	3.3170-01	3.4870-01	3.4000-01	2.7200-01		

U233 -HOMSET. SPECTRUM: CORE

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
FISSION	8.7860-01	5.3202-01	5.4490-01	3.9429-01	2.6273-02	9.0682-04	0.0000	0.0000	0.0000	0.0000	0.0000
AESORP	2.7688-01	5.4288-01	5.6884-01	4.5528-01	1.5757-01	1.3392-01	1.5958-01	2.5494-01	3.4249-01	4.1724-01	5.0003-01
NU SIGF	3.0436+00	1.6113+00	1.4964+00	1.0201+00	6.5322-02	2.1950-03	0.0000	0.0000	0.0000	0.0000	0.0000
TRANSPORT	3.9064+00	3.8661+00	4.9705+00	5.7170+00	5.1727+00	5.1607+00	7.1488+00	9.9372+00	1.2008+01	1.3159+01	1.3838+01
G TO G	4.0208-01	6.8858-01	1.7848+00	2.7430+00	3.4608+00	4.3514+00	6.5912+00	9.4379+00	1.1525+01	1.2269+01	1.3205+01
G-1 TC G	0.0000	4.8724-02	1.2188-01	2.7653-01	4.5858-01	6.5708-01	3.8593-01	3.1699-01	2.1177-01	9.5773-02	4.6045-01
G-2 TC G	0.0000	0.0000	2.7930-01	4.0574-01	5.6724-01	9.9269-01	5.4742-01	2.2773-01	6.6830-02	1.1716-02	3.3157-02
G-3 TC G	0.0000	0.0000	0.0000	6.6319-01	6.7199-01	9.7732-01	6.9209-01	2.8326-01	5.1753-02	5.2914-03	1.5669-02
G-4 TC G	0.0000	0.0000	0.0000	0.0000	8.4721-01	8.6923-01	5.4011-01	3.0865-01	5.6335-02	3.7774-03	6.7952-03
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	8.7837-01	3.9715-01	2.1279-01	5.6739-02	3.9323-03	4.7402-03
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.4591-01	1.4163-01	3.6645-02	3.8592-03	4.8732-03
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1424-01	2.3147-02	2.4397-03	4.7485-03
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.7936-02	1.5150-03	2.9843-03
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1588-03	1.8446-03
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.4057-03
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	6.3580-01	9.8875-01	1.6669+00	1.7126+00	2.4939+00	3.6703+00	3.8827+00	1.3020+00	3.6270+00	0.0000	4.4945+00
TRANSPORT	1.4101+01	1.6566+01	1.9545+01	1.8139+01	2.1318+01	6.1686+01	2.0590+01	2.4560+01	2.7916+01	8.7897+00	1.7050+01
G TO G	1.3399+01	1.5400+01	1.7808+01	1.6183+01	1.8187+01	5.7643+01	1.6386+01	2.2762+01	2.4280+01	8.4914+00	1.2537+01
G-1 TC G	1.3243-01	4.5941-02	1.7701-01	7.0761-02	2.4328-01	6.3698-01	3.7217-01	3.2178-01	5.0388-01	9.6729-03	2.9831-01
G-2 TC G	1.1069-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	9.9680-03	1.7150-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	4.3933-03	1.4903-03	2.4402-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	1.8226-03	6.3332-04	2.0926-04	2.4556-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-6 TC G	1.2396-03	2.5673-04	8.7731-05	2.0966-05	5.6446-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	1.2570-03	1.7233-04	3.5262-05	8.7510-06	4.8107-06	5.7833-06	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	1.2152-03	1.7350-04	2.3543-05	3.5010-06	2.0006-06	5.7803-06	1.2310-06	0.0000	0.0000	0.0000	0.0000
G-9 TC G	7.5878-04	1.6704-04	2.3629-05	2.3427-06	8.0473-07	2.4151-06	1.0577-06	5.6503-07	0.0000	0.0000	0.0000
G-10 TO G	4.6659-04	1.0394-04	2.2735-05	2.3640-06	5.4146-07	9.6906-07	4.3327-07	4.7140-07	1.2108-07	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.1686-01	4.9397-01	5.6600-01	6.2462-01	7.9150-01	9.4840-01	1.1420+00	1.4020+00	1.8020+00		
TRANSPORT	8.3874+00	8.7710+00	8.7643+00	8.8971+00	9.5180+00	9.5100+00	9.6810+00	9.8420+00	9.4350+00		
G TO G	8.0413+00	8.2604+00	7.9201+00	8.2480+00	8.5480+00	8.3750+00	8.3590+00	8.2981+00	7.6330+00		
G-1 TC G	1.9024-02	2.9251-02	1.6596-02	2.7820-01	2.4450-02	1.7930-01	1.8650-01	1.7980-01	1.4190-01		

PL239-HOMSET, SPECTRUM: CORE REVISION 1

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
FISSION	2.1628+00	1.9017+00	2.0137+00	1.9115+00	1.7584+00	1.5917+00	1.4837+00	1.5301+00	1.6277+00	1.7725+00	1.9456+00
ABSORP	2.1628+00	1.9017+00	2.0137+00	1.9214+00	1.8051+00	1.6906+00	1.6543+00	1.7485+00	2.0104+00	2.3809+00	2.7536+00
NU SIGF	8.3948+00	6.6504+00	6.5480+00	5.9355+00	5.2991+00	4.6965+00	4.3126+00	4.4153+00	4.6811+00	5.0924+00	5.5872+00
TRANSPORT	3.7719+00	3.9826+00	4.9787+00	5.2103+00	5.6493+00	6.4510+00	8.1188+00	1.0051+01	1.1903+01	1.3229+01	1.4076+01
G TO G	3.9806-01	3.4301-01	1.7454+00	2.2039+00	2.7432+00	3.9926+00	6.1716+00	8.2120+00	9.8313+00	1.0485+01	1.1210+01
G-1 TC G	0.0000	2.4989-02	6.7299-02	1.4670-01	2.1193-01	4.6304-01	4.3322-01	2.3788-01	8.7098-02	6.1676-02	3.6276-01
G-2 TC G	0.0000	0.0000	1.0168-01	1.8858-01	2.5978-01	4.1963-01	3.8748-01	2.6305-01	4.5365-02	1.2606-03	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.5632-01	3.1283-01	4.4800-01	2.9379-01	2.0256-01	5.9991-02	3.5815-03	1.6567-03
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.1628-01	4.0513-01	2.4775-01	1.3131-01	4.0501-02	4.3838-03	4.5956-03
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	3.3008-01	1.8525-01	9.7641-02	2.4167-02	2.8321-03	5.5029-03
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3055-01	6.6092-02	1.6818-02	1.6444-03	5.5115-03
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.3209-02	1.0804-02	1.1198-03	2.0235-03
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.7914-03	7.0723-04	1.3697-03
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.3892-04	8.6109-04
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.3254-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
FISSION	2.3711+00	3.9872+00	6.9250+00	9.1898+00	1.8288+01	1.9572+01	3.3136+01	5.5872+01	3.4679+01	1.6993+02	2.3423+01
ABSORP	3.6107+00	6.5612+00	1.1764+01	1.6055+01	2.9830+01	3.0497+01	4.0822+01	1.0756+02	6.5080+01	2.5919+02	3.5588+01
NU SIGF	6.8075+00	1.1443+01	1.9875+01	2.6375+01	5.2487+01	5.6171+01	9.5101+01	1.6035+02	9.9528+01	4.8770+02	6.7225+01
TRANSPORT	1.6130+01	1.8956+01	2.1723+01	2.6000+01	3.9738+01	4.0566+01	5.0790+01	1.3324+02	7.6777+01	2.7300+02	4.5761+01
G TO G	1.2478+01	1.2292+01	9.9172+00	9.8168+00	9.5738+00	1.0029+01	9.8993+00	2.5657+01	1.1675+01	1.3343+01	1.0150+01
G-1 TC G	1.1309-01	4.1543-02	1.0371-01	4.1449-02	1.2751-01	3.3385-01	4.0284-02	6.9659-02	2.4090-02	2.1551-02	4.6739-01
G-4 TC G	4.5572-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	1.2315-03	6.5038-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-6 TC G	1.4396-03	1.7338-04	8.9770-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	9.0623-04	2.0016-04	2.3814-05	8.9333-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	5.1788-04	1.2513-04	2.7353-05	2.3677-06	2.0410-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	3.4827-04	7.1211-05	1.7055-05	2.7204-06	5.3878-07	2.4703-07	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TO G	2.1780-04	4.7707-05	9.6714-06	1.6794-06	6.1929-07	6.5186-07	4.3998-08	1.3220-08	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
FISSION	7.8184+00	2.8046+01	6.0597+01	1.2742+02	1.9060+03	1.4805+03	5.6757+02	4.7590+02	7.4109+02		
ABSORP	9.9213+00	4.1698+01	8.5119+01	1.8426+02	3.0840+03	2.5005+03	9.0937+02	7.0980+02	9.1839+02		
NU SIGF	2.2439+01	8.0491+01	1.7391+02	3.6569+02	5.4723+03	4.2505+03	1.6295+03	1.3663+03	2.1277+03		
TRANSPORT	1.9484+01	5.1274+01	9.4591+01	1.9383+02	3.0951+03	2.5115+03	9.2037+02	7.2080+02	9.2939+02		
G TO G	9.5294+00	9.5570+00	9.1512+00	9.5396+00	1.0780+01	1.0770+01	1.0770+01	1.0820+01	1.1000+01		
G-1 TO G	2.3021-02	3.3697-02	1.9119-02	3.2049-01	2.8170-02	2.2290-01	2.3410-01	2.2830-01	1.8260-01		

PU240-HOMSET. SPECTRUM CORE REVISION 1

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
FISSION	1.9613+00	1.5592+00	1.6542+00	1.6068+00	1.5020+00	6.1686-01	1.3347-01	6.6668-02	5.4793-02	3.4000-02	1.8055-02
ABSORP	1.9613+00	1.5604+00	1.7033+00	1.6987+00	1.6278+00	7.9879-01	5.1807-01	5.7111-01	8.1049-01	1.0520+00	1.2687+00
NU SIGF	8.1348+00	5.8107+00	5.7106+00	5.3088+00	4.8651+00	1.9699+00	4.2153-01	2.0947-01	1.7177-01	1.0649-01	5.6537-02
TRANSPORT	3.9572+00	4.0834+00	4.8835+00	5.0512+00	5.3073+00	6.1462+00	3.3679+00	1.0928+01	1.2743+01	1.4728+01	1.4356+01
G TO G	3.8623-01	8.4098-01	1.6465+00	1.9726+00	3.3746+00	5.1299+00	7.4748+00	1.0104+01	1.1793+01	1.2511+01	1.2959+01
G-1 TC G	0.0000	2.8036-02	8.6715-02	1.7064-01	2.5939-01	1.6478-01	1.4066-01	3.0205-01	2.1943-01	9.4353-02	9.5929-01
G-2 TC G	0.0000	0.0000	1.3473-01	2.5571-01	3.2845-01	5.3999-01	8.6749-02	5.9931-02	6.0138-02	1.2062-02	3.2853-02
G-3 TC G	0.0000	0.0000	0.0000	3.4102-01	4.2574-01	5.6892-01	3.7640-01	4.3444-02	1.4187-02	4.7753-03	1.6135-02
G-4 TC G	0.0000	0.0000	0.0000	0.0000	4.2181-01	5.5285-01	3.1552-01	1.6785-01	8.4871-03	1.0495-03	6.1375-03
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.4096-01	2.5325-01	1.2454-01	3.0856-02	5.8888-04	1.3219-03
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.7460-01	9.0437-02	2.1467-02	2.0987-03	7.2859-04
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.7825-02	1.4791-02	1.4297-03	2.5823-03
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.0914-03	9.6836-04	1.7490-03	1.7490-03
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.8764-04	1.1791-03	1.1791-03
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.1297-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
FISSION	5.9436-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ABSORP	1.8196+00	3.9523+00	7.2666+00	1.3922+01	1.9016+01	2.9719+01	4.4480+01	2.3094+01	1.2055+01	2.1900+01	5.2251-01
NU SIGF	1.8604-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TRANSPORT	1.5217+01	1.9530+01	2.5147+01	3.0352+01	3.7848+01	7.9179+01	9.1587+01	4.3013+01	2.4953+01	1.2064+01	1.2482+01
G TO G	1.3352+01	1.5402+01	1.7810+01	1.6188+01	1.8201+01	4.9039+01	4.6123+01	1.9895+01	1.2883+01	1.1446+01	1.1931+01
G-1 TC G	1.2762-01	4.5552-02	1.7556-01	7.0162-02	2.4122-01	6.3159-01	4.2116-01	9.8492-01	2.4987-02	1.5147-02	3.9890-01
G-2 TC G	1.7414-01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	9.9144-03	2.6997-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	4.5253-03	1.4242-03	3.8420-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	1.6477-03	6.5245-04	2.0850-04	3.8669-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-6 TC G	3.4711-04	2.3219-04	9.0379-05	2.0897-05	8.8921-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	1.8758-04	4.8357-05	3.1894-05	9.0156-06	4.7938-06	1.0673-04	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	6.6082-04	2.5863-05	6.6130-06	3.1727-06	2.0661-06	5.7658-06	1.9484-05	0.0000	0.0000	0.0000	0.0000
G-9 TC G	4.4470-04	9.0850-05	3.5254-06	6.5630-07	7.2288-07	2.4851-06	1.0472-06	8.8604-06	0.0000	0.0000	0.0000
G-10 TC G	2.9824-04	6.0926-05	1.2352-05	3.4924-07	1.5047-07	8.7828-07	4.4639-07	4.7329-07	1.9439-06	2.2603-07	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
FISSION	4.4708-02	1.4399+00	6.1E10-01	2.9572-01	2.8834+02	2.6617-02	2.7605-02	3.1323-02	8.4811-02		
ABSORP	2.4843+01	1.9149+03	7.8677+02	3.0319+02	1.6070+02	1.4530+02	1.4860+02	1.6460+02	1.8710+02		
NU SIGF	1.3994-01	4.5068+00	1.9346+00	9.2559-01	8.0736-02	7.4528-02	7.7293-02	8.7704-02	2.3747-01		
TRANSPORT	3.8587+01	2.1E42+03	8.4366+02	3.3021+02	1.6100+02	1.4610+02	1.4980+02	1.6610+02	1.8890+02		
G TO G	1.3669+01	2.7530+02	5.3043+01	2.6959+01	2.9400+01	7.8240-01	1.1750+00	1.4750+00	1.8000+00		
G-1 TC G	2.8653-02	7.5E94-02	4.0058+00	1.8482+00	5.4920-02	6.1160-03	1.7550-02	2.5320-02	2.5000-02		

PU241-HOMSET. SPECTRUM: CORE

4/30/69

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
FISSION	2.0705+00	1.5299+00	1.6611+00	1.7758+00	1.6513+00	1.6371+00	1.9408+00	2.7325+00	4.1091+00	4.8130+00	4.6668+00
ABSORP	2.0705+00	1.5309+00	1.6993+00	1.8505+00	1.7556+00	1.8287+00	2.3140+00	3.2657+00	4.7708+00	5.5400+00	5.4384+00
NU SIGF	8.4709+00	5.5966+00	5.6162+00	5.7428+00	5.2284+00	5.1065+00	5.9907+00	8.3927+00	1.2593+01	1.4747+01	1.4299+01
TRANSPCRT	3.6796+00	3.6117+00	4.6643+00	5.1395+00	5.5998+00	6.5891+00	8.7780+00	1.1567+01	1.2079+01	1.6388+01	1.6760+01
G TO G	4.0104-01	8.4243-01	1.7472+00	2.2034+00	2.7424+00	3.9914+00	6.1720+00	8.2116+00	7.2473+00	1.0488+01	1.1210+01
G-1 TC G	0.0000	2.1692-02	6.7047-02	1.4333-01	2.1058-01	4.6154-01	4.3295-01	2.3676-01	8.6386-02	6.0789-02	3.5984-01
G-2 TC G	0.0000	0.0000	1.0050-01	1.8720-01	2.5871-01	4.1936-01	3.8836-01	2.6402-01	4.5542-02	1.2676-03	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.5521-01	3.1234-01	4.4857-01	2.9489-01	2.0363-01	6.0337-02	3.5991-03	1.6666-03
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.1642-01	4.0624-01	2.4894-01	1.3212-01	4.0779-02	4.4121-03	4.6194-03
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	3.3136-01	1.8629-01	9.8297-02	2.4346-02	2.8530-03	5.5396-03
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3136-01	6.6563-02	1.6948-02	1.6572-03	3.5379-03
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.3528-02	1.0890-02	1.1288-03	2.0396-03
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.8457-03	7.1300-04	1.3809-03
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.4253-04	8.6818-04
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.3694-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
FISSION	4.9676+00	5.5947+00	6.3779+00	1.3576+01	2.1850+01	2.9875+01	3.9348+01	4.8072+01	6.6341+01	1.0740+02	1.9087+02
ABSORP	5.8576+00	7.1857+00	8.6180+00	1.8962+01	3.0570+01	4.1815+01	5.5157+01	6.7234+01	9.2877+01	1.5037+02	2.3122+02
NU SIGF	1.5218+01	1.7137+01	1.9535+01	4.1584+01	6.6905+01	9.1478+01	1.2048+02	1.4720+02	2.0314+02	3.2875+02	5.8425+02
TRANSPORT	1.8382+01	1.9584+01	1.8577+01	2.8907+01	4.0480+01	5.1882+01	6.5126+01	9.4896+01	1.0707+02	1.6419+02	2.5622+02
G TO G	1.2483+01	1.2295+01	9.9183+00	9.8192+00	9.5788+00	1.0027+01	9.9004+00	2.7625+01	1.4168+01	1.3352+01	2.4975+01
G-1 TC G	1.1141-01	4.1222-02	1.0262-01	4.0895-02	1.2610-01	3.3107-01	4.0019-02	6.8900-02	3.7603-02	2.9736-02	4.6349-01
G-4 TC G	4.5862-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TO G	1.2382-03	6.5466-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-6 TC G	1.4495-03	1.7436-04	9.0362-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TO G	9.1321-04	2.0156-04	2.3949-05	9.0006-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	5.2206-04	1.2609-04	2.7544-05	2.3791-06	2.0506-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	3.5113-04	7.1778-05	1.7190-05	2.7377-06	5.4394-07	2.4854-07	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TO G	2.1962-04	4.8113-05	9.7665-06	1.6963-06	6.3045-07	6.5671-07	4.4738-08	8.8080-09	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
FISSION	3.4895+01	1.6573+01	2.0080+01	3.2758+01	3.6600+02	1.3500+03	7.5000+02	6.3200+02	5.6860+02		
ABSORP	3.8926+01	1.9630+01	2.8720+01	5.4508+01	6.0060+02	1.9120+03	9.9790+02	8.0280+02	7.9400+02		
NU SIGF	1.0681+02	5.0728+01	6.1465+01	1.0024+02	1.0834+03	3.9960+03	2.2200+03	1.8707+03	1.6830+03		
TRANSPCRT	4.9307+01	2.9598+01	3.8590+01	6.4475+01	6.2060+02	1.9320+03	1.0179+03	8.2280+02	8.1380+02		
G TO G	1.0358+01	9.9348+00	9.5386+00	9.9404+00	1.9600+01	1.9600+01	1.9600+01	1.9700+01	1.9800+01		
G-1 TC G	2.2316-02	2.3009-02	3.3901-02	3.3107-01	2.7100-02	3.9760-01	4.1790-01	4.0750-01	3.2600-01		

- B24 -

WHAN-FR-12

BE -HOMSET, SPECTRUM: 25SS,75NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	-5.4004-01	-4.9719-01	-1.1933-01	3.0005-02	2.1082-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TRANSPORT	1.0568+00	1.3151+00	1.9635+00	1.4320+00	2.4825+00	3.4909+00	4.0525+00	4.9362+00	5.3622+00	5.3704+00	5.3704+00
G TO G	2.3321-01	3.1749-01	8.1813-01	6.0709-01	1.3126+00	2.2808+00	2.7978+00	3.7810+00	4.4269+00	1.4198+00	3.9053+00
G-1 TC G	0.0000	8.8997-01	7.4886-01	9.4992-01	7.9489-01	1.1678+00	1.2101+00	1.2548+00	1.1552+00	7.8464-01	3.9505+00
G-2 TC G	0.0000	0.0000	1.7281-01	3.8064-01	1.1155-01	0.0000	0.0000	0.0000	0.0000	0.0000	1.5068-01
G-3 TC G	0.0000	0.0000	0.0000	9.3074-02	1.7082-01	1.1549-01	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	5.5905-02	9.2118-02	5.1134-02	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.5526-02	4.3664-02	3.6628-02	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.1674-02	3.8420-02	0.0000	0.0000	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.9284-02	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	0.0000	0.0000	0.0000	0.0000	1.0208-04	1.3086-04	1.7999-04	2.4572-04	3.5933-04	4.6251-04	6.3125-04
TRANSPORT	5.3704+00	5.3704+00	5.0452+00	5.0217+00	5.3025+00	5.6672+00	5.1409+00	4.9301+00	5.6089+00	4.6149+00	5.5075+00
G TO G	4.5000+00	3.2810+00	3.8721+00	2.6472+00	1.3934+00	4.0977+00	2.7660+00	3.3827+00	4.0823+00	6.7929-01	4.4558+00
G-1 TO G	1.4551+00	4.7037-01	2.0894+00	1.1731+00	1.9386+00	3.9090+00	1.5693+00	2.3747+00	1.5471+00	1.2558+00	3.9352+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.3586-01	0.0000	0.0000	0.0000	0.0000	2.7040-01
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	1.0909-03	1.5256-03	1.8496-03	2.2103-03	5.9860-03	6.7860-03	7.3210-03	7.7070-03	6.5410-03		
TRANSPORT	5.0886+03	4.9540+00	4.8047+00	4.7098+00	5.5630+00	5.5630+00	5.5640+00	5.5640+00	5.3330+00		
G TO G	4.1218+00	2.7173+00	8.6902-01	2.5365+00	2.4980+00	2.3420+00	2.4220+00	3.0490+00	5.3260+00		
G-1 TC G	1.0511+00	9.6567-01	1.8503+00	3.9338+00	2.1711+00	3.0590+00	3.2150+00	3.1350+00	2.5080+00		
G-2 TC G	0.0000	0.0000	0.0000	3.8489-01	0.0000	0.0000	0.0000	0.0000	0.0000		

NA -HOMSET, SPECTRUM: 25SS,75NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5242-01	1.9181-03	1.1702-04	1.3898-04	1.9362-04	3.0407-04	7.1753-04	1.3712-03	2.4182-03	1.6480-03	1.2914-03
TRANSPORT	1.4671+00	1.5280+00	1.8317+00	2.3167+00	2.8596+00	3.8099+00	3.9090+00	3.2480+00	4.4163+00	4.1480+00	4.8294+00
G TO G	4.6813-01	7.0513-01	1.0560+00	1.5839+00	1.9031+00	3.2639+00	3.3446+00	2.9186+00	4.1604+00	2.6978+00	4.2269+00
G-1 TC G	0.0000	4.0561-01	4.6434-01	6.0777-01	7.1330-01	9.1175-01	5.1009-01	5.6367-01	3.2805-01	2.5348-01	1.4486+00
G-2 TC G	0.0000	0.0000	1.8443-01	1.6642-01	5.0801-02	1.8820-02	4.4595-02	3.2613-02	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	1.2934-01	1.0097-01	7.6830-02	0.0000	0.0000	2.5645-03	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	7.0704-02	6.7364-02	2.5881-02	3.5061-03	0.0000	1.2174-04	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.3049-02	1.5958-02	1.1641-02	2.6895-04	0.0000	1.7492-04
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.8905-03	5.0306-03	2.0415-03	4.4010-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0473-03	7.2314-04	1.6888-04	7.6218-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.3241-04	4.5402-05	2.6125-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.7038-05	5.4656-05
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.2516-05
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	2.2699-03	1.8554-02	5.1885-03	5.1132-03	5.6210-03	6.8726-03	9.4146-03	1.2809-02	1.8706-02	2.4180-02	3.2725-02
TRANSPORT	1.1545+01	1.5083+01	3.2612+00	2.9277+00	2.8424+00	3.2426+00	2.9792+00	2.9346+00	3.1132+00	2.7282+00	3.1078+00
G TO G	9.9828+00	1.4388+01	3.0005+00	2.4068+00	1.7908+00	2.8926+00	2.4499+00	2.5838+00	2.7612+00	1.6475+00	2.8473+00
G-1 TC G	6.0126-01	1.5600+00	6.7641-01	2.5548-01	5.1579-01	1.0459+00	3.4305-01	5.1983-01	3.3804-01	3.3329-01	1.0565+00
G-6 TC G	7.1549-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	0.0000	2.0286-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	3.8950-05	0.0000	4.7124-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	1.1147-04	1.0318-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	1.3658-05	2.4663-05	2.3801-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	5.5314-02	7.9432-02	9.6020-02	1.1411-01	1.4570+01	1.7800+01	2.1740+01	2.7120+01	3.0320+01		
TRANSPORT	3.0330+00	2.9838+00	2.8060+00	3.0151+00	3.7450+00	3.8780+00	3.9830+00	4.0850+00	4.1690+00		
G TC G	2.7704+00	2.4299+00	1.6507+00	2.4482+00	2.8350+00	2.8750+00	2.9470+00	3.1500+00	3.8660+00		
G-1 TC G	2.2783-01	2.0724-01	4.7447-01	1.0593+00	4.5280-01	7.6400-01	8.2550-01	8.1920-01	6.6380-01		

CR -HOMSET, SPECTRUM: 255S,75NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5819-02	2.0423-03	1.6790-03	2.1295-03	3.3128-03	4.0000-03	4.0674-03	5.5980-03	4.8847-03	7.0400-03	1.2520-02
TRANSPORT	1.7412+00	1.5472+00	2.5958+00	2.3283+00	2.2875+00	2.7161+00	2.6143+00	4.8570+00	4.4543+00	2.9428+00	4.7648+00
G TO G	4.5483-01	4.1852-01	1.7412+00	2.0087+00	2.1088+00	2.4975+00	2.4586+00	4.7809+00	4.3576+00	2.4842+00	4.4050+00
G-1 TC G	0.0000	2.5134-01	2.8327-01	4.0666-01	2.4367-01	1.7537-01	2.1462-01	1.5162-01	7.0550-02	9.1794-02	4.5163-01
G-2 TC G	0.0000	0.0000	3.2421-01	3.2750-01	1.9915-01	4.8135-02	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	3.0601-01	2.5054-01	1.6838-01	1.8509-02	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.0138-01	1.8646-01	5.7774-02	6.0394-03	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.3499-01	5.8648-02	1.7788-02	9.4222-04	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9525-02	1.7275-02	2.6922-03	6.0749-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1233-02	2.5558-03	1.7188-04	7.3657-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6306-03	1.6198-04	2.0784-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0269-04	1.9544-04
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2376-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	3.9033-02	6.0917-02	2.3743-02	2.6082-02	3.1330-02	4.0312-02	5.5056-02	7.5362-02	1.0975-01	1.4092-01	1.9164-01
TRANSPORT	1.7650+01	4.3681+00	4.1034+00	4.0950+00	4.0422+00	4.3034+00	4.1615+00	4.1574+00	4.2795+00	4.0421+00	4.3424+00
G TO G	1.7429+01	4.0190+00	3.4250+00	3.7568+00	3.3777+00	4.0547+00	3.7928+00	3.8772+00	3.9702+00	3.2695+00	4.0146+00
G-1 TC G	3.4734-01	1.8233-01	2.8812-01	1.5465-01	3.1212-01	6.3315-01	2.0845-01	3.1362-01	2.0486-01	1.9955-01	6.3163-01
G-8 TC G	1.8548-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	5.2188-05	2.5278-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	4.8987-05	7.1070-06	3.4085-07	1.8848-08	1.2820-08	8.5468-09	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.1257-01	4.6021-01	5.5510-01	6.6493-01	9.7740-01	1.1940+00	1.4580+00	1.8190+00	2.3460+00		
TRANSPORT	4.3975+00	4.5183+00	4.4000+00	4.6048+00	3.9400+00	4.1570+00	4.4210+00	4.7820+00	5.3090+00		
G TO G	3.9607+00	3.7786+00	3.2224+00	3.6744+00	2.6740+00	2.6700+00	2.6770+00	2.7340+00	2.9630+00		
G-1 TC G	1.3618-01	1.2387-01	2.7951-01	6.2252-01	2.6545-01	2.7810-01	2.9240-01	2.8510-01	2.2810-01		

MN -HOMSET. SPECTRUM: 2555,75NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	4.7598-02	8.8249-03	1.8827-03	2.8137-03	3.5470-03	4.5742-03	8.7062-03	1.8288-02	3.9940-02	6.5580-02	2.5607-02
TRANSPORT	1.7696+00	2.2133+00	2.9234+00	2.8984+00	2.5898+00	2.8262+00	3.2957+00	4.6435+00	1.0292+01	1.9134+01	9.5232+00
G TO G	3.5536-01	8.7106-01	1.8152+00	2.1321+00	2.1727+00	2.6177+00	3.1297+00	4.3662+00	1.0079+01	1.6291+01	8.5831+00
G-1 TO G	0.0000	2.4069-01	3.8714-01	4.6976-01	4.1301-01	3.1050-01	2.0393-01	1.5729-01	2.5899-01	1.7279-01	2.7769+00
G-2 TO G	0.0000	0.0000	3.4848-01	3.6115-01	2.7913-01	2.2627-01	7.2476-02	0.0000	0.0000	0.0000	0.0000
G-3 TO G	0.0000	0.0000	0.0000	3.3782-01	2.8172-01	2.4202-01	8.9322-02	2.5683-02	0.0000	0.0000	0.0000
G-4 TO G	0.0000	0.0000	0.0000	0.0000	2.2606-01	2.1254-01	8.4471-02	2.9540-02	4.1838-03	0.0000	0.0000
G-5 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	1.5330-01	6.7474-02	2.6233-02	4.6410-03	2.7356-04	0.0000
G-6 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.5241-02	1.9973-02	3.9883-03	2.9991-04	3.3296-04
G-7 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2909-02	2.9614-03	2.5501-04	3.6385-04
G-8 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.8777-03	1.8784-04	3.0847-04
G-9 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1834-04	2.2669-04
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.4262-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.2970-02	1.4036-01	7.0279-01	1.3371+01	1.5180+00	4.7973-01	3.2492-01	3.4115-01	4.5616-01	6.0810-01	8.2158-01
TRANSPORT	4.2138+01	1.0812+02	4.5088+01	5.5261+02	6.0922+01	1.1685+01	4.1813+00	3.2559+00	3.0152+00	2.8389+00	3.0289+00
G TO G	4.1881+01	1.0700+02	4.3334+01	4.7902+02	5.3289+01	1.0956+01	3.6032+00	2.7866+00	2.4479+00	1.8898+00	2.1414+00
G-1 TO G	9.1454-01	2.4393-01	9.8521-01	1.0517+00	6.0218+01	6.1150+00	2.4914-01	2.5322-01	1.2819-01	1.1110-01	3.4100-01
G-7 TO G	8.4194-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TO G	9.1690-05	1.1507-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TO G	7.7480-05	1.2491-05	1.5536-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TO G	5.6820-05	1.0532-05	1.7081-06	1.5621-07	3.4112-08	2.3974-08	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	1.3517+00	1.9711+00	2.3920+00	2.8630+00	3.6160+00	4.4160+00	5.3940+00	6.7300+00	8.6780+00		
TRANSPORT	3.5097+00	4.1621+00	4.4816+00	5.0291+00	5.8890+00	6.6880+00	7.6660+00	9.0020+00	1.0950+01		
G TO G	2.0943+00	2.0492+00	1.7702+00	2.0252+00	2.0710+00	2.0600+00	2.0650+00	2.1070+00	2.2720+00		
G-1 TO G	6.5915-02	6.3617-02	1.4178-01	3.1942-01	1.4080-01	2.0200-01	2.1230-01	2.0700-01	1.6560-01		

FE -HONSET, SPECTRUM: 25SS,75NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	3.3809-02	3.0754-03	1.6052-03	2.2450-03	3.8600-03	5.8613-03	6.4293-03	7.3955-03	8.3768-03	8.9030-03	9.5284-03
TRANSPORT	1.4211+00	2.1192+00	2.2630+00	2.2270+00	1.9244+00	2.8023+00	2.7286+00	3.8061+00	8.0106+00	1.4189+00	4.4165+00
G TO G	3.6766-01	6.8245-01	1.2020+00	1.3834+00	1.4127+00	2.5432+00	2.6353+00	3.6611+00	7.5437+00	1.2080+00	4.1392+00
G-1 TC G	0.0000	5.5414-02	2.9969-01	5.2916-01	5.1333-01	3.0513-01	2.5323-01	8.6819-02	1.3759-01	4.5855-01	2.0199-01
G-2 TC G	0.0000	0.0000	1.0263-01	4.2125-01	7.9150-02	3.2423-01	1.6951-01	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.7053-01	3.5897-01	2.5477-01	3.7648-03	3.3268-02	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.6526-01	2.6289-01	1.2021-01	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.9421-01	8.3569-02	1.6042-02	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3158-01	7.3569-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0513-02	1.3236-02	1.6696-02	2.3490-02	2.8110-02	3.5580-02	4.6958-02	6.4463-02	9.4234-02	1.2100-01	1.6414-01
TRANSPORT	7.3594+00	7.1058+00	9.4204+00	1.0607+01	1.0638+01	1.1244+01	1.0831+01	1.0771+01	1.1052+01	1.0484+01	1.1085+01
G TO G	7.2910+00	6.5991+00	9.0451+00	9.8158+00	9.0528+00	1.0701+01	1.0016+01	1.0207+01	1.0467+01	8.8057+00	1.0586+01
G-1 TC G	2.6777-01	5.7888-02	4.9344-01	3.5866-01	7.6750-01	1.5569+00	5.0770-01	7.6750-01	4.9896-01	4.9069-01	1.5569+00
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.5718-01	3.9339-01	4.7700-01	5.7178-01	7.2620-01	8.8700-01	1.0830+00	1.3510+00	1.5240+00		
TRANSPORT	1.1037+01	1.1195+01	1.0840+01	1.1225+01	1.2530+01	1.2690+01	1.2890+01	1.3160+01	1.3870+01		
G TO G	1.0465+01	1.0104+01	8.8058+00	9.9874+00	1.0770+01	1.0720+01	1.0750+01	1.0960+01	1.2350+01		
G-1 TC G	3.3486-01	3.0459-01	6.9735-01	1.5569+00	6.6550-01	1.0320+00	1.0850+00	1.0580+00	8.6410-01		

CO -HOMSET. SPECTRUM: 25SS,75NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	0.0000	0.0000	0.0000	0.0000	1.9703-03	5.3714-03	1.1844-02	4.6277-02	7.6959-02	1.5000-01	2.4661-01
TRANSPORT	1.7614+00	2.1952+00	2.8136+00	2.8238+00	2.8645+00	3.5306+00	4.5759+00	5.8618+00	7.3158+00	1.8941+01	6.3941+00
G TO G	3.8864-01	8.6116-01	1.7197+00	2.0707+00	2.4229+00	3.2976+00	4.3507+00	5.6009+00	6.9868+00	1.6240+01	5.8416+00
G-1 TC G	0.0000	2.2818-01	3.6681-01	4.4145-01	3.9376-01	3.3353-01	2.2762-01	2.1337-01	2.1458-01	2.5209-01	2.5508+00
G-2 TO G	0.0000	0.0000	3.4222-01	3.6063-01	2.8153-01	2.3005-01	7.4322-02	0.0000	0.0000	0.0000	0.0000
G-3 TO G	0.0000	0.0000	0.0000	3.4287-01	2.8867-01	2.4974-01	9.2612-02	2.6667-02	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.3425-01	2.2175-01	8.8524-02	3.0937-02	4.3724-03	0.0000	0.0000
G-5 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	1.6115-01	7.1268-02	2.7709-02	4.8862-03	2.8649-04	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.8026-02	2.1227-02	4.2300-03	3.1628-04	3.4890-04
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3771-02	3.1576-03	2.7083-04	3.8392-04
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0083-03	2.0048-04	3.2772-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2669-04	2.4206-04
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5268-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0584+00	1.9861-02	3.4934-02	5.4930-02	7.0000-02	3.8972+01	1.8662+00	9.0387-01	1.3140+00	1.6000+00	2.2914+00
TRANSPORT	4.8972+01	3.0809+00	4.6205+00	8.6387+00	1.3422+01	7.2580+02	2.7786+01	9.5886+00	8.4698+00	8.2174+00	9.2466+00
G TO G	4.7388+01	2.8669+00	4.3841+00	7.9259+00	1.1486+01	6.7531+02	2.4907+01	8.3836+00	6.8596+00	5.6776+00	6.7530+00
G-1 TC G	3.0591-01	5.2537-01	1.9406-01	2.0150-01	6.5784-01	1.8661+00	1.1514+01	1.0126+00	3.0117-01	2.9618-01	9.3975-01
G-7 TC G	8.8283-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	9.6786-05	1.2063-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	8.2360-05	1.3200-05	1.6392-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TO G	6.0670-05	1.1199-05	1.7826-06	1.6521-07	3.4545-08	2.1619-08	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.7398+00	5.4891+00	6.6600+00	7.9717+00	1.0060+01	1.2290+01	1.5010+01	1.8720+01	2.4150+01		
TRANSPORT	1.0603+01	1.2202+01	1.2899+01	1.4376+01	1.6990+01	1.9220+01	2.1940+01	2.5640+01	3.1070+01		
G TO G	6.6797+00	6.3164+00	5.3533+00	6.0260+00	6.3560+00	6.3240+00	6.3380+00	6.4530+00	6.9220+00		
G-1 TC G	2.0212-01	1.8385-01	3.9687-01	8.8605-01	3.7875-01	5.7450-01	6.0370-01	5.8830-01	4.7060-01		

NI -HOMSET. SPECTRUM: 25SS,75NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
AESORP	4.2561-01	3.2407-01	5.9659-01	2.1313-02	7.0099-03	7.7414-03	8.6795-03	1.3113-02	2.0445-02	2.2730-02	2.1162-02
TRANSPORT	2.2272+00	2.5738+00	3.0406+00	2.5845+00	2.8536+00	3.2568+00	4.6741+00	5.7559+00	9.4369+00	1.7528+01	3.5643+01
G TO G	2.9193-01	7.6913-01	1.4175+00	2.0472+00	2.6456+00	3.0423+00	4.4541+00	5.4788+00	9.0956+00	1.5120+01	3.5113+01
G-1 TC G	0.0000	2.3932-01	4.0308-01	4.0770-01	3.1797-01	1.9411-01	2.0678-01	2.1125-01	2.6405-01	3.2089-01	2.3855+00
G-2 TC G	0.0000	0.0000	3.8292-01	4.0405-01	2.6843-01	1.2765-01	4.7985-03	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	3.8041-01	3.2141-01	2.3613-01	5.0499-02	1.6869-03	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.5852-01	2.4582-01	8.3227-02	1.6720-02	2.7360-04	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.7718-01	7.8770-02	2.5977-02	2.6284-03	1.7863-05	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.2673-02	2.3426-02	3.9596-03	1.6989-04	2.1734+05
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5084-02	3.4820-03	2.5339-04	2.0612-04
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.1984-03	2.2100-04	3.0658-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3865-04	2.6684-04
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6714-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
AESORP	1.4986-02	2.5128-02	2.7054-02	3.8981-02	4.6980-02	6.0540-02	8.2522-02	1.1293-01	1.6406-01	2.1063-01	2.8636-01
TRANSPORT	1.7267+01	1.5010+01	1.5105+01	1.6412+01	1.6381+01	1.7274+01	1.6672+01	1.6878+01	1.7400+01	1.6561+01	1.7476+01
G TO G	1.7003+01	1.4092+01	1.4543+01	1.5257+01	1.4056+01	1.6471+01	1.5467+01	1.6018+01	1.6501+01	1.4019+01	1.6629+01
G-1 TC G	5.0915-01	2.4848-01	8.9271-01	5.3529-01	1.1162+00	2.2777+00	7.4275-01	1.1228+00	7.4725-01	7.3486-01	2.3317+00
G-7 TC G	5.4939-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	5.1940-05	7.5003-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	7.7039-05	7.0842-06	1.0210-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	6.6880-05	1.0484-05	9.5485-07	9.8238-08	2.3994-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
AESORP	4.6812-01	6.8727-01	8.3252-01	9.9726-01	1.1530+00	1.4090+00	1.7210+00	2.1470+00	2.7690+00		
TRANSPORT	1.7430+01	1.7697+01	1.7183+01	1.7784+01	1.7810+01	1.8070+01	1.8380+01	1.8800+01	1.9430+01		
G TO G	1.5506+01	1.5965+01	1.4019+01	1.5790+01	1.5270+01	1.5210+01	1.5230+01	1.5520+01	1.6660+01		
G-1 TC G	5.0149-01	4.5616-01	1.0444+00	2.3317+00	9.9670-01	1.3850+00	1.4560+00	1.4200+00	1.1360+00		

NO -HOMSET, SPECTRUM: 25SS,75NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	4.9701-03	8.2806-03	1.3859-02	2.3795-02	3.8746-02	5.8402-02	7.2203-02	9.9669-02	1.6261-01	2.8370-01	4.8168-01
TRANSPCRT	2.5548+00	2.6522+00	2.8228+00	3.2192+00	4.1589+00	5.6587+00	7.3519+00	8.0953+00	7.5344+00	7.2245+00	7.2956+00
G TO G	8.1317-01	1.0288+00	1.5347+00	2.5300+00	3.8039+00	5.3765+00	7.0799+00	7.8389+00	7.2639+00	6.3621+00	6.6454+00
G-1 TC G	0.0000	1.8226-01	2.8571-01	3.5800-01	3.0700-01	2.4972-01	2.2210-01	1.9980-01	1.5648-01	1.0793-01	5.7870-01
G-2 TC G	0.0000	0.0000	3.4582-01	4.0597-01	3.4493-01	2.1485-01	4.5046-02	1.3872-03	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	4.4856-01	3.9854-01	3.6660-01	1.0038-01	1.7819-02	2.5260-04	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.6090-01	3.5345-01	1.4684-01	3.6216-02	3.0752-03	1.7126-05	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	2.7816-01	1.2526-01	4.8927-02	5.9556-03	2.0489-04	2.1054-05
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.9593-02	3.9204-02	7.7171-03	3.9059-04	2.5067-04
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.6713-02	5.9844-03	4.9932-04	4.7582-04
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9758-03	3.8312-04	6.0601-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.5247-04	4.6364-04
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0485-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	6.4955-01	1.0258+00	2.0357+00	1.6659+00	1.1700-02	6.0503+00	1.3081+00	2.0537+01	1.8456-01	1.6300-01	1.9331-01
TRANSPCRT	7.1692+00	7.1400+00	8.6305+00	8.8384+00	5.7002+00	1.5390+01	8.8053+00	4.4951+01	5.5365+00	5.3589+00	5.5985+00
G TO G	6.4819+00	5.8821+00	6.4394+00	6.9072+00	5.2083+00	9.1755+00	7.1095+00	2.4262+01	5.2139+00	4.7504+00	5.3073+00
G-1 TC G	1.6855-01	3.7724-02	2.2603-01	1.5535-01	2.6531-01	4.8023-01	1.6470-01	3.8776-01	1.5205-01	1.3804-01	4.4546-01
G-6 TC G	5.3827-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	6.3747-05	7.3945-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	1.2043-04	8.7358-06	1.0043-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	1.5275-04	1.6449-05	1.1857-06	6.3818-09	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	1.1651-04	2.0842-05	2.2385-06	1.1770-07	2.6815-08	1.7610-08	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.9001-01	4.1572-01	5.0070-01	5.9743-01	1.1380+00	1.3900+00	1.6980+00	2.1180+00	2.7320+00		
TRANSPORT	5.8606+00	6.0930+00	6.1120+00	6.3509+00	8.1600+00	8.4170+00	8.7280+00	9.1500+00	9.7670+00		
G TO G	5.4786+00	5.4633+00	5.1303+00	5.5453+00	6.6650+00	6.6520+00	6.6640+00	6.7390+00	7.0350+00		
G-1 TC G	9.7945-02	9.2008-02	2.1399-01	4.8106-01	2.0810-01	3.5700-01	3.7560-01	3.6630-01	2.9320-01		

TA -HOMSET, SPECTRUM: 25SS,75NA(MO HRG TRANS)

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.9747-02	3.0099-02	4.9987-02	8.8850-02	1.2434-01	1.8959-01	2.5880-01	3.5962-01	6.4805-01	1.0680+00	1.5875+00
TRANSPORT	1.9747-02	3.0099-02	4.9987-02	8.8850-02	1.2434-01	1.8959-01	2.5880-01	3.5962-01	6.4805-01	1.0680+00	1.5875+00
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	2.5330+00	6.0154+00	1.1307+01	1.7697+01	3.4250+01	3.1731+01	5.1002+01	9.9771+01	5.3134+01	8.7300+00	4.3156+02
TRANSPORT	2.5330+00	6.0154+00	1.1307+01	1.7697+01	3.4250+01	3.1731+01	5.1002+01	9.9771+01	5.3134+01	8.7300+00	4.3156+02
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	1.5163+01	3.5407+00	3.5300+00	3.7969+00	5.7090+00	6.9730+00	8.5170+00	1.0630+01	1.3700+01		
TRANSPORT	1.5163+01	3.5407+00	3.5300+00	3.7969+00	1.1150+01	1.2260+01	1.3700+01	1.5750+01	1.8730+01		
G TO G	0.0000	0.0000	0.0000	0.0000	5.2940+00	5.1400+00	5.0450+00	5.0020+00	5.0320+00		
G-1 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.4650-01	1.4970-01	1.4320-01	1.1290-01		

N -HOMSET, SPECTRUM: 2555,75NA-100 C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	2.3556-01	3.5691-01	2.3098-01	1.1469-01	1.9827-02	4.2991-02	1.5930-03	1.4809-03	1.5949-03	1.8400-03	2.3907-03
TRANSPORT	8.9914-01	1.3980+00	1.5078+00	1.7428+00	1.4674+00	2.2642+00	3.1830+00	4.1460+00	4.9413+00	5.3863+00	5.7109+00
G TO G	2.3022-01	5.7730-01	9.1635-01	1.0120+00	1.0507+00	1.5587+00	2.5705+00	3.5191+00	4.3996+00	2.3473+00	4.7019+00
G-1 TC G	0.0000	2.6133-01	4.3804-01	3.6048-01	6.1613-01	3.9684-01	6.6244-01	6.1091-01	6.2545-01	5.3254-01	3.0372+00
G-2 TC G	0.0000	0.0000	8.0834-02	1.3239-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.5023-03
G-3 TC G	0.0000	0.0000	0.0000	4.8822-02	7.0256-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.4329-02	4.0643-03	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.3485-02	1.0755-03	0.0000	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.4649-03	2.9059-04	0.0000	0.0000	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.2261-04	4.1088-05	0.0000	0.0000
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2946-04	2.5663-06	0.0000
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.0686-06	3.0851-06
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.6873-06
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	3.5283-03	6.8443-03	1.0629-02	1.5486-02	1.8700-02	2.4091-02	3.2772-02	4.4658-02	6.4806-02	8.2900-02	1.1264-01
TRANSPORT	6.2489+00	7.6726+00	8.3120+00	8.4856+00	8.3891+00	1.0185+01	9.0734+00	8.9546+00	9.8254+00	8.0085+00	9.7666+00
G TO G	5.9633+00	5.6564+00	7.0937+00	5.9488+00	3.2571+00	8.4357+00	6.4060+00	7.1707+00	8.0495+00	2.5860+00	8.4853+00
G-1 TC G	1.0065+00	2.8202-01	2.0093+00	1.2076+00	2.4762+00	5.1132+00	1.7249+00	2.6347+00	1.7393+00	1.6843+00	5.3396+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.5143-02	0.0000	0.0000	0.0000	0.0000	2.6760-02
G-10 TO G	7.6988-07	8.8969-08	1.3754-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	1.8614-01	2.7335-01	3.3050-01	3.9439-01	4.7570-01	5.8110-01	7.0970-01	8.8550-01	1.5870+00		
TRANSPORT	9.3492+00	9.5095+00	8.2799+00	9.1715+00	1.0010+01	1.0110+01	1.0240+01	1.0420+01	1.1120+01		
G TO G	8.0998+00	6.7983+00	2.6090+00	6.4474+00	6.2060+00	6.0360+00	6.1230+00	6.8050+00	9.5340+00		
G-1 TC G	1.1687+00	1.0632+00	2.4001+00	5.3403+00	2.3298+00	3.3280+00	3.4980+00	3.4110+00	2.7290+00		
G-2 TC G	0.0000	0.0000	0.0000	3.7709-02	0.0000	0.0000	0.0000	0.0000	0.0000		

MG -HOMSET. SPECTRUM: 255S,75NA-10C C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.6441-01	5.8526-03	3.3885-03	7.5078-03	1.0788-02	9.2103-03	8.1998-03	9.4507-03	1.4755-02	6.1610-03	1.0253-03
TRANSPORT	1.2160+00	1.2768+00	1.4326+00	1.5873+00	2.0263+00	3.7021+00	7.1773+00	9.4952+00	3.4749+00	5.0730+00	3.4922+00
G TO G	2.1001-01	5.2155-01	9.0804-01	1.1750+00	1.6944+00	2.9842+00	6.5899+00	7.9488+00	3.2612+00	3.3991+00	3.1458+00
G-1 TC G	0.0000	2.7185-01	3.5036-01	3.4857-01	3.5539-01	3.1825-01	7.0868-01	5.7921-01	1.5369+00	1.9902-01	1.6677+00
G-2 TC G	0.0000	0.0000	2.3744-01	1.8676-01	8.7508-02	3.4330-02	2.0995-03	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	1.6726-01	1.1342-01	6.0768-02	1.1172-02	6.5283-04	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	9.1673-02	7.1953-02	1.8230-02	3.3488-03	9.9309-05	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	5.4211-02	2.0288-02	5.2449-03	4.9979-04	6.3502-06	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.4564-02	5.6580-03	7.6623-04	3.1766-05	7.6831-06
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9648-03	8.1331-04	4.8362-05	3.8364-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.6279-04	5.1059-05	5.8303-05
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.5186-05	6.1476-05
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2331-05
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0000-03	1.0000-03	1.0000-03	1.0000-03	1.0000-03	1.0267-03	1.3088-03	1.7870-03	2.6044-03	3.3310-03	4.5397-03
TRANSPORT	3.4065+00	3.4065+00	3.3234+00	3.3172+00	3.2259+00	3.6446+00	3.3478+00	3.2943+00	3.4709+00	3.0558+00	3.4474+00
G TO G	3.3263+00	2.9039+00	3.0493+00	2.7636+00	2.1040+00	3.2781+00	2.7940+00	2.9333+00	3.1151+00	1.9316+00	3.2017+00
G-1 TO G	3.4538-01	7.9176-02	5.0162-01	2.7311-01	5.5254-01	1.1209+00	3.6551-01	5.5255-01	3.5921-01	3.5326-01	1.1209+00
G-7 TC G	1.9296-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	9.6213-06	2.6303-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	1.4586-05	1.3047-06	2.6212-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TO G	1.5362-05	1.9819-06	1.6770-07	6.5177-09	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	5.5339+03	1.0879+01	1.3220+01	1.5823+01	9.8930-03	1.2080-02	1.4760-02	2.6460-02	4.4170-02		
TRANSPORT	8.8708+00	1.4238+01	1.6272+01	1.9079+01	3.4240+00	3.4260+00	3.4290+00	3.4080+00	2.9580+00		
G TO G	3.1176+03	2.8569+00	1.9315+00	2.7763+00	2.7290+00	2.6940+00	2.7120+00	2.8250+00	2.9140+00		
G-1 TC G	2.4107-01	2.1928-01	5.0204-01	1.1209+00	4.7910-01	6.8490-01	7.2000-01	7.0200-01	5.5630-01		

AL -HOMSET. SPECTRUM: 25SS,75NA-100 C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	7.0334-02	1.7349-02	1.4243-03	3.7843-04	4.1516-04	9.2683-04	1.7508-03	3.5705-03	7.7492-03	2.1620-03	3.1781-03
TRANSPORT	1.3437+00	1.5630+00	1.9545+00	2.1494+00	2.4083+00	3.1987+00	3.4256+00	5.7294+00	5.2125+00	6.8466+01	1.1308+00
G TO G	3.1488-01	6.1557-01	1.2605+00	1.5815+00	1.8815+00	2.7379+00	3.0970+00	5.4361+00	5.1582+00	4.8004+01	1.0149+00
G-1 TO G	0.0000	1.6059-01	4.2443-01	4.8715-01	4.5521-01	4.2819-01	4.5987-01	3.2690-01	2.8982-01	4.6552-02	2.0246-01
G-2 TO G	0.0000	0.0000	1.5526-01	1.9264-01	7.9787-02	1.1235-01	4.0990-02	0.0000	0.0000	0.0000	0.0000
G-3 TO G	0.0000	0.0000	0.0000	2.1526-01	1.4575-01	8.5617-02	0.0000	5.7227-02	0.0000	0.0000	0.0000
G-4 TO G	0.0000	0.0000	0.0000	0.0000	1.8526-01	1.2253-01	4.0000-02	0.0000	0.0000	0.0000	0.0000
G-5 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	1.9474-01	4.4714-02	0.0000	0.0000	0.0000	0.0000
G-6 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.7368-02	0.0000	0.0000	0.0000	0.0000

	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	4.2462-03	4.5080-05	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000-02	1.0000-02	1.0000-02	1.4536-02
TRANSPORT	1.4582+00	1.4058+00	1.3539+00	1.3516+00	1.3180+00	1.4721+00	1.3628+00	1.3435+00	1.4082+00	1.2557+00	1.4029+00
G TO G	1.4233+00	1.2155+00	1.2538+00	1.1492+00	9.0732-01	1.3382+00	1.1603+00	1.2028+00	1.2696+00	8.3792-01	1.3007+00
G-1 TO G	1.1273-01	3.0646-02	1.9028-01	1.0007-01	2.0247-01	4.1071-01	1.3393-01	2.0247-01	1.3070-01	1.2853-01	4.0782-01

	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31
ABSORP	2.4263-02	3.4479-02	4.0000-02	5.0000-02	1.2740-01	1.6390-01	1.8840-01	2.0600-01	2.3330-01
TRANSPORT	1.3852+00	1.4202+00	1.3211+00	1.4111+00	1.5780+00	1.6080+00	1.6290+00	1.6440+00	1.6000+00
G TO G	1.2801+00	1.1992+00	8.6169-01	1.1806+00	1.1880+00	1.1700+00	1.1740+00	1.2240+00	1.3660+00
G-1 TO G	8.7714-02	8.0917-02	1.8655-01	4.1939-01	1.8050-01	2.6220-01	2.7480-01	2.6700-01	2.1310-01

CC -HOMSET, SPECTRUM: 25SS,75NA-100 C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.3395-02	1.5429-02	2.0795-02	3.4810-02	5.8085-02	9.8293-02	1.1434-01	1.4027-01	2.8594-01	5.6000-01	9.7672-01
TRANSPORT	2.5910+00	2.8191+00	2.9617+00	3.4636+00	4.3968+00	4.6829+00	5.3420+00	5.9873+00	6.0401+00	6.2000+00	6.3791+00
G TO G	4.7506-01	7.1330-01	1.1495+00	2.0464+00	3.4213+00	4.2436+00	5.1071+00	5.7445+00	5.6814+00	5.2387+00	5.2906+00
G-1 TC G	0.0000	1.4672-01	2.8604-01	4.0224-01	4.6259-01	5.3733-01	2.6474-01	1.2056-01	1.0247-01	7.2671-02	4.0131-01
G-2 TC G	0.0000	0.0000	3.8293-01	5.0555-01	4.9255-01	5.3380-01	2.5345-01	6.2038-02	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	5.4962-01	5.3780-01	5.6340-01	2.6682-01	1.0491-01	1.2041-02	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	4.7168-01	5.0497-01	2.3709-01	9.9716-02	1.8543-02	8.3388-04	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	3.8033-01	1.8601-01	8.1031-02	1.6703-02	1.2451-03	1.0312-03
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2632-01	5.9373-02	1.2952-02	1.1020-03	1.5267-03
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.8255-02	9.1568-03	8.4164-04	1.3447-03
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.7399-03	5.8822-04	1.0227-03
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.6542-04	7.1239-04
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.4154-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	2.1014+00	2.5000+00	2.5030+00	2.5000+00	2.3000+00	4.7654+00	1.4017+01	5.9868-01	4.1121+00	6.0000-01	1.0053+00
TRANSPORT	6.4617+00	6.6560+00	5.9851+00	8.7932+00	6.5091+00	1.1089+01	2.5954+01	4.8408+00	8.5944+00	4.4826+00	4.9936+00
G TO G	4.3399+00	4.0293+00	3.4258+00	6.1886+00	3.9049+00	6.1440+00	1.1777+01	4.1446+00	4.3931+00	3.5996+00	3.9274+00
G-1 TC G	1.1176-01	2.0407-02	1.2654-01	6.0331-02	1.0462-01	3.0420-01	1.7994-01	1.6042-01	9.7493-02	8.9188-02	2.8299-01
G-6 TC G	2.6534-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	3.8915-04	3.6534-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	3.4096-04	5.3335-05	4.9809-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	2.5813-04	4.6659-05	7.2578-06	4.9066-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	1.7922-04	3.5220-05	6.3075-06	7.3375-07	1.1727-07	1.2685-07	6.0910-09	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.3144+00	1.2707+01	3.6000+01	1.1478+02	6.6960+02	3.9310+03	6.7850+03	3.6640+03	2.7000+03		
TRANSPORT	6.8522+00	1.7457+01	4.1825+01	1.2261+02	6.8480+03	3.9670+03	6.8250+03	3.6820+03	2.7090+03		
G TO G	3.9783+00	4.5899+00	5.4010+00	7.5595+00	1.4570+01	3.4510+01	3.8650+01	1.7320+01	8.7400+00		
G-1 TC G	6.0862-02	5.9512-02	1.6002-01	4.2446-01	2.7217-01	6.6140-01	1.6510+00	1.8000+00	6.3970-01		

FR -HOMSET, SPECTRU: 2555,75NA-100 C

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
TRANSPORT	3.1528+00	3.8716+00	4.0908+00	3.7008+00	4.3366+00	4.5837+00	6.3516+00	9.1848+00	7.7708+00	1.0185+01	1.0469+01
G TO G	6.0634-01	1.7195+00	2.9843+00	3.2857+00	4.1244+00	4.4972+00	6.2618+00	9.0925+00	7.7005+00	9.7918+00	1.0345+01
G-1 TC G	0.0000	5.3290-02	4.2109-01	5.6235-01	2.4502+01	1.9381-01	8.6571-02	8.9802-02	9.2225-02	7.0315-02	3.9319-01
G-2 TC G	0.0000	0.0000	1.9098-01	4.2380-01	2.5538-01	1.3555-01	1.8366-02	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	5.0179-01	5.0711-01	2.0282-01	9.4119-03	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	6.6347-01	5.4683-01	6.9218-02	2.0741-02	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	7.2437-01	1.9049-01	1.6695-02	4.3647-03	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.9666-01	5.3762-02	0.0000	0.0000	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.9353-02	8.6950-03	0.0000	0.0000
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5604-02	2.7588-04	0.0000
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.8263-04	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000-02	1.0000-02	1.0000-02
TRANSPORT	1.1642+01	1.1164+01	1.1132+01	1.1130+01	1.1103+01	1.1249+01	1.1142+01	1.1123+01	1.1195+01	1.1045+01	1.1188+01
G TO G	1.1012+01	1.0971+01	1.1027+01	1.0917+01	1.0672+01	1.1109+01	1.0930+01	1.0985+01	1.1049+01	1.0604+01	1.1085+01
G-1 TC G	1.2364-01	3.0239-02	1.9290-01	1.0502-01	2.1248-01	4.3103-01	1.4056-01	2.1248-01	1.3814-01	1.3584-01	4.3103-01
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.0000-02	2.4479-02	3.0000-02	4.0000-02	4.8590-02	5.9340-02	7.2490-02	9.0440-02	1.6200-01		
TRANSPORT	1.1158+01	1.1171+01	1.1067+01	1.1147+01	1.0920+01	1.0860+01	1.0840+01	1.0530+01	7.6290+00		
G TO G	1.1053+01	1.0954+01	1.0606+01	1.0923+01	1.0620+01	1.0540+01	1.0510+01	1.0240+01	7.4670+00		
G-1 TC G	9.2705-02	8.4326-02	1.9306-01	4.3103-01	1.8420-01	2.5550-01	2.6680-01	2.5920-01	2.0100-01		

NA -HOMSET, SPECTRUM: 50NA,50SS

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5258-01	1.8829-03	1.1704-04	1.3876-04	1.9529-04	3.0549-04	7.2328-04	1.3686-03	2.3919-03	1.6480-03	1.2908-03
TRANSPORT	1.4671+00	1.5227+00	1.8324+00	2.3159+00	2.8820+00	3.8165+00	3.9100+00	3.2552+00	4.4959+00	4.1480+00	4.8379+00
G TO G	4.6857-01	7.0238-01	1.0546+00	1.5970+00	1.8863+00	3.3067+00	3.3023+00	2.9025+00	4.2897+00	2.6978+00	4.2188+00
G-1 TC G	0.0000	4.0510-01	4.6739-01	6.1043-01	6.9989-01	9.4745-01	4.7157-01	6.0697-01	3.5134-01	2.0377-01	1.4486+00
G-2 TC G	0.0000	0.0000	1.8441-01	1.6657-01	5.0331-02	1.8362-02	4.8127-02	3.4881-02	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	1.2931-01	1.3110-01	7.6773-02	0.0000	0.0000	2.6427-03	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	7.0682-02	6.7482-02	2.5910-02	3.6474-05	0.0000	1.0998-04	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.3034-02	1.5986-02	1.1671-02	2.7979-04	0.0000	1.5803-04
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.8868-03	5.0399-03	2.0482-03	4.5784-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0461-03	7.2450-04	1.6955-04	7.9289-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.3224-04	4.5488-05	2.6244-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.7027-05	5.4760-05
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.2503-05
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	2.5320-03	2.1921-02	5.2034-03	5.1127-03	5.6210-03	6.8704-03	9.4131-03	1.2800-02	1.8689-02	2.4180-02	3.2635-02
TRANSPORT	1.2338+01	1.9207+01	3.2754+00	2.9241+00	2.8415+00	3.2430+00	2.9791+00	2.9355+00	3.1139+00	2.7282+00	3.1090+00
G TO G	1.0578+01	1.8597+01	3.0232+00	2.4051+00	1.7900+00	2.8945+00	2.4512+00	2.5873+00	2.7657+00	1.6475+00	2.8554+00
G-1 TC G	6.1780-01	2.2566+00	5.8797-01	2.4641-01	5.1390-01	1.0459+00	3.4166-01	5.1850-01	3.3537-01	3.2953-01	1.0565+00
G-6 TC G	6.4540-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	0.0000	1.8327-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	4.0520-05	0.0000	4.2572-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	1.1206-04	1.0734-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	1.3684-05	2.4812-05	2.4760-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	5.5094-02	7.9339-02	9.6020-02	1.1394-01	1.4570-01	1.7800-01	2.1740-01	2.7120-01	3.0320-01		
TRANSPORT	3.0359+00	2.9867+00	2.8060+00	3.6191+00	3.7450+00	3.8780+00	3.9830+00	4.0850+00	4.1690+00		
G TO G	2.7234+00	2.4428+00	1.6507+00	2.4656+00	2.8350+00	2.8745+00	2.9464+00	3.1500+00	3.8660+00		
G-1 TC G	2.2099-01	1.9740-01	4.6451-01	1.0593+00	4.3950-01	7.6400-01	8.2550-01	8.1920-01	6.6380-01		

CR -HOMSET, SPECTRUM: 50NA,50SS

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSCRF	1.5857-02	2.0321-03	1.6799-03	2.1247-03	3.3542-03	4.0000-03	4.0726-03	5.5634-03	4.7943-03	7.0400-03	1.2585-02
TRANSPCRT	1.7417+00	1.5419+00	2.5987+00	2.3355+00	2.2963+00	2.6781+00	2.6362+00	4.7724+00	4.5812+00	2.9428+00	4.7995+00
G TC G	4.5542-01	4.1280-01	1.7441+00	2.0193+00	2.1037+00	2.4802+00	2.4688+00	4.6912+00	4.5026+00	2.4842+00	4.4300+00
G-1 TC G	0.0000	2.5129-01	2.8314-01	4.0738-01	2.3955-01	1.8926-01	1.9389-01	1.6326-01	7.5559-02	7.3793-02	4.5163-01
G-2 TC G	0.0000	0.0000	3.2424-01	3.2753-01	1.9879-01	4.8699-02	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	3.0598-01	2.5072-01	1.6813-01	1.8706-02	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.0133-01	1.8668-01	5.7700-02	6.1004-03	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.3495-01	5.8732-02	1.7767-02	9.5147-04	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9512-02	1.7306-02	2.6892-03	6.1340-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1229-02	2.5600-03	1.7170-04	7.4372-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6300-03	1.6225-04	2.0761-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0266-04	1.9577-04
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2371-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSCRF	3.9564-02	6.0361-02	2.3814-02	2.6076-02	3.1330-02	4.0298-02	5.5047-02	7.5311-02	1.0965-01	1.4092-01	1.9111-01
TRANSPCRT	1.7751+01	4.4127+00	4.1064+00	4.0928+00	4.0417+00	4.3036+00	4.1614+00	4.1578+00	4.2800+00	4.0421+00	4.3428+00
G TC G	1.7448+01	4.1019+00	3.9334+00	3.7557+00	3.3772+00	4.0557+00	3.7936+00	3.8793+00	3.9730+00	3.2695+00	4.0196+00
G-1 TC G	3.5690-01	2.6374-01	2.5045-01	1.4915-01	3.1098-01	6.3315-01	2.0760-01	3.1282-01	2.0324-01	1.9730-01	6.3163-01
G-2 TC G	1.3727-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	5.2131-05	2.5522-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	4.9069-05	7.0993-06	3.4413-07	1.9607-08	1.2695-08	8.4635-09	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSCRF	3.1162-01	4.5967-01	5.5510-01	6.6389-01	9.7740-01	1.1940+00	1.4580+00	1.8190+00	2.3460+00		
TRANSPORT	4.3983+00	4.5194+00	4.4000+00	4.6061+00	3.9400+00	4.1570+00	4.4210+00	4.7820+00	5.3090+00		
G TC G	3.9687+00	3.7861+00	3.2224+00	3.6845+00	2.6740+00	2.6700+00	2.6770+00	2.7340+00	2.9630+00		
G-1 TC G	1.3209-01	1.1799-01	2.7364-01	6.2252-01	2.5770-01	2.7810-01	2.9240-01	2.8510-01	2.2810-01		

FE -HOMSET, SPECTRUM: 50NA,50SS

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	3.3255-02	3.0409-03	1.6061-03	2.2390-03	3.9169-03	5.8471-03	6.4334-03	7.3992-03	8.3501-03	8.9030-03	9.5333-03
TRANSPORT	1.8213+00	2.1210+00	2.2658+00	2.2282+00	1.9163+00	2.7555+00	2.7347+00	3.7988+00	7.4350+00	1.4189+00	4.4400+00
G TO G	3.6203-01	6.8367-01	1.2036+00	1.3854+00	1.4022+00	2.9209+00	2.6348+00	3.6440+00	7.0580+00	1.2080+00	4.1553+00
G-1 TC G	0.0000	5.5311-02	3.0255-01	5.9209-01	5.2031-01	3.0396-01	2.2878-01	9.3488-02	1.4736-01	3.6863-01	2.0199-01
G-2 TC G	0.0000	0.0000	1.0265-01	4.2379-01	7.8379-02	3.1634-01	1.7026-01	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.7059-01	3.5918-01	2.5365-01	3.9165-03	3.5902-02	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.6530-01	2.5949-01	1.2040-01	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.9411-01	8.2123-02	1.6081-02	0.0000	0.0000	0.0000
G-6 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3146-01	7.2123-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0595-02	1.3168-02	1.6639-02	2.3484-02	2.8110-02	3.5570-02	4.6950-02	6.4423-02	9.4149-02	1.2100-01	1.6369-01
TRANSPORT	7.1616+00	7.0118+00	9.4066+00	1.0601+01	1.0637+01	1.1245+01	1.0830+01	1.0772+01	1.1053+01	1.0484+01	1.1087+01
G TO G	7.0673+00	6.5697+00	9.0440+00	9.8128+00	9.9516+00	1.0704+01	1.0018+01	1.0213+01	1.0474+01	8.8057+00	1.0599+01
G-1 TC G	2.7514-01	8.3735-02	4.2892-01	3.4593-01	7.6469-01	1.5569+00	5.0563-01	7.6554-01	4.9501-01	4.8516-01	1.5569+00
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.6613-01	3.9293-01	4.7700-01	5.7088-01	7.2620-01	8.8700-01	1.0830+00	1.3510+00	1.5240+00		
TRANSPORT	1.1041+01	1.1197+01	1.0840+01	1.1230+01	1.2530+01	1.2690+01	1.2890+01	1.3160+01	1.3870+01		
G TO G	1.0484+01	1.0122+01	8.8058+00	1.0313+01	1.0772+01	1.0718+01	1.0750+01	1.0945+01	1.2346+01		
G-1 TC G	3.2420-01	2.9013-01	6.8271-01	1.5569+00	6.4600-01	1.0320+00	1.0850+00	1.0580+00	8.6410-01		

NI -HOMSET, SPECTRUM: 50NA,50SS

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	4.2665-01	3.2356-01	5.9937-01	2.1632-02	7.0329-03	7.7272-03	8.6989-03	1.3143-02	2.0246-02	2.2730-02	2.1121-02
TRANSPORT	2.2277+00	2.5780+00	3.0464+00	2.5850+00	2.8517+00	3.2354+00	4.6744+00	5.8145+00	9.3286+00	1.7528+01	3.5354+01
G TO G	2.9256-01	7.7276-01	1.4208+00	2.0480+00	2.6305+00	3.0409+00	4.4382+00	5.5186+00	9.0504+00	1.5120+01	3.4810+01
G-1 TC G	0.0000	2.3933-01	4.0367-01	4.0817-01	3.1497-01	2.0785-01	1.8681-01	2.2748-01	2.8279-01	2.5796-01	2.3855+00
G-2 TC G	0.0000	0.0000	3.8295-01	4.0398-01	2.6820-01	1.2928-01	4.4543-03	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	3.8036-01	3.2157-01	2.3601-01	5.1088-02	1.5659-03	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.5845-01	2.4605-01	8.3203-02	1.6905-02	2.5398-04	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.7712-01	7.8868-02	2.5972-02	2.6568-03	1.6582-05	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.2653-02	2.3459-02	3.9591-03	1.7170-04	2.0175-05
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5078-02	3.4871-03	2.5336-04	2.0832-04
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.1974-03	2.2133-04	3.0654-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3859-04	2.6725-04
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6706-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.5235-02	2.5678-02	2.6941-02	3.8972-02	4.6980-02	6.0519-02	8.2509-02	1.1286-01	1.6392-01	2.1063-01	2.8555-01
TRANSPORT	1.2078+01	1.5025+01	1.5098+01	1.6404+01	1.6379+01	1.7275+01	1.6672+01	1.6880+01	1.7402+01	1.6561+01	1.7479+01
G TO G	1.7703+01	1.4204+01	1.4555+01	1.5253+01	1.4055+01	1.6475+01	1.5470+01	1.6025+01	1.6511+01	1.4019+01	1.6707+01
G-1 TO G	5.2316-01	3.5943-01	7.7599-01	5.1629-01	1.1121+00	2.2777+00	7.3973-01	1.1200+00	7.4134-01	7.2658-01	2.3317+00
G-7 TC G	5.0999-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	5.2493-05	6.9623-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	7.7831-05	7.1597-06	9.4775-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	6.6981-05	1.0483-05	9.6485-07	9.9172-08	2.3980-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	4.6613-01	6.8646-01	8.3252-01	9.9568-01	1.1530+00	1.4090+00	1.7210+00	2.1470+00	2.7690+00		
TRANSPORT	1.7435+01	1.7701+01	1.7183+01	1.7792+01	1.7810+01	1.8070+01	1.8380+01	1.8800+01	1.9430+01		
G TO G	1.6535+01	1.5992+01	1.4019+01	1.5829+01	1.5272+01	1.5205+01	1.5239+01	1.5517+01	1.6660+01		
G-1 TC G	4.8643-01	4.3450-01	1.0224+00	2.3317+00	9.6750-01	1.3850+00	1.4560+00	1.4200+00	1.1360+00		

NA -HOMSET, SPECTRUM: 75SS,25NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5266-01	1.8654-03	1.1706-04	1.3859-04	1.9650-04	3.0666-04	7.2945-04	1.3667-03	2.3704-03	1.6480-03	1.2904-03
TRANSPORT	1.4671+00	1.5290+00	1.8328+00	2.3154+00	2.8982+00	3.8317+00	3.9145+00	3.2605+00	4.5593+00	4.1480+00	4.8439+00
G TO G	4.6879-01	7.0101-01	1.0539+00	1.6067+00	1.8741+00	3.3539+00	3.2636+00	2.8911+00	4.3809+00	2.6978+00	4.2133+00
G-1 TC G	0.0000	4.0485-01	4.6891-01	6.1173-01	6.9002-01	9.7320-01	4.3763-01	6.5018-01	3.6795-01	1.7602-01	1.4486+00
G-2 TO G	0.0000	0.0000	1.8440-01	1.6664-01	5.0102-02	1.8025-02	5.0674-02	3.6886-02	0.0000	0.0000	0.0300
G-3 TC G	0.0000	0.0000	0.0000	1.2930-01	1.0116-01	7.6746-02	0.0000	0.0000	2.6846-03	0.0000	0.0300
G-4 TO G	0.0000	0.0000	0.0000	0.0000	7.0672-02	6.7540-02	2.5924-02	3.7514-05	0.0000	9.9339-05	0.0300
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.3027-02	1.5999-02	1.1686-02	2.8777-04	0.0000	1.4274-04
G-6 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.8849-03	5.0444-03	2.0514-03	4.7089-05	0.0300
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0455-03	7.2517-04	1.6989-04	8.1550-05
G-8 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.3215-04	4.5531-05	2.6302-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.7022-05	5.4312-05
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.2496-05
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	3.0907-03	2.6792-02	5.2114-03	5.1125-03	5.6210-03	6.8694-03	9.4124-03	1.2796-02	1.8681-02	2.4180-02	3.2592-02
TRANSPORT	1.4729+01	2.6475+01	3.2827+00	2.9224+00	2.8412+00	3.2432+00	2.9791+00	2.9359+00	3.1142+00	2.7282+00	3.1096+00
G TO G	1.1333+01	2.5945+01	3.0358+00	2.4043+00	1.7896+00	2.8953+00	2.4518+00	2.5890+00	2.7678+00	1.6475+00	2.8592+00
G-1 TC G	6.2927-01	3.3933+00	5.0294-01	2.4176-01	5.1298-01	1.0459+00	3.4099-01	5.1786-01	3.3409-01	3.2774-01	1.0565+00
G-2 TO G	5.8383-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	1.6553-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TO G	4.1675-05	0.0000	3.8452-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	1.1235-04	1.1040-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-6 TO G	1.3697-05	2.4886-05	2.5466-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	5.4990-02	7.9295-02	9.6020-02	1.1386-01	1.4570+01	1.7800-01	2.1740-01	2.7120-01	3.0320-01		
TRANSPORT	3.0372+00	2.9880+00	2.8060+00	3.0210+00	3.7450+00	3.8780+00	3.9830+00	4.0850+00	4.1690+00		
G TO G	2.7893+00	2.4489+00	1.6507+00	2.4737+00	2.8350+00	2.8750+00	2.9470+00	3.1500+00	3.8660+00		
G-1 TC G	2.1778-01	1.9285-01	4.5585-01	1.0593+00	4.3340-01	7.6400-01	8.2550-01	8.1920-01	6.6380-01		

CR -HOMSET, SPECTRUM: 75SS,25NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5876-02	2.0270-03	1.6803-03	2.1211-03	3.3840-03	4.0000-03	4.0778-03	5.5392-03	4.7337-03	7.0400-03	1.2629-02
TRANSPORT	1.7419+00	1.5394+00	2.6000+00	2.3409+00	2.3026+00	2.6429+00	2.6593+00	4.7130+00	4.6634+00	2.9428+00	4.8235+00
G TO G	4.5572-01	4.1009-01	1.7454+00	2.0271+00	2.0999+00	2.4638+00	2.4803+00	4.6283+00	4.5950+00	2.4842+00	4.4473+00
G-1 TO G	0.0000	2.5126-01	2.8307-01	4.0774-01	2.3651+01	1.9528-01	1.7512-01	1.7489-01	7.9130-02	6.3744-02	4.5163-01
G-2 TC G	0.0000	0.0000	3.2425-01	3.2755-01	1.9862-01	4.9114-02	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	3.0597-01	2.5081-01	1.6801-01	1.8851-02	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.0131-01	1.8678-01	5.7664-02	6.1454-03	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.3493-01	5.8774-02	1.7757-02	9.5828-04	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9505-02	1.7320-02	2.6877-03	6.1775-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1227-02	2.5621-03	1.7160-04	7.4898-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6297-03	1.6238-04	2.0750-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0264-04	1.9593-04
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2369-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	3.9778-02	5.9020-02	2.3852-02	2.6073-02	3.1330-02	4.0292-02	5.5043-02	7.5286-02	1.0961-01	1.4092-01	1.9086-01
TRANSPORT	1.7795+01	4.4874+00	4.1078+00	4.0917+00	4.0415+00	4.3037+00	4.1614+00	4.1580+00	4.2802+00	4.0421+00	4.3429+00
G TO G	1.7359+01	4.2137+00	3.9376+00	3.7552+00	3.3770+00	4.0562+00	3.7940+00	3.8803+00	3.9744+00	3.2695+00	4.0219+00
G-1 TO G	3.6352-01	3.9659-01	2.1465-01	1.4634-01	3.1042-01	6.3315-01	2.0719-01	3.1243-01	2.0246-01	1.9623-01	6.3163-01
G-8 TC G	1.8859-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TO G	5.2104-05	2.5701-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TO G	4.9110-05	7.0956-06	3.4655-07	2.0166-08	1.2634-08	8.4229-09	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.1099-01	4.5942-01	5.5510-01	6.6341-01	9.7740-01	1.1940+00	1.4580+00	1.8190+00	2.3460+00		
TRANSPORT	4.3987+00	4.5199+00	4.4000+00	4.6066+00	3.9400+00	4.1570+00	4.4210+00	4.7820+00	5.3090+00		
G TO G	3.9724+00	3.7896+00	3.2224+00	3.6891+00	2.6740+00	2.6700+00	2.6770+00	2.7340+00	2.9630+00		
G-1 TC G	1.3017-01	1.1527-01	2.7090-01	6.2252-01	2.5410-01	2.7810-01	2.9240-01	2.8510-01	2.2810-01		

- B44 -

WHAN-FR-12

FE -HOMSET. SPECTRUM: 75SS,25NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	3.3877-02	3.0238-03	1.6055-03	2.2346-03	3.9579-03	5.8332-03	6.4380-03	7.4022-03	8.3315-03	8.9030-03	9.5366-03
TRANSPORT	1.8214+00	2.1219+00	2.2671+00	2.2291+00	1.9105+00	2.7149+00	2.7403+00	3.7940+00	7.0808+00	1.4189+00	4.4562+00
G TO G	3.6822-01	6.8424-01	1.2043+00	1.3869+00	1.3949+00	2.5024+00	2.6337+00	3.6323+00	6.7540+00	1.2080+00	4.1664+00
G-1 TC G	0.0000	5.5260-02	3.0396-01	5.9352-01	5.2544-01	3.0310-01	2.0664-01	1.0014-01	1.5432-01	3.1843-01	2.0199-01
G-2 TC G	0.0000	0.0000	1.0256-01	4.2504-01	7.8003-02	3.1053-01	1.7080-01	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.7063-01	3.5929-01	2.5310-01	4.0282-03	3.7803-02	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.6531-01	2.5780-01	1.2050-01	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.9406-01	8.1406-02	1.6100-02	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3140-01	7.1406-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0693-02	1.3086-02	1.6609-02	2.3482-02	2.8110-02	3.5566-02	4.6947-02	6.4403-02	9.4109-02	1.2100-01	1.6347-01
TRANSPORT	6.9794+00	6.9037+00	9.3989+00	1.0598+01	1.0636+01	1.1245+01	1.0830+01	1.0773+01	1.1054+01	1.0484+01	1.1088+01
G TO G	6.8428+00	6.5230+00	9.0429+00	9.8115+00	9.0510+00	1.0705+01	1.0019+01	1.0215+01	1.0477+01	8.8057+00	1.0604+01
G-1 TC G	2.8024-01	1.2591-01	3.6762-01	3.3940-01	7.6332-01	1.5569+00	5.0464-01	7.6460-01	4.9312-01	4.8252-01	1.5569+00
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.6563-01	3.9271-01	4.7700-01	5.7046-01	7.2620-01	8.8700-01	1.0830+00	1.3510+00	1.5240+00		
TRANSPORT	1.1042+01	1.1198+01	1.0840+01	1.1233+01	1.2530+01	1.2690+01	1.2890+01	1.3160+01	1.3870+01		
G TO G	1.0493+01	1.0130+01	8.8058+00	1.0025+01	1.0770+01	1.0720+01	1.0750+01	1.0960+01	1.2350+01		
G-1 TC G	3.2008-01	2.8345-01	6.7586-01	1.5569+00	6.3700+01	1.0320+00	1.0850+00	1.0580+00	8.6410-01		

NI -HOMSET. SPECTRUM: 7555,25NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	4.2667-01	3.2331-01	6.0073-01	2.1866-02	7.0494-03	7.7138-03	8.7189-03	1.3166-02	2.0100-02	2.2730-02	2.1093-02
TRANSPORT	2.2280+00	2.5799+00	3.0491+00	2.5854+00	2.8505+00	3.2153+00	4.6759+00	5.8562+00	9.3003+00	1.7528+01	3.5153+01
G TO G	2.9288-01	7.7444-01	1.4222+00	2.0486+00	2.6197+00	3.0388+00	4.4235+00	5.5468+00	9.0574+00	1.5120+01	3.4599+01
G-1 TO G	0.0000	2.3934-01	4.0396-01	4.0841-01	3.1276-01	2.1777-01	1.6873-01	2.4367-01	2.9616-01	2.2283-01	2.3855+00
G-2 TO G	0.0000	0.0000	3.8296-01	4.0395-01	2.6810-01	1.3048-01	4.2061-03	0.0000	0.0000	0.0000	0.0000
G-3 TO G	0.0000	0.0000	0.0000	3.8033-01	3.2165-01	2.3595-01	5.1522-02	1.4786-03	0.0000	0.0000	0.0000
G-4 TO G	0.0000	0.0000	0.0000	0.0000	2.5842-01	2.4617-01	8.3191-02	1.7042-02	2.3982-04	0.0000	0.0000
G-5 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	1.7710-01	7.8917-02	2.5969-02	2.6777-03	1.5658-05	0.0000
G-6 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.2643-02	2.3475-02	3.9589-03	1.7304-04	1.9050-05
G-7 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5075-02	3.4897-03	2.5335-04	2.0994-04
G-8 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.1970-03	2.2149-04	3.0653-04
G-9 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3856-04	2.6744-04
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6703-04
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.5568-02	2.6228-02	2.6882-02	3.8968-02	4.6980-02	6.0510-02	8.2503-02	1.1282-01	1.6385-01	2.1063-01	2.8517-01
TRANSPORT	1.8920+01	1.5216+01	1.5094+01	1.6400+01	1.6378+01	1.7275+01	1.6672+01	1.6880+01	1.7402+01	1.6561+01	1.7480+01
G TO G	1.8364+01	1.4524+01	1.4560+01	1.5251+01	1.4054+01	1.6477+01	1.5471+01	1.6029+01	1.6516+01	1.4019+01	1.6715+01
G-1 TO G	5.3287-01	5.4048-01	6.6509-01	5.0654-01	1.1101+00	2.2777+00	7.3829-01	1.1186+00	7.3851-01	7.2263-01	2.3317+00
G-2 TO G	4.8156-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TO G	5.2900-05	6.5743-07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TO G	7.7028-05	7.2153-06	8.9493-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TO G	6.7031-05	1.0483-05	9.7222-07	9.9859-08	2.3973-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	4.6520-01	6.8609-01	8.3252-01	9.9495-01	1.1530+00	1.4090+00	1.7210+00	2.1470+00	2.7690+00		
TRANSPORT	1.7438+01	1.7702+01	1.7183+01	1.7796+01	1.7810+01	1.8070+01	1.8380+01	1.8800+01	1.9430+01		
G TO G	1.6548+01	1.6004+01	1.4019+01	1.5847+01	1.5270+01	1.5210+01	1.5230+01	1.5520+01	1.6660+01		
G-1 TO G	4.7936-01	4.2450-01	1.0122+00	2.3317+00	9.5400-01	1.3850+00	1.4560+00	1.4200+00	1.1360+00		

NA -HOMSET, SPECTRUM: 100 PER CENT NA

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.5189-01	2.0198-03	1.1693-04	1.3924-04	1.9103-04	3.0258-04	7.1181-04	1.3751-03	2.4515-03	1.6480-03	1.2923-03
TRANSPORT	1.4671+00	1.5258+00	1.8297+00	2.3175+00	2.8247+00	3.8269+00	3.9169+00	3.2388+00	4.3085+00	4.1480+00	4.8177+00
G TO G	4.6675-01	7.1296-01	1.0608+00	1.5681+00	1.9290+00	3.2453+00	3.3973+00	2.9432+00	3.9200+00	2.6978+00	4.2407+00
G-1 TC G	0.0030	4.0720-01	4.5552-01	5.9963-01	7.2944-01	8.5632-01	5.4798-01	5.1889-01	2.9421-01	3.8606-01	1.4486+00
G-2 TC G	0.0030	0.0060	1.8450-01	1.6600-01	5.2238-02	1.9372-02	3.9113-02	3.0393-02	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	1.2944-01	1.0059-01	7.7002-02	0.0000	0.0000	2.4502-03	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	7.0771-02	6.7024-02	2.5794-02	3.3360-03	0.0000	1.3290-04	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.3697-02	1.5877-02	1.1547-02	2.5591-04	0.0000	1.9096-04
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.9025-03	5.0040-03	2.0210-03	4.1875-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0511-03	7.1921-04	1.6680-04	7.2520-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.3297-04	4.5153-05	2.5763-04
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.7073-05	5.4356-05
G-10 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.2558-05
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	2.0244-03	1.5677-02	5.1507-03	5.1147-03	5.6210-03	6.8798-03	9.4195-03	1.2836-02	1.8762-02	2.4180-02	3.3026-02
TRANSPORT	1.0482+01	1.1947+01	3.2189+00	2.9420+00	2.8457+00	3.2413+00	2.9794+00	2.9318+00	3.1106+00	2.7282+00	3.1034+00
G TO G	9.4094+00	1.1142+01	2.9327+00	2.4150+00	1.7942+00	2.8868+00	2.4458+00	2.5722+00	2.7461+00	1.6475+00	2.8190+00
G-1 TC G	5.7568-01	1.0702+00	7.8929-01	2.8103-01	5.2184-01	1.0459+00	3.4757-01	5.2413-01	3.4680-01	3.4568-01	1.0565+00
G-6 TC G	7.8110-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-7 TC G	0.0000	2.2146-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-8 TC G	3.7361-05	0.0000	5.1445-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	1.0366-04	9.8175-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TC G	1.3583-05	2.4204-05	2.2646-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	5.6864-02	7.9758-02	9.6026-02	1.1473-01	1.4570-01	1.7800-01	2.1740-01	2.7120-01	3.0320-01		
TRANSPORT	3.0225+00	2.9734+00	2.8060+00	3.0004+00	3.7450+00	3.6780+00	3.9830+00	4.0850+00	4.1690+00		
G TO G	2.7237+00	2.3844+00	1.6507+00	2.3848+00	2.8350+00	2.8750+00	2.9470+00	3.1500+00	3.8660+00		
G-1 TC G	2.5137-01	2.4273-01	5.0924-01	1.0593+00	5.0080-01	7.6400-01	8.2550-01	8.1920-01	6.6380-01		

C -HOMSET. SPECTRUM: WLB CONCRETE. SI FOR CA.

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	1.7538-01	5.4691-02	5.6354-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TRANSPORT	7.0747-01	1.1874+00	1.0580+00	1.9968+00	4.2145+00	3.5144+00	4.0409+00	3.4646+00	3.5351+00	3.6411+00	3.6411+00
G TO G	2.4387-01	6.3478-01	8.5945-01	1.3917+00	3.1466+00	2.8195+00	3.4567+00	3.0894+00	3.0983+00	1.8238+00	3.0536+00
G-1 TC G	0.0000	2.0366-01	4.9795-01	1.9848-01	6.0512-01	1.0680+00	6.9487-01	5.8424-01	3.7523-01	4.3683-01	1.8173+00
G-2 TC G	0.0000	0.0000	1.7549-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.0377-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	2.0647-02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.6865-02	0.0000	0.0000	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.6346-03	0.0000	0.0000	0.0000	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.4957-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
TRANSPORT	3.6411+00	3.6412+00	3.5005+00	3.5047+00	3.3566+00	4.0201+00	3.5474+00	3.4577+00	3.7336+00	3.0856+00	3.6864+00
G TO G	3.1889+00	3.1944+00	3.0417+00	2.5965+00	1.5058+00	3.4184+00	2.6348+00	2.8529+00	3.1267+00	1.2558+00	3.2314+00
G-1 TC G	5.8751-01	4.5222-01	4.4684-01	4.5879-01	9.0791-01	1.8508+00	6.0164-01	9.1265-01	6.0475-01	6.0681-01	1.8298+00
G-2 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	2.3440-04	0.0000	0.0000	0.0000	0.0000	1.5116-05
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	0.0000	0.0000	0.0000	0.0000	5.7080-05	6.9720-05	8.5160-05	1.0620-04	1.9040-04		
TRANSPORT	3.5062+00	3.5491+00	3.0853+00	3.3685+00	3.8170+00	3.8170+00	3.8970+00	3.9200+00	4.7059+00		
G TO G	3.0593+00	2.6365+00	1.2544+00	2.4684+00	2.6510+00	2.5760+00	2.6770+00	2.9380+00	4.7057+00		
G-1 TC G	4.5504-01	4.4682-01	9.1255-01	1.8309+00	9.0010-01	1.1660+00	1.2410+00	1.2200+00	9.8160-01		
G-2 TC G	0.0000	0.0000	0.0000	2.8336-05	0.0000	0.0000	0.0000	0.0000	0.0000		

AL -HOMSET, SPECTRUM: WLB CONCRETE, SI FOR CA.

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	6.9999-02	1.8192-02	1.2512-03	3.7867-04	4.1549-04	7.8510-04	1.7516-03	3.5291-03	6.8647-03	2.1620-03	3.2169-03
TRANSPORT	1.3476+00	1.5625+00	1.9647+00	2.1398+00	2.4050+00	3.0078+00	3.4467+00	5.9137+00	4.5830+00	6.8466-01	1.1372+00
G TO G	3.1781-01	6.2530-01	1.2355+00	1.6231+00	1.8730+00	2.8095+00	3.1027+00	5.6477+00	4.5141+00	4.8004-01	1.0132+00
G-1 TC G	0.0000	1.6225-01	4.0205-01	5.3207-01	4.1402-01	4.3434-01	1.9745-01	3.4222-01	2.6252-01	6.2043-02	2.0246-01
G-2 TC G	0.0000	0.0000	1.5504-01	1.9177-01	7.6371-02	1.0229-01	4.0696-02	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.1504-01	1.4880-01	7.9467-02	0.0000	5.6567-02	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	1.8504-01	1.2994-01	4.0000-02	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	1.9496-01	4.6457-02	0.0000	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.7479-02	0.0000	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	3.4053-03	1.5369-04	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000-02	1.0000-02	1.0000-02	1.4989-02
TRANSPORT	1.4654+00	1.3993+00	1.3515+00	1.3518+00	1.3203+00	1.4711+00	1.3627+00	1.3417+00	1.4068+00	1.2557+00	1.4007+00
G TO G	1.3548+00	1.2921+00	1.2480+00	1.1451+00	9.0960-01	1.3342+00	1.1564+00	1.1955+00	1.2608+00	8.3792-01	1.2844+00
G-1 TC G	1.2977-01	1.0721-01	1.0703-01	1.0342-01	2.0670-01	4.1071-01	1.3688-01	2.0628-01	1.3623-01	1.3605-01	4.0782-01
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.4987-02	3.5010-02	4.0000-02	5.0000-02	1.2740-01	1.6390-01	1.8840-01	2.0600-01	2.3350-01		
TRANSPORT	1.3793+00	1.4162+00	1.3211+00	1.4026+00	1.5780+00	1.6080+00	1.6290+00	1.6440+00	1.6000+00		
G TO G	1.2905+00	1.1725+00	8.6169-01	1.1434+00	1.1884+00	1.1695+00	1.1736+00	1.2250+00	1.3660+00		
G-1 TC G	1.0131-01	1.0380-01	2.0867-01	4.1939-01	2.0920-01	2.6220-01	2.7460-01	2.6700-01	2.1310-01		

SI -HOMSET. SPECTRUM: WLB CONCRETE. SI FOR CA.

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
TRANSPORT	5.6614-01	1.3667+00	1.9371+00	2.1948+00	2.2752+00	2.4129+00	1.4433+00	8.3711-01	1.5023+00	1.4933+00	1.8715+00
G TO G	6.8474-02	6.6453-01	1.2855+00	1.8013+00	1.8871+00	2.2847+00	1.3694+00	7.3106-01	1.4062+00	1.0678+00	1.6571+00
G-1 TC G	0.0000	1.3346-01	3.2318-01	4.6574-01	3.4426-01	3.8803-01	1.2823-01	7.3880-02	1.0606-01	9.6104-02	4.2546-01
G-2 TC G	0.0000	0.0000	1.4483-01	1.7248-01	9.1990-02	3.3964-02	0.0000	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	1.0784-01	1.0874-01	6.6408-02	1.1295-02	0.0000	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	6.1171-02	7.0784-02	2.0458-02	3.4229-03	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	3.7030-02	2.0314-02	5.9645-03	5.1378-04	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0109-02	5.7157-03	8.7742-04	3.2714-05	0.0000
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.7742-03	8.2540-04	5.5505-05	3.9528-05
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9542-04	5.1895-05	6.6953-05
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.4758-05	6.2510-05
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.9789-05
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
TRANSPORT	2.3424+00	2.4643+00	2.5305+00	2.2707+00	2.0980+00	2.3282+00	2.1627+00	2.1293+00	2.2293+00	1.9976+00	2.2129+00
G TO G	2.1775+00	2.2823+00	2.3625+00	1.6558+00	1.4723+00	2.1197+00	1.8485+00	1.9208+00	2.0206+00	1.3719+00	2.0575+00
G-1 TC G	2.1436-01	1.6492-01	1.8201-01	1.6805-01	3.1489-01	6.2568-01	2.0852-01	3.1425-01	2.0900-01	2.0872-01	6.2568-01
G-8 TC G	9.9187-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-9 TC G	1.6760-05	1.3480-05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G-10 TO G	1.5622-05	2.2850-06	1.7464-07	1.1601-08	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	0.0000	0.0000	0.0000	0.0000	2.7000-02	3.2980-02	4.0280-02	5.0250-02	9.0010-02		
TRANSPORT	2.1465+00	2.1630+00	1.9976+00	2.0980+00	1.6890+00	1.6950+00	1.7020+00	1.7120+00	1.7270+00		
G TO G	1.9894+00	1.8496+00	1.3720+00	1.7880+00	1.3740+00	1.3590+00	1.3660+00	1.4250+00	1.6370+00		
G-1 TC G	1.5544-01	1.5703-01	3.1347-01	6.2568-01	3.0996-01	2.8850-01	3.0330-01	2.9580-01	2.3660-01		

FE -HOMSET, SPECTRUM: WLB CONCRETE, SI FOR CA.

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	3.3508-02	3.2832-03	1.6203-03	2.2054-03	3.8711-03	5.7638-03	6.4303-03	7.3582-03	8.3796-03	8.9030-03	9.5435-03
TRANSPCRT	1.8253+00	2.0945+00	2.2773+00	2.2281+00	1.9368+00	2.5501+00	2.7386+00	3.7582+00	8.5851+00	1.4189+00	4.4912+00
G TO G	3.7081-01	6.6121-01	1.1933+00	1.3896+00	1.4246+00	2.4356+00	2.6413+00	3.6263+00	7.9655+00	1.2080+00	4.1948+00
G-1 TC G	0.0000	5.6093-02	2.8247-01	6.4109-01	5.5960+01	3.0490-01	1.0673-01	9.0886-02	1.2463-01	6.1115-01	2.0199-01
G-2 TC G	0.0000	0.0000	1.0252-01	4.0600-01	6.5482-02	2.7189-01	1.6965-01	0.0000	0.0000	0.0000	0.0000
G-3 TC G	0.0000	0.0000	0.0000	2.7009-01	3.5766-01	2.3495-01	4.7712-03	5.3781-02	0.0000	0.0000	0.0000
G-4 TC G	0.0000	0.0000	0.0000	0.0000	3.6504-01	2.8337-01	1.2363-01	0.0000	0.0000	0.0000	0.0000
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	4.9487-01	9.2287-02	1.6726-02	0.0000	0.0000	0.0000
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0600	1.3235-01	8.2287-03	0.0000	0.0000	0.0000
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0836-02	1.2065-02	1.6739-02	2.3519-02	2.8110-02	3.5625-02	4.7013-02	6.4680-02	9.4675-02	1.2100-01	1.6643-01
TRANSPCRT	6.8472+00	6.6237+00	9.4251+00	1.0610+01	1.0647+01	1.1240+01	1.0830+01	1.0764+01	1.1047+01	1.0484+01	1.1078+01
G TO G	6.6338+00	6.3333+00	9.0377+00	9.8029+00	9.0617+00	1.0686+01	1.0001+01	1.0179+01	1.0433+01	8.8057+00	1.0524+01
G-1 TC G	2.8686-01	2.0250-01	2.7756-01	3.7064-01	7.8355-01	1.5569+00	5.1886-01	7.8196-01	5.2006-01	5.1938-01	1.5569+00
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	2.7296-01	3.9605-01	4.7700-01	5.7667-01	7.2620-01	8.8700-01	1.0830+00	1.3510+00	2.1170+00		
TRANSPCRT	1.1015+01	1.1180+01	1.0840+01	1.1195+01	1.2530+01	1.2690+01	1.2890+01	1.3160+01	1.4458+01		
G TO G	1.0351+01	1.0004+01	8.8058+00	9.8468+00	1.0770+01	1.0720+01	1.0750+01	1.0960+01	1.2341+01		
G-1 TC G	3.2678-01	3.9073-01	7.8003-01	1.5569+00	7.7130-01	1.0320+00	1.0850+00	1.0580+00	8.6410-01		

H - HONSET BASIS. HRG RUN+TRANSFER MTRX FROM MAC

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.2110-04
TRANSPORT	4.0660-01	5.8030-01	8.0610-01	1.0350+00	1.3890+00	1.8000+00	2.8400+00	4.0050+00	5.3370+00	5.9150+00	6.2600+00
G TO G	-5.4010-01	-7.7090-01	-1.0710+00	-1.3740+00	-1.8450+00	-2.0330+00	-3.0720+00	-3.4850+00	-4.6450+00	-9.5660+00	-6.7710+00
G-1 TO G	0.0000	3.7240-01	5.3180-01	7.3860-01	9.4730-01	1.7070+00	2.0640+00	3.7380+00	4.7340+00	2.2110+00	8.1670+00
G-2 TO G	0.0000	0.0000	2.2600-01	3.2250-01	4.4760-01	7.7120-01	8.0560-01	1.1690+00	1.3750+00	6.1030-01	4.0990+00
G-3 TO G	0.0000	0.0000	0.0000	1.3700-01	1.9540-01	3.6440-01	3.6410-01	4.5630-01	4.2980-01	1.7720-01	1.1320+00
G-4 TO G	0.0000	0.0000	0.0000	0.0000	8.3050-02	1.5910-01	1.7200-01	2.0620-01	1.6780-01	5.5400-02	3.2860-01
G-5 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	6.7620-02	7.5110-02	9.7430-02	7.5820-02	2.1630-02	1.0270-01
G-6 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.1920-02	4.2540-02	3.5830-02	9.7740-03	4.0110-02
G-7 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.8080-02	1.5640-02	4.6180-03	1.8120-02
G-8 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.6480-03	2.0160-03	8.5640-03
G-9 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.5690-04	3.7390-03
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5890-03
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0000-03	1.0000-03	2.0000-03	3.0000-03	3.0000-03	4.3330-03	6.0000-03	8.0000-03	1.6670-02	1.5000-02	2.0740-02
TRANSPORT	6.6490+00	6.7270+00	6.7620+00	6.7630+00	6.7630+00	6.7640+00	6.7660+00	6.8360+00	6.7770+00	6.7780+00	6.8550+00
G TO G	-5.7860+00	-5.8520+00	-5.8830+00	-8.9800+00	-1.0940+01	-7.3090+00	-8.9790+00	-7.3830+00	-7.3110+00	-1.0940+01	-5.9460+00
G-1 TO G	8.2360+00	7.8610+00	7.9510+00	4.9740+00	3.4810+00	9.3390+00	5.5360+00	8.3050+00	7.4970+00	3.1100+00	1.1190+01
G-2 TO G	4.6240+00	3.0310+00	2.8910+00	1.8200+00	1.6960+00	6.4700+00	3.2890+00	4.5030+00	3.9220+00	1.4840+00	6.9300+00
G-3 TO G	2.3210+00	1.7010+00	1.1150+00	6.6190-01	6.2080-01	3.1520+00	2.2780+00	2.6750+00	2.1260+00	7.7620-01	3.3060+00
G-4 TO G	6.4070-01	8.5400-01	6.2570-01	2.5520-01	2.2570-01	1.1540+00	1.1100+00	1.8530+00	1.2630+00	4.2080-01	1.7300+00
G-5 TO G	1.8600-01	2.3580-01	3.1410-01	1.4330-01	8.7020-02	4.1950-01	4.0630-01	9.0280-01	8.7500-01	2.5000-01	9.3770-01
G-6 TO G	5.8170-02	6.8450-02	8.6700-02	7.1910-02	4.8850-02	1.6180-01	1.4770-01	3.3050-01	4.2630-01	1.7320-01	5.5710-01
G-7 TO G	2.2710-02	2.1400-02	2.5170-02	1.9850-02	2.4520-02	9.0800-02	5.6960-02	1.2020-01	1.5610-01	8.4380-02	3.8590-01
G-8 TO G	1.0260-02	8.3560-03	7.8720-03	5.7640-03	6.7700-03	4.5580-02	3.1970-02	4.6330-02	5.6740-02	3.0880-02	1.8800-01
G-9 TO G	4.8490-03	3.7760-03	3.0730-03	1.8020-03	1.9650-03	1.2580-02	1.6050-02	2.6010-02	2.1880-02	1.1230-02	6.8820-02
G-10 TO G	2.1170-03	1.7840-03	1.3890-03	7.0360-04	6.1460-04	3.6530-03	4.4310-03	1.3050-02	1.2280-02	4.3300-03	2.5020-02
G-11 TO G	8.9970-04	7.7900-04	6.5610-04	3.1800-04	2.3990-04	1.1420-03	1.2860-03	3.6040-03	6.1640-03	2.4310-03	9.6480-03
G-12 TO G	0.0000	3.3110-04	2.8650-04	1.5020-04	1.0440-04	4.4600-04	4.0230-04	1.0460-03	1.7020-03	1.2200-03	5.4160-03
G-13 TO G	0.0000	0.0000	1.2170-04	6.5600-05	5.1230-05	2.0150-04	5.1230-04	3.2720-04	4.9410-04	3.3680-04	2.7190-03
G-14 TO G	0.0000	0.0000	0.0000	2.7880-05	2.2370-05	9.5220-05	7.0960-05	1.2770-04	1.5450-04	9.7790-05	7.5050-04
G-15 TO G	0.0000	0.0000	0.0000	0.0000	9.5060-06	4.1580-05	3.3530-05	5.7720-05	6.0320-05	3.0580-05	2.1790-04
G-16 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	1.7670-05	1.4640-05	2.7270-05	2.7260-05	1.1940-05	6.8140-05
G-17 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.2220-06	1.1910-05	1.2880-05	5.3940-06	2.6600-05
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.4250-02	5.0000-02	6.0000-02	7.2460-02	9.0240-02	1.1020-01	1.3460-01	1.6800-01	2.1660-01		
TRANSPORT	6.7940+00	7.0300+00	7.1580+00	7.4240+00	8.0600+00	8.8810+00	1.0130+01	1.1490+01	1.7680+01		
G TO G	-5.8820+00	-9.2700+00	-1.1480+01	-9.7640+00	-1.1460+01	-1.2620+01	-1.4380+01	-1.5090+01	1.7460+01		
G-1 TO G	8.0790+00	4.9750+00	3.5930+00	7.3120+00	5.6430+00	6.4080+00	7.0490+00	9.5290+00	2.6410+01		
G-2 TO G	4.1170+00	1.8500+00	1.6960+00	4.9800+00	3.7160+00	3.7830+00	4.2930+00	5.6060+00	1.4840+01		
G-3 TO G	2.5480+00	9.4270-01	6.3050-01	2.3500+00	2.5310+00	2.4910+00	2.5340+00	3.4140+00	8.7330+00		
G-4 TO G	1.2160+00	5.8360-01	3.2130-01	8.7390-01	1.1940+00	1.6970+00	1.6690+00	2.0150+00	5.3190+00		
G-5 TO G	6.3610-01	2.7840-01	1.9890-01	4.4530-01	4.4410-01	8.0050-01	1.1370+00	1.3270+00	3.1400+00		
G-6 TO G	3.4480-01	1.4570-01	9.4900-02	2.7570-01	2.2630-01	2.9770-01	5.3630-01	9.0390-01	2.0670+00		
G-7 TO G	2.0490-01	7.8970-02	4.9640-02	1.3150-01	1.4010-01	1.5170-01	1.9940-01	4.2650-01	1.4080+00		
G-8 TO G	1.4190-01	4.6910-02	2.6920-02	6.8810-02	6.6840-02	9.3910-02	1.0160-01	1.5860-01	6.6450-01		
G-9 TO G	6.9150-02	3.2500-02	1.5990-02	3.7300-02	3.4970-02	4.4810-02	6.2910-02	8.0820-02	2.4710-01		
G-10 TO G	2.5310-02	1.5830-02	1.1080-02	2.2160-02	1.8960-02	2.3440-02	3.0020-02	5.0030-02	1.2590-01		
G-11 TO G	9.2020-03	5.7960-03	5.3970-03	1.5350-02	1.1260-02	1.2710-02	1.5700-02	2.3870-02	7.7950-02		
G-12 TO G	3.5480-03	2.1070-03	1.9750-03	7.4800-03	7.8010-03	7.5490-03	8.5140-03	1.2490-02	3.7190-02		
G-13 TO G	1.9920-03	8.1250-04	7.1830-04	2.7380-03	3.8010-03	5.2290-03	5.0570-03	6.7710-03	1.9460-02		
G-14 TO G	9.9980-04	4.5610-04	2.7690-04	9.3550-04	1.3910-03	2.5480-03	3.5030-03	4.0220-03	1.0550-02		
G-15 TO G	2.7600-04	2.2890-04	1.5550-04	3.8380-04	5.0590-04	9.3270-04	1.7070-03	2.7860-03	6.2660-03		
G-16 TO G	8.0140-05	6.3210-05	7.8030-05	2.1550-04	1.9510-04	3.3910-04	6.2480-04	1.3580-03	4.3410-03		
G-17 TO G	2.5060-05	1.8350-05	2.1540-05	1.0820-04	1.0950-04	1.3070-04	2.2720-04	4.9690-04	2.1150-03		

H-HCMSET BASIS. HRG FUN + MAC MATRIX 100 C.

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11
ABSORP	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TRANSPORT	4.3660-01	5.8030-01	8.0610-01	1.0350+00	1.3890+00	1.8800+00	2.8400+00	4.0050+00	5.3370+00	5.9150+00	6.2600+00
G TO G	-5.4010-01	-7.7090-01	-1.0710+00	-1.3740+00	-1.8450+00	-2.0330+00	-3.0720+00	-3.4850+00	-4.6450+00	-9.5660+00	-6.7710+00
G-1 TC G	0.0000	3.7240-01	5.3180-01	7.3860-01	9.4730-01	1.7070+00	2.0640+00	3.7380+00	4.7340+00	2.2110+00	8.1670+00
G-2 TC G	0.0000	0.0000	2.2600-01	3.2250-01	4.4760-01	7.7120-01	8.0560-01	1.1690+00	1.3750+00	6.1030-01	4.0990+00
G-3 TC G	0.0000	0.0000	0.0000	1.3700-01	1.9540-01	3.6440-01	3.6410-01	4.5630-01	4.2980-01	1.7720-01	1.1320+00
G-4 TC G	0.0000	0.0000	0.0000	0.0000	8.3050-02	1.5910-01	1.7200-01	2.0620-01	1.6780-01	5.5400-02	3.2860-01
G-5 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	6.7620-02	7.5110-02	9.7430-02	7.5820-02	2.1630-02	1.0270-01
G-6 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.1920-02	4.2540-02	3.5830-02	9.7740-03	4.0110-02
G-7 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.8080-02	1.5640-02	4.6180-03	1.8120-02
G-8 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.6480-03	2.0160-03	8.5640-03
G-9 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.5690-04	3.7390-03
G-10 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5890-03
	GROUP 12	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	GROUP 18	GROUP 19	GROUP 20	GROUP 21	GROUP 22
ABSORP	1.0000-03	1.0000-03	2.0000-03	3.0000-03	3.0000-03	4.3330-03	6.0000-03	8.0000-03	1.6670-02	1.5000-02	2.0740-02
TRANSPORT	6.6490+00	6.7270+00	6.7620+00	6.7630+00	6.7630+00	6.7640+00	6.7660+00	6.8360+00	6.7770+00	6.7780+00	6.8550+00
G TO G	-5.7860+00	-5.8520+00	-5.8830+00	-8.9800+00	-1.0940+01	-7.3090+00	-8.9790+00	-7.3830+00	-7.3110+00	-1.0940+01	-5.9460+00
G-1 TC G	8.2360+00	7.8610+00	7.9510+00	4.9740+00	3.4810+00	9.3390+00	5.5360+00	8.3050+00	7.4970+00	3.1100+00	1.1190+01
G-2 TC G	4.6240+00	3.0310+00	2.8910+00	1.8200+00	1.6960+00	6.4700+00	3.2890+00	4.5030+00	3.5220+00	1.4840+00	6.9300+00
G-3 TC G	2.3210+00	1.7010+00	1.1150+00	6.6190-01	6.2080-01	3.1520+00	2.2780+00	2.6750+00	2.1260+00	7.7620-01	3.3060+00
G-4 TC G	6.4070-01	2.5400-01	6.2570-01	2.5520-01	2.2570-01	1.1540+00	1.1100+00	1.8530+00	1.2630+00	4.2080-01	1.7300+00
G-5 TC G	1.8600-01	2.3580-01	3.1410-01	1.4330-01	8.7020-02	4.1950-01	4.0630-01	9.0280-01	8.7500-01	2.5000-01	9.3770-01
G-6 TC G	5.8170-02	6.8450-02	8.6700-02	7.1910-02	4.8850-02	1.6180-01	4.1770-01	3.3050-01	4.2630-01	1.7320-01	5.5710-01
G-7 TC G	2.2710-02	2.1400-02	2.5170-02	1.9850-02	2.4520-02	9.0800-02	5.6960-02	1.2020-01	1.5610-01	8.4380-02	3.8590-01
G-8 TC G	1.0260-02	8.3560-03	7.8720-03	5.7640-03	6.7700-03	4.5580-02	3.1970-02	4.6330-02	5.6740-02	3.0880-02	1.8800-01
G-9 TC G	4.8490-03	3.7760-03	3.0730-03	1.8020-03	1.9650-03	1.2580-02	1.6050-02	2.6010-02	2.1880-02	1.1230-02	6.8820-02
G-10 TO G	2.1170-03	1.7840-03	1.3890-03	7.0360-04	6.1460-04	3.6530-03	4.4310-03	1.3050-02	1.2280-02	4.3300-03	2.5020-02
G-11 TO G	3.9970-04	7.7900-04	6.5610-04	3.1800-04	2.3990-04	1.1420-03	1.2860-03	3.6040-03	6.1640-03	2.4310-03	9.6480-03
G-12 TO G	3.0000	3.3110-04	2.8650-04	1.5020-04	1.0240-04	4.4600-04	4.0230-04	1.0460-03	1.7020-03	1.2200-03	5.4160-03
G-13 TO G	0.0000	0.0000	1.2170-04	6.5600-05	5.1230-05	2.0150-04	1.5700-04	3.2720-04	4.9410-04	3.3680-04	2.7190-03
G-14 TO G	0.0000	0.0000	0.0000	2.7880-05	2.2370-05	9.5220-05	7.0960-05	1.2770-04	1.5450-04	9.7790-05	7.5050-04
G-15 TO G	0.0000	0.0000	0.0000	0.0000	9.5060-06	4.1580-05	3.3530-05	5.7720-05	6.0320-05	3.0580-05	2.1790-04
G-16 TO G	0.0000	0.0000	0.0000	0.0000	0.0000	1.7670-05	1.4640-05	2.7270-05	2.7260-05	1.1940-05	6.8140-05
G-17 TC G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.2220-06	1.1910-05	1.2880-05	5.3940-06	2.6600-05
	GROUP 23	GROUP 24	GROUP 25	GROUP 26	GROUP 27	GROUP 28	GROUP 29	GROUP 30	GROUP 31		
ABSORP	3.4250-02	5.0000-02	6.0000-02	7.2460-02	9.0240-02	1.1020-01	1.3460-01	1.6800-01	3.0100-01		
TRANSPORT	6.7940+00	7.0300+00	7.1580+00	7.4240+00	8.0600+00	8.8810+00	1.0130+01	1.1490+01	2.0470+01		
G TO G	-5.8220+00	-5.2700+00	-1.1480+01	-9.7640+00	-1.1460+01	-1.2620+01	-1.4380+01	-1.5090+01	2.0170+01		
G-1 TC G	8.0790+00	4.9750+00	3.5930+00	7.3120+00	5.6430+00	6.4080+00	7.0490+00	9.5290+00	2.6410+01		
G-2 TC G	4.1170+00	1.8500+00	1.6960+00	4.9800+00	3.7160+00	3.7830+00	4.2930+00	5.6060+00	1.4840+01		
G-3 TC G	2.5480+00	9.4270-01	6.3050-01	2.3500+00	2.5310+00	2.4910+00	2.5340+00	3.4140+00	8.7330+00		
G-4 TC G	1.2160+00	5.8360-01	3.2130-01	8.7390-01	1.1940+00	1.6970+00	1.6690+00	2.0150+00	5.3190+00		
G-5 TC G	6.3610-01	2.7840-01	1.9890-01	4.4530-01	4.4410-01	8.0050-01	1.1370+00	1.3270+00	3.1400+00		
G-6 TC G	3.4480-01	1.4570-01	9.4900-02	2.7570-01	2.2630-01	2.9770-01	5.3630-01	9.0390-01	2.0670+00		
G-7 TC G	2.0490-01	7.6970-02	4.9640-02	1.3150-01	1.4010-01	1.5170-01	1.9940-01	4.2650-01	1.4080+00		
G-8 TC G	1.4190-01	4.6910-02	2.6920-02	6.8810-02	6.6840-02	9.3910-02	1.0160-01	1.5860-01	6.6450-01		
G-9 TC G	6.9150-02	3.2500-02	1.5990-02	3.7300-02	3.4970-02	4.4810-02	6.2910-02	8.0820-02	2.4710-01		
G-10 TO G	2.5310-02	1.5830-02	1.1080-02	2.2160-02	1.8960-02	2.3440-02	3.0020-02	5.0030-02	1.2590-01		
G-11 TO G	9.2020-03	5.7960-03	5.3970-03	1.5350-02	1.1260-02	1.2710-02	1.5700-02	2.3870-02	7.7950-02		
G-12 TO G	3.5480-03	2.1070-03	1.9750-03	7.4800-03	7.8010-03	7.5490-03	8.5140-03	1.2490-02	3.7190-02		
G-13 TO G	1.9920-03	2.1250-04	7.1830-04	2.7380-03	3.8010-03	5.2290-03	5.0570-03	6.7710-03	1.9460-02		
G-14 TO G	9.9980-04	4.5610-04	2.7690-04	5.9550-04	1.3910-03	2.5480-03	3.5030-03	4.0220-03	1.0550-02		
G-15 TO G	2.7600-04	2.2890-04	1.5550-04	3.8380-04	5.0590-04	9.3270-04	1.7070-03	2.7860-03	6.2660-03		
G-16 TO G	8.0140-05	6.3210-05	7.8030-05	2.1550-04	1.9510-04	3.3910-04	6.2480-04	1.3580-03	4.3410-03		
G-17 TO G	2.5060-05	1.8350-05	2.1540-05	1.0820-04	1.0950-04	1.3070-04	2.2720-04	4.9690-04	2.1150-03		

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