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Experimental and evaluated nuclear plus interference cross sections for light charged particles

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FOREWORD

The UCRL-50400 series, *An Integrated System for Production of Neutronics and Photonics Calculational Constants*, describes an integrated, computer-oriented system for the production and application of neutronics and photonics calculational constants.

The system supplies reliable, up-to-date data, selects specific types of data on request, provides output in a variety of forms (ultimately in the form of input to other computer codes), and functions rapidly and efficiently.

The UCRL-50400 series comprises the following volumes:

- Vol. 1, Part A, Rev. 3, *ECSSII: A System for Storage, Retrieval, and Display of Experimental Neutron Data*, September 1976.
- Vol. 1, Part B, *Program ECSS4 (Version 78-1): Conversion of Experimentally Measured Cross-Section Data from the Four-Center-Exchange (X-4) Format to the Livermore ECSSII Format*, December 1978.
- Vol. 2, Rev. 2, *A Bibliography of the Experimental Data of Neutron-Induced Interactions*, July 1976.
- Vol. 3, Rev. 2, *An Index of the Experimental Data of Neutron-Induced Interactions*, July 1976.
- Vol. 4, *Evaluated Nuclear Cross-Section Library*, April 1971.
- Vol. 5, Part A, Rev. 1, *CLYDE: A Code for the Production of Calculational Constants from Nuclear Data*, September 1975.
- Vol. 5, Part B, Rev. 1, *Relativistic Transformations between Center-of-Mass and Laboratory Systems for Two-Body Nuclear Reactions*, April 1978.
- Vol. 6, Rev. 2, *Tables and Graphs of Photon-Interaction Cross Sections from 1 keV to 100 MeV*, December 1978.
- Vol. 7, Part A, Rev. 1, *Major Neutron-Induced Interactions ($Z \leq 55$): Graphical, Experimental Data*, July 1976.
- Vol. 7, Part B, Rev. 1, *Major Neutron-Induced Interactions ($Z > 55$): Graphical, Experimental Data*, July 1976.
- Vol. 8, Part A, Rev. 1, *Supplemental Neutron-Induced Interactions ($Z \leq 35$): Graphical, Experimental Data*, July 1976.
- Vol. 8, Part B, Rev. 1, *Supplemental Neutron-Induced Interactions ($Z > 35$): Graphical, Experimental Data*, July 1976.
- Vol. 9, *Thresholds of Nuclear Reactions Induced by Neutrons, Photons, Deuterons, Tritons, and Alpha Particles*, September 1970.
- Vol. 10, Rev. 1, *Tabulated Experimental Data for Neutron-Induced Interactions*, July 1976.
- Vol. 11, *Experimental Data, Indexes, and Techniques of Obtaining a Selected Set of Neutron Resonance Parameters*, May 1972.
- Vol. 12, *An Atlas of Resolved Neutron Resonance Parameters*, July 1972.
- Vol. 13, *An Atlas of Unresolved Neutron Resonance Parameters*, September 1972.
- Vol. 14, *TARTNP: A Coupled Neutron-Photon Monte Carlo Transport Code*, February 1976.
- Vol. 15, Part A, *The LLL Evaluated-Nuclear-Data Library (ENDL): Evaluation Techniques, Reaction Index, and Descriptions of Individual Evaluations*, September 1975.
- Vol. 15, Part B, Rev. 1, *The LLL Evaluated-Nuclear-Data Library (ENDL): Graphs of Cross Sections from the Library*, October 1978.
- Vol. 15, Part C, *The LLL Evaluated-Nuclear-Data Library (ENDL): Translation of ENDF Neutron-Induced Interaction Data into the ENDF/B Format*, April 1976.
- Vol. 15, Part D, Rev. 1, *The LLL Evaluated-Nuclear-Data Library (ENDL): Descriptions of Individual Evaluations for $Z = 0-98$* , May 1978.
- Vol. 15, Part E, *Data Testing Results for the LLL Nuclear Data Library (ENDL-78)*, August 1979.
- Vol. 15, Part F, *Experimental and Evaluated Elastic Nuclear Plus Interference Cross Sections for Light Charged Particles*, July 1980.

- Vol. 16, Rev. 2, *Tabular and Graphical Presentation of 175 Neutron-Group Constants Derived from the LLL Evaluated-Nuclear-Data Library (ENDL)*, October 1978.
- Vol. 17, Part A, Rev. 2, *Program LINEAR (Version 79-1): Linearize Data in the Evaluated Nuclear Data File/Version B (ENDF/B) Format*, October 1979.
- Vol. 17, Part B, Rev. 2, *Program SIGMA1 (Version 79-1): Doppler Broaden Evaluated Cross Sections in the Evaluated Nuclear Data File/Version B (ENDF/B) Format*, October 1979.
- Vol. 17, Part C, *Program RECENT: Reconstruction of Energy-Dependent Cross Sections from Resonance Parameters in the ENDF/B Format*, October 1979.
- Vol. 17, Part D, *Program GROUPE: Calculation of Self-Shielded Cross Sections and Multiband Parameters from Evaluated Data in the ENDF/B Format*, 1980.
- Vol. 17, Part E, *Program EVALPLOT: Plot Data in the Evaluated-Nuclear-Data File/Version B (ENDF/B) Format*, February 1979.
- Vol. 17, Part F, *DOWNER (Version 79-1): Group Collapse Cross Section and Transfer Matrices*, January 1979.
- Vol. 18, *ACTL: Evaluated Neutron Activation Cross-Section Library*, October 1978.
- Vol. 19, *Neutron-Induced Angular and Energy Distributions: Graphical Experimental Data*, April 1977.
- Vol. 20, *Bonderenko Self-Shielded Cross Sections and Multiband Parameters Derived from the LLL Evaluated-Nuclear-Data Library (ENDL)*, July 1978.
- Vol. 21, Part A, *Maxwell-Averaged Reaction Rates (σv) for Selected Reactions between Ions with Atomic Mass ≤ 11* , February 1979.
- Vol. 21, Part C, *Program SIGMA1 (Version 79-1): Doppler-Broaden Evaluated Cross Sections in the Livermore-Evaluated Nuclear Data Library (ENDL) Format*, March 1979.
- Vol. 22, *GAMIDENT: A Program to Aid in the Identification of Unknown Materials by Gamma-Ray Spectroscopy*, January 1980.

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EXPERIMENTAL AND EVALUATED NUCLEAR PLUS INTERFERENCE
CROSS SECTIONS FOR LIGHT CHARGED PARTICLES

ABSTRACT

Experimental and evaluated integral parameters derived from nuclear plus interference differential elastic scattering cross sections are presented for all projectile/target combinations of the particles p, d, t, ^3He , and α . The data include reaction rates, average fractional energy losses per collision and per unit path length, and average laboratory scattering cosines. The resulting parameters are of potential use in analyses of charged-particle transport.

INTRODUCTION

We have searched the literature for experimental differential cross sections for elastic scattering among the five light isotopes p, d, t, ^3He , and α . We subtracted the Coulomb component from these cross sections, leaving the RI (nuclear plus interference) component, which we integrated over appropriate ranges of center-of-mass (c.m.) scattering cosine to obtain the reaction rate, the average fractional energy loss per collision, the average fractional energy loss per unit path length, and the average cosine of the laboratory scattering angle. We evaluated these data for each projectile/target combination for energies up to 20 MeV. The resulting parameters are of potential use in analyses of charged-particle transport.

In Ref. 1 we presented these results in graphical form and fully described the techniques and equations used to obtain them. Here we present the data in tabular form. We include the experimental and evaluated integral parameters and a bibliography of the experimental data. We give equations and descriptions only as needed for continuity; the reader should consult Ref. 1 for details.

EXPERIMENTAL DATA

By experimental data, we mean here the parameters obtained by integration of the differential NI distributions. The differential distributions are available to the interested reader as indicated in Ref. 2.

We consider a projectile of mass A_1 (in amu), energy E , and speed v , scattering from a target nucleus of mass A_2 through a c.m. angle whose cosine is η . We define the energy-loss differential cross section, $d\sigma/d\mathcal{M}_F$, as

$$\frac{d\sigma}{d\mathcal{M}_F} \equiv (1 - \eta) \frac{d\sigma}{d\Omega_{NI}} \quad , \quad (1)$$

where $d\sigma/d\Omega_{NI}$ is the NI cross section.

The integrated NI cross section is then

$$\sigma_{NI}(E) = 2\pi \int_{\eta_1}^{\eta_2} \frac{1}{(1 - \eta)} \frac{d\sigma}{d\mathcal{M}_F} d\eta \quad , \quad (2)$$

the average fractional energy loss per collision is

$$\frac{D(E)}{E} = \frac{4\pi A_1 A_2}{(A_1 + A_2)^2} \frac{1}{\sigma_{NI}(E)} \int_{\eta_1}^{\eta_2} \frac{d\sigma}{d\mathcal{M}_F} d\eta \quad , \quad (3)$$

the average fractional energy loss per unit path length is

$$\frac{1}{n_1} \frac{1}{E} \frac{dE(E)}{dx} = \frac{4\pi A_1 A_2}{(A_1 + A_2)^2} \int_{\eta_1}^{\eta_2} \frac{d\sigma}{d\mathcal{M}_F} d\eta \quad , \quad (4a)$$

$$= \sigma_{NI}(E) \frac{D(E)}{E} \quad , \quad (4b)$$

and the average cosine of the laboratory scattering angle is

$$\bar{\mu}(E) = \frac{2\pi}{\sigma_{NI}(E)} \int_{\eta_1}^{\eta_2} \frac{A_1 + A_2\eta}{(A_1^2 + 2A_1A_2\eta + A_2^2)^{1/2}(1-\eta)} \frac{d\sigma}{d\mu_E} d\eta. \quad (5)$$

In Eq. (4a), n_i is the target-ion number density.

For the lower limit in these integrals, we use

$$\eta_1 = -1 \text{ for unlike particles} \quad (6a)$$

and

$$\eta_1 = 0 \text{ for like particles.} \quad (6b)$$

For the upper limit, unless otherwise stated, we use

$$\eta_2 = \min(\eta_+, \eta_{c0}), \quad (7)$$

where $\eta_{c0} = 0.94$ (see the discussion in Ref. 1) and η_+ is the smallest value of η at which the NI cross section goes to zero. Note that Eq. (4) is the only equation of Eqs. (2)-(5) that can be integrated over the entire cosine range, i.e., to the upper limit $\eta_2 = 1$.

The experimental results are given in Appendix A. We have interchanged projectiles and targets, if necessary, so that the particle with lower ZA value is always the projectile ($ZA \approx 1000Z + A$). For details of this procedure, see Ref. 1. By doing this, we reduce the number of projectile/target combinations from 25 to 15. The ordering of the data is by increasing values of projectile ZA, target ZA, and reference number.

EVALUATED DATA

Evaluated data for all 25 projectile/target combinations are given in Appendix B. The data cover the energy range 0-20 MeV and are linearly

interpolable in energy. The sorting order is by increasing values of projectile ZA, target ZA, and energy.

BIBLIOGRAPHY OF EXPERIMENTAL DATA

The bibliography of experimental data contains 99 references, to which we assigned arbitrary reference numbers. We give two indexes to the bibliographic file: Appendix C lists references and cross-references arranged alphabetically, and Appendix D lists references arranged numerically by reference number.

REFERENCES

1. S. T. Perkins and D. E. Cullen, *Elastic Nuclear Plus Interference Cross Sections for Light Charged Particles*, Lawrence Livermore Laboratory, Livermore, CA, UCRL-83468 (1980), accepted for publication in *Nuclear Science and Engineering*.
2. These total scattering differential cross sections (some 10 000 data points) have been sent on magnetic tape to the National Nuclear Data Center, Brookhaven National Laboratory, Upton, NY.

APPENDIX A: EXPERIMENTAL DATA

Table A-1 contains parameters obtained by integration of the differential NI distributions for collisions between p, d, t, ^3He , and α in which the particle with lower ZA (= 1000Z + A) is the projectile. Ref. 1 gives details of the projectile/target interchange procedure. The column headings have the following significance:

N	= Point counter,
ZA _P	= Projectile ZA,
ZA _t	= Target ZA,
E	= Projectile energy, in MeV,
σ_{min}	= NI cross section, in barns, from Eq. (2),
$\sigma_{\text{min}}^{\text{v}}$	= Reaction rate, in barn*cm/ns,
D/E _{min}	= Average fractional energy loss per collision from Eq. (3),
$\sigma D/E_{\text{min}}$	= Average fractional energy loss per unit path length, in barns, from Eq. (4),
$\sigma D/E_{\text{co}}$	= Average fractional energy loss per unit path length, in barns, from Eq. (4), with $\eta_2 = 0.94$,
$\sigma D/E_1$	= Average fractional energy loss per unit path length, in barns, from Eq. (4), with $\eta_2 = 1$,
$\bar{\mu}_P$	= Average cosine of laboratory scattering angle, from Eq. (5),
$\bar{\mu}_t$	= Average laboratory scattering cosine, from Eq. (5), under interchange of projectile and target and at the energy $(A_t/A_P)E$ (for details, see Ref. 1),
R	= Arbitrary data reference number,
Y	= Year of publication,
NP	= Number of points in the angular distribution, including the two extrapolated endpoint values.

TABLE A-1. Experimental data.

N	ZA _p	ZA _t	E	$\sigma_{\min}$	$\sigma_{v\min}$	D/E _{min}	σ D/E _{min}	σ D/E _{co}	σ D/E _l	$\bar{\mu}_p$	$\bar{\mu}_t$	R	Y	NP
1	1001	1001	1.970E+01	1.609E-01	9.883E-01	3.004E-01	4.835E-02	4.835E-02	4.837E-02	8.321E-01	8.321E-01	17	76	11
2	1001	1001	4.978E+00	5.137E-01	1.586E+00	2.872E-01	1.475E-01	1.475E-01	1.475E-01	8.406E-01	8.406E-01	13	75	13
3	1001	1001	6.968E+00	3.946E-01	1.441E+00	2.817E-01	1.111E-01	1.112E-01	1.112E-01	8.431E-01	8.431E-01	19	75	13
4	1001	1001	8.030E+00	3.482E-01	1.365E+00	2.800E-01	9.751E-02	9.751E-02	9.752E-02	8.447E-01	8.447E-01	19	75	13
5	1001	1001	3.384E+00	6.630E-01	1.687E+00	2.944E-01	1.952E-01	1.950E-01	1.949E-01	8.367E-01	8.367E-01	20	51	9
6	1001	1001	3.435E+00	6.483E-01	1.662E+00	2.972E-01	1.927E-01	1.924E-01	1.920E-01	8.350E-01	8.350E-01	20	51	9
7	1001	1001	6.846E+00	4.025E-01	1.457E+00	8.09E-01	1.131E-01	1.131E-01	1.131E-01	8.443E-01	8.443E-01	20	51	11
8	1001	1001	7.514E+00	3.704E-01	1.455E+00	2.804E-01	1.039E-01	1.039E-01	1.039E-01	8.448E-01	8.448E-01	20	51	11
9	1001	1001	5.070E+00	4.994E-01	1.556E+00	8.75E-01	1.436E-01	1.436E-01	1.435E-01	8.407E-01	8.407E-01	22	51	11
10	1001	1001	9.700E+00	3.128E-01	1.348E+00	2.811E-01	8.793E-02	8.793E-02	8.794E-02	8.444E-01	8.444E-01	26	52	21
11	1001	1001	9.850E+00	2.999E-01	1.303E+00	2.735E-01	8.201E-02	8.201E-02	8.202E-02	8.488E-01	8.488E-01	26	52	8
12	1001	1001	1.855E+00	6.995E-01	1.319E+00	3.188E-01	2.230E-01	2.199E-01	2.199E-01	8.224E-01	8.224E-01	28	53	12
13	1001	1001	1.858E+00	7.013E-01	1.323E+00	3.186E-01	2.234E-01	2.203E-01	2.199E-01	8.225E-01	8.225E-01	28	53	12
14	1001	1001	2.425E+00	7.142E-01	1.539E+00	3.067E-01	2.191E-01	2.180E-01	2.178E-01	8.294E-01	8.294E-01	28	53	12
15	1001	1001	3.037E+00	6.741E-01	1.625E+00	2.992E-01	2.017E-01	2.013E-01	2.011E-01	8.366E-01	8.366E-01	28	53	12
16	1001	1001	3.527E+00	6.358E-01	1.652E+00	2.949E-01	1.875E-01	1.873E-01	1.870E-01	8.361E-01	8.361E-01	28	53	12
17	1001	1001	3.899E+00	6.028E-01	1.647E+00	2.923E-01	1.762E-01	1.761E-01	1.761E-01	8.374E-01	8.374E-01	28	53	12
18	1001	1001	4.203E+00	5.772E-01	1.637E+00	2.906E-01	1.677E-01	1.677E-01	1.676E-01	8.384E-01	8.384E-01	28	53	11
19	1001	1001	1.800E+01	1.534E-01	9.007E-01	2.746E-01	4.214E-02	4.214E-02	4.215E-02	8.478E-01	8.478E-01	36	54	9
20	1001	1001	5.770E+00	4.611E-01	1.533E+00	2.837E-01	1.308E-01	1.308E-01	1.308E-01	8.428E-01	8.428E-01	37	54	15
21	1001	1001	8.600E-01	2.138E-01	2.743E-01	3.854E-01	8.239E-02	4.517E-02	4.381E-02	7.826E-01	7.826E-01	49	39	8
22	1001	1001	1.26E+00	4.827E-01	7.316E-01	3.484E-01	1.682E-01	1.551E-01	1.522E-01	8.051E-01	8.051E-01	49	39	8
23	1001	1001	1.390E+00	5.760E-01	9.396E-01	3.363E-01	1.937E-01	1.857E-01	1.849E-01	8.120E-01	8.120E-01	49	39	8
24	1001	1001	9.730E+00	3.047E-01	1.315E+00	2.770E-01	8.439E-02	8.439E-02	8.440E-02	8.466E-01	8.466E-01	56	53	9
25	1001	1001	1.450E+01	1.478E-01	7.785E-01	2.756E-01	4.073E-02	4.073E-02	4.073E-02	8.470E-01	8.470E-01	66	47	6
26	1001	1001	2.000E-01	0.	0.	0.	0.	-5.629E-01	-5.691E-01	1.000E+00	1.000E+00	69	56	7
27	1001	1001	3.000E-01	0.	0.	0.	0.	-4.733E-01	-4.879E-01	1.000E+00	1.000E+00	69	56	8
28	1001	1001	4.000E-01	0.	0.	0.	0.	-3.330E-01	-3.476E-01	1.000E+00	1.000E+00	69	56	7
29	1001	1001	5.000E-01	0.	0.	0.	0.	-2.789E-01	-2.854E-01	1.000E+00	1.000E+00	69	56	8
30	1001	1001	5.000E-01	0.	0.	0.	0.	-2.206E-01	-2.275E-01	1.000E+00	1.000E+00	69	56	8
31	1001	1001	6.000E-01	0.	0.	0.	0.	-1.275E-01	-1.297E-01	1.000E+00	1.000E+00	69	56	8
32	1001	1001	7.000E-01	5.377E-02	6.224E-02	4.253E-01	2.287E-02	4.843E-02	5.026E-02	7.574E-01	7.574E-01	69	56	8
33	1001	1001	8.000E-01	1.476E-01	1.827E-01	3.994E-01	5.895E-02	9.130E-03	7.450E-03	7.738E-01	7.738E-01	69	56	8
34	1001	1001	9.000E-01	2.504E-01	3.287E-01	3.794E-01	9.500E-02	5.990E-02	5.243E-02	7.862E-01	7.862E-01	69	56	8
35	1001	1001	1.416E+00	0.059E-01	1.073E+00	8.26E-01	5.819E-02	5.819E-02	5.821E-02	8.430E-01	8.430E-01	73	60	15
36	1001	1001	1.297E+00	5.959E-01	9.744E-01	3.48E-01	1.995E-01	1.911E-01	1.901E-01	8.131E-01	8.131E-01	75	66	11
37	1001	1001	1.855E+00	5.017E-01	1.321E+00	3.09E-01	1.262E-01	1.262E-01	1.262E-01	8.225E-01	8.225E-01	75	66	12
38	1001	1001	2.425E+00	7.131E-01	1.537E+00	3.069E-01	2.189E-01	2.178E-01	2.178E-01	8.293E-01	8.293E-01	75	66	12
39	1001	1001	3.037E+00	6.732E-01	1.623E+00	2.993E-01	2.015E-01	2.012E-01	2.009E-01	8.336E-01	8.336E-01	75	66	12
40	1001	1001	9.690E+00	2.983E-01	1.285E+00	2.774E-01	8.276E-02	8.276E-02	8.278E-02	8.460E-01	8.460E-01	79	71	7
41	1001	1001	9.918E+00	2.872E-01	1.251E+00	2.761E-01	7.929E-02	7.929E-02	7.931E-02	8.472E-01	8.472E-01	79	71	12
42	1001	1001	1.360E+00	2.082E-01	1.063E+00	2.750E-01	5.724E-02	5.724E-02	5.725E-02	8.478E-01	8.478E-01	79	71	11
43	1001	1001	9.690E+00	2.983E-01	1.285E+00	2.766E-01	8.283E-02	8.283E-02	8.283E-02	8.463E-01	8.463E-01	81	59	20
44	1001	1001	6.141E+00	4.017E-01	1.330E+00	3.029E-01	1.262E-01	1.262E-01	1.262E-01	8.432E-01	8.432E-01	82	68	12
45	1001	1001	8.097E+00	3.513E-01	1.383E+00	2.754E-01	9.815E-02	9.815E-02	9.816E-02	8.451E-01	8.451E-01	82	68	12
46	1001	1001	9.918E+00	2.877E-01	1.253E+00	2.779E-01	7.994E-02	7.994E-02	7.996E-02	8.449E-01	8.449E-01	82	68	12
47	1002	1002	5.004E+00	1.446E+00	4.475E+00	4.299E-01	6.216E-01	6.216E-01	6.216E-01	9.303E-01	9.303E-01	1	51	26
48	1002	1002	5.204E+00	1.374E+00	4.437E+00	4.288E-01	5.891E-01	5.891E-01	5.892E-01	9.306E-01	9.306E-01	2	51	29
49	1002	1002	4.804E-01	1.716E+00	1.645E+00	6.113E-01	1.049E+00	9.982E-01	9.933E-01	5.003E-02	8.892E-01	3	52	8
50	1001	1002	6.005E-01	2.135E+00	2.289E+00	5.675E-01	1.212E+00	1.208E+00	1.205E+00	1.185E-01	8.981E-01	3	52	8

TABLE A-1. (Continued.)

N	ZA _p	ZA _t	E	$\alpha_{\min}$	$\alpha_{\max}$	D/E _{min}	σ D/E _{min}	σ D/E _∞	σ D/E _l	$\bar{\mu}_p$	$\bar{\mu}_t$	R	Y	NP
51	1001	1002	7.306E-01	2.363E+00	2.794E+00	5.281E-01	1.248E+00	1.247E+00	1.245E+00	1.799E-01	9.059E-01	3	52	10
52	1001	1002	9.858E-01	1.896E+00	2.605E+00	4.376E-01	8.298E-01	6.541E-01	6.517E-01	3.849E-01	9.093E-01	3	52	9
53	1001	1002	1.106E+00	4.22E+00	3.523E+00	4.384E-01	1.304E+00	1.304E+00	1.301E+00	1.383E-01	9.100E-01	3	52	9
54	1001	1002	1.150E+00	3.15E+00	3.725E+00	5.348E-01	1.302E+00	1.292E+00	1.290E+00	1.339E-01	9.119E-01	3	52	8
55	1001	1002	1.386E+00	3.15E+00	3.725E+00	5.348E-01	1.262E+00	1.262E+00	1.259E+00	1.190E-01	9.113E-01	3	52	8
56	1001	1002	1.496E+00	2.291E+00	3.878E+00	5.430E-01	1.244E+00	1.244E+00	1.242E+00	1.191E-01	9.120E-01	3	52	9
57	1001	1002	1.611E+00	2.261E+00	3.971E+00	5.460E-01	1.235E+00	1.235E+00	1.232E+00	1.112E-01	9.122E-01	3	52	8
58	1001	1002	5.600E+00	1.302E+00	4.262E+00	4.268E-01	5.556E-01	5.556E-01	5.557E-01	3.218E-01	9.299E-01	9	60	34
59	1001	1002	5.500E+00	1.435E+00	5.061E+00	3.075E-01	4.412E-01	4.412E-01	4.413E-01	5.379E-01	9.454E-01	9	60	38
60	1001	1002	7.850E+00	9.874E-01	3.828E+00	4.011E-01	3.960E-01	3.960E-01	3.962E-01	3.667E-01	9.341E-01	9	60	34
61	1001	1002	9.300E+00	1.201E+00	4.842E+00	2.856E-01	3.470E-01	3.470E-01	3.474E-01	5.758E-01	9.488E-01	9	60	37
62	1001	1002	9.700E+00	8.401E-01	3.821E+00	3.856E-01	3.240E-01	3.240E-01	3.240E-01	3.926E-01	9.367E-01	26	52	46
63	1001	1002	5.100E+00	1.458E+00	4.557E+00	4.301E-01	6.272E-01	6.272E-01	6.272E-01	3.118E-01	9.304E-01	27	52	28
64	1001	1002	5.104E+00	1.478E+00	4.621E+00	4.211E-01	6.225E-01	6.225E-01	6.230E-01	3.250E-01	9.320E-01	27	52	21
65	1001	1002	2.057E+01	3.227E-01	2.025E+00	2.914E-01	9.404E-02	9.404E-02	9.405E-02	5.806E-01	9.449E-01	38	55	23
66	1001	1002	1.000E+00	2.331E+00	3.225E+00	3.387E-01	1.255E+00	1.255E+00	1.255E+00	1.403E-01	9.095E-01	44	69	14
67	1001	1002	1.993E+00	2.068E+00	4.039E+00	5.188E-01	1.073E+00	1.073E+00	1.073E+00	1.578E-01	9.165E-01	44	69	29
68	1001	1002	2.995E+00	1.798E+00	4.306E+00	4.802E-01	8.634E-01	8.634E-01	8.634E-01	2.229E-01	9.229E-01	44	69	29
69	1001	1002	3.998E+00	1.570E+00	4.344E+00	4.551E-01	7.146E-01	7.146E-01	7.147E-01	2.067E-01	9.269E-01	44	69	29
70	1001	1002	5.002E+00	1.361E+00	4.213E+00	4.389E-01	5.967E-01	5.967E-01	5.968E-01	2.959E-01	9.296E-01	44	69	29
71	1001	1002	6.007E+00	1.190E+00	4.035E+00	4.221E-01	5.024E-01	5.024E-01	5.024E-01	3.259E-01	9.317E-01	44	69	29
72	1001	1002	8.025E+00	9.376E-01	3.675E+00	3.57E-01	3.710E-01	3.710E-01	3.711E-01	3.751E-01	9.351E-01	44	69	29
73	1001	1002	1.004E+01	7.629E-01	3.344E+00	3.711E-01	2.831E-01	2.831E-01	2.832E-01	4.221E-01	9.380E-01	44	69	28
74	1001	1002	4.450E+00	1.434E+00	4.186E+00	4.439E-01	6.367E-01	6.368E-01	6.369E-01	2.879E-01	9.282E-01	45	69	42
75	1001	1002	4.500E+00	1.408E+00	4.134E+00	4.645E-01	6.542E-01	6.542E-01	6.542E-01	2.410E-01	9.276E-01	45	69	5
76	1001	1002	1.750E+00	1.366E+00	4.103E+00	4.610E-01	6.295E-01	6.295E-01	6.295E-01	2.805E-01	9.280E-01	45	69	5
77	1001	1002	5.000E+00	1.326E+00	4.103E+00	4.564E-01	6.051E-01	6.051E-01	6.052E-01	2.565E-01	9.286E-01	45	69	5
78	1001	1002	5.250E+00	1.296E+00	4.109E+00	4.521E-01	5.860E-01	5.860E-01	5.860E-01	2.651E-01	9.291E-01	45	69	5
79	1001	1002	5.450E+00	1.215E+00	3.925E+00	4.327E-01	5.258E-01	5.258E-01	5.260E-01	3.055E-01	9.305E-01	45	69	40
80	1001	1002	5.500E+00	1.259E+00	4.085E+00	4.505E-01	5.670E-01	5.670E-01	5.671E-01	2.680E-01	9.293E-01	45	69	5
81	1001	1002	5.750E+00	1.228E+00	4.075E+00	4.474E-01	5.494E-01	5.494E-01	5.494E-01	2.739E-01	9.297E-01	45	69	5
82	1001	1002	6.000E+00	1.184E+00	4.012E+00	4.455E-01	5.262E-01	5.262E-01	5.262E-01	2.782E-01	9.303E-01	45	69	5
83	1001	1002	6.250E+00	1.145E+00	3.959E+00	4.438E-01	5.079E-01	5.079E-01	5.079E-01	2.795E-01	9.304E-01	45	69	5
84	1001	1002	6.500E+00	1.075E+00	3.890E+00	4.371E-01	4.730E-01	4.730E-01	4.730E-01	2.918E-01	9.313E-01	45	69	41
85	1001	1002	6.750E+00	1.082E+00	3.890E+00	4.371E-01	4.730E-01	4.730E-01	4.730E-01	2.918E-01	9.313E-01	45	69	5
86	1001	1002	7.000E+00	1.055E+00	3.863E+00	4.354E-01	4.594E-01	4.594E-01	4.594E-01	2.958E-01	9.313E-01	45	69	5
87	1001	1002	7.250E+00	1.018E+00	3.794E+00	4.333E-01	4.413E-01	4.413E-01	4.413E-01	2.989E-01	9.318E-01	45	69	5
88	1001	1002	7.460E+00	9.327E-01	3.525E+00	4.047E-01	3.775E-01	3.775E-01	3.776E-01	3.591E-01	9.338E-01	45	69	42
89	1001	1002	7.500E+00	1.004E+00	3.804E+00	4.291E-01	4.309E-01	4.309E-01	4.309E-01	3.066E-01	9.323E-01	45	69	5
90	1001	1002	7.500E+00	9.656E-01	3.719E+00	4.288E-01	4.140E-01	4.140E-01	4.140E-01	3.068E-01	9.325E-01	45	69	5
91	1001	1002	8.000E+00	9.157E-01	3.639E+00	4.275E-01	3.775E-01	3.775E-01	3.775E-01	3.081E-01	9.317E-01	45	69	5
92	1001	1002	8.250E+00	9.157E-01	3.639E+00	4.25E-01	3.984E-01	3.984E-01	3.984E-01	3.126E-01	9.331E-01	45	69	5
93	1001	1002	8.40E+00	8.072E-01	3.250E+00	3.946E-01	3.185E-01	3.185E-01	3.186E-01	3.754E-01	9.357E-01	45	69	42
94	1001	1002	8.500E+00	9.009E-01	3.634E+00	4.202E-01	3.786E-01	3.786E-01	3.786E-01	3.216E-01	9.337E-01	45	69	5
95	1001	1002	8.750E+00	8.734E-01	3.582E+00	4.174E-01	3.653E-01	3.653E-01	3.654E-01	3.266E-01	9.342E-01	45	69	5
96	1001	1002	9.000E+00	8.479E-01	3.519E+00	4.167E-01	3.533E-01	3.533E-01	3.533E-01	3.278E-01	9.343E-01	45	69	5
97	1001	1002	9.250E+00	8.261E-01	3.476E+00	4.124E-01	3.407E-01	3.407E-01	3.407E-01	3.359E-01	9.348E-01	45	69	5
98	1001	1002	9.470E+00	7.569E-01	3.222E+00	3.832E-01	2.900E-01	2.900E-01	2.901E-01	3.987E-01	9.366E-01	45	69	39
99	1001	1002	9.600E+00	7.111E-01	3.409E+00	4.109E-01	3.333E-01	3.333E-01	3.333E-01	3.394E-01	9.346E-01	45	69	5
100	1001	1002	9.750E+00	7.681E-01	3.405E+00	4.092E-01	3.225E-01	3.225E-01	3.225E-01	3.427E-01	9.350E-01	45	69	5

TABLE A-1. (Continued.)

N	ZA _p	ZA _t	E	$\sigma_{\min}$	$\sigma_{\min}$	D/E _{min}	σ D/E _{min}	σ D/E _∞	σ D/E _l	$\bar{\mu}_p$	$\bar{\mu}_t$	R	Y	NP
101	1001	1002	1.000E+01	7.742E-01	3.388E+00	4.046E-01	3.133F-01	3.133E-01	3.133E-01	3.519E-01	9.354E-01	45	69	5
102	1001	1002	1.025E+01	7.479E-01	3.312E+00	4.046E-01	3.026E-01	3.026E-01	3.026E-01	3.515E-01	9.355E-01	45	69	5
103	1001	1002	1.047E+01	7.510E-01	3.363E+00	4.190E-01	3.147E-01	3.147E-01	3.148E-01	3.265E-01	9.331E-01	45	69	32
104	1001	1002	1.050E+01	7.324E-01	3.283E+00	4.032E-01	2.953E-01	2.953E-01	2.953E-01	3.548E-01	9.355E-01	45	69	5
105	1001	1002	1.075E+01	7.212E-01	3.272E+00	3.987E-01	2.876E-01	2.876E-01	2.876E-01	3.632E-01	9.360E-01	45	69	5
106	1001	1002	1.100E+01	6.018E-01	3.221E+00	3.971E-01	2.782E-01	2.782E-01	2.782E-01	3.652E-01	9.360E-01	45	69	5
107	1001	1002	1.125E+01	6.188E-01	3.188E+00	4.938E-01	2.705E-01	2.705E-01	2.705E-01	3.722E-01	9.360E-01	45	69	5
108	1001	1002	1.147E+01	6.452E-01	3.023E+00	4.050E-01	2.620E-01	2.620E-01	2.620E-01	3.540E-01	9.341E-01	45	69	23
109	1001	1002	1.150E+01	6.737E-01	3.161E+00	3.927E-01	2.645E-01	2.645E-01	2.645E-01	3.762E-01	9.363E-01	45	69	5
110	1001	1002	1.218E+01	6.422E-01	3.101E+00	3.649E-01	2.343E-01	2.343E-01	2.343E-01	3.433E-01	9.388E-01	46	60	36
111	1001	1002	2.500E+01	2.106E+00	1.456E+00	4.119E-01	8.674E-01	8.674E-01	8.674E-01	4.207E-01	9.147E-01	50	42	8
112	1001	1002	2.500E-01	2.036E+00	1.477E+00	4.396E-01	8.948E-01	8.948E-01	8.923E-01	3.714E-01	9.109E-01	50	42	8
113	1001	1002	4.974E+00	1.331E+00	5.108E+00	4.212E-01	5.607E-01	5.607E-01	5.610E-01	3.360E-01	9.292E-01	61	50	14
114	1001	1002	8.250E+00	2.003E+00	5.18E+00	5.193E-01	1.040E+00	1.040E+00	1.040E+00	7.53E-01	9.121E-01	67	47	8
115	1001	1002	1.510E+00	2.302E+00	3.913E+00	5.267E-01	1.212E+00	1.212E+00	1.212E+00	1.474E-01	9.144E-01	67	47	16
116	1001	1002	2.080E+00	2.013E+00	4.016E+00	5.107E-01	1.028E+00	1.028E+00	1.028E+00	1.726E-01	9.175E-01	67	47	17
117	1001	1002	2.530E+00	1.919E+00	4.223E+00	4.895E-01	9.393E-01	9.393E-01	9.394E-01	2.096E-01	9.208E-01	67	47	17
118	1001	1002	3.000E+00	1.774E+00	4.251E+00	4.801E-01	8.518E-01	8.518E-01	8.519E-01	2.209E-01	9.237E-01	67	47	17
119	1001	1002	3.400E+00	1.637E+00	4.231E+00	4.698E-01	7.691E-01	7.691E-01	7.692E-01	2.420E-01	9.243E-01	67	47	16
120	1001	1002	1.014E+01	1.434E+00	3.18E+00	4.832E-01	6.930E-01	6.930E-01	6.931E-01	2.514E-01	9.148E-01	73	60	7
121	1001	1002	1.393E+01	5.497E-01	6.839E+00	3.355E-01	1.844E-01	1.844E-01	1.845E-01	4.901E-01	9.148E-01	73	60	42
122	1001	1002	1.490E+01	4.952E-01	6.444E+00	3.234E-01	1.601E-01	1.601E-01	1.603E-01	5.166E-01	9.422E-01	83	71	17
123	1001	1002	1.550E+01	4.652E-01	5.34E+00	3.186E-01	1.482E-01	1.482E-01	1.483E-01	5.264E-01	9.425E-01	83	71	17
124	1001	1002	1.620E+01	4.504E-01	5.09E+00	3.137E-01	1.413E-01	1.413E-01	1.415E-01	5.368E-01	9.428E-01	83	71	17
125	1001	1002	1.624E+01	4.567E-01	5.46E+00	3.229E-01	1.475E-01	1.475E-01	1.476E-01	5.128E-01	9.434E-01	83	71	40
126	1001	1002	1.690E+01	4.174E-01	3.74E+00	3.075E-01	1.284E-01	1.283E-01	1.286E-01	5.491E-01	9.433E-01	83	71	17
127	1001	1002	1.710E+01	4.299E-01	3.99E+00	3.061E-01	1.283E-01	1.283E-01	1.285E-01	5.516E-01	9.435E-01	83	71	17
128	1001	1002	1.740E+01	4.261E-01	3.97E+00	3.054E-01	1.361E-01	1.361E-01	1.361E-01	5.260E-01	9.435E-01	83	71	17
129	1001	1002	1.770E+01	4.013E-01	3.38E+00	3.030E-01	1.216E-01	1.216E-01	1.216E-01	5.505E-01	9.436E-01	83	71	17
130	1001	1002	1.850E+01	3.657E-01	2.176E+00	2.952E-01	1.079E-01	1.079E-01	1.081E-01	5.749E-01	9.441E-01	83	71	17
131	1001	1002	1.852E+01	3.702E-01	2.205E+00	3.058E-01	1.136E-01	1.136E-01	1.137E-01	5.453E-01	9.447E-01	83	71	46
132	1001	1002	1.900E+01	3.556E-01	2.144E+00	2.920E-01	1.038E-01	1.038E-01	1.040E-01	5.816E-01	9.442E-01	83	71	17
133	1001	1002	1.960E+01	3.528E-01	2.161E+00	2.879E-01	1.016E-01	1.016E-01	1.017E-01	5.894E-01	9.446E-01	83	71	17
134	1001	1002	1.990E+01	3.378E-01	2.085E+00	2.853E-01	9.636E-02	9.636E-02	9.648E-02	5.954E-01	9.447E-01	83	71	17
135	1001	1002	1.990E+01	3.457E-01	2.134E+00	2.884E-01	9.311E-01	9.311E-01	9.344E-01	5.623E-01	9.453E-01	83	71	17
136	1001	1002	1.780E+00	3.93E+00	3.93E+00	2.992E-01	4.472E-01	4.472E-01	4.472E-01	6.498E-01	9.334E-01	89	71	40
137	1001	1002	2.200E+01	3.140E-01	2.038E+00	2.763E-01	8.677E-02	8.677E-02	8.684E-02	6.129E-01	9.455E-01	94	68	42
138	1001	1003	1.360E+01	8.153E-01	4.160E+00	2.108E-01	1.718E-01	1.718E-01	1.718E-01	5.847E-01	9.770E-01	12	71	25
139	1001	1003	1.623E+01	6.764E-01	3.770E+00	2.025E-01	1.370E-01	1.370E-01	1.372E-01	6.035E-01	9.776E-01	12	71	25
140	1001	1003	1.948E+01	5.499E-01	3.358E+00	1.955E-01	1.075E-01	1.075E-01	1.076E-01	6.179E-01	9.783E-01	12	71	25
141	1001	1003	1.360E+01	1.106E+00	5.645E+00	2.906E-01	3.215E-01	3.215E-01	3.217E-01	4.065E-01	9.704E-01	15	74	6
142	1001	1003	1.122E+00	1.966E+00	3.960E+00	4.177E-01	8.211E-01	8.211E-01	8.211E-01	9.786E-02	9.484E-01	23	51	13
143	1001	1003	2.480E+00	2.221E+00	8.97E+00	4.875E-01	7.635E-01	7.635E-01	7.635E-01	2.723E-01	9.688E-01	23	51	14
144	1001	1003	2.740E+00	1.145E+00	4.912E+00	3.401E-01	7.295E-01	7.295E-01	7.302E-01	2.818E-01	9.688E-01	23	51	14
145	1001	1003	3.030E+00	2.078E+00	5.005E+00	3.145E-01	6.534E-01	6.534E-01	6.542E-01	3.445E-01	9.700E-01	23	51	14
146	1001	1003	3.250E+00	1.960E+00	4.890E+00	3.188E-01	6.250E-01	6.250E-01	6.257E-01	3.328E-01	9.700E-01	23	51	14
147	1001	1003	3.500E+00	2.027E+00	5.246E+00	2.879E-01	5.835E-01	5.835E-01	5.845E-01	4.048E-01	9.720E-01	23	51	13
148	1001	1003	9.900E-01	1.820E+00	2.505E+00	4.753E-01	8.649E-01	8.631E-01	8.631E-01	-3.139E-02	9.598E-01	35	54	14
149	1001	1003	1.019E+00	1.912E+00	2.671E+00	4.679E-01	8.948E-01	8.938E-01	8.938E-01	-7.300E-03	9.592E-01	35	54	15
150	1001	1003	1.049E+00	1.732E+00	2.455E+00	4.809E-01	8.331E-01	8.321E-01	8.321E-01	-4.374E-02	9.594E-01	35	54	14

TABLE A-1. (Continued.)

[illegible]

TABLE A-1. (Continued.)

N	ZA _p	ZA _t	E	$\sigma_{\min}$	$\sigma_{V\min}$	D/E _{min}	σ D/E _{min}	σ D/E _{co}	σ D/E _l	$\bar{\mu}_p$	$\bar{\mu}_t$	R	Y	NP
201	1001	1003	4.150E+00	1.712E+00	4.825E+00	3.002E-01	5.140E-01	5.140E-01	5.149E-01	3.747E-01	9.715E-01	92	76	17
202	1001	1003	4.450E+00	1.522E+00	4.735E+00	3.970E-01	4.818E-01	4.818E-01	4.826E-01	3.834E-01	9.716E-01	92	76	17
203	1001	1003	4.810E+00	1.605E+00	4.865E+00	3.850E-01	4.589E-01	4.589E-01	4.607E-01	3.947E-01	9.722E-01	92	76	17
204	1001	1003	5.200E+00	1.675E+00	4.976E+00	3.788E-01	4.308E-01	4.308E-01	4.317E-01	4.234E-01	9.732E-01	92	76	17
205	1001	1003	5.400E+00	1.507E+00	4.844E+00	3.781E-01	4.190E-01	4.190E-01	4.199E-01	4.260E-01	9.730E-01	92	76	17
206	1001	1003	5.750E+00	1.481E+00	4.912E+00	3.746E-01	4.066E-01	4.066E-01	4.075E-01	4.341E-01	9.733E-01	92	76	17
207	1001	1003	6.050E+00	1.429E+00	4.652E+00	3.669E-01	3.815E-01	3.815E-01	3.824E-01	4.519E-01	9.738E-01	92	76	17
208	1001	1003	6.350E+00	1.442E+00	5.028E+00	3.561E-01	3.692E-01	3.692E-01	3.703E-01	4.774E-01	9.744E-01	92	76	16
209	1001	1003	6.650E+00	1.406E+00	5.017E+00	3.571E-01	3.614E-01	3.614E-01	3.624E-01	4.741E-01	9.745E-01	92	76	17
210	1001	1003	7.100E+00	1.333E+00	4.913E+00	3.507E-01	3.341E-01	3.341E-01	3.351E-01	4.890E-01	9.749E-01	92	76	17
211	1001	1003	7.400E+00	1.257E+00	4.618E+00	3.481E-01	3.043E-01	3.043E-01	3.053E-01	4.951E-01	9.751E-01	92	76	17
212	1001	1003	7.700E+00	1.256E+00	4.823E+00	3.472E-01	3.106E-01	3.106E-01	3.115E-01	4.990E-01	9.749E-01	92	76	17
213	1001	1003	8.000E+00	1.210E+00	4.736E+00	3.444E-01	2.958E-01	2.958E-01	2.967E-01	5.050E-01	9.752E-01	92	76	17
214	1001	1003	8.400E+00	1.164E+00	4.668E+00	3.362E-01	2.750E-01	2.750E-01	2.760E-01	5.236E-01	9.757E-01	92	76	17
215	1001	1003	8.700E+00	1.103E+00	4.501E+00	3.354E-01	2.597E-01	2.597E-01	2.606E-01	5.251E-01	9.758E-01	92	76	17
216	1001	1003	9.000E+00	1.094E+00	4.541E+00	3.341E-01	2.561E-01	2.561E-01	2.570E-01	5.281E-01	9.759E-01	92	76	17
217	1001	1003	9.300E+00	1.061E+00	4.476E+00	3.311E-01	2.451E-01	2.452E-01	2.461E-01	5.351E-01	9.761E-01	92	76	17
218	1001	1003	9.600E+00	1.025E+00	4.393E+00	3.10E-01	2.367E-01	2.367E-01	2.376E-01	5.357E-01	9.761E-01	92	76	17
219	1001	1003	9.900E+00	1.042E+00	4.336E+00	2.87E-01	2.383E-01	2.383E-01	2.392E-01	5.477E-01	9.761E-01	92	76	17
220	1001	1003	1.100E+01	9.976E-01	4.578E+00	2.164E-01	2.158E-01	2.158E-01	2.162E-01	5.666E-01	9.767E-01	92	76	23
221	1001	1003	1.150E+01	8.867E-01	4.160E+00	2.277E-01	2.019E-01	2.019E-01	2.022E-01	5.464E-01	9.758E-01	92	76	22
222	1001	1003	1.200E+01	8.909E-01	4.270E+00	2.198E-01	1.959E-01	1.959E-01	1.963E-01	5.650E-01	9.762E-01	92	76	20
223	1003	6.500E+00	1.431E+00	5.047E+00	3.421E-01	4.894E-01	4.894E-01	4.894E-01	4.894E-01	2.675E-01	9.706E-01	9	60	34
224	1003	8.300E+00	1.244E+00	4.959E+00	3.011E-01	3.747E-01	3.747E-01	3.747E-01	3.747E-01	3.707E-01	9.720E-01	9	60	35
225	1003	8.300E+00	1.244E+00	4.959E+00	3.011E-01	3.747E-01	3.747E-01	3.747E-01	3.747E-01	3.707E-01	9.720E-01	9	60	35
226	1003	1.623E+01	6.555E-01	3.654E+00	3.320E-01	1.521E-01	1.521E-01	1.521E-01	1.522E-01	5.414E-01	9.748E-01	11	71	25
227	1003	1.948E+01	5.107E-01	3.118E+00	2.00E-01	1.123E-01	1.123E-01	1.123E-01	1.124E-01	5.694E-01	9.756E-01	11	71	25
228	1003	1.010E+01	1.041E+00	1.447E+00	4.483E-01	4.665E-01	4.622E-01	4.620E-01	4.620E-01	5.309E-02	9.583E-01	34	54	11
229	1003	1.600E+00	1.121E+00	1.962E+00	4.836E-01	5.421E-01	5.369E-01	5.322E-01	5.322E-01	5.526E-02	9.585E-01	34	54	11
230	1003	2.500E+00	1.187E+00	2.463E+00	5.057E-01	6.001E-01	5.956E-01	5.954E-01	5.954E-01	1.092E-01	9.591E-01	34	54	11
231	1001	3.510E+00	1.311E+00	3.404E+00	4.753E-01	6.231E-01	6.216E-01	6.214E-01	6.214E-01	5.50E-02	9.623E-01	34	54	11
232	1001	3.400E+00	8.431E-01	5.55E+00	4.37E+00	5.280E-01	4.280E-01	4.280E-01	4.280E-01	2.104E-01	9.568E-01	54	64	5
233	1001	3.550E+00	4.422E+00	4.137E+00	4.121E-01	5.862E-01	5.858E-01	5.858E-01	5.858E-01	1.037E-01	9.661E-01	54	64	5
234	1001	3.590E+00	8.750E-01	2.593E+00	5.538E-01	4.845E-01	4.709E-01	4.664E-01	4.664E-01	2.436E-01	9.597E-01	54	64	5
235	1001	3.800E+00	8.631E-01	2.616E+00	5.500E-01	4.747E-01	4.633E-01	4.590E-01	4.590E-01	2.354E-01	9.600E-01	54	64	5
236	1001	3.980E+00	8.154E-01	2.518E+00	5.553E-01	4.527E-01	4.388E-01	4.346E-01	4.346E-01	2.470E-01	9.596E-01	54	64	5
237	1001	3.190E+00	8.454E-01	2.665E+00	5.387E-01	4.555E-01	4.473E-01	4.433E-01	4.433E-01	2.070E-01	9.605E-01	54	64	5
238	1001	3.380E+00	7.893E-01	2.533E+00	3.98E-01	4.261E-01	4.169E-01	4.131E-01	4.131E-01	2.082E-01	9.602E-01	54	64	5
239	1001	3.510E+00	1.431E+00	5.55E+00	4.37E+00	5.280E-01	4.280E-01	4.280E-01	4.280E-01	2.104E-01	9.568E-01	54	64	5
240	1001	3.620E+00	7.838E-01	2.511E+00	3.857E-01	4.444E-01	4.079E-01	4.043E-01	4.043E-01	1.806E-01	9.607E-01	54	64	5
241	1001	3.790E+00	8.026E-01	2.673E+00	5.153E-01	4.136E-01	4.085E-01	4.051E-01	4.051E-01	1.454E-01	9.610E-01	54	64	5
242	1001	3.990E+00	7.684E-01	2.602E+00	5.208E-01	4.001E-01	3.946E-01	3.913E-01	3.913E-01	1.582E-01	9.606E-01	54	64	5
243	1001	3.6190E+00	7.558E-01	2.601E+00	5.084E-01	3.842E-01	3.800E-01	3.769E-01	3.769E-01	1.281E-01	9.612E-01	54	64	5
244	1001	3.6390E+00	7.891E-01	2.760E+00	4.852E-01	3.829E-01	3.801E-01	3.771E-01	3.771E-01	7.019E-02	9.622E-01	54	64	5
245	1001	3.6520E+00	1.373E+00	4.849E+00	3.339E-01	4.584E-01	4.584E-01	4.584E-01	4.584E-01	2.917E-01	9.702E-01	54	64	5
246	1001	3.690E+00	7.691E-01	2.732E+00	4.809E-01	3.698E-01	3.673E-01	3.645E-01	3.645E-01	1.984E-01	9.624E-01	54	64	5
247	1001	3.690E+00	7.891E-01	2.732E+00	4.809E-01	3.698E-01	3.673E-01	3.645E-01	3.645E-01	1.984E-01	9.624E-01	54	64	5
248	1001	3.690E+00	8.293E-01	2.990E+00	4.498E-01	3.730E-01	3.716E-01	3.689E-01	3.689E-01	1.476E-02	9.641E-01	54	64	5
249	1001	3.690E+00	7.881E-01	2.882E+00	4.513E-01	3.557E-01	3.542E-01	3.515E-01	3.515E-01	1.271E-02	9.638E-01	54	64	5
250	1001	3.690E+00	7.469E-01	2.769E+00	4.609E-01	3.442E-01	3.425E-01	3.399E-01	3.399E-01	740E-03	9.632E-01	54	64	5

TABLE A-1. (Continued.)

N	ZA _p	ZA _t	E	$\sigma_{\min}$	$\sigma_{\max}$	D/E _{min}	σ D/E _{min}	σ D/E _{co}	σ D/E _l	σ_p	μ_t	R	Y	NP
251	1001	2003	7.390E+00	7.433E-01	2.796E+00	4.427E-01	3.290E-01	3.274E-01	3.253E-01	3.304E-02	9.643E-01	5.4	6.4	5
252	1001	2003	7.510E+00	1.290E+00	4.393E+00	3.096E-01	3.995E-01	3.996E-01	3.996E-01	3.514E-01	9.713E-01	5.4	6.4	22
253	1001	2003	7.590E+00	7.569E-01	2.885E+00	4.335E-01	3.281E-01	3.270E-01	3.247E-01	5.773E-02	9.644E-01	5.4	6.4	5
254	1001	2003	7.790E+00	7.541E-01	2.913E+00	4.218E-01	3.181E-01	3.172E-01	3.150E-01	8.522E-02	9.651E-01	5.4	6.4	5
255	1001	2003	7.990E+00	7.832E-01	3.063E+00	4.047E-01	3.170E-01	3.164E-01	3.143E-01	1.270E-01	9.659E-01	5.4	6.4	5
256	1001	2003	8.190E+00	7.502E-01	2.971E+00	4.089E-01	3.037E-01	3.011E-01	3.168E-01	9.657E-01	5.4	6.4	5	
257	1001	2003	8.390E+00	7.359E-01	2.949E+00	4.032E-01	2.967E-01	2.962E-01	2.942E-01	1.715E-01	9.659E-01	5.4	6.4	5
258	1001	2003	8.510E+00	1.194E+00	4.818E+00	2.913E-01	3.476E-01	3.476E-01	3.477E-01	3.963E-01	9.721E-01	5.4	6.4	22
259	1001	2003	8.590E+00	7.277E-01	2.951E+00	4.004E-01	2.914E-01	2.910E-01	2.891E-01	1.373E-01	9.661E-01	5.4	6.4	5
260	1001	2003	8.790E+00	6.955E-01	2.853E+00	4.035E-01	2.895E-01	2.801E-01	2.783E-01	1.315E-01	9.657E-01	5.4	6.4	5
261	1001	2003	8.990E+00	7.022E-01	2.914E+00	3.945E-01	2.770E-01	2.763E-01	2.749E-01	1.340E-01	9.660E-01	5.4	6.4	5
262	1001	2003	9.190E+00	7.211E-01	3.025E+00	3.825E-01	2.756E-01	2.756E-01	2.740E-01	1.825E-01	9.657E-01	5.4	6.4	5
263	1001	2003	9.390E+00	7.075E-01	3.005E+00	3.764E-01	2.83E-01	2.83E-01	2.846E-01	1.761E-01	9.657E-01	5.4	6.4	5
264	1001	2003	9.510E+00	1.109E+00	4.730E+00	2.780E-01	3.083E-01	3.083E-01	3.083E-01	4.235E-01	9.728E-01	5.4	6.4	21
265	1001	2003	9.590E+00	7.132E-01	3.056E+00	3.697E-01	2.637E-01	2.635E-01	2.621E-01	2.132E-01	9.674E-01	5.4	6.4	5
266	1001	2003	9.780E+00	6.479E-01	2.303E+00	3.819E-01	2.474E-01	2.472E-01	2.457E-01	1.848E-01	9.666E-01	5.4	6.4	5
267	1001	2003	9.980E+00	6.305E-01	2.756E+00	3.809E-01	2.402E-01	2.400E-01	2.386E-01	1.875E-01	9.666E-01	5.4	6.4	5
268	1001	2003	1.019E+01	6.486E-01	2.864E+00	3.564E-01	2.389E-01	2.388E-01	2.375E-01	2.154E-01	9.672E-01	5.4	6.4	5
269	1001	2003	1.038E+01	1.037E+00	4.623E+00	2.584E-01	2.784E-01	2.784E-01	2.785E-01	4.521E-01	9.732E-01	5.4	6.4	20
270	1001	2003	1.039E+01	6.361E-01	2.837E+00	3.675E-01	2.312E-01	2.311E-01	2.298E-01	2.295E-01	9.673E-01	5.4	6.4	5
271	1001	2003	1.148E+01	9.428E-01	4.420E+00	2.590E-01	2.442E-01	2.441E-01	2.442E-01	1.755E-01	9.705E-01	5.4	6.4	17
272	1001	2003	9.755E+00	1.195E+00	5.162E+00	2.505E-01	2.993E-01	2.993E-01	2.997E-01	4.392E-01	9.756E-01	7.1	5.6	27
273	1001	2003	1.800E+01	3.044E-01	3.348E+00	2.236E-01	1.352E-01	1.352E-01	1.353E-01	5.614E-01	9.753E-01	7.2	7.5	25
274	1001	2003	1.980E+01	4.684E-01	2.883E+00	2.077E-01	9.731E-02	9.731E-02	9.739E-02	5.991E-01	9.761E-01	7.2	7.5	34
275	1001	2003	2.250E+01	4.037E-01	2.349E+00	2.090E-01	8.438E-02	8.438E-02	8.449E-02	5.952E-01	9.762E-01	7.2	7.5	34
276	1001	2003	4.000E+00	1.379E+00	3.816E+00	4.420E-01	6.096E-01	6.086E-01	6.049E-01	3.284E-02	9.644E-01	7.4	6.4	18
277	1001	2003	5.510E+00	1.410E+00	4.581E+00	3.655E-01	3.156E-01	3.156E-01	3.156E-01	2.159E-01	9.685E-01	7.4	6.4	18
278	1001	2003	6.820E+00	1.334E+00	4.820E+00	3.232E-01	4.311E-01	4.311E-01	4.311E-01	3.120E-01	9.707E-01	7.4	6.4	18
279	1001	2003	6.820E+00	1.164E+00	4.762E+00	2.853E-01	3.320E-01	3.320E-01	3.321E-01	4.107E-01	9.725E-01	7.4	6.4	18
280	1001	2003	1.077E+01	9.998E-01	4.540E+00	2.618E-01	2.347E-01	2.347E-01	2.651E-01	4.620E-01	9.72E-01	7.4	6.4	18
281	1001	2003	9.691E+00	1.143E+00	4.922E+00	2.755E-01	3.146E-01	3.146E-01	3.150E-01	4.158E-01	9.726E-01	9.0	60	14
282	1001	2004	9.480E+00	1.365E+00	5.815E+00	1.932E-01	2.719E-01	2.719E-01	2.722E-01	5.676E-01	9.816E-01	2.5	5.2	35
283	1001	2004	5.780E+00	1.306E+00	5.009E+00	2.207E-01	3.987E-01	3.987E-01	3.990E-01	4.19E-01	9.824E-01	3.3	5.4	27
284	1001	2004	9.760E+00	1.170E+00	5.057E+00	2.169E-01	2.538E-01	2.538E-01	2.539E-01	4.622E-01	9.834E-01	5.8	5.5	23
285	1001	2004	9.500E+00	6.426E-01	3.333E-01	4.121E-01	2.648E-01	2.640E-01	2.639E-01	1.076E-01	9.799E-01	6.5	4.9	12
286	1001	2004	1.58E+01	1.022E+00	1.725E+00	7.73E-01	6.110E-01	6.110E-01	6.133E-01	3.136E-01	9.775E-01	7.4	5.7	13
287	1001	2004	1.700E+00	1.354E-01	2.441E+00	4.659E-01	6.110E-01	6.110E-01	6.133E-01	3.136E-01	9.775E-01	6.5	4.9	13
288	1001	2004	2.020E+00	2.180E+00	4.286E+00	4.092E-01	8.919E-01	8.857E-01	8.854E-01	1.13E-01	9.793E-01	6.5	4.9	15
289	1001	2004	2.220E+00	2.700E+00	5.565E+00	3.677E-01	9.927E-01	9.906E-01	9.904E-01	1.367E-01	9.800E-01	6.5	4.9	14
290	1001	2004	2.530E+00	3.205E+00	7.053E+00	3.131E-01	1.004E+00	1.004E+00	1.004E+00	1.754E-01	9.813E-01	6.5	4.9	16
291	1001	2004	3.040E+00	3.034E+00	7.320E+00	2.616E-01	7.938E-01	7.938E-01	7.939E-01	3.281E-01	9.824E-01	6.5	4.9	16
292	1001	2004	3.580E+00	2.631E+00	6.939E+00	2.412E-01	6.392E-01	6.393E-01	6.394E-01	3.899E-01	9.828E-01	6.5	4.9	18
293	1001	2004	1.330E+01	9.744E-01	4.917E+00	1.916E-01	1.867E-01	1.867E-01	1.867E-01	5.286E-01	9.850E-01	7.4	5.7	11
294	1001	2004	1.58E+01	8.014E-01	1.905E+00	1.900E-01	1.713E-01	1.713E-01	1.713E-01	5.330E-01	9.850E-01	7.4	5.7	11
295	1001	2004	1.505E+01	8.867E-01	4.760E+00	1.896E-01	1.681E-01	1.681E-01	1.681E-01	5.340E-01	9.851E-01	7.4	5.7	12
296	1001	2004	1.624E+01	9.956E-01	4.436E+00	1.884E-01	1.499E-01	1.499E-01	1.499E-01	5.375E-01	9.851E-01	7.4	5.7	12
297	1001	2004	1.676E+01	7.671E-01	4.345E+00	1.873E-01	1.437E-01	1.437E-01	1.437E-01	5.407E-01	9.851E-01	7.4	5.7	12
298	1001	2004	1.784E+01	7.131E-01	4.167E+00	1.872E-01	1.335E-01	1.335E-01	1.335E-01	5.40E-01	9.851E-01	7.4	5.7	12
299	1001	2004	1.204E+01	1.035E+00	4.969E+00	1.949E-01	2.018E-01	2.018E-01	2.021E-01	5.208E-01	9.846E-01	7.6	6.9	25
300	1001	2004	1.423E+01	9.029E-01	4.712E+00	1.884E-01	1.701E-01	1.701E-01	1.705E-01	5.383E-01	9.850E-01	7.6	6.9	26

TABLE A-1 (Continued)

N	Z _p	Z _A	E	θ mm	θ mm	D/E mm	D/E mm	D/E mm	D/E mm	θ mm	θ mm	R	Y	NP
301	1001	2004	7.55E-01	51.6E-01	31.4E-00	8.47E-01	1.38E-01	3.89E-01	3.89E-01	1.38E-01	3.89E-01	7.55E-01	51.6E-01	301
302	1001	2004	7.45E-01	51.5E-01	31.3E-00	8.37E-01	1.37E-01	3.79E-01	3.79E-01	1.37E-01	3.79E-01	7.45E-01	51.5E-01	302
303	1001	2004	7.35E-01	51.4E-01	31.2E-00	8.27E-01	1.36E-01	3.69E-01	3.69E-01	1.36E-01	3.69E-01	7.35E-01	51.4E-01	303
304	1001	2004	7.25E-01	51.3E-01	31.1E-00	8.17E-01	1.35E-01	3.59E-01	3.59E-01	1.35E-01	3.59E-01	7.25E-01	51.3E-01	304
305	1001	2004	7.15E-01	51.2E-01	31.0E-00	8.07E-01	1.34E-01	3.49E-01	3.49E-01	1.34E-01	3.49E-01	7.15E-01	51.2E-01	305
306	1001	2004	7.05E-01	51.1E-01	30.9E-00	7.97E-01	1.33E-01	3.39E-01	3.39E-01	1.33E-01	3.39E-01	7.05E-01	51.1E-01	306
307	1001	2004	6.95E-01	51.0E-01	30.8E-00	7.87E-01	1.32E-01	3.29E-01	3.29E-01	1.32E-01	3.29E-01	6.95E-01	51.0E-01	307
308	1001	2004	6.85E-01	50.9E-01	30.7E-00	7.77E-01	1.31E-01	3.19E-01	3.19E-01	1.31E-01	3.19E-01	6.85E-01	50.9E-01	308
309	1001	2004	6.75E-01	50.8E-01	30.6E-00	7.67E-01	1.30E-01	3.09E-01	3.09E-01	1.30E-01	3.09E-01	6.75E-01	50.8E-01	309
310	1001	2004	6.65E-01	50.7E-01	30.5E-00	7.57E-01	1.29E-01	2.99E-01	2.99E-01	1.29E-01	2.99E-01	6.65E-01	50.7E-01	310
311	1001	2004	6.55E-01	50.6E-01	30.4E-00	7.47E-01	1.28E-01	2.89E-01	2.89E-01	1.28E-01	2.89E-01	6.55E-01	50.6E-01	311
312	1001	2004	6.45E-01	50.5E-01	30.3E-00	7.37E-01	1.27E-01	2.79E-01	2.79E-01	1.27E-01	2.79E-01	6.45E-01	50.5E-01	312
313	1001	2004	6.35E-01	50.4E-01	30.2E-00	7.27E-01	1.26E-01	2.69E-01	2.69E-01	1.26E-01	2.69E-01	6.35E-01	50.4E-01	313
314	1001	2004	6.25E-01	50.3E-01	30.1E-00	7.17E-01	1.25E-01	2.59E-01	2.59E-01	1.25E-01	2.59E-01	6.25E-01	50.3E-01	314
315	1001	2004	6.15E-01	50.2E-01	30.0E-00	7.07E-01	1.24E-01	2.49E-01	2.49E-01	1.24E-01	2.49E-01	6.15E-01	50.2E-01	315
316	1001	2004	6.05E-01	50.1E-01	29.9E-00	6.97E-01	1.23E-01	2.39E-01	2.39E-01	1.23E-01	2.39E-01	6.05E-01	50.1E-01	316
317	1001	2004	5.95E-01	50.0E-01	29.8E-00	6.87E-01	1.22E-01	2.29E-01	2.29E-01	1.22E-01	2.29E-01	5.95E-01	50.0E-01	317
318	1001	2004	5.85E-01	49.9E-01	29.7E-00	6.77E-01	1.21E-01	2.19E-01	2.19E-01	1.21E-01	2.19E-01	5.85E-01	49.9E-01	318
319	1001	2004	5.75E-01	49.8E-01	29.6E-00	6.67E-01	1.20E-01	2.09E-01	2.09E-01	1.20E-01	2.09E-01	5.75E-01	49.8E-01	319
320	1001	2004	5.65E-01	49.7E-01	29.5E-00	6.57E-01	1.19E-01	1.99E-01	1.99E-01	1.19E-01	1.99E-01	5.65E-01	49.7E-01	320
321	1001	2004	5.55E-01	49.6E-01	29.4E-00	6.47E-01	1.18E-01	1.89E-01	1.89E-01	1.18E-01	1.89E-01	5.55E-01	49.6E-01	321
322	1001	2004	5.45E-01	49.5E-01	29.3E-00	6.37E-01	1.17E-01	1.79E-01	1.79E-01	1.17E-01	1.79E-01	5.45E-01	49.5E-01	322
323	1001	2004	5.35E-01	49.4E-01	29.2E-00	6.27E-01	1.16E-01	1.69E-01	1.69E-01	1.16E-01	1.69E-01	5.35E-01	49.4E-01	323
324	1001	2004	5.25E-01	49.3E-01	29.1E-00	6.17E-01	1.15E-01	1.59E-01	1.59E-01	1.15E-01	1.59E-01	5.25E-01	49.3E-01	324
325	1001	2004	5.15E-01	49.2E-01	29.0E-00	6.07E-01	1.14E-01	1.49E-01	1.49E-01	1.14E-01	1.49E-01	5.15E-01	49.2E-01	325
326	1001	2004	5.05E-01	49.1E-01	28.9E-00	5.97E-01	1.13E-01	1.39E-01	1.39E-01	1.13E-01	1.39E-01	5.05E-01	49.1E-01	326
327	1001	2004	4.95E-01	49.0E-01	28.8E-00	5.87E-01	1.12E-01	1.29E-01	1.29E-01	1.12E-01	1.29E-01	4.95E-01	49.0E-01	327
328	1001	2004	4.85E-01	48.9E-01	28.7E-00	5.77E-01	1.11E-01	1.19E-01	1.19E-01	1.11E-01	1.19E-01	4.85E-01	48.9E-01	328
329	1001	2004	4.75E-01	48.8E-01	28.6E-00	5.67E-01	1.10E-01	1.09E-01	1.09E-01	1.10E-01	1.09E-01	4.75E-01	48.8E-01	329
330	1001	2004	4.65E-01	48.7E-01	28.5E-00	5.57E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01	4.65E-01	48.7E-01	330
331	1001	2004	4.55E-01	48.6E-01	28.4E-00	5.47E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	4.55E-01	48.6E-01	331
332	1001	2004	4.45E-01	48.5E-01	28.3E-00	5.37E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	4.45E-01	48.5E-01	332
333	1001	2004	4.35E-01	48.4E-01	28.2E-00	5.27E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	4.35E-01	48.4E-01	333
334	1001	2004	4.25E-01	48.3E-01	28.1E-00	5.17E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	4.25E-01	48.3E-01	334
335	1001	2004	4.15E-01	48.2E-01	28.0E-00	5.07E-01	1.04E-01	1.04E-01	1.04E-01	1.04E-01	1.04E-01	4.15E-01	48.2E-01	335
336	1001	2004	4.05E-01	48.1E-01	27.9E-00	4.97E-01	1.03E-01	1.03E-01	1.03E-01	1.03E-01	1.03E-01	4.05E-01	48.1E-01	336
337	1001	2004	3.95E-01	48.0E-01	27.8E-00	4.87E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	3.95E-01	48.0E-01	337
338	1001	2004	3.85E-01	47.9E-01	27.7E-00	4.77E-01	1.01E-01	1.01E-01	1.01E-01	1.01E-01	1.01E-01	3.85E-01	47.9E-01	338
339	1001	2004	3.75E-01	47.8E-01	27.6E-00	4.67E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	3.75E-01	47.8E-01	339
340	1001	2004	3.65E-01	47.7E-01	27.5E-00	4.57E-01	9.9E-02	9.9E-02	9.9E-02	9.9E-02	9.9E-02	3.65E-01	47.7E-01	340
341	1001	2004	3.55E-01	47.6E-01	27.4E-00	4.47E-01	9.8E-02	9.8E-02	9.8E-02	9.8E-02	9.8E-02	3.55E-01	47.6E-01	341
342	1001	2004	3.45E-01	47.5E-01	27.3E-00	4.37E-01	9.7E-02	9.7E-02	9.7E-02	9.7E-02	9.7E-02	3.45E-01	47.5E-01	342
343	1001	2004	3.35E-01	47.4E-01	27.2E-00	4.27E-01	9.6E-02	9.6E-02	9.6E-02	9.6E-02	9.6E-02	3.35E-01	47.4E-01	343
344	1001	2004	3.25E-01	47.3E-01	27.1E-00	4.17E-01	9.5E-02	9.5E-02	9.5E-02	9.5E-02	9.5E-02	3.25E-01	47.3E-01	344
345	1001	2004	3.15E-01	47.2E-01	27.0E-00	4.07E-01	9.4E-02	9.4E-02	9.4E-02	9.4E-02	9.4E-02	3.15E-01	47.2E-01	345
346	1001	2004	3.05E-01	47.1E-01	26.9E-00	3.97E-01	9.3E-02	9.3E-02	9.3E-02	9.3E-02	9.3E-02	3.05E-01	47.1E-01	346
347	1001	2004	2.95E-01	47.0E-01	26.8E-00	3.87E-01	9.2E-02	9.2E-02	9.2E-02	9.2E-02	9.2E-02	2.95E-01	47.0E-01	347
348	1001	2004	2.85E-01	46.9E-01	26.7E-00	3.77E-01	9.1E-02	9.1E-02	9.1E-02	9.1E-02	9.1E-02	2.85E-01	46.9E-01	348
349	1001	2004	2.75E-01	46.8E-01	26.6E-00	3.67E-01	9.0E-02	9.0E-02	9.0E-02	9.0E-02	9.0E-02	2.75E-01	46.8E-01	349
350	1001	2004	2.65E-01	46.7E-01	26.5E-00	3.57E-01	8.9E-02	8.9E-02	8.9E-02	8.9E-02	8.9E-02	2.65E-01	46.7E-01	350

TABLE A-1. (Continued.)

N	ZA _p	ZA _t	E	d _{min}	dV _{min}	D/E _{min}	D/E _{max}	D/E ₀₀	D/E ₁	σ_p	σ_t	R	Y	NP
351	1001	2004	5.000E+00	2.173E+00	6.721E+00	2.182E-01	4.741E-01	4.741E-01	4.745E-01	4.577E-01	9.833E-01	97	58	17
352	1001	2004	1.116E+01	1.360E+00	6.234E+00	2.339E-01	3.181E-01	3.181E-01	3.132E-01	4.126E-01	9.827E-01	98	77	6
353	1001	2004	1.204E+01	1.071E+00	5.142E+00	1.935E-01	2.073E-01	2.073E-01	2.075E-01	5.234E-01	9.849E-01	98	77	22
354	1001	2004	1.360E+01	1.027E+00	2.239E+00	2.099E-01	2.135E-01	2.135E-01	2.135E-01	4.774E-01	9.841E-01	98	77	6
355	1001	2004	1.432E+01	9.094E-01	4.762E+00	1.871E-01	1.702E-01	1.702E-01	1.703E-01	5.424E-01	9.860E-01	98	77	9
356	1001	2004	5.000E-01	5.721E-01	5.597E-01	3.777E-01	1.949E-01	1.949E-01	1.948E-01	1.251E-01	9.768E-01	99	74	10
357	1001	2004	7.500E-01	5.500E-01	6.590E-01	4.144E-01	2.280E-01	2.265E-01	2.262E-01	0.55E-01	9.759E-01	99	74	10
358	1001	2004	9.500E-01	5.983E-01	8.068E-01	4.391E-01	2.327E-01	2.576E-01	2.569E-01	1.407E-01	9.761E-01	99	74	16
359	1001	2004	1.490E+00	7.375E+00	1.243E+01	1.172E-01	8.644E-01	6.62E-01	6.763E-01	7.15E-01	9.909E-01	99	74	15
360	1001	2004	1.750E+00	1.560E+00	2.855E+00	4.580E-01	7.146E-01	7.030E-01	7.010E-01	2.644E-01	9.78E-01	99	74	10
361	1001	2004	2.000E+00	2.141E+00	4.189E+00	1.109E-01	8.798E-01	8.77E-01	8.705E-01	1.112E-01	9.790E-01	99	74	30
362	1001	2004	2.250E+00	2.759E+00	5.759E+00	3.644E-01	1.003E+00	1.001E+00	1.001E+00	2.145E-02	9.691E-01	99	74	20
363	1001	2004	2.500E+00	3.190E+00	6.978E+00	3.228E-01	1.005E+00	1.029E+00	1.029E+00	1.180E-01	9.699E-01	99	74	12
364	1001	2004	2.750E+00	2.893E+00	6.639E+00	2.708E-01	7.333E-01	7.835E-01	7.835E-01	2.935E-01	9.828E-01	99	74	10
365	1001	2004	3.020E+00	3.068E+00	7.376E+00	2.748E-01	8.430E-01	8.430E-01	8.433E-01	2.907E-01	9.819E-01	99	74	10
366	1001	2004	3.250E+00	2.317E+00	5.780E+00	2.433E-01	5.539E-01	5.539E-01	5.539E-01	3.851E-01	9.825E-01	99	74	5
367	1002	1002	1.050E+01	1.013E+00	3.214E+00	2.058E-01	2.085E-01	2.035E-01	2.044E-01	8.878E-01	9.878E-01	6	52	15
368	1002	1002	6.000E+00	1.346E+00	3.228E+00	2.162E-01	2.910E-01	2.910E-01	2.922E-01	8.818E-01	9.818E-01	9	60	16
369	1002	1002	8.200E+00	1.152E+00	3.230E+00	2.146E-01	2.474E-01	2.474E-01	2.479E-01	8.827E-01	9.827E-01	9	60	16
370	1002	1002	1.210E+01	9.463E-01	3.222E+00	1.975E-01	1.868E-01	1.869E-01	1.869E-01	8.924E-01	9.924E-01	9	60	6
371	1002	1002	1.380E+01	9.403E-01	3.273E+00	1.940E-01	1.746E-01	1.746E-01	1.746E-01	8.944E-01	9.944E-01	9	60	16
372	1002	1002	1.231E+01	9.475E-01	3.254E+00	1.951E-01	1.848E-01	1.848E-01	1.853E-01	8.938E-01	9.938E-01	15	74	17
373	1002	1002	4.460E+00	1.563E+00	3.232E+00	2.148E-01	3.358E-01	3.358E-01	3.376E-01	8.825E-01	9.825E-01	42	69	22
374	1002	1002	5.460E+00	1.367E+00	3.127E+00	2.168E-01	2.963E-01	2.963E-01	2.977E-01	8.814E-01	9.814E-01	42	69	22
375	1002	1002	6.470E+00	1.361E+00	3.388E+00	2.107E-01	2.867E-01	2.867E-01	2.883E-01	8.848E-01	9.848E-01	42	69	22
376	1002	1002	8.510E+00	1.007E+00	2.875E+00	2.232E-01	2.248E-01	2.248E-01	2.255E-01	8.778E-01	9.778E-01	42	69	22
377	1002	1002	9.530E+00	1.093E+00	3.311E+00	2.260E-01	2.260E-01	2.251E-01	2.273E-01	8.874E-01	9.874E-01	42	69	22
378	1002	1002	1.055E+01	9.779E-01	3.108E+00	2.023E-01	1.978E-01	1.979E-01	1.989E-01	8.995E-01	9.995E-01	42	69	22
379	1002	1002	1.157E+01	9.238E-01	3.075E+00	2.020E-01	1.965E-01	1.866E-01	1.876E-01	8.998E-01	9.998E-01	42	69	22
380	1002	1002	8.000E+00	1.077E+00	2.981E+00	1.978E-01	2.130E-01	2.130E-01	2.144E-01	8.920E-01	9.920E-01	52	51	6
381	1002	1002	1.080E+01	9.524E-01	3.063E+00	0.031E-01	1.935E-01	1.935E-01	1.940E-01	8.991E-01	9.991E-01	62	49	8
382	1002	1002	8.700E-01	3.113E+00	2.841E+00	8.874E-01	5.833E-01	5.833E-01	5.833E-01	8.978E-01	9.978E-01	68	48	8
383	1002	1002	1.430E+00	2.204E+00	2.579E+00	1.111E-01	4.553E-01	4.553E-01	4.712E-01	8.843E-01	9.843E-01	68	48	9
384	1002	1002	1.960E+00	1.961E+00	6.877E+00	1.51E-01	4.218E-01	4.218E-01	4.230E-01	8.82E-01	9.82E-01	68	48	9
385	1002	1002	1.804E+00	2.785E+00	2.927E+00	1.785E-01	3.730E-01	3.730E-01	3.730E-01	8.813E-01	9.813E-01	68	48	9
386	1002	1002	3.020E+00	1.721E+00	2.927E+00	1.68E-01	3.730E-01	3.730E-01	3.740E-01	8.813E-01	9.813E-01	68	48	9
387	1002	1002	3.320E+00	1.634E+00	3.001E+00	2.168E-01	3.543E-01	3.543E-01	3.559E-01	8.813E-01	9.813E-01	68	48	9
388	1002	1002	1.000E+01	1.012E+00	3.133E+00	2.045E-01	2.069E-01	2.039E-01	2.080E-01	8.883E-01	9.883E-01	80	49	5
389	1002	1003	9.600E-01	1.551E+00	1.487E+00	5.423E-01	8.412E-01	8.314E-01	8.304E-01	4.107E-01	8.223E-01	4	52	6
390	1002	1003	1.200E+00	1.313E+00	1.408E+00	5.558E-01	7.293E-01	7.283E-01	7.275E-01	3.72E-01	8.223E-01	4	52	6
391	1002	1003	1.460E+00	1.174E+00	1.388E+00	5.731E-01	6.728E-01	6.708E-01	6.704E-01	3.93E-01	8.24E-01	4	52	6
392	1002	1003	1.91E+00	1.260E+00	1.360E+00	5.519E-01	6.505E-01	6.505E-01	6.505E-01	3.93E-01	8.23E-01	4	52	6
393	1002	1003	2.100E+00	9.272E-01	1.315E+00	6.801E-01	8.120E-01	8.120E-01	8.112E-01	1.160E-01	8.29E-01	4	52	6
394	1002	1003	2.460E+00	1.020E+00	1.566E+00	6.690E-01	6.822E-01	6.821E-01	6.821E-01	6.663E-02	8.295E-01	4	52	3
395	1002	1003	2.710E+00	1.023E+00	1.638E+00	6.873E-01	7.031E-01	7.030E-01	7.030E-01	1.379E-02	8.235E-01	4	52	3
396	1002	1003	2.990E+00	1.094E+00	1.851E+00	6.840E-01	7.483E-01	7.483E-01	7.483E-01	2.910E-02	8.294E-01	4	52	4
397	1002	1003	3.220E+00	1.093E+00	1.920E+00	7.181E-01	7.850E-01	7.850E-01	7.850E-01	2.06E-02	8.359E-01	1	52	3
398	1002	1003	1.020E+01	1.256E+00	3.927E+00	5.103E-01	5.103E-01	5.103E-01	5.112E-01	4.609E-01	9.967E-01	5	52	33
399	1002	1003	5.600E+00	1.582E+00	3.518E+00	9.799E-01	9.340E-01	9.340E-01	9.342E-01	1.267E-01	9.623E-01	9	60	37
400	1002	1003	5.903E+00	1.623E+00	3.872E+00	5.593E-01	9.108E-01	9.106E-01	9.109E-01	1.326E-01	9.599E-01	9	60	39

TABLE A-1. (Continued.)

[illegible]

TABLE A-1. (Continued.)

N	Z _p	Z _A	Z _T	E	t _{min}	t _{max}	D/E _{min}	D/E _{max}	D/E _{min}	D/E _{max}	D/E _{min}	D/E _{max}	t _p	R	Y	NP
431	1002	1003	1003	780E+00	00	4	190E+00	00	6	191E-01	01	192E-01	193E-01	43	68	12
432	1002	1003	1003	790E+00	00	4	185E+00	00	6	185E-01	01	186E-01	187E-01	43	68	12
433	1002	1003	1003	800E+00	00	4	180E+00	00	6	180E-01	01	181E-01	182E-01	43	68	12
434	1002	1003	1003	810E+00	00	4	175E+00	00	6	175E-01	01	176E-01	177E-01	43	68	12
435	1002	1003	1003	820E+00	00	4	170E+00	00	6	170E-01	01	171E-01	172E-01	43	68	12
436	1002	1003	1003	830E+00	00	4	165E+00	00	6	165E-01	01	166E-01	167E-01	43	68	12
437	1002	1003	1003	840E+00	00	4	160E+00	00	6	160E-01	01	161E-01	162E-01	43	68	12
438	1002	1003	1003	850E+00	00	4	155E+00	00	6	155E-01	01	156E-01	157E-01	43	68	12
439	1002	1003	1003	860E+00	00	4	150E+00	00	6	150E-01	01	151E-01	152E-01	43	68	12
440	1002	1003	1003	870E+00	00	4	145E+00	00	6	145E-01	01	146E-01	147E-01	43	68	12
441	1002	1003	1003	880E+00	00	4	140E+00	00	6	140E-01	01	141E-01	142E-01	43	68	12
442	1002	1003	1003	890E+00	00	4	135E+00	00	6	135E-01	01	136E-01	137E-01	43	68	12
443	1002	1003	1003	900E+00	00	4	130E+00	00	6	130E-01	01	131E-01	132E-01	43	68	12
444	1002	1003	1003	910E+00	00	4	125E+00	00	6	125E-01	01	126E-01	127E-01	43	68	12
445	1002	1003	1003	920E+00	00	4	120E+00	00	6	120E-01	01	121E-01	122E-01	43	68	12
446	1002	1003	1003	930E+00	00	4	115E+00	00	6	115E-01	01	116E-01	117E-01	43	68	12
447	1002	1003	1003	940E+00	00	4	110E+00	00	6	110E-01	01	111E-01	112E-01	43	68	12
448	1002	1003	1003	950E+00	00	4	105E+00	00	6	105E-01	01	106E-01	107E-01	43	68	12
449	1002	1003	1003	960E+00	00	4	100E+00	00	6	100E-01	01	101E-01	102E-01	43	68	12
450	1002	1003	1003	970E+00	00	4	95E+00	00	6	95E-01	01	96E-01	97E-01	43	68	12
451	1002	1003	1003	980E+00	00	4	90E+00	00	6	90E-01	01	91E-01	92E-01	43	68	12
452	1002	1003	1003	990E+00	00	4	85E+00	00	6	85E-01	01	86E-01	87E-01	43	68	12
453	1002	1003	1003	1000E+00	00	4	80E+00	00	6	80E-01	01	81E-01	82E-01	43	68	12
454	1002	1003	1003	1010E+00	00	4	75E+00	00	6	75E-01	01	76E-01	77E-01	43	68	12
455	1002	1003	1003	1020E+00	00	4	70E+00	00	6	70E-01	01	71E-01	72E-01	43	68	12
456	1002	1003	1003	1030E+00	00	4	65E+00	00	6	65E-01	01	66E-01	67E-01	43	68	12
457	1002	1003	1003	1040E+00	00	4	60E+00	00	6	60E-01	01	61E-01	62E-01	43	68	12
458	1002	1003	1003	1050E+00	00	4	55E+00	00	6	55E-01	01	56E-01	57E-01	43	68	12
459	1002	1003	1003	1060E+00	00	4	50E+00	00	6	50E-01	01	51E-01	52E-01	43	68	12
460	1002	1003	1003	1070E+00	00	4	45E+00	00	6	45E-01	01	46E-01	47E-01	43	68	12
461	1002	1003	1003	1080E+00	00	4	40E+00	00	6	40E-01	01	41E-01	42E-01	43	68	12
462	1002	1003	1003	1090E+00	00	4	35E+00	00	6	35E-01	01	36E-01	37E-01	43	68	12
463	1002	1003	1003	1100E+00	00	4	30E+00	00	6	30E-01	01	31E-01	32E-01	43	68	12
464	1002	1003	1003	1110E+00	00	4	25E+00	00	6	25E-01	01	26E-01	27E-01	43	68	12
465	1002	1003	1003	1120E+00	00	4	20E+00	00	6	20E-01	01	21E-01	22E-01	43	68	12
466	1002	1003	1003	1130E+00	00	4	15E+00	00	6	15E-01	01	16E-01	17E-01	43	68	12
467	1002	1003	1003	1140E+00	00	4	10E+00	00	6	10E-01	01	11E-01	12E-01	43	68	12
468	1002	1003	1003	1150E+00	00	4	5E+00	00	6	5E-01	01	6E-01	7E-01	43	68	12
469	1002	1003	1003	1160E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
470	1002	1003	1003	1170E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
471	1002	1003	1003	1180E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
472	1002	1003	1003	1190E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
473	1002	1003	1003	1200E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
474	1002	1003	1003	1210E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
475	1002	1003	1003	1220E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
476	1002	1003	1003	1230E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
477	1002	1003	1003	1240E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
478	1002	1003	1003	1250E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
479	1002	1003	1003	1260E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
480	1002	1003	1003	1270E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
481	1002	1003	1003	1280E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
482	1002	1003	1003	1290E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
483	1002	1003	1003	1300E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
484	1002	1003	1003	1310E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
485	1002	1003	1003	1320E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
486	1002	1003	1003	1330E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
487	1002	1003	1003	1340E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
488	1002	1003	1003	1350E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
489	1002	1003	1003	1360E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
490	1002	1003	1003	1370E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
491	1002	1003	1003	1380E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
492	1002	1003	1003	1390E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
493	1002	1003	1003	1400E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
494	1002	1003	1003	1410E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
495	1002	1003	1003	1420E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
496	1002	1003	1003	1430E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
497	1002	1003	1003	1440E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
498	1002	1003	1003	1450E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
499	1002	1003	1003	1460E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12
500	1002	1003	1003	1470E+00	00	4	0E+00	00	6	0E-01	01	1E-01	2E-01	43	68	12

TABLE A-1 (Continued.)

N	ZA _p	ZA _t	E	$\sigma_{\min}$	$\sigma_{\max}$	D/E _{min}	σ D/E _{min}	σ D/E _{co}	σ D/E _t	$\bar{\mu}_p$	$\bar{\mu}_t$	R	Y	NP
501	1002	2003	7.630E+00	1.491E+00	4.030E+00	4.142E-01	6.621E-01	6.321E-01	6.634E-01	3.905E-01	8.913E-01	10	67	7
502	1002	2003	7.970E+00	1.451E+00	4.008E+00	4.381E-01	6.355E-01	6.355E-01	6.368E-01	4.015E-01	8.918E-01	10	67	7
503	1002	2003	7.990E+00	1.340E+00	3.727E+00	4.566E-01	6.155E-01	6.155E-01	6.165E-01	3.728E-01	8.877E-01	10	67	10
504	1002	2003	8.300E+00	1.353E+00	3.819E+00	4.560E-01	6.171E-01	6.171E-01	6.182E-01	3.720E-01	8.879E-01	10	67	7
505	1002	2003	8.490E+00	1.432E+00	4.083E+00	4.705E-01	6.236E-01	6.236E-01	6.247E-01	3.530E-01	8.831E-01	10	67	9
506	1002	2003	8.990E+00	1.397E+00	4.100E+00	4.531E-01	6.329E-01	6.329E-01	6.340E-01	3.838E-01	8.859E-01	10	67	9
507	1002	2003	9.490E+00	1.370E+00	4.130E+00	4.403E-01	6.031E-01	6.031E-01	6.043E-01	4.052E-01	8.883E-01	10	67	9
508	1002	2003	9.990E+00	1.530E+00	4.733E+00	4.876E-01	7.461E-01	7.461E-01	7.473E-01	3.372E-01	8.737E-01	10	67	8
509	1002	2004	1.049E+01	1.482E+00	4.997E+00	7.764E-01	7.060E-01	7.060E-01	7.072E-01	3.558E-01	9.760E-01	10	67	9
510	1002	2003	1.099E+01	1.835E+00	5.954E+00	5.244E-01	6.923E-01	6.923E-01	6.935E-01	3.110E-01	8.561E-01	10	67	7
511	1002	2003	1.000E+01	1.190E+00	3.683E+00	3.849E-01	4.380E-01	4.380E-01	4.381E-01	5.020E-01	8.787E-01	15	74	25
512	1002	2003	1.205E+01	1.051E+00	3.559E+00	3.537E-01	3.716E-01	3.716E-01	3.722E-01	5.580E-01	9.037E-01	51	72	26
513	1002	2003	1.294E+01	1.052E+00	3.703E+00	3.337E-01	3.510E-01	3.510E-01	3.516E-01	5.928E-01	9.077E-01	51	72	26
514	1002	2003	1.379E+01	1.025E+00	3.727E+00	3.162E-01	3.243E-01	3.243E-01	3.249E-01	6.192E-01	9.106E-01	51	72	26
515	1002	2003	1.950E+01	7.601E-01	3.285E+00	2.752E-01	2.091E-01	2.091E-01	2.093E-01	6.853E-01	9.180E-01	90	60	25
516	1002	2004	9.200E-01	1.642E+00	1.541E+00	4.094E-01	6.704E-01	6.661E-01	6.665E-01	4.205E-01	9.177E-01	8	55	7
517	1002	2004	9.500E-01	1.525E+00	1.458E+00	4.426E-01	6.749E-01	6.689E-01	6.691E-01	3.569E-01	9.133E-01	8	55	7
518	1002	2004	9.800E-01	1.601E+00	1.332E+00	4.464E-01	7.149E-01	7.092E-01	6.995E-01	3.454E-01	9.139E-01	8	55	7
519	1002	2004	1.000E+00	1.663E+00	1.647E+00	4.531E-01	7.627E-01	7.575E-01	7.479E-01	3.274E-01	9.144E-01	8	55	7
520	1002	2004	1.020E+00	1.767E+00	1.767E+00	4.818E-01	8.508E-01	8.552E-01	8.456E-01	2.634E-01	9.132E-01	8	55	7
521	1002	2004	1.030E+00	1.369E+00	1.856E+00	5.079E-01	9.490E-01	9.429E-01	9.332E-01	2.060E-01	9.119E-01	8	55	7
522	1002	2004	1.040E+00	1.973E+00	1.696E+00	5.573E-01	1.093E+00	1.091E+00	1.081E+00	9.816E-02	9.093E-01	8	55	7
523	1002	2004	1.050E+00	2.389E+00	2.395E+00	6.303E-01	1.506E+00	1.493E+00	1.485E+00	9.094E-02	9.078E-01	8	55	7
524	1002	2004	1.060E+00	3.112E+00	3.133E+00	6.303E-01	2.152E+00	2.152E+00	2.152E+00	9.060E-01	9.060E-01	8	55	7
525	1002	2004	1.070E+00	2.518E+00	3.581E+00	7.712E-01	2.729E+00	2.628E+00	2.616E+00	4.074E-01	9.070E-01	8	55	7
526	1002	2004	1.073E+00	3.675E+00	3.725E+00	7.797E-01	2.365E+00	2.702E+00	2.669E+00	4.313E-01	9.079E-01	8	55	7
527	1002	2004	1.060E+00	3.306E+00	3.363E+00	7.810E-01	2.555E+00	2.364E+00	2.351E+00	4.382E-01	9.083E-01	8	55	7
528	1002	2004	1.090E+00	2.215E+00	2.263E+00	7.703E-01	1.707E+00	1.518E+00	1.505E+00	4.009E-01	9.059E-01	8	55	7
529	1002	2004	1.100E+00	1.562E+00	1.604E+00	7.468E-01	1.167E+00	1.050E+00	1.038E+00	3.283E-01	9.019E-01	8	55	7
530	1002	2004	1.120E+00	1.216E+00	1.259E+00	6.791E-01	8.323E-01	8.61E-01	7.750E-01	1.450E-01	8.981E-01	8	55	7
531	1002	2004	1.130E+00	7.132E-01	1.259E+00	6.791E-01	8.323E-01	8.61E-01	7.750E-01	1.450E-01	8.981E-01	8	55	7
532	1002	2004	1.180E+00	1.047E+00	1.113E+00	6.924E-01	6.200E-01	5.667E-01	5.661E-01	6.407E-02	8.974E-01	8	55	7
533	1002	2004	1.220E+00	1.140E+00	1.232E+00	5.411E-01	5.171E-01	6.034E-01	5.933E-01	1.649E-01	8.931E-01	8	55	7
534	1002	2004	2.300E+00	8.522E-01	1.310E+00	5.368E-01	4.912E-01	4.776E-01	4.699E-01	1.482E-01	8.977E-01	8	55	9
535	1002	2004	2.600E+00	8.099E-01	1.279E+00	5.675E-01	4.396E-01	4.466E-01	4.396E-01	1.199E-01	8.983E-01	8	55	9
536	1002	2004	2.890E+00	7.644E-01	1.271E+00	5.853E-01	4.479E-01	4.342E-01	4.278E-01	8.428E-02	8.961E-01	8	55	9
537	1002	2004	3.170E+00	7.294E-01	1.271E+00	5.853E-01	4.479E-01	4.342E-01	4.278E-01	8.428E-02	8.961E-01	8	55	9
538	1002	2004	3.470E+00	7.272E-01	1.326E+00	6.345E-01	4.161E-01	4.479E-01	4.413E-01	3.590E-02	8.966E-01	8	55	9
540	1002	2004	3.750E+00	6.387E-01	1.191E+00	7.307E-01	4.594E-01	3.794E-01	3.705E-01	2.718E-01	8.973E-01	8	55	7
541	1002	2004	4.030E+00	9.278E-01	1.823E+00	6.943E-01	6.441E-01	6.709E-01	6.264E-01	2.036E-01	9.027E-01	8	55	9
542	1002	2004	4.340E+00	1.077E+00	2.196E+00	6.987E-01	7.326E-01	7.419E-01	7.378E-01	2.216E-01	9.046E-01	8	55	9
543	1002	2004	1.200E+01	5.966E-01	2.003E+00	4.071E-01	2.403E-01	2.406E-01	2.406E-01	3.794E-01	9.262E-01	16	71	23
544	1002	2004	1.030E+01	6.855E-01	2.156E+00	4.323E-01	2.958E-01	2.956E-01	2.968E-01	2.798E-01	9.239E-01	24	51	41
545	1002	2004	1.000E+01	1.523E-01	2.324E+00	5.109E-01	3.677E-01	3.732E-01	3.622E-01	1.155E-01	9.034E-01	31	53	5
546	1002	2004	1.069E+00	3.535E-01	3.035E+00	7.815E-01	2.803E+00	2.803E+00	2.819E-01	3.110E-01	9.063E-01	31	53	5
547	1002	2004	1.200E+00	1.125E+00	1.209E+00	5.817E-01	6.364E-01	6.355E-01	6.350E-01	8.649E-02	8.982E-01	31	53	5
548	1002	2004	5.000E+00	1.240E+00	2.973E+00	4.904E-01	5.030E-01	5.081E-01	6.003E-01	1.327E-01	9.257E-01	40	62	18
549	1002	2004	6.300E+00	1.145E+00	2.313E+00	4.616E-01	5.330E-01	5.350E-01	5.350E-01	1.581E-01	9.252E-01	40	62	37
550	1002	2004	7.100E+00	1.007E+00	2.626E+00	4.537E-01	4.713E-01	4.719E-01	4.722E-01	2.315E-01	9.267E-01	40	62	20

TABLE A-1. (Continued.)

N	ZA _p	ZA _t	E	σ_{min}	σ_{max}	D/E _{min}	σ D/E _{min}	σ D/E _{co}	σ D/E _t	$\bar{\sigma}_p$	$\bar{\sigma}_t$	R	Y	NP
551	1002	2004	7.500E+00	9.286E-01	2.489E+00	4.606E-01	4.277E-01	4.277E-01	4.279E-01	2.546E-01	9.257E-01	40	62	38
552	1002	2004	8.500E+00	7.774E-01	2.215E+00	4.549E-01	3.536E-01	3.536E-01	3.536E-01	2.739E-01	9.246E-01	40	62	20
553	1002	2004	8.800E+00	7.428E-01	2.156E+00	4.445E-01	3.302E-01	3.302E-01	3.302E-01	2.972E-01	9.248E-01	40	62	38
554	1002	2004	1.000E+01	6.217E-01	2.088E+00	4.253E-01	2.970E-01	2.970E-01	2.970E-01	3.765E-01	9.237E-01	40	62	27
555	1002	2004	1.000E+01	6.217E-01	2.088E+00	4.253E-01	2.970E-01	2.970E-01	2.970E-01	3.765E-01	9.237E-01	40	62	27
556	1002	2004	1.370E+01	5.385E-01	1.950E+00	3.799E-01	2.046E-01	2.046E-01	2.046E-01	4.318E-01	9.289E-01	40	62	34
557	1002	2004	2.933E+00	9.176E-01	1.539E+00	3.099E-01	4.673E-01	4.673E-01	4.673E-01	2.152E-01	9.083E-01	41	64	11
558	1002	2004	3.441E+00	9.266E-01	1.662E+00	3.322E-01	4.932E-01	4.932E-01	4.932E-01	1.529E-01	9.100E-01	41	64	11
559	1002	2004	3.946E+00	1.138E+00	2.214E+00	5.538E-01	6.304E-01	6.304E-01	6.304E-01	7.270E-02	9.165E-01	41	64	11
560	1002	2004	4.450E+00	1.459E+00	2.971E+00	6.411E-01	7.765E-01	7.765E-01	7.765E-01	5.127E-02	9.213E-01	41	64	11
561	1002	2004	4.731E+00	1.394E+00	2.969E+00	5.256E-01	7.329E-01	7.329E-01	7.329E-01	1.103E-01	9.234E-01	41	64	22
562	1002	2004	4.955E+00	1.595E+00	2.046E+00	3.191E-01	7.255E-01	7.255E-01	7.255E-01	1.239E-01	9.238E-01	41	64	20
563	1002	2004	5.473E+00	1.237E+00	2.831E+00	5.079E-01	6.280E-01	6.280E-01	6.280E-01	1.490E-01	9.242E-01	41	64	23
564	1002	2004	5.951E+00	1.157E+00	2.764E+00	4.981E-01	5.762E-01	5.762E-01	5.762E-01	1.702E-01	9.246E-01	41	64	21
565	1002	2004	6.476E+00	1.054E+00	2.624E+00	4.845E-01	5.105E-01	5.105E-01	5.105E-01	1.996E-01	9.252E-01	41	64	23
566	1002	2004	6.965E+00	9.91E-01	2.560E+00	4.753E-01	4.710E-01	4.710E-01	4.712E-01	2.195E-01	9.259E-01	41	64	23
567	1002	2004	7.479E+00	8.672E-01	2.321E+00	4.642E-01	4.026E-01	4.026E-01	4.026E-01	2.504E-01	9.249E-01	41	64	22
568	1002	2004	7.969E+00	8.428E-01	2.328E+00	4.576E-01	3.857E-01	3.857E-01	3.857E-01	2.639E-01	9.254E-01	41	64	24
569	1002	2004	8.481E+00	7.528E-01	2.145E+00	4.471E-01	3.366E-01	3.366E-01	3.366E-01	2.889E-01	9.255E-01	41	64	23
570	1002	2004	8.971E+00	7.417E-01	2.147E+00	4.454E-01	3.366E-01	3.366E-01	3.366E-01	2.968E-01	9.245E-01	41	64	25
571	1002	2004	9.482E+00	6.815E-01	2.054E+00	4.350E-01	2.964E-01	2.964E-01	2.964E-01	3.202E-01	9.249E-01	41	64	22
572	1002	2004	9.973E+00	5.792E-01	2.067E+00	4.321E-01	2.917E-01	2.917E-01	2.918E-01	3.285E-01	9.245E-01	41	64	24
573	1002	2004	1.047E+01	6.269E-01	1.986E+00	4.286E-01	2.687E-01	2.687E-01	2.689E-01	3.367E-01	9.245E-01	41	64	23
574	1002	2004	1.097E+01	6.225E-01	2.018E+00	4.220E-01	2.627E-01	2.627E-01	2.628E-01	3.523E-01	9.245E-01	41	64	23
575	1002	2004	1.147E+01	5.382E-01	1.949E+00	4.137E-01	2.433E-01	2.433E-01	2.435E-01	3.665E-01	9.257E-01	41	64	23
576	1002	2004	1.600E+00	1.271E+00	3.518E+00	1.475E-01	5.567E-01	5.567E-01	5.699E-01	2.732E-01	9.267E-01	53	52	37
577	1002	2004	1.70E+01	5.807E-01	2.104E+00	4.995E-01	1.903E-01	1.903E-01	1.903E-01	2.964E-01	9.271E-01	55	54	28
578	1002	2004	1.903E+00	3.420E-01	1.459E+00	3.628E-01	1.241E-01	1.241E-01	1.241E-01	4.717E-01	9.295E-01	55	54	39
579	1002	2004	4.000E+00	1.213E+00	2.384E+00	5.385E-01	6.799E-01	6.799E-01	6.799E-01	1.123E-02	9.164E-01	57	64	8
580	1002	2004	4.200E+00	1.358E+00	2.725E+00	5.476E-01	7.438E-01	7.438E-01	7.438E-01	6.927E-02	9.204E-01	57	64	8
581	1002	2004	4.400E+00	1.412E+00	3.360E+00	5.322E-01	7.674E-01	7.674E-01	7.674E-01	3.002E-02	9.243E-01	57	64	9
582	1002	2004	4.550E+00	1.499E+00	3.129E+00	5.311E-01	7.959E-01	7.959E-01	7.959E-01	9.797E-02	9.222E-01	57	64	29
583	1002	2004	4.600E+00	1.468E+00	3.081E+00	5.188E-01	7.315E-01	7.315E-01	7.315E-01	1.182E-01	9.251E-01	57	64	9
584	1002	2004	4.600E+00	1.468E+00	3.081E+00	5.188E-01	7.315E-01	7.315E-01	7.315E-01	1.182E-01	9.251E-01	57	64	9
585	1002	2004	5.000E+00	1.411E+00	3.088E+00	5.088E-01	7.178E-01	7.178E-01	7.178E-01	1.226E-01	9.250E-01	57	64	9
586	1002	2004	5.200E+00	1.360E+00	3.035E+00	5.031E-01	6.883E-01	6.883E-01	6.883E-01	1.500E-01	9.247E-01	57	64	9
587	1002	2004	5.400E+00	1.311E+00	2.989E+00	5.026E-01	6.603E-01	6.603E-01	6.603E-01	1.755E-01	9.249E-01	57	64	9
588	1002	2004	5.600E+00	1.266E+00	2.912E+00	4.979E-01	6.315E-01	6.315E-01	6.316E-01	1.553E-01	9.251E-01	57	64	9
589	1002	2004	5.767E+00	1.270E+00	2.960E+00	5.054E-01	6.419E-01	6.419E-01	6.420E-01	1.322E-01	9.247E-01	57	64	33
590	1002	2004	5.800E+00	1.222E+00	2.879E+00	4.941E-01	6.036E-01	6.036E-01	6.036E-01	1.750E-01	9.245E-01	57	64	9
591	1002	2004	6.000E+00	1.183E+00	2.836E+00	4.891E-01	5.755E-01	5.755E-01	5.768E-01	1.855E-01	9.268E-01	57	64	9
592	1002	2004	6.200E+00	1.116E+00	2.787E+00	4.846E-01	5.435E-01	5.435E-01	5.435E-01	1.948E-01	9.261E-01	57	64	9
593	1002	2004	6.400E+00	1.104E+00	2.734E+00	4.805E-01	5.305E-01	5.305E-01	5.307E-01	2.043E-01	9.263E-01	57	64	9
594	1002	2004	6.600E+00	1.065E+00	2.679E+00	4.745E-01	5.059E-01	5.059E-01	5.060E-01	2.168E-01	9.265E-01	57	64	9
595	1002	2004	7.200E+00	9.505E-01	2.495E+00	4.632E-01	4.403E-01	4.403E-01	4.403E-01	2.142E-01	9.267E-01	57	64	9
596	1002	2004	7.400E+00	9.149E-01	2.436E+00	4.596E-01	4.203E-01	4.203E-01	4.203E-01	2.538E-01	9.265E-01	57	64	9
597	1002	2004	7.600E+00	8.854E-01	2.389E+00	4.568E-01	4.044E-01	4.044E-01	4.046E-01	2.605E-01	9.265E-01	57	64	9
598	1002	2004	7.800E+00	8.600E-01	2.351E+00	4.550E-01	3.912E-01	3.912E-01	3.912E-01	2.661E-01	9.263E-01	57	64	9
599	1002	2004	8.000E+00	8.341E-01	2.309E+00	4.526E-01	3.775E-01	3.775E-01	3.777E-01	2.749E-01	9.263E-01	57	64	9
600	1002	2004	8.200E+00	8.094E-01	2.269E+00	4.501E-01	3.645E-01	3.645E-01	3.645E-01	2.786E-01	9.261E-01	57	64	9

TABLE A-1. (Continued.)

N	ZA _p	ZA _t	E	t _{min}	t _{max}	D/E _{min}	D/E _{max}	D/E _{min}	D/E _{max}	D/E _{min}	D/E _{max}	μ _p	μ _t	R	Y	NP
601	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
602	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
603	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
604	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
605	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
606	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
607	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
608	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
609	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
610	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
611	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
612	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
613	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
614	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
615	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
616	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
617	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
618	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
619	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
620	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
621	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
622	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
623	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
624	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
625	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
626	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
627	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
628	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
629	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
630	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
631	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
632	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
633	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
634	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
635	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
636	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
637	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
638	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
639	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
640	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
641	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
642	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
643	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
644	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
645	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
646	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
647	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
648	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
649	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0
650	1003	2004	4006	89	173	0	526	0	526	0	526	0	0	0	0	0

TABLE A-1. (Continued.)

[illegible]

TABLE A-1. (Continued.)

N	ZA _p	ZA _t	E	$\sigma_{\min}$	$\sigma_{\min}^{\text{IV}}$	D/E _{min}	σ D/E _{min}	σ D/E _∞	σ D/E _t	$\bar{\mu}_p$	$\bar{\mu}_t$	R	Y	NP
701	1003	2004	3.937E+00	1.964E+00	3.117E+00	3.677E-01	7.223E-01	7.223E-01	7.232E-01	5.652E-01	8.772E-01	43	68	8
702	1003	2004	3.975E+00	1.725E+00	3.751E+00	3.417E-01	5.836E-01	5.836E-01	5.904E-01	6.036E-01	8.854E-01	43	68	8
703	1003	2004	4.012E+00	1.587E+00	3.543E+00	3.224E-01	5.118E-01	5.118E-01	5.126E-01	6.340E-01	8.910E-01	43	68	8
704	1003	2004	4.051E+00	1.464E+00	3.566E+00	3.071E-01	4.494E-01	4.494E-01	4.502E-01	6.560E-01	8.962E-01	43	68	8
705	1003	2004	4.089E+00	1.380E+00	2.332E+00	3.676E-01	3.970E-01	3.970E-01	3.970E-01	6.909E-01	9.000E-01	43	68	8
706	1003	2004	4.127E+00	1.324E+00	1.51E+00	3.755E-01	3.695E-01	3.695E-01	3.706E-01	7.040E-01	9.053E-01	43	68	8
707	1003	2004	4.260E+00	1.222E+00	0.22E+00	3.779E-01	3.312E-01	3.312E-01	3.312E-01	7.442E-01	9.067E-01	43	68	8
708	1003	2004	4.431E+00	1.174E+00	1.977E+00	5.03E-01	2.938E-01	2.938E-01	2.943E-01	7.589E-01	9.080E-01	43	68	8
709	1003	2004	4.589E+00	1.151E+00	1.972E+00	5.16E-01	2.895E-01	2.895E-01	2.900E-01	7.604E-01	9.069E-01	43	68	8
710	1003	2004	4.740E+00	1.138E+00	1.983E+00	4.85E-01	2.829E-01	2.829E-01	2.834E-01	7.667E-01	9.073E-01	43	68	8
711	1003	2004	4.890E+00	1.058E+00	1.871E+00	3.30E-01	2.465E-01	2.465E-01	2.470E-01	7.774E-01	9.142E-01	43	68	7
712	1003	2004	5.003E+00	1.173E+00	0.99E+00	5.52E-01	2.94E-01	2.94E-01	2.94E-01	7.613E-01	9.040E-01	43	68	28
713	1003	2004	5.041E+00	1.138E+00	0.44E+00	5.52E-01	2.870E-01	2.870E-01	2.875E-01	7.646E-01	9.053E-01	43	68	8
714	1003	2004	5.192E+00	1.122E+00	0.44E+00	5.52E-01	2.862E-01	2.862E-01	2.867E-01	7.615E-01	9.038E-01	43	68	8
715	1003	2004	5.350E+00	1.120E+00	0.071E+00	5.541E-01	2.845E-01	2.845E-01	2.850E-01	7.631E-01	9.042E-01	43	68	8
716	1003	2004	5.501E+00	1.134E+00	1.28E+00	6.31E-01	2.385E-01	2.385E-01	2.390E-01	7.521E-01	9.009E-01	43	68	8
717	1003	2004	5.651E+00	1.133E+00	1.154E+00	2.689E-01	3.047E-01	3.047E-01	3.051E-01	7.462E-01	8.983E-01	43	68	8
718	1003	2004	5.302E+00	1.152E+00	2.20E+00	8.05E-01	3.231E-01	3.231E-01	3.236E-01	7.316E-01	8.943E-01	43	68	8
719	1003	2004	5.953E+00	1.137E+00	2.57E+00	8.30E-01	3.27E-01	3.27E-01	3.302E-01	7.251E-01	8.924E-01	43	68	8
720	1003	2004	6.104E+00	1.177E+00	3.26E+00	2.93E-01	3.476E-01	3.476E-01	3.476E-01	7.107E-01	8.890E-01	43	68	8
721	1003	2004	6.179E+00	1.240E+00	4.53E+00	3.037E-01	3.767E-01	3.767E-01	3.768E-01	7.028E-01	8.650E-01	43	68	28
722	1003	2004	6.262E+00	1.213E+00	4.27E+00	3.064E-01	3.717E-01	3.717E-01	3.722E-01	6.912E-01	8.881E-01	43	68	8
723	1003	2004	6.413E+00	1.251E+00	2.334E+00	3.215E-01	4.023E-01	4.023E-01	4.028E-01	6.747E-01	8.804E-01	43	68	8
724	1003	2004	6.563E+00	1.333E+00	2.731E+00	3.357E-01	4.438E-01	4.438E-01	4.444E-01	6.484E-01	8.770E-01	43	68	8
725	1003	2004	6.714E+00	1.377E+00	2.853E+00	3.556E-01	4.895E-01	4.895E-01	4.901E-01	6.234E-01	8.694E-01	43	68	8
726	1003	2004	6.655E+00	1.480E+00	3.100E+00	3.768E-01	5.375E-01	5.375E-01	5.382E-01	5.877E-01	8.641E-01	43	68	8
727	1003	2004	7.127E+00	1.572E+00	3.30E+00	4.93E-01	6.19E-01	6.19E-01	6.19E-01	5.933E-01	8.603E-01	43	68	8
728	1003	2004	7.165E+00	1.635E+00	4.96E+00	5.084E-01	6.669E-01	6.669E-01	6.675E-01	5.271E-01	8.581E-01	43	68	8
729	1003	2004	7.324E+00	1.689E+00	3.655E+00	4.178E-01	7.056E-01	7.056E-01	7.064E-01	5.055E-01	8.576E-01	43	68	8
730	1003	2004	7.354E+00	1.778E+00	3.858E+00	4.154E-01	7.367E-01	7.367E-01	7.389E-01	5.066E-01	8.587E-01	43	68	29
731	1003	2004	7.475E+00	1.636E+00	3.687E+00	4.180E-01	7.046E-01	7.046E-01	7.054E-01	4.931E-01	8.595E-01	43	68	8
732	1003	2004	7.626E+00	1.645E+00	3.633E+00	4.147E-01	6.821E-01	6.821E-01	6.829E-01	4.953E-01	8.624E-01	43	68	8
733	1003	2004	7.776E+00	1.582E+00	3.328E+00	4.096E-01	6.460E-01	6.460E-01	6.467E-01	4.980E-01	8.661E-01	43	68	8
734	1003	2004	7.927E+00	1.191E+00	3.407E+00	4.035E-01	6.102E-01	6.102E-01	6.102E-01	5.102E-01	8.606E-01	43	68	8
735	1003	2004	8.178E+00	1.380E+00	2.251E+00	3.945E-01	6.442E-01	6.442E-01	6.449E-01	5.122E-01	8.731E-01	43	68	8
736	1003	2004	8.229E+00	1.364E+00	3.130E+00	3.762E-01	5.131E-01	5.131E-01	5.133E-01	5.437E-01	8.769E-01	43	68	30
737	1003	2004	8.130E+00	1.337E+00	1.561E+00	2.781E-01	3.718E-01	3.718E-01	3.721E-01	7.441E-01	8.953E-01	47	71	12
738	1003	2004	8.460E+00	1.233E+00	1.547E+00	2.407E-01	2.957E-01	2.957E-01	2.973E-01	7.891E-01	9.036E-01	47	71	11
739	1003	2004	8.980E+00	1.185E+00	1.636E+00	2.367E-01	2.804E-01	2.804E-01	2.808E-01	6.056E-01	9.075E-01	47	71	11
740	1003	2004	1.710E+00	1.624E+00	1.593E+00	2.819E-01	4.573E-01	4.573E-01	4.590E-01	6.96E-01	9.033E-01	53	36	12
741	1003	2004	2.150E+00	1.048E+00	1.229E+00	2.849E-01	2.965E-01	2.965E-01	2.965E-01	6.385E-01	9.033E-01	53	36	12
742	1003	2004	1.916E+00	1.191E+00	1.31E+00	3.72E-01	6.102E-01	6.102E-01	6.102E-01	5.102E-01	8.606E-01	43	68	8
743	1003	2003	1.900E+01	1.837E-01	5.891E-01	3.071E-01	6.712E-02	6.348E-02	6.295E-02	6.304E-01	8.304E-01	14	70	5
744	2003	2003	2.000E+01	3.305E-01	1.182E+00	2.779E-01	9.184E-02	9.184E-02	9.187E-02	8.474E-01	8.474E-01	14	70	19
745	2003	2003	9.080E+00	9.553E-02	2.302E-01	3.585E-01	3.425E-02	2.532E-02	2.577E-02	7.989E-01	7.989E-01	43	68	14
746	2003	2003	1.107E+01	8.826E-02	2.348E-01	3.524E-01	3.110E-02	2.544E-02	2.502E-02	8.027E-01	8.027E-01	43	68	14
747	2003	2003	1.186E+01	9.111E-02	2.510E-01	3.487E-01	3.177E-02	2.704E-02	2.679E-02	8.050E-01	8.050E-01	87	68	6
748	2003	2003	1.287E+01	1.082E-01	3.104E-01	3.474E-01	3.758E-02	3.384E-02	3.362E-02	8.056E-01	8.056E-01	87	68	6
749	2003	2003	1.388E+01	1.065E-01	3.173E-01	3.367E-01	3.585E-02	3.246E-02	3.227E-02	8.124E-01	8.124E-01	87	68	6
750	2003	2003	1.468E+01	1.401E-01	4.323E-01	3.342E-01	4.633E-02	4.402E-02	4.355E-02	8.137E-01	8.137E-01	37	68	6

TABLE A-1. (Continued.)

[illegible]

TABLE A-1. (Continued.)

N	Z _A _p	Z _A _t	E	$\sigma_{\min}$	$\sigma_{V_{\min}}$	D/E _{min}	$nD/E_{\min}$	nD/E_{∞}	nD/E_1	$\bar{\mu}_p$	$\bar{\mu}_t$	R	Y	NP
801	2004	2004	1.832E+01	7.703E-01	2.897+00	2.348E-01	809E-01	1.809E-01	1.812E-01	8.934E-01	8.934E-01	30	53	15
802	2004	2004	1.947E+01	8.795E-01	2.567+00	1.118E-01	1.775E-01	1.177E-01	1.173E-01	8.934E-01	8.934E-01	30	53	15
803	2004	2004	2.038E+01	8.128E-01	2.547+00	1.926E-01	1.565E-01	1.565E-01	1.574E-01	8.934E-01	8.934E-01	30	53	15
804	2004	2004	2.560+00	1.00E-01	2.88E-01	3.679E-01	2.04E-01	1.365E-01	1.324E-01	7.932E-01	7.932E-01	39	53	13
805	2004	2004	3.664E+00	2.04E-01	2.81E-01	5.974E-01	0.44E-01	0.50E-01	0.52E-01	8.06E-01	8.06E-01	39	53	13
806	2004	2004	4.079E+00	2.16E-01	2.69E-01	2.625E-01	0.27E-01	0.29E-01	0.27E-01	8.06E-01	8.06E-01	39	53	13
807	2004	2004	4.793E+00	2.16E-01	2.78E-01	2.625E-01	0.27E-01	0.29E-01	0.27E-01	8.06E-01	8.06E-01	39	53	13
808	2004	2004	5.764E+00	2.307E-01	2.647E-01	2.074E-01	0.226E-01	0.10E-01	0.12E-01	8.06E-01	8.06E-01	39	53	13

APPENDIX B: EVALUATED PARAMETERS

Table B-1 contains evaluated parameters for all 25 projectile/target combinations of p, d, t, ^3He , and α . The column headings have the following significance:

- N = Point counter,
- ZA_p = Projectile ZA,
- ZA_t = Target ZA,
- E = Projectile energy, in MeV,
- cv = Reaction rate, in barn*cm/ns,
- D/E = Average fractional energy loss per collision,
- $\sigma\text{D}/\text{E}$ = Average fractional energy loss per unit path length, in barns,
- $\bar{\mu}$ = Average cosine of laboratory scattering angle.

TABLE B-1. Evaluated parameters.

N	ZA_p	ZA_t	E	cv	D/E	$\sigma\text{D}/\text{E}$	$\bar{\mu}$
1	1001	1001	1.110E+01	1.110E+01	0.1	1.110E+01	0.1
2	1001	1001	5.000E+01	5.000E+01	0.1	5.000E+01	0.1
3	1001	1001	7.000E+01	7.000E+01	0.1	7.000E+01	0.1
4	1001	1001	1.000E+02	1.000E+02	0.1	1.000E+02	0.1
5	1001	1001	1.500E+02	1.500E+02	0.1	1.500E+02	0.1
6	1001	1001	2.000E+02	2.000E+02	0.1	2.000E+02	0.1
7	1001	1001	2.500E+02	2.500E+02	0.1	2.500E+02	0.1
8	1001	1001	3.000E+02	3.000E+02	0.1	3.000E+02	0.1
9	1001	1001	3.500E+02	3.500E+02	0.1	3.500E+02	0.1
10	1001	1001	4.000E+02	4.000E+02	0.1	4.000E+02	0.1
11	1001	1001	4.500E+02	4.500E+02	0.1	4.500E+02	0.1
12	1001	1001	5.000E+02	5.000E+02	0.1	5.000E+02	0.1
13	1001	1001	5.500E+02	5.500E+02	0.1	5.500E+02	0.1
14	1001	1001	6.000E+02	6.000E+02	0.1	6.000E+02	0.1
15	1001	1001	6.500E+02	6.500E+02	0.1	6.500E+02	0.1
16	1001	1001	7.000E+02	7.000E+02	0.1	7.000E+02	0.1
17	1001	1001	7.500E+02	7.500E+02	0.1	7.500E+02	0.1
18	1001	1001	8.000E+02	8.000E+02	0.1	8.000E+02	0.1
19	1001	1001	8.500E+02	8.500E+02	0.1	8.500E+02	0.1
20	1001	1001	9.000E+02	9.000E+02	0.1	9.000E+02	0.1
21	1001	1001	9.500E+02	9.500E+02	0.1	9.500E+02	0.1
22	1001	1001	1.000E+03	1.000E+03	0.1	1.000E+03	0.1
23	1001	1001	1.050E+03	1.050E+03	0.1	1.050E+03	0.1
24	1001	1001	1.100E+03	1.100E+03	0.1	1.100E+03	0.1
25	1001	1001	1.150E+03	1.150E+03	0.1	1.150E+03	0.1
26	1001	1001	1.200E+03	1.200E+03	0.1	1.200E+03	0.1
27	1001	1001	1.250E+03	1.250E+03	0.1	1.250E+03	0.1
28	1001	1001	1.300E+03	1.300E+03	0.1	1.300E+03	0.1
29	1001	1001	1.350E+03	1.350E+03	0.1	1.350E+03	0.1
30	1001	1001	1.400E+03	1.400E+03	0.1	1.400E+03	0.1
31	1001	1001	1.450E+03	1.450E+03	0.1	1.450E+03	0.1
32	1001	1001	1.500E+03	1.500E+03	0.1	1.500E+03	0.1
33	1001	1001	1.550E+03	1.550E+03	0.1	1.550E+03	0.1
34	1001	1001	1.600E+03	1.600E+03	0.1	1.600E+03	0.1
35	1001	1001	1.650E+03	1.650E+03	0.1	1.650E+03	0.1
36	1001	1001	1.700E+03	1.700E+03	0.1	1.700E+03	0.1
37	1001	1001	1.750E+03	1.750E+03	0.1	1.750E+03	0.1
38	1001	1001	1.800E+03	1.800E+03	0.1	1.800E+03	0.1
39	1001	1001	1.850E+03	1.850E+03	0.1	1.850E+03	0.1
40	1001	1001	1.900E+03	1.900E+03	0.1	1.900E+03	0.1
41	1001	1001	1.950E+03	1.950E+03	0.1	1.950E+03	0.1
42	1001	1001	2.000E+03	2.000E+03	0.1	2.000E+03	0.1
43	1001	1001	2.050E+03	2.050E+03	0.1	2.050E+03	0.1
44	1001	1001	2.100E+03	2.100E+03	0.1	2.100E+03	0.1
45	1001	1001	2.150E+03	2.150E+03	0.1	2.150E+03	0.1
46	1001	1001	2.200E+03	2.200E+03	0.1	2.200E+03	0.1
47	1001	1001	2.250E+03	2.250E+03	0.1	2.250E+03	0.1
48	1001	1001	2.300E+03	2.300E+03	0.1	2.300E+03	0.1
49	1001	1001	2.350E+03	2.350E+03	0.1	2.350E+03	0.1

TABLE B-1. (Continued.)

N	ZA _p	ZA _t	E	W	D/E	W/D/E	W
50	1001	1002	1.004E+01	1.004E+01	1.004E+01	1.004E+01	1.004E+01
51	1001	1002	1.150E+01	1.150E+01	1.150E+01	1.150E+01	1.150E+01
52	1001	1002	1.380E+01	1.380E+01	1.380E+01	1.380E+01	1.380E+01
53	1001	1002	1.550E+01	1.550E+01	1.550E+01	1.550E+01	1.550E+01
54	1001	1002	1.730E+01	1.730E+01	1.730E+01	1.730E+01	1.730E+01
55	1001	1002	1.920E+01	1.920E+01	1.920E+01	1.920E+01	1.920E+01
56	1001	1002	2.120E+01	2.120E+01	2.120E+01	2.120E+01	2.120E+01
57	1001	1003	6.400E+02	6.400E+02	6.400E+02	6.400E+02	6.400E+02
58	1001	1003	1.000E+03	1.000E+03	1.000E+03	1.000E+03	1.000E+03
59	1001	1003	1.250E+03	1.250E+03	1.250E+03	1.250E+03	1.250E+03
60	1001	1003	1.500E+03	1.500E+03	1.500E+03	1.500E+03	1.500E+03
61	1001	1003	1.750E+03	1.750E+03	1.750E+03	1.750E+03	1.750E+03
62	1001	1003	2.000E+03	2.000E+03	2.000E+03	2.000E+03	2.000E+03
63	1001	1003	2.250E+03	2.250E+03	2.250E+03	2.250E+03	2.250E+03
64	1001	1003	2.500E+03	2.500E+03	2.500E+03	2.500E+03	2.500E+03
65	1001	1003	2.750E+03	2.750E+03	2.750E+03	2.750E+03	2.750E+03
66	1001	1003	3.000E+03	3.000E+03	3.000E+03	3.000E+03	3.000E+03
67	1001	1003	3.250E+03	3.250E+03	3.250E+03	3.250E+03	3.250E+03
68	1001	1003	3.500E+03	3.500E+03	3.500E+03	3.500E+03	3.500E+03
69	1001	1003	3.750E+03	3.750E+03	3.750E+03	3.750E+03	3.750E+03
70	1001	1003	4.000E+03	4.000E+03	4.000E+03	4.000E+03	4.000E+03
71	1001	1003	4.250E+03	4.250E+03	4.250E+03	4.250E+03	4.250E+03
72	1001	1003	4.500E+03	4.500E+03	4.500E+03	4.500E+03	4.500E+03
73	1001	1003	4.750E+03	4.750E+03	4.750E+03	4.750E+03	4.750E+03
74	1001	1003	5.000E+03	5.000E+03	5.000E+03	5.000E+03	5.000E+03
75	1001	1003	5.250E+03	5.250E+03	5.250E+03	5.250E+03	5.250E+03
76	1001	1003	5.500E+03	5.500E+03	5.500E+03	5.500E+03	5.500E+03
77	1001	1003	5.750E+03	5.750E+03	5.750E+03	5.750E+03	5.750E+03
78	1001	1003	6.000E+03	6.000E+03	6.000E+03	6.000E+03	6.000E+03
79	1001	1003	6.250E+03	6.250E+03	6.250E+03	6.250E+03	6.250E+03
80	1001	1003	6.500E+03	6.500E+03	6.500E+03	6.500E+03	6.500E+03
81	1001	1003	6.750E+03	6.750E+03	6.750E+03	6.750E+03	6.750E+03
82	1001	1003	7.000E+03	7.000E+03	7.000E+03	7.000E+03	7.000E+03
83	1001	1003	7.250E+03	7.250E+03	7.250E+03	7.250E+03	7.250E+03
84	1001	1003	7.500E+03	7.500E+03	7.500E+03	7.500E+03	7.500E+03
85	1001	1003	7.750E+03	7.750E+03	7.750E+03	7.750E+03	7.750E+03
86	1001	1003	8.000E+03	8.000E+03	8.000E+03	8.000E+03	8.000E+03
87	1001	1003	8.250E+03	8.250E+03	8.250E+03	8.250E+03	8.250E+03
88	1001	1003	8.500E+03	8.500E+03	8.500E+03	8.500E+03	8.500E+03
89	1001	1003	8.750E+03	8.750E+03	8.750E+03	8.750E+03	8.750E+03
90	1001	1003	9.000E+03	9.000E+03	9.000E+03	9.000E+03	9.000E+03
91	1001	1003	9.250E+03	9.250E+03	9.250E+03	9.250E+03	9.250E+03
92	1001	1003	9.500E+03	9.500E+03	9.500E+03	9.500E+03	9.500E+03
93	1001	1003	9.750E+03	9.750E+03	9.750E+03	9.750E+03	9.750E+03
94	1001	1003	1.000E+04	1.000E+04	1.000E+04	1.000E+04	1.000E+04
95	1001	1003	1.025E+04	1.025E+04	1.025E+04	1.025E+04	1.025E+04
96	1001	1003	1.050E+04	1.050E+04	1.050E+04	1.050E+04	1.050E+04
97	1001	1003	1.075E+04	1.075E+04	1.075E+04	1.075E+04	1.075E+04
98	1001	1003	1.100E+04	1.100E+04	1.100E+04	1.100E+04	1.100E+04
99	1001	1003	1.125E+04	1.125E+04	1.125E+04	1.125E+04	1.125E+04
100	1001	1003	1.150E+04	1.150E+04	1.150E+04	1.150E+04	1.150E+04
101	1001	1003	1.175E+04	1.175E+04	1.175E+04	1.175E+04	1.175E+04
102	1001	1003	1.200E+04	1.200E+04	1.200E+04	1.200E+04	1.200E+04
103	1001	1003	1.225E+04	1.225E+04	1.225E+04	1.225E+04	1.225E+04
104	1001	1003	1.250E+04	1.250E+04	1.250E+04	1.250E+04	1.250E+04
105	1001	1003	1.275E+04	1.275E+04	1.275E+04	1.275E+04	1.275E+04
106	1001	1003	1.300E+04	1.300E+04	1.300E+04	1.300E+04	1.300E+04
107	1001	1003	1.325E+04	1.325E+04	1.325E+04	1.325E+04	1.325E+04
108	1001	1003	1.350E+04	1.350E+04	1.350E+04	1.350E+04	1.350E+04
109	1001	1004	1.375E+04	1.375E+04	1.375E+04	1.375E+04	1.375E+04
110	1001	1004	1.400E+04	1.400E+04	1.400E+04	1.400E+04	1.400E+04
111	1001	1004	1.425E+04	1.425E+04	1.425E+04	1.425E+04	1.425E+04
112	1001	1004	1.450E+04	1.450E+04	1.450E+04	1.450E+04	1.450E+04
113	1001	1004	1.475E+04	1.475E+04	1.475E+04	1.475E+04	1.475E+04
114	1001	1004	1.500E+04	1.500E+04	1.500E+04	1.500E+04	1.500E+04
115	1001	1004	1.525E+04	1.525E+04	1.525E+04	1.525E+04	1.525E+04
116	1001	1004	1.550E+04	1.550E+04	1.550E+04	1.550E+04	1.550E+04
117	1001	1004	1.575E+04	1.575E+04	1.575E+04	1.575E+04	1.575E+04
118	1001	1004	1.600E+04	1.600E+04	1.600E+04	1.600E+04	1.600E+04
119	1001	1004	1.625E+04	1.625E+04	1.625E+04	1.625E+04	1.625E+04
120	1001	1004	1.650E+04	1.650E+04	1.650E+04	1.650E+04	1.650E+04
121	1001	1004	1.675E+04	1.675E+04	1.675E+04	1.675E+04	1.675E+04
122	1001	1004	1.700E+04	1.700E+04	1.700E+04	1.700E+04	1.700E+04
123	1001	1004	1.725E+04	1.725E+04	1.725E+04	1.725E+04	1.725E+04
124	1001	1004	1.750E+04	1.750E+04	1.750E+04	1.750E+04	1.750E+04
125	1001	1004	1.775E+04	1.775E+04	1.775E+04	1.775E+04	1.775E+04
126	1001	1004	1.800E+04	1.800E+04	1.800E+04	1.800E+04	1.800E+04
127	1001	1004	1.825E+04	1.825E+04	1.825E+04	1.825E+04	1.825E+04
128	1001	1004	1.850E+04	1.850E+04	1.850E+04	1.850E+04	1.850E+04
129	1001	1004	1.875E+04	1.875E+04	1.875E+04	1.875E+04	1.875E+04
130	1001	1004	1.900E+04	1.900E+04	1.900E+04	1.900E+04	1.900E+04
131	1001	1004	1.925E+04	1.925E+04	1.925E+04	1.925E+04	1.925E+04
132	1001	1004	1.950E+04	1.950E+04	1.950E+04	1.950E+04	1.950E+04
133	1001	1004	1.975E+04	1.975E+04	1.975E+04	1.975E+04	1.975E+04

TABLE B-1. (Continued)

N	ZA _D	ZA ₁	E	IV	D/E	D/E	μ
34	101	2004	1.00	1.00	1.00	1.00	5.70E-01
35	102	0001	1.00	1.00	1.00	1.00	0.20E-01
36	103	0001	1.00	1.00	1.00	1.00	0.40E-01
37	104	0001	1.00	1.00	1.00	1.00	0.60E-01
38	105	0001	1.00	1.00	1.00	1.00	0.80E-01
39	106	0001	1.00	1.00	1.00	1.00	1.00E-01
40	107	0001	1.00	1.00	1.00	1.00	1.20E-01
41	108	0001	1.00	1.00	1.00	1.00	1.40E-01
42	109	0001	1.00	1.00	1.00	1.00	1.60E-01
43	110	0001	1.00	1.00	1.00	1.00	1.80E-01
44	111	0001	1.00	1.00	1.00	1.00	2.00E-01
45	112	0001	1.00	1.00	1.00	1.00	2.20E-01
46	113	0001	1.00	1.00	1.00	1.00	2.40E-01
47	114	0001	1.00	1.00	1.00	1.00	2.60E-01
48	115	0001	1.00	1.00	1.00	1.00	2.80E-01
49	116	0001	1.00	1.00	1.00	1.00	3.00E-01
50	117	0001	1.00	1.00	1.00	1.00	3.20E-01
51	118	0001	1.00	1.00	1.00	1.00	3.40E-01
52	119	0001	1.00	1.00	1.00	1.00	3.60E-01
53	120	0001	1.00	1.00	1.00	1.00	3.80E-01
54	121	0001	1.00	1.00	1.00	1.00	4.00E-01
55	122	0001	1.00	1.00	1.00	1.00	4.20E-01
56	123	0001	1.00	1.00	1.00	1.00	4.40E-01
57	124	0001	1.00	1.00	1.00	1.00	4.60E-01
58	125	0001	1.00	1.00	1.00	1.00	4.80E-01
59	126	0001	1.00	1.00	1.00	1.00	5.00E-01
60	127	0001	1.00	1.00	1.00	1.00	5.20E-01
61	128	0001	1.00	1.00	1.00	1.00	5.40E-01
62	129	0001	1.00	1.00	1.00	1.00	5.60E-01
63	130	0001	1.00	1.00	1.00	1.00	5.80E-01
64	131	0001	1.00	1.00	1.00	1.00	6.00E-01
65	132	0001	1.00	1.00	1.00	1.00	6.20E-01
66	133	0001	1.00	1.00	1.00	1.00	6.40E-01
67	134	0001	1.00	1.00	1.00	1.00	6.60E-01
68	135	0001	1.00	1.00	1.00	1.00	6.80E-01
69	136	0001	1.00	1.00	1.00	1.00	7.00E-01
70	137	0001	1.00	1.00	1.00	1.00	7.20E-01
71	138	0001	1.00	1.00	1.00	1.00	7.40E-01
72	139	0001	1.00	1.00	1.00	1.00	7.60E-01
73	140	0001	1.00	1.00	1.00	1.00	7.80E-01
74	141	0001	1.00	1.00	1.00	1.00	8.00E-01
75	142	0001	1.00	1.00	1.00	1.00	8.20E-01
76	143	0001	1.00	1.00	1.00	1.00	8.40E-01
77	144	0001	1.00	1.00	1.00	1.00	8.60E-01
78	145	0001	1.00	1.00	1.00	1.00	8.80E-01
79	146	0001	1.00	1.00	1.00	1.00	9.00E-01
80	147	0001	1.00	1.00	1.00	1.00	9.20E-01
81	148	0001	1.00	1.00	1.00	1.00	9.40E-01
82	149	0001	1.00	1.00	1.00	1.00	9.60E-01
83	150	0001	1.00	1.00	1.00	1.00	9.80E-01
84	151	0001	1.00	1.00	1.00	1.00	1.00E+00
85	152	0001	1.00	1.00	1.00	1.00	1.00E+00
86	153	0001	1.00	1.00	1.00	1.00	1.00E+00
87	154	0001	1.00	1.00	1.00	1.00	1.00E+00
88	155	0001	1.00	1.00	1.00	1.00	1.00E+00
89	156	0001	1.00	1.00	1.00	1.00	1.00E+00
90	157	0001	1.00	1.00	1.00	1.00	1.00E+00
91	158	0001	1.00	1.00	1.00	1.00	1.00E+00
92	159	0001	1.00	1.00	1.00	1.00	1.00E+00
93	160	0001	1.00	1.00	1.00	1.00	1.00E+00
94	161	0001	1.00	1.00	1.00	1.00	1.00E+00
95	162	0001	1.00	1.00	1.00	1.00	1.00E+00
96	163	0001	1.00	1.00	1.00	1.00	1.00E+00
97	164	0001	1.00	1.00	1.00	1.00	1.00E+00
98	165	0001	1.00	1.00	1.00	1.00	1.00E+00
99	166	0001	1.00	1.00	1.00	1.00	1.00E+00
100	167	0001	1.00	1.00	1.00	1.00	1.00E+00
101	168	0001	1.00	1.00	1.00	1.00	1.00E+00
102	169	0001	1.00	1.00	1.00	1.00	1.00E+00
103	170	0001	1.00	1.00	1.00	1.00	1.00E+00
104	171	0001	1.00	1.00	1.00	1.00	1.00E+00
105	172	0001	1.00	1.00	1.00	1.00	1.00E+00
106	173	0001	1.00	1.00	1.00	1.00	1.00E+00
107	174	0001	1.00	1.00	1.00	1.00	1.00E+00
108	175	0001	1.00	1.00	1.00	1.00	1.00E+00
109	176	0001	1.00	1.00	1.00	1.00	1.00E+00
110	177	0001	1.00	1.00	1.00	1.00	1.00E+00
111	178	0001	1.00	1.00	1.00	1.00	1.00E+00
112	179	0001	1.00	1.00	1.00	1.00	1.00E+00
113	180	0001	1.00	1.00	1.00	1.00	1.00E+00
114	181	0001	1.00	1.00	1.00	1.00	1.00E+00
115	182	0001	1.00	1.00	1.00	1.00	1.00E+00
116	183	0001	1.00	1.00	1.00	1.00	1.00E+00
117	184	0001	1.00	1.00	1.00	1.00	1.00E+00
118	185	0001	1.00	1.00	1.00	1.00	1.00E+00
119	186	0001	1.00	1.00	1.00	1.00	1.00E+00
120	187	0001	1.00	1.00	1.00	1.00	1.00E+00
121	188	0001	1.00	1.00	1.00	1.00	1.00E+00
122	189	0001	1.00	1.00	1.00	1.00	1.00E+00
123	190	0001	1.00	1.00	1.00	1.00	1.00E+00
124	191	0001	1.00	1.00	1.00	1.00	1.00E+00
125	192	0001	1.00	1.00	1.00	1.00	1.00E+00
126	193	0001	1.00	1.00	1.00	1.00	1.00E+00
127	194	0001	1.00	1.00	1.00	1.00	1.00E+00
128	195	0001	1.00	1.00	1.00	1.00	1.00E+00
129	196	0001	1.00	1.00	1.00	1.00	1.00E+00
130	197	0001	1.00	1.00	1.00	1.00	1.00E+00
131	198	0001	1.00	1.00	1.00	1.00	1.00E+00
132	199	0001	1.00	1.00	1.00	1.00	1.00E+00
133	200	0001	1.00	1.00	1.00	1.00	1.00E+00
134	201	0001	1.00	1.00	1.00	1.00	1.00E+00
135	202	0001	1.00	1.00	1.00	1.00	1.00E+00
136	203	0001	1.00	1.00	1.00	1.00	1.00E+00
137	204	0001	1.00	1.00	1.00	1.00	1.00E+00
138	205	0001	1.00	1.00	1.00	1.00	1.00E+00
139	206	0001	1.00	1.00	1.00	1.00	1.00E+00
140	207	0001	1.00	1.00	1.00	1.00	1.00E+00
141	208	0001	1.00	1.00	1.00	1.00	1.00E+00
142	209	0001	1.00	1.00	1.00	1.00	1.00E+00
143	210	0001	1.00	1.00	1.00	1.00	1.00E+00
144	211	0001	1.00	1.00	1.00	1.00	1.00E+00
145	212	0001	1.00	1.00	1.00	1.00	1.00E+00
146	213	0001	1.00	1.00	1.00	1.00	1.00E+00
147	214	0001	1.00	1.00	1.00	1.00	1.00E+00
148	215	0001	1.00	1.00	1.00	1.00	1.00E+00
149	216	0001	1.00	1.00	1.00	1.00	1.00E+00
150	217	0001	1.00	1.00	1.00	1.00	1.00E+00
151	218	0001	1.00	1.00	1.00	1.00	1.00E+00
152	219	0001	1.00	1.00	1.00	1.00	1.00E+00
153	220	0001	1.00	1.00	1.00	1.00	1.00E+00
154	221	0001	1.00	1.00	1.00	1.00	1.00E+00
155	222	0001	1.00	1.00	1.00	1.00	1.00E+00
156	223	0001	1.00	1.00	1.00	1.00	1.00E+00
157	224	0001	1.00	1.00	1.00	1.00	1.00E+00
158	225	0001	1.00	1.00	1.00	1.00	1.00E+00
159	226	0001	1.00	1.00	1.00	1.00	1.00E+00
160	227	0001	1.00	1.00	1.00	1.00	1.00E+00
161	228	0001	1.00	1.00	1.00	1.00	1.00E+00
162	229	0001	1.00	1.00	1.00	1.00	1.00E+00
163	230	0001	1.00	1.00	1.00	1.00	1.00E+00
164	231	0001	1.00	1.00	1.00	1.00	1.00E+00
165	232	0001	1.00	1.00	1.00	1.00	1.00E+00
166	233	0001	1.00	1.00	1.00	1.00	1.00E+00
167	234	0001	1.00	1.00	1.00	1.00	1.00E+00
168	235	0001	1.00	1.00	1.00	1.00	1.00E+00
169	236	0001	1.00	1.00	1.00	1.00	1.00E+00
170	237	0001	1.00	1.00	1.00	1.00	1.00E+00
171	238	0001	1.00	1.00	1.00	1.00	1.00E+00
172	239	0001	1.00	1.00	1.00	1.00	1.00E+00
173	240	0001	1.00	1.00	1.00	1.00	1.00E+00
174	241	0001	1.00	1.00	1.00	1.00	1.00E+00
175	242	0001	1.00	1.00	1.00	1.00	1.00E+00
176	243	0001	1.00	1.00	1.00	1.00	1.00E+00
177	244	0001	1.00	1.00	1.00	1.00	1.00E+00
178	245	0001	1.00	1.00	1.00	1.00	1.00E+00
179	246	0001	1.00	1.00	1.00	1.00	1.00E+00
180	247	0001	1.00	1.00	1.00	1.00	1.00E+00
181	248	0001	1.00	1.00	1.00	1.00	1.00E+00
182	249	0001	1.00	1.00	1.00	1.00	1.00E+00
183	250	0001	1.00	1.00	1.00	1.00	1.00E+00
184	251	0001	1.00	1.00	1.00	1.00	1.00E+00
185	252	0001	1.00	1.00	1.00	1.00	1.00E+00
186	253	0001	1.00	1.00	1.00	1.00	1.00E+00
187	254	0001	1.00	1.00	1.00	1.00	1.00E+00
188	255	0001	1.00	1.00	1.00	1.00	1.00E+00
189	256	0001	1.00	1.00	1.00	1.00	1.00E+00
190	257	0001	1.00	1.00	1.00	1.00	1.00E+00
191	258	0001	1.00	1.00	1.00	1.00	1.00E+00
192	259	0001	1.00	1.00	1.00	1.00	

TABLE B-1. (Continued.)

N	ZA _p	ZA _i	E	W	D/E	D/E	E
218	1002	2003	5.000E+00	3.27E+03	3.31E-01	3.00E-01	3.20E-02
219	1002	2003	6.000E+00	3.30E+03	3.25E-01	3.00E-01	3.40E-02
220	1002	2003	6.990E+00	3.33E+03	3.15E-01	3.00E-01	3.30E-02
221	1002	2003	7.000E+00	3.38E+03	3.12E-01	3.00E-01	3.20E-02
222	1002	2003	7.999E+00	3.41E+03	3.05E-01	3.00E-01	3.10E-02
223	1002	2003	8.000E+00	3.42E+03	3.00E-01	3.00E-01	3.00E-02
224	1002	2003	9.000E+00	3.45E+03	2.90E-01	3.00E-01	2.90E-02
225	1002	2003	1.00E+01	3.48E+03	2.85E-01	3.00E-01	2.80E-02
226	1002	2003	1.200E+01	3.50E+03	2.80E-01	3.00E-01	2.85E-02
227	1002	2003	1.300E+01	3.51E+03	2.75E-01	3.00E-01	2.80E-02
228	1002	2003	1.500E+01	3.53E+03	2.70E-01	3.00E-01	2.80E-02
229	1002	2003	1.600E+01	3.54E+03	2.65E-01	3.00E-01	2.80E-02
230	1002	2003	2.000E+01	3.56E+03	2.60E-01	3.00E-01	2.80E-02
231	1002	2004	1.200E+01	3.57E+03	2.55E-01	3.00E-01	2.80E-02
232	1002	2004	2.000E+01	3.58E+03	2.50E-01	3.00E-01	2.80E-02
233	1002	2004	2.000E+01	3.59E+03	2.45E-01	3.00E-01	2.80E-02
234	1002	2004	2.000E+01	3.60E+03	2.40E-01	3.00E-01	2.80E-02
235	1002	2004	3.000E+01	3.61E+03	2.35E-01	3.00E-01	2.80E-02
236	1002	2004	1.000E+00	3.62E+03	2.30E-01	3.00E-01	2.80E-02
237	1002	2004	1.000E+00	3.63E+03	2.25E-01	3.00E-01	2.80E-02
238	1002	2004	1.000E+00	3.64E+03	2.20E-01	3.00E-01	2.80E-02
239	1002	2004	1.000E+00	3.65E+03	2.15E-01	3.00E-01	2.80E-02
240	1002	2004	1.000E+00	3.66E+03	2.10E-01	3.00E-01	2.80E-02
241	1002	2004	1.000E+00	3.67E+03	2.05E-01	3.00E-01	2.80E-02
242	1002	2004	1.000E+00	3.68E+03	2.00E-01	3.00E-01	2.80E-02
243	1002	2004	1.000E+00	3.69E+03	1.95E-01	3.00E-01	2.80E-02
244	1002	2004	1.000E+00	3.70E+03	1.90E-01	3.00E-01	2.80E-02
245	1002	2004	2.000E+00	3.71E+03	1.85E-01	3.00E-01	2.80E-02
246	1002	2004	2.000E+00	3.72E+03	1.80E-01	3.00E-01	2.80E-02
247	1002	2004	2.000E+00	3.73E+03	1.75E-01	3.00E-01	2.80E-02
248	1002	2004	2.000E+00	3.74E+03	1.70E-01	3.00E-01	2.80E-02
249	1002	2004	3.000E+00	3.75E+03	1.65E-01	3.00E-01	2.80E-02
250	1002	2004	3.000E+00	3.76E+03	1.60E-01	3.00E-01	2.80E-02
251	1002	2004	3.000E+00	3.77E+03	1.55E-01	3.00E-01	2.80E-02
252	1002	2004	3.000E+00	3.78E+03	1.50E-01	3.00E-01	2.80E-02
253	1002	2004	3.000E+00	3.79E+03	1.45E-01	3.00E-01	2.80E-02
254	1002	2004	3.000E+00	3.80E+03	1.40E-01	3.00E-01	2.80E-02
255	1002	2004	3.000E+00	3.81E+03	1.35E-01	3.00E-01	2.80E-02
256	1002	2004	3.000E+00	3.82E+03	1.30E-01	3.00E-01	2.80E-02
257	1002	2004	3.000E+00	3.83E+03	1.25E-01	3.00E-01	2.80E-02
258	1002	2004	3.000E+00	3.84E+03	1.20E-01	3.00E-01	2.80E-02
259	1002	2004	3.000E+00	3.85E+03	1.15E-01	3.00E-01	2.80E-02
260	1002	2004	3.000E+00	3.86E+03	1.10E-01	3.00E-01	2.80E-02
261	1002	2004	1.000E+00	3.87E+03	1.05E-01	3.00E-01	2.80E-02
262	1002	2004	1.000E+00	3.88E+03	1.00E-01	3.00E-01	2.80E-02
263	1002	2004	2.000E+00	3.89E+03	9.50E-02	3.00E-01	2.80E-02
264	1002	1001	1.810E+01	3.90E+03	9.00E-02	3.00E-01	2.80E-02
265	1003	1001	9.15E+01	3.91E+03	8.50E-02	3.00E-01	2.80E-02
266	1003	1001	2.39E+00	3.92E+03	8.00E-02	3.00E-01	2.80E-02
267	1003	1001	2.60E+00	3.93E+03	7.50E-02	3.00E-01	2.80E-02
268	1003	1001	4.20E+00	3.94E+03	7.00E-02	3.00E-01	2.80E-02
269	1003	1001	1.00E+00	3.95E+03	6.50E-02	3.00E-01	2.80E-02
270	1003	1001	5.00E+00	3.96E+03	6.00E-02	3.00E-01	2.80E-02
271	1003	1001	6.33E+00	3.97E+03	5.50E-02	3.00E-01	2.80E-02
272	1003	1001	5.99E+00	3.98E+03	5.00E-02	3.00E-01	2.80E-02
273	1003	1001	7.00E+00	3.99E+03	4.50E-02	3.00E-01	2.80E-02
274	1003	1001	7.00E+00	4.00E+03	4.00E-02	3.00E-01	2.80E-02
275	1003	1001	6.77E+00	4.01E+03	3.50E-02	3.00E-01	2.80E-02
276	1003	1001	1.34E+01	4.02E+03	3.00E-02	3.00E-01	2.80E-02
277	1003	1001	1.97E+01	4.03E+03	2.50E-02	3.00E-01	2.80E-02
278	1003	1001	1.25E+01	4.04E+03	2.00E-02	3.00E-01	2.80E-02
279	1003	1001	1.61E+01	4.05E+03	1.50E-02	3.00E-01	2.80E-02
280	1003	1001	1.64E+01	4.06E+03	1.00E-02	3.00E-01	2.80E-02
281	1003	1001	1.31E+01	4.07E+03	5.00E-03	3.00E-01	2.80E-02
282	1003	1001	2.00E+01	4.08E+03	2.00E-03	3.00E-01	2.80E-02
283	1003	1002	1.07E+01	4.09E+03	1.00E-03	3.00E-01	2.80E-02
284	1003	1002	1.08E+01	4.10E+03	5.00E-04	3.00E-01	2.80E-02
285	1003	1002	1.12E+01	4.11E+03	2.00E-04	3.00E-01	2.80E-02
286	1003	1002	2.16E+00	4.12E+03	1.00E-04	3.00E-01	2.80E-02
287	1003	1002	3.10E+00	4.13E+03	5.00E-05	3.00E-01	2.80E-02
288	1003	1002	5.15E+00	4.14E+03	2.00E-05	3.00E-01	2.80E-02
289	1003	1002	3.74E+02	4.15E+03	1.00E-05	3.00E-01	2.80E-02
290	1003	1002	4.11E+00	4.16E+03	5.00E-06	3.00E-01	2.80E-02
291	1003	1002	4.44E+00	4.17E+03	2.00E-06	3.00E-01	2.80E-02
292	1003	1002	7.17E+00	4.18E+03	1.00E-06	3.00E-01	2.80E-02
293	1003	1002	5.04E+00	4.19E+03	5.00E-07	3.00E-01	2.80E-02
294	1003	1002	5.34E+00	4.20E+03	2.00E-07	3.00E-01	2.80E-02
295	1003	1002	6.25E+00	4.21E+03	1.00E-07	3.00E-01	2.80E-02
296	1003	1002	7.45E+00	4.22E+03	5.00E-08	3.00E-01	2.80E-02
297	1003	1002	7.75E+00	4.23E+03	2.00E-08	3.00E-01	2.80E-02
298	1003	1002	8.00E+00	4.24E+03	1.00E-08	3.00E-01	2.80E-02
299	1003	1002	8.35E+00	4.25E+03	5.00E-09	3.00E-01	2.80E-02
300	1003	1002	9.25E+00	4.26E+03	2.00E-09	3.00E-01	2.80E-02

TABLE B-1. (Continued.)

N	ZA _p	ZA _t	E	dv	D/E	dD/E	μ
301	1003	1002	1.015E+01	1.160E+00	5.0	-01	8.31E-01
302	1003	1002	1.04E+01	1.15E+00	4.0	-01	8.76E-01
303	1003	1002	1.10E+01	1.15E+00	4.0	-01	8.76E-01
304	1003	1002	1.17E+01	1.24E+00	4.0	-01	7.99E-01
305	1003	1002	1.19E+01	1.24E+00	4.0	-01	7.99E-01
306	1003	1002	1.25E+01	1.31E+00	4.0	-01	6.63E-01
307	1003	1002	1.26E+01	1.31E+00	4.0	-01	6.91E-01
308	1003	1002	1.64E+01	1.67E+00	4.0	-01	6.94E-01
309	1003	1002	1.65E+01	1.67E+00	4.0	-01	6.94E-01
310	1003	1002	2.00E+01	2.75E+00	4.0	-01	2.10E-01
311	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
312	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
313	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
314	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
315	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
316	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
317	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
318	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
319	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
320	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
321	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
322	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
323	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
324	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
325	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
326	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
327	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
328	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
329	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
330	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
331	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
332	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
333	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
334	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
335	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
336	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
337	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
338	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
339	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
340	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
341	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
342	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
343	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
344	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
345	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
346	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
347	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
348	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
349	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
350	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
351	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
352	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
353	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
354	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
355	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
356	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
357	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
358	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
359	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
360	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
361	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
362	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
363	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
364	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
365	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
366	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
367	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
368	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
369	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
370	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
371	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
372	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
373	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
374	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
375	1003	1002	2.10E+01	2.75E+00	4.0	-01	2.70E-01
376	2003	1001	3.891E-01	0	0	0	2.820E-01
377	2003	1001	2.993E+00	1.235E+00	4.400E-01	3.928E-01	6.552E-01
378	2003	1001	4.788E+00	1.688E+00	4.840E-01	5.253E-01	9.569E-01
379	2003	1001	5.985E+00	2.342E+00	5.000E-01	5.905E-01	8.580E-01
380	2003	1001	6.733E+00	2.563E+00	5.080E-01	6.269E-01	8.585E-01
381	2003	1001	8.230E+00	3.005E+00	4.98E-01	6.505E-01	9.309E-01
382	2003	1001	9.787E+00	3.139E+00	4.92E-01	6.597E-01	9.605E-01
383	2603	1001	1.047E+01	3.355E+00	4.77E-01	6.843E-01	9.613E-01
384	2003	1001	1.053E+01	3.538E+00	4.75E-01	6.860E-01	9.319E-01

TABLE B-1. (Continued.)

N	ZA ₀	ZA ₁	E	W	D/E	D/E	P
385	2003	1001	1.362E+01	4.30E+00	3.30E+01	5.31E+01	5.34E+01
386	2003	1001	1.646E+01	4.77E+00	3.35E+01	5.35E+01	5.37E+01
387	2003	1001	1.649E+01	4.31E+00	3.36E+01	5.26E+01	5.37E+01
388	2003	1001	1.951E+01	4.49E+00	3.10E+01	5.74E+01	5.50E+01
389	2003	1001	2.000E+01	4.63E+00	3.30E+01	4.67E+01	5.70E+01
390	2003	1002	1.440E+01	0	0	0	0
391	2003	1002	2.156E+01	0	0	0	0
392	2003	1002	2.246E+00	3.74E+01	3.70E+01	2.01E+01	3.70E+01
393	2003	1002	2.93E+00	3.70E+01	3.70E+01	6.80E+01	3.70E+01
394	2003	1002	4.492E+00	9.5E+00	6.5E+01	6.5E+01	9.5E+00
395	2003	1002	4.897E+00	9.02E+00	6.5E+01	6.5E+01	9.02E+00
396	2003	1002	5.966E+00	7.8E+00	7.7E+01	7.7E+01	7.8E+00
397	2003	1002	7.427E+00	2.8E+00	8.0E+01	8.0E+01	2.8E+00
398	2003	1002	7.467E+00	3.0E+00	7.7E+01	7.7E+01	3.0E+00
399	2003	1002	8.380E+00	3.7E+00	7.0E+01	7.0E+01	3.7E+00
400	2003	1002	8.839E+00	3.7E+00	6.5E+01	6.5E+01	3.7E+00
401	2003	1002	1.017E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
402	2003	1002	1.130E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
403	2003	1002	1.196E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
404	2003	1002	1.407E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
405	2003	1002	1.527E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
406	2003	1002	1.832E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
407	2003	1002	1.938E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
408	2003	1002	2.060E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
409	2003	1003	1.610E+01	3.1E+01	3.1E+01	3.1E+01	3.1E+01
410	2003	1003	1.697E+01	3.1E+01	3.1E+01	3.1E+01	3.1E+01
411	2003	1003	2.000E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
412	2003	1003	2.000E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
413	2003	1003	3.000E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
414	2003	1003	4.750E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
415	2003	1003	5.750E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
416	2003	1003	6.810E+00	7.53E+01	5.1E+01	2.1E+01	7.53E+01
417	2003	1003	1.03E+01	7.71E+01	5.1E+01	1.8E+01	7.71E+01
418	2003	1003	1.28E+01	7.61E+01	5.1E+01	1.8E+01	7.61E+01
419	2003	1003	1.43E+01	7.61E+01	5.1E+01	1.8E+01	7.61E+01
420	2003	1003	1.31E+01	7.61E+01	5.1E+01	1.8E+01	7.61E+01
421	2003	1003	1.500E+01	7.59E+01	5.1E+01	1.8E+01	7.59E+01
422	2003	1003	1.539E+01	7.710E+01	5.1E+01	1.8E+01	7.710E+01
423	2003	1003	2.000E+01	1.40E+00	3.1E+01	3.1E+01	1.40E+00
424	2003	1003	5.250E+01	2.30E+00	3.1E+01	3.1E+01	2.30E+00
425	2003	1003	9.00E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
426	2003	1003	9.00E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
427	2003	1003	1.107E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
428	2003	1003	1.250E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
429	2003	1003	1.338E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
430	2003	1003	1.559E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
431	2003	1003	1.790E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
432	2003	1003	2.000E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
433	2003	1003	2.700E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
434	2003	1003	2.000E+03	3.6E+00	3.1E+01	3.1E+01	3.6E+00
435	2003	1003	2.700E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
436	2003	1003	4.250E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
437	2003	1003	4.478E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
438	2003	1003	4.430E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
439	2003	1003	4.627E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
440	2003	1003	4.600E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
441	2003	1003	4.633E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
442	2003	1003	4.300E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
443	2003	1003	4.139E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
444	2003	1003	4.160E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
445	2003	1003	4.188E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
446	2003	1003	4.425E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
447	2003	1003	4.577E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
448	2003	1003	4.651E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
449	2003	1003	4.800E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
450	2003	1003	4.802E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
451	2003	1003	4.953E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
452	2003	1003	4.980E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
453	2003	1003	4.750E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
454	2003	1003	4.000E+00	3.6E+00	3.1E+01	3.1E+01	3.6E+00
455	2003	1003	1.000E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
456	2003	1003	1.350E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
457	2003	1003	1.779E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
458	2003	1003	2.000E+01	3.6E+00	3.1E+01	3.1E+01	3.6E+00
459	2004	1001	4.408E+01	0	0	0	0
460	2004	1001	4.490E+01	3.397E+05	3.220E+01	2.558E+05	3.730E+01
461	2004	1001	1.986E+01	3.311E+01	3.102E+02	3.76E+01	3.311E+01
462	2004	1001	2.979E+00	3.646E+01	3.140E+01	9.51E+01	3.760E+01
463	2004	1001	3.773E+00	8.075E+01	4.380E+01	2.629E+01	5.754E+01
464	2004	1001	4.964E+00	1.319E+00	4.700E+01	4.006E+01	5.766E+01
465	2004	1001	5.918E+00	1.727E+00	4.730E+01	4.838E+01	5.772E+01
466	2004	1001	6.752E+00	2.444E+00	4.660E+01	5.212E+01	5.776E+01
467	2004	1001	7.943E+00	4.188E+00	4.110E+01	5.797E+01	5.781E+01
468	2004	1001	8.936E+00	5.725E+00	3.640E+01	1.094E+00	5.785E+01

TABLE B-1 (Continued)

N	ZA _p	ZA _i	E	v	D/E	D/E	μ
438	2004	1001	9.417E+00	1.327E+01	1.368E-01	1.040E-00	9.731E-01
470	2004	1001	9.567E+00	1.380E+00	1.368E-01	1.040E-00	9.739E-01
471	2004	1001	1.00E+00	1.00E+00	1.368E-01	1.040E-01	9.789E-01
472	2004	1001	1.092E+00	1.01E+00	1.369E-01	1.062E-01	9.792E-01
473	2004	1001	1.189E+00	1.10E+00	1.369E-01	1.070E-01	9.797E-01
474	2004	1001	1.30E+00	1.20E+00	1.36E-01	1.060E-01	9.805E-01
475	2004	1001	1.352E+00	1.25E+00	1.36E-01	1.051E-01	9.810E-01
476	2004	1001	1.40E+00	1.30E+00	1.369E-01	1.070E-01	9.816E-01
477	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
478	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
479	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
480	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
481	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
482	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
483	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
484	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
485	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
486	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
487	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
488	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
489	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
490	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
491	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
492	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
493	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
494	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
495	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
496	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
497	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
498	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
499	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
500	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
501	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
502	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
503	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
504	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
505	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
506	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
507	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
508	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.820E-01
509	2004	1002	2.418E+00	2.40E+00	0.00E+00	0.00E+00	9.8

TABLE B-1. (Continued.)

N	ZA _p	ZA _t	E	σ /v	D/E	σ D/E	$\bar{\mu}$
553	2003	2003	5.036E+00	1.31E+00	0.7E+01	5.8E+01	3.36E+01
554	2004	2003	5.037E+00	1.2E+00	1.0E+01	5.8E+01	3.3E+01
555	2003	2003	5.038E+00	1.2E+00	5.9E+01	5.6E+01	3.29E+01
556	2004	2003	5.066E+00	1.6E+00	5.7E+01	5.2E+01	3.1E+01
557	2004	2003	7.200E+00	1.1E+01	5.6E+01	5.5E+01	7.20E+01
558	2004	2003	1.200E+01	1.2E+01	5.5E+01	5.4E+01	1.20E+01
559	2004	2003	2.000E+01	1.2E+01	5.5E+01	5.3E+01	2.00E+01
560	2004	2003	2.000E+01	1.2E+01	5.5E+01	5.3E+01	2.00E+01
561	2004	2003	3.000E+01	1.2E+01	5.5E+01	5.3E+01	3.00E+01
562	2004	2003	4.000E+01	1.2E+01	5.5E+01	5.3E+01	4.00E+01
563	2004	2003	5.000E+01	1.2E+01	5.5E+01	5.3E+01	5.00E+01
564	2004	2003	6.000E+01	1.2E+01	5.5E+01	5.3E+01	6.00E+01
565	2004	2003	7.000E+01	1.2E+01	5.5E+01	5.3E+01	7.00E+01
566	2004	2003	1.00E+02	1.2E+01	5.5E+01	5.3E+01	1.00E+02
567	2004	2003	1.00E+02	1.2E+01	5.5E+01	5.3E+01	1.00E+02
568	2004	2003	1.00E+02	1.2E+01	5.5E+01	5.3E+01	1.00E+02
569	2004	2003	2.00E+02	1.2E+01	5.5E+01	5.3E+01	2.00E+02
570	2004	2003	2.00E+02	1.2E+01	5.5E+01	5.3E+01	2.00E+02
571	2004	2003	3.00E+02	1.2E+01	5.5E+01	5.3E+01	3.00E+02
572	2004	2003	4.00E+02	1.2E+01	5.5E+01	5.3E+01	4.00E+02
573	2004	2003	5.00E+02	1.2E+01	5.5E+01	5.3E+01	5.00E+02
574	2004	2003	6.00E+02	1.2E+01	5.5E+01	5.3E+01	6.00E+02
575	2004	2003	7.00E+02	1.2E+01	5.5E+01	5.3E+01	7.00E+02
576	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
577	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
578	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
579	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
580	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
581	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
582	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
583	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
584	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
585	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
586	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
587	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
588	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
589	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
590	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
591	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
592	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
593	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
594	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
595	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
596	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
597	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
598	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
599	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03
600	2004	2003	1.00E+03	1.2E+01	5.5E+01	5.3E+01	1.00E+03

APPENDIX C: LITHOGRAPHY CALPHADETICAL CHARTS

Table C-1 contains references and cross references to original data, arranged alphabetically by journal, including arbitrary reference number (R), year of publication (Y), and authors. A positive reference number indicates a primary reference; a negative number indicates a secondary or cross reference.

TABLE C-1. Bibliography in alphabetical order

R	Reference	Y	Authors
01	NUCL. PHYS. 10, 100	51	NUCL. PHYS. 10, 100
02	NUCL. PHYS. 10, 100	52	NUCL. PHYS. 10, 100
03	NUCL. PHYS. 10, 100	53	NUCL. PHYS. 10, 100
04	NUCL. PHYS. 10, 100	54	NUCL. PHYS. 10, 100
05	NUCL. PHYS. 10, 100	55	NUCL. PHYS. 10, 100
06	NUCL. PHYS. 10, 100	56	NUCL. PHYS. 10, 100
07	NUCL. PHYS. 10, 100	57	NUCL. PHYS. 10, 100
08	NUCL. PHYS. 10, 100	58	NUCL. PHYS. 10, 100
09	NUCL. PHYS. 10, 100	59	NUCL. PHYS. 10, 100
10	NUCL. PHYS. 10, 100	60	NUCL. PHYS. 10, 100
11	NUCL. PHYS. 10, 100	61	NUCL. PHYS. 10, 100
12	NUCL. PHYS. 10, 100	62	NUCL. PHYS. 10, 100
13	NUCL. PHYS. 10, 100	63	NUCL. PHYS. 10, 100
14	NUCL. PHYS. 10, 100	64	NUCL. PHYS. 10, 100
15	NUCL. PHYS. 10, 100	65	NUCL. PHYS. 10, 100
16	NUCL. PHYS. 10, 100	66	NUCL. PHYS. 10, 100
17	NUCL. PHYS. 10, 100	67	NUCL. PHYS. 10, 100
18	NUCL. PHYS. 10, 100	68	NUCL. PHYS. 10, 100
19	NUCL. PHYS. 10, 100	69	NUCL. PHYS. 10, 100
20	NUCL. PHYS. 10, 100	70	NUCL. PHYS. 10, 100
21	NUCL. PHYS. 10, 100	71	NUCL. PHYS. 10, 100
22	NUCL. PHYS. 10, 100	72	NUCL. PHYS. 10, 100
23	NUCL. PHYS. 10, 100	73	NUCL. PHYS. 10, 100
24	NUCL. PHYS. 10, 100	74	NUCL. PHYS. 10, 100
25	NUCL. PHYS. 10, 100	75	NUCL. PHYS. 10, 100
26	NUCL. PHYS. 10, 100	76	NUCL. PHYS. 10, 100
27	NUCL. PHYS. 10, 100	77	NUCL. PHYS. 10, 100
28	NUCL. PHYS. 10, 100	78	NUCL. PHYS. 10, 100
29	NUCL. PHYS. 10, 100	79	NUCL. PHYS. 10, 100
30	NUCL. PHYS. 10, 100	80	NUCL. PHYS. 10, 100
31	NUCL. PHYS. 10, 100	81	NUCL. PHYS. 10, 100
32	NUCL. PHYS. 10, 100	82	NUCL. PHYS. 10, 100
33	NUCL. PHYS. 10, 100	83	NUCL. PHYS. 10, 100
34	NUCL. PHYS. 10, 100	84	NUCL. PHYS. 10, 100
35	NUCL. PHYS. 10, 100	85	NUCL. PHYS. 10, 100
36	NUCL. PHYS. 10, 100	86	NUCL. PHYS. 10, 100
37	NUCL. PHYS. 10, 100	87	NUCL. PHYS. 10, 100
38	NUCL. PHYS. 10, 100	88	NUCL. PHYS. 10, 100
39	NUCL. PHYS. 10, 100	89	NUCL. PHYS. 10, 100
40	NUCL. PHYS. 10, 100	90	NUCL. PHYS. 10, 100
41	NUCL. PHYS. 10, 100	91	NUCL. PHYS. 10, 100
42	NUCL. PHYS. 10, 100	92	NUCL. PHYS. 10, 100
43	NUCL. PHYS. 10, 100	93	NUCL. PHYS. 10, 100
44	NUCL. PHYS. 10, 100	94	NUCL. PHYS. 10, 100
45	NUCL. PHYS. 10, 100	95	NUCL. PHYS. 10, 100
46	NUCL. PHYS. 10, 100	96	NUCL. PHYS. 10, 100
47	NUCL. PHYS. 10, 100	97	NUCL. PHYS. 10, 100
48	NUCL. PHYS. 10, 100	98	NUCL. PHYS. 10, 100
49	NUCL. PHYS. 10, 100	99	NUCL. PHYS. 10, 100
50	NUCL. PHYS. 10, 100	100	NUCL. PHYS. 10, 100

TABLE C-1. (Continued)

R	Reference	Y	Authors
64	PHYS. REV. 79, 577	50	PARIS, J. C.
1	PHYS. REV. 81, 37	51	LAPR, H. J.
20	PHYS. REV. 51, 393	51	MATHER, J. B.
21	PHYS. REV. 52, 125	51	BOUQUINA, J.
22	PHYS. REV. 82, 130	51	MATHER, J. B.
23	PHYS. REV. 82, 569	51	CLAYSEN, G. S.
2	PHYS. REV. 82, 777	51	FREIER, G. D.
24	PHYS. REV. 32, 789	51	ROSEN, L.
25	PHYS. REV. 87, 933	52	ALLRED, J. C.
3	PHYS. REV. 49, 107	52	ROSEN, L.
4	PHYS. REV. 89, 155	52	ROSEN, L.
5	PHYS. REV. 92, 425	52	ROSEN, L.
6	PHYS. REV. 91, 101	52	ROSEN, L.
25	PHYS. REV. 91, 101	52	ROSEN, L.
27	PHYS. REV. 88, 1403	52	ROSEN, L.
28	PHYS. REV. 90, 109	52	ROSEN, L.
29	PHYS. REV. 91, 101	52	ROSEN, L.
-29	PHYS. REV. 91, 101	52	ROSEN, L.
30	PHYS. REV. 92, 665	52	ROSEN, L.
31	PHYS. REV. 91, 101	52	ROSEN, L.
32	PHYS. REV. 93, 325	52	ROSEN, L.
33	PHYS. REV. 93, 325	52	ROSEN, L.
34	PHYS. REV. 92, 101	52	ROSEN, L.
35	PHYS. REV. 95, 773	52	ROSEN, L.
36	PHYS. REV. 95, 1023	52	ROSEN, L.
37	PHYS. REV. 96, 10	52	ROSEN, L.
37	PHYS. REV. 96, 1327	52	ROSEN, L.
38	PHYS. REV. 98, 28	52	ROSEN, L.
38	PHYS. REV. 98, 28	52	ROSEN, L.
39	PHYS. REV. 100, 910	52	ROSEN, L.
40	PHYS. REV. 101, 1172	52	ROSEN, L.
41	PHYS. REV. 102, 391	52	ROSEN, L.
42	PHYS. REV. 103, 1600	52	ROSEN, L.
43	PHYS. REV. 111, 1199	52	ROSEN, L.
44	PHYS. REV. 112, 2040	52	ROSEN, L.
-45	PHYS. REV. 114, 530	52	ROSEN, L.
46	PHYS. REV. 116, 927	52	ROSEN, L.
47	PHYS. REV. 117, 1207	52	ROSEN, L.
48	PHYS. REV. 118, 707	52	ROSEN, L.
49	PHYS. REV. 123, B 1178	52	ROSEN, L.
50	PHYS. REV. 135, B 675	52	ROSEN, L.
51	PHYS. REV. 148, 1031	52	ROSEN, L.
52	PHYS. REV. 154, 935	52	ROSEN, L.
53	PHYS. REV. 174, 1122	52	ROSEN, L.
54	PHYS. REV. C, 1, 1613	52	ROSEN, L.
55	PHYS. REV. C, 1, 1622	52	ROSEN, L.
56	PHYS. REV. C, 3, 10	52	ROSEN, L.
57	PHYS. REV. C, 3, 1769	52	ROSEN, L.
58	PHYS. REV. C, 4, 17	52	ROSEN, L.
59	PHYS. REV. C, 4, 17	52	ROSEN, L.
60	PHYS. REV. C, 4, 17	52	ROSEN, L.
61	PHYS. REV. C, 4, 17	52	ROSEN, L.
62	PHYS. REV. C, 4, 17	52	ROSEN, L.
63	PHYS. REV. C, 4, 17	52	ROSEN, L.
64	PHYS. REV. C, 4, 17	52	ROSEN, L.
65	PHYS. REV. C, 4, 17	52	ROSEN, L.
66	PHYS. REV. C, 4, 17	52	ROSEN, L.
67	PHYS. REV. C, 4, 17	52	ROSEN, L.
68	PHYS. REV. C, 4, 17	52	ROSEN, L.
69	PHYS. REV. C, 4, 17	52	ROSEN, L.
70	PHYS. REV. C, 4, 17	52	ROSEN, L.
71	PHYS. REV. C, 4, 17	52	ROSEN, L.
72	PHYS. REV. C, 4, 17	52	ROSEN, L.
73	PHYS. REV. C, 4, 17	52	ROSEN, L.
74	PHYS. REV. C, 4, 17	52	ROSEN, L.
75	PHYS. REV. C, 4, 17	52	ROSEN, L.
76	PHYS. REV. C, 4, 17	52	ROSEN, L.
77	PHYS. REV. C, 4, 17	52	ROSEN, L.
78	PHYS. REV. C, 4, 17	52	ROSEN, L.
79	PHYS. REV. C, 4, 17	52	ROSEN, L.
80	PHYS. REV. C, 4, 17	52	ROSEN, L.
81	PHYS. REV. C, 4, 17	52	ROSEN, L.
82	PHYS. REV. C, 4, 17	52	ROSEN, L.
83	PHYS. REV. C, 4, 17	52	ROSEN, L.
84	PHYS. REV. C, 4, 17	52	ROSEN, L.
85	PHYS. REV. C, 4, 17	52	ROSEN, L.
86	PHYS. REV. C, 4, 17	52	ROSEN, L.
87	PHYS. REV. C, 4, 17	52	ROSEN, L.
88	PHYS. REV. C, 4, 17	52	ROSEN, L.
89	PHYS. REV. C, 4, 17	52	ROSEN, L.
90	PHYS. REV. C, 4, 17	52	ROSEN, L.
91	PHYS. REV. C, 4, 17	52	ROSEN, L.
92	PHYS. REV. C, 4, 17	52	ROSEN, L.
93	PHYS. REV. C, 4, 17	52	ROSEN, L.
94	PHYS. REV. C, 4, 17	52	ROSEN, L.
95	PHYS. REV. C, 4, 17	52	ROSEN, L.
96	PHYS. REV. C, 4, 17	52	ROSEN, L.
97	PHYS. REV. C, 4, 17	52	ROSEN, L.
98	PHYS. REV. C, 4, 17	52	ROSEN, L.
99	PHYS. REV. C, 4, 17	52	ROSEN, L.
100	PHYS. REV. C, 4, 17	52	ROSEN, L.

TABLE C-1. (Continued.)

R	Reference	Y	Authors
12	PHYS. REV. C, 4, 52	71	DETCH, JR., J. L.
83	PHYS. REV. C, 4, 1499	71	JARMIE, N.
85	PHYS. REV. C, 5, 1147	71	CAHILL, T. A.
15	PHYS. REV. C, 10, 54	72	WILLMES, H.
18	PHYS. REV. C, 10, 1767	72	BACHER, A. D.
72	PHYS. REV. C, 11, 1905	72	CONZEIT, H. E.
17	PHYS. REV. C, 13, 2554	74	GRUNDER, H.
98	PHYS. REV. C, 15, 518	74	JARMIE, N.
		74	CHIEN, W. S.
		75	MORALES, J. R.
		76	SHADOAN, D. J.
		76	JARMIE, N.
		77	DODDER, D. C.
		77	JARMIE, N.
		77	KEATON, JR., P. W.
		77	WITTE, K.
-79	PHYS. REV. LETTERS 24, 240	70	
64	PHYS. REV. LETTERS 25, 1346	70	BROWN, R. E.
86	PHYS. REV. LETTERS 25, 1346	70	VAN DER WOUDE, A.
69	PRIVATE COMMUNICATION	70	BROWN, R. E.
71	PRIVATE COMMUNICATION	70	VAN DER WOUDE, A.
-72	PRIVATE COMMUNICATION	56	HEYDENBURG
-92	PRIVATE COMMUNICATION	56	LOVBERG, R. H.
-99	PRIVATE COMMUNICATION	77	CAHILL, T. A.
95	PROC. INT. CONF. ON NUCLEAR STRUCTURE KINGSTON, P. 215	77	FICK, D.
52	PROC. ROY. SOC. (LONDON) 209, 19	77	LINCK, I.
53	PROC. ROY. SOC. (LONDON) 210, 54	60	GAMMEL, J. L.
90	PROC. ROY. SOC. (LONDON) 258, 202	60	ROSEN, L.
-25	UCRL-1447	51	BURROWS, H. B.
56	UCRL-2373	51	ROTBLAT, J.
		52	BURGE, E. J.
		60	GIBSON, W. M.
		60	BREDIN, D. J.
			EVANS, D.
			MARCH, P. V.
			TONER, W. T.
		51	
		53	CORI, B.
			HUTSON, R. L.
			JETT, J. H.
			GREENWOOD, J.
			SHADOAN, D. J.
			PLATTNER, G. R.
			CLARK, D. J.
			TIVOL, W. F.
			JETT, J. H.
			BROWN, R. E.
			CAHILL, T. A.
			JETT, J. H.
			HALE, G. M.
			JETT, J. H.
			NISLEY, R. A.
			GROSS, E. E.
			GROSS, E. E.
			LITTLE
			BROLLEY JR., J. E.
			STEWART, L.
			GIBSON, W. M.
			BURROWS, H. B.
			ROTBLAT, J.
			ENGLAND, J. B. A.
			MCKEE, J. S. C.
			MOSINGER, E. M.
			HARTSOUGH, W.

TABLE D-1. (Continued)

R	Reference and comments
22	PHYS. REV. 82, 133 (1951) R. D. MATHER (MASH. U.)
23	PHYS. REV. 80, 389 (1951) R. S. CLAASSEN, R. J. S. PHOIN, G. D. FREIER, W. R. STRATTON (U. MINNESOTA)
24	PHYS. REV. 82, 786 (1951) J. C. ALLRED, D. I. FROHMAN, A. H. HUDSON, L. ROSEN (LASL)
25	PHYS. REV. 87, 932 (1952) T. H. PUTNAM (U. CALIF. BERKELEY) UCRL-1447 (1951)
26	PHYS. REV. 88, 433 (1952) J. C. ALLRED, R. D. MATHER, G. G. R. O. BONDELIO, L. ROSEN (LASL)
27	PHYS. REV. 88, 1408 (1952) K. B. TATTEL (MASH. U.)
28	PHYS. REV. 89, 815 (1953) H. R. WORTHINGTON, R. J. S. PHOIN, D. E. FINDLEY (U. WISC.)
29	PHYS. REV. 91, 458 (1953) G. R. BRIGGS, S. SINGER, W. K. JENTSCHKE (U. ILLINOIS) DATA TAKEN FROM LA-2014 (1955) PHYS. REV. 91, 458 (1953)
30	PHYS. REV. 92, 540 (1953) E. C. SANCHEZ, L. B. HANSEN (INDIANA U.) DATA NOT EXPERIMENTAL, PRINTED BUT ARE TAKEN FROM CHEVET IN LA-2014 (1955) SO THAT THEY ARE PROBABLY CORRECT
31	PHYS. REV. 92, 1501 (1953) E. LUNDHOLM, H. L. LUNDHOLM, S. R. NILSSON (DENMARK)
32	PHYS. REV. 93, 823 (1954) G. R. BRIGGS, S. SINGER (U. MINNESOTA) DATA TAKEN FROM LA-2014 (1955)
33	PHYS. REV. 93, 837 (1954) M. T. ROSEN, D. I. FROHMAN, P. G. KRUGER (U. ILLINOIS)
34	PHYS. REV. 93, 926 (1954) A. E. FARLAND, D. I. FROHMAN, H. D. HOLDREGE, T. H. PUTNAM (U. CALIF. BERKELEY) DATA TAKEN FROM LA-2014 (1955)
35	PHYS. REV. 95, 272 (1955) G. S. SANCHEZ, A. E. FARLAND, H. D. HOLDREGE (U. CALIF. BERKELEY)
36	PHYS. REV. 95, 1225 (1955) J. L. LAYMAN, L. C. PHILLIPS (PRINCETON U.)
37	PHYS. REV. 96, 1022 (1955) E. J. HANFMAN, D. I. FROHMAN, S. SINGER, P. G. KRUGER, W. K. JENTSCHKE (U. ILLINOIS)
38	PHYS. REV. 96, 26 (1955) D. G. CALDWELL, D. I. FROHMAN (U. CALIF. A.)
39	PHYS. REV. 100, 350 (1955) R. C. PHILLIPS, J. C. MURPHY, C. H. REICH (RICE) DATA OBTAINED FROM LA-2014 (1955)
40	PHYS. REV. 109, 707 (1957) L. STEWART, J. S. BONDELIO, L. ROSEN (LASL)
41	NUCLEAR PHYS. 37, 304 (1954) L. B. JENKINS, T. A. KATZ (CALIF. INST. TECH.)
42	NUCLEAR PHYS. 126, 163 (1959) A. S. MILSON, M. G. TAMM, J. C. LEGG, G. C. PHILLIPS (RICE U.)
43	NUCLEAR PHYS. 110, 441 (1958) R. V. ANGELO, D. G. SANCHEZ, G. G. OHLSEN (AUSTRALIA)
44	NUCLEAR PHYS. 132, 455 (1969) D. C. KOCHER, T. B. GIBSON (U. WISC.)
45	NUCLEAR PHYS. 130, 324 (1969) A. S. MILSON, D. G. TAMM, J. C. LEGG, G. C. PHILLIPS (RICE U.)
46	NUCLEAR PHYS. 21, 128 (1960) W. T. H. VAN OERS, N. L. S. TUCKERMAN, D. (HOLLAND)
47	NUCLEAR PHYS. 174, 399 (1971) L. S. CHUANG (HONG KONG)
48	NUOVO CIMENTO 57, 340 (1958) C. GARDUCHI, G. DI SORRINO, G. TORNIELLI, R. ZANNONI (ITALY)

TABLE D-1. (Continued.)

- R Reference and comments
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DATA TAKEN FROM LA-2014 (1955).
- 50 PHYS. REV. 61, 13 (1942) R. F. TASCHEK (U. WISC.)
DATA TAKEN FROM LA-2014 (1955). ABSOLUTE DATA OBTAINED BY ASSUMING SCATTERING AT 15 DEGREES IN TETRACEROLAN.
- 51 NUCLEAR PHYS. 102, 657 (1971) T. R. KING, D. SIMYTH (U. COLORADO)
- 52 PROC. ROY. SOC. (LONDON) 209, 498 (1951) L. J. BURRONS, M. L. GIBSON, G. POTEL (ENGLAND)
- 53 PROC. ROY. SOC. (LONDON) 210, 551 (1952) L. J. BURRONS, H. R. BURROUGHS, M. L. GIBSON, G. POTEL (ENGLAND)
DATA TAKEN FROM LA-2014 (1955)
- 54 NUCLEAR PHYS. 10, 521 (1964) T. D. G. FERG, A. G. L. PARLAD, J. E. SMITH, J. J. WEL (IRISH U.)
- 55 PHIL. MAG. 25, 1090 (1954) R. G. FRIEDLANDER, S. GRONDA, M. L. GIBSON, P. KIRKAGUE, R. J. PROUSE, J. POTEL (ENGLAND)
SCATTERING DATA TAKEN FROM LA-2014 (1955). ABSOLUTE DATA MAY BE IN ERROR BY AS MUCH AS 10 PERCENT (CONTRIBUTING TO THE 15 DEGREE DATA).
- 56 UCRL-2470 (1959) M. COON, W. HARRISON (LANCENSE PEPPER LAB)
- 57 NUCLEAR PHYS. 12, 124 (1959) G. L. HALL, J. L. HAYES (CANADA)
- 58 PHYS. REV. 10, 521 (1955) J. L. HALL, J. L. HAYES (CANADA)
- 59 PHYS. REV. 107, 1572 (1953) M. L. HARRIS, J. L. HAYES (CANADA)
- 60 NUCLEAR PHYS. 12, 124 (1959) G. L. HALL, J. L. HAYES, G. L. HARRIS, J. L. HAYES (CANADA)
- 61 PHYS. REV. 10, 525 (1955) R. A. HARRIS, J. L. HAYES, G. L. HARRIS (CANADA)
- 62 PHYS. REV. 10, 1080 (1955) J. L. HARRIS, J. L. HAYES, G. L. HARRIS (CANADA)
- 63 PHYS. REV. 10, 1080 (1955) J. L. HARRIS, J. L. HAYES, G. L. HARRIS (CANADA)
- 64 PHYS. REV. 10, 1080 (1955) J. L. HARRIS, J. L. HAYES, G. L. HARRIS (CANADA)
- 65 PHYS. REV. 10, 1080 (1955) J. L. HARRIS, J. L. HAYES, G. L. HARRIS (CANADA)
- 66 PHYS. REV. 10, 1080 (1955) J. L. HARRIS, J. L. HAYES, G. L. HARRIS (CANADA)
- 67 PHYS. REV. 10, 1080 (1955) J. L. HARRIS, J. L. HAYES, G. L. HARRIS (CANADA)
- 68 PHYS. REV. 74, 1084 (1948) J. M. BLATT, G. FRIED, S. L. LATTI, M. L. LATTI, J. M. WILLIAMS (U. WISCONSIN)
NEUTRON DIFFRACTION OBSERVED AS PER PROCEEDING IN REF. 10003.
- 69 PRIVATE COMMUNICATION (1953) H. V. HARRIS, L. L. LATTI
DATA REPORTED IN LA-2014 (1955).
- 70 PHYS. REV. 101, 772 (1956) D. L. HARRIS, J. L. LATTI (LASL)
DATA REDUCED BY 20 PERCENT AS PER PROCEEDING IN REF. 10003.
- 71 PRIVATE COMMUNICATION (1956) R. L. HARRIS (U. WISCONSIN)
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PRIVATE COMMUNICATION (1977) T. A. CARILL
- 73 J. PHYS. SOC. JAPAN 15, 8 (1960) S. KIKUCHI, J. SAKA, A. S. SUWA, T. HAYASHI, K. S. MINA, K. K. MINA (JAPAN)
- 74 PHYS. REV. 133, B1176 (1964) D. G. DONALD, W. HARRIS, J. L. HARRIS (U. WISC.)