

JAERI-M
9981

NEANDC(J)-80/U
INDC(JAP)-67/L

EVALUATION OF NEUTRON NUCLEAR
DATA FOR SCANDIUM-45

February 1982

Yoshiaki OKA*, Tsuneo NAKAGAWA** and Yasuyuki KIKUCHI

日本原子力研究所
Japan Atomic Energy Research Institute

JAERI-Mレポートは、日本原子力研究所が不定期に公刊している研究報告書です。
入手の問合わせは、日本原子力研究所技術情報部情報資料課（〒319-11茨城県那珂郡東海村）あて、お申しこしてください。なお、このほかに財団法人原子力弘済会資料センター（〒319-11茨城県那珂郡東海村日本原子力研究所内）で複写による実費頒布をおこなっております。

JAERI-M reports are issued irregularly.
Inquiries about availability of the reports should be addressed to Information Section, Division of Technical Information, Japan Atomic Energy Research Institute, Tokai-mura, Naka-gun, Ibaraki-ken 319-11, Japan.

©Japan Atomic Energy Research Institute, 1982

編集兼発行 日本原子力研究所
印刷 いばらき印刷(株)

JAERI-M 9981

Evaluation of Neutron Nuclear Data for ^{45}Sc

Yoshiaki OKA^{*}, Tsuneo NAKAGAWA^{**} and Yasuyuki KIKUCHI

Division of Physics, Tokai Research Establishment, JAERI

(Received January 27, 1982)

Evaluation of neutron nuclear data for ^{45}Sc was performed in the energy range of thermal to 20 MeV. Evaluated quantities are the total, elastic and inelastic scattering, capture, (n,2n), (n,p) and (n, α) reaction cross sections, resonance parameters and angular distributions of emitted neutrons. Resonance parameters are recommended below 100 keV. Particular care was paid for the minimum value of the total cross section near 2 keV, since a mono-energetic neutron filter is now under design by using scandium metal at Fast Neutron Source Reactor YAYOI of The University of Tokyo. Optical and statistical model calculations are performed for the smooth cross sections above resonance region. The results were compiled in the ENDF/B format and they will be stored in the second version of Japanese Evaluated Nuclear Data Library JENDL-2.

Keywords: Evaluation, Scandium-45, Neutron Cross Sections,
Resonance Parameters, Angular Distribution, Optical Model,
Total Cross Section Minimum, Mono-energetic Filter.

* Nuclear Engineering Research Laboratory, The University of Tokyo

** Data Bank, OECD-Nuclear Energy Agency

^{45}Sc の中性子核データの評価

日本原子力研究所東海研究所物理部
岡 芳明*・中川庸雄**・菊池康之

(1982年1月27日受理)

^{45}Sc の中性子核データを熱中性子領域から 20 MeV にわたり評価した。評価した量は、全断面積、弾性散乱、非弾性散乱、捕獲、 $(n, 2n)$ 、 (n, p) 、 (n, α) 反応断面積、共鳴パラメータおよび放出粒子の角度分布である。共鳴パラメータは 100keV 以下の領域で与えた。現在東京大学工学部付属原子力工学研究施設の高速中性子源炉「弥生」において金属 Sc を用いた単色中性子フィルターを設計しているので、2keV 近傍の全断面積の極小値には特に注意を払った。共鳴領域より上の滑らかな断面積は光学および統計模型に基き評価した。今回の評価結果は ENDF/B フォーマットにまとめ、JENDL-2 に格納される。

* 東京大学工学部付属原子力工学研究施設

** Data Bank, OECD-Nuclear Energy Agency

Contents

1. Introduction	1
2. Resonance Energy Region	2
2.1 Total Cross Section near 2 keV	2
2.2 Resonance Parameters	2
2.3 Thermal Cross Sections	4
2.4 Connection with the Smooth Cross Section	4
3. Fast Energy Region	5
3.1 Total Cross Section and Optical Model	5
3.2 Capture, Elastic and Inelastic Scattering Cross Section	5
4. Concluding Remarks	6
Acknowledgment	7
References	8

目 次

1. 序論	1
2. 共鳴エネルギー領域	2
2.1 2 keV近傍の全断面積	2
2.2 共鳴パラメータ	2
2.3 熱中性子断面積	4
2.4 滑らかな断面積との接続	4
3. 高速エネルギー領域	5
3.1 全断面積と光学模型	5
3.2 捕獲, 弾性および非弾性散乱断面積	5
4. 結語	6
謝辞	7
参考文献	8

1. Introduction

There is a deep minimum in the total neutron cross section of scandium-45 near 2 keV due to the interference between the resonance and potential scattering. As natural scandium consists of only scandium-45, a mono-energetic neutron filter can be designed with scandium metal for use in measurement of cross sections, energy calibration of neutron detectors and biomedical irradiation^{1,2,3)}. However, no evaluated neutron cross sections of scandium are available at present. Only the (n, γ) cross section was evaluated and presented in the ENDF/B-IV dosimetry file. Even the minimum value near 2 keV has not been well determined.³⁾

There is a project to construct a scandium filter at Fast Neutron Source Reactor YAYOI of The University of Tokyo for biomedical irradiation. The poor knowledge of scandium cross section makes it difficult to estimate the irradiation dose. Hence a new evaluation was made on scandium cross sections. Though much effort was devoted to the evaluation of the minimum near 2 keV, the evaluation was made from 10^{-5} eV to 20 MeV so that the evaluated data should be included in Japanese Evaluated Nuclear Data Library Version 2 (JENDL-2).

The evaluation of the data in the resonance energy region is described in Chapter 2. Chapter 3 reports the result of the fast energy region. Concluding remarks are given in Chapter 4.

2. Resonance Energy Region

2.1 Total Cross Section near 2 keV

There still remains considerable uncertainty in the total cross section value at the minimum near 2 keV.

The value of 0.085 barn based on the early measurements were denied by Liou et al.⁴⁾ who reported that the minimum value of 0.71 ± 0.03 barns at 2.05 keV. On the other hand, Razbudey et al.⁵⁾ reported the value of 0.27 ± 0.07 barns from their reactor beam measurements. Recently Fujita and Yamamuro³⁾ reported the value of 0.25 ± 0.05 barns which obtained by using a linear accelerator at Research Reactor Institute, Kyoto University (KUR). Later Fujita informed us⁶⁾ that 0.23 ± 0.02 barns was most probable value at 2 keV and his data agreed with those by Liou et al. except in the energy range between 0.5 keV and 3 keV. The present evaluation was based on this result.

2.2 Resonance Parameters

In the present evaluation, we considered the resonance parameters deduced by Liou et al.⁴⁾ from their transmission measurements and those by Kenny et al.⁷⁾ from their capture measurements.

Liou et al. gave the Γ_n and J values for 18 s-wave resonances up to 20.78 keV including two negative ones and the $g\Gamma_n$ values for 5 p-wave resonances. Kenny et al. gave the values of the capture areas and of Γ_γ for many s- and p-wave resonance up to 100 keV.

For the s-wave resonances, we adopted the parameters of Liou et al. up to 20.78 keV assuming the Γ_γ value of 0.41 eV and those of Kenny et al. from 21 keV to 95 keV. The parameters of the two negative resonances were adjusted as will be described later. As to the p-wave

resonances, the present evaluation is based on the resonance areas reported by Kenny et al. except for the lowest 2 levels at 460 eV and 1.06 keV where the parameters of Liou et al. were adopted with the assumed Γ_γ value of 0.41 eV. Kenny et al. also reported the $g\Gamma_\gamma$ values. For most of levels, however, the values of Γ_n became negative when deduced from the reported values of the capture resonance areas and $g\Gamma_\gamma$. Hence we assumed Γ_γ value of 0.5 eV and deduced the Γ_n values.

In the present work, the resonance parameters of the two negative resonances as well as the nuclear radius were so adjusted that the calculated total cross section agreed with the data of Fujita⁶⁾ between 0.5 and 3 keV and that the calculated thermal cross sections agreed with those recommended in BNL-325, 3rd edition⁸⁾. This adjustment was made by using Neutron Data Evaluation System NDES⁹⁾. The finally obtained values are

$$J = 4, E_0 = -330 \text{ eV}, \Gamma_n = 36.7 \text{ eV}, \Gamma_\gamma = 0.41 \text{ eV}$$

$$J = 3, E_0 = -650 \text{ eV}, \Gamma_n = 101.0 \text{ eV}, \Gamma_\gamma = 0.41 \text{ eV}$$

$$R = 4.55 \text{ fm}$$

The resonance parameters are summarized in Table I. The total cross sections calculated from these parameters are presented in Figs. 1 ~ 4 together with the experimental data by Liou et al.

2.3 Thermal Cross Sections

The calculated thermal cross sections are

$$\sigma_t = 51.0 \text{ barns } (50.5 \pm 2.3 \text{ barns}),$$

$$\sigma_s = 25.0 \text{ barns } (24.0 \pm 2.0 \text{ barns}),$$

$$\text{and } \sigma_c = 26.0 \text{ barns } (26.5 \pm 1.0 \text{ barns}).$$

which agree well with the values of BNL-325⁸⁾ appeared in the parentheses.

2.4 Connection with the Smooth Cross Section

From the staircase plot of the resonance levels shown in Figs. 5 and 6, it can be concluded that some resonances are missing above 90 keV. Hence the upper limit of resonance energy region was determined to be 90 keV.

3. Fast Energy Region

The cross sections are calculated in this energy region with the optical and statistical models.

3.1 Total Cross Section and Optical Model

The optical potential parameters were determined by taking account of the following two conditions:

- (1) The s-wave strength function in low energy region should be $(5.1 \pm 0.9) \times 10^{-4}$ which is recommended in BNL-325, 3rd edition.
- (2) The total cross sections measured by Foster and Glasgow¹⁰⁾ (2.308 ~ 14 MeV) and by Barnard et al.¹¹⁾ (0.2 ~ 1.409 MeV) should be well reproduced.

The obtained optical potential parameters are presented in Table II.

The calculated s-wave strength function is 5.1×10^{-4} at 1 keV and agrees very well with the recommended value in BNL-325. The calculated total cross section also agrees very well with the measured data as shown in Fig. 7. This implies the reliability of the present optical model. The calculated cross section was adopted in the present work.

3.2 Capture, Elastic and Inelastic Scattering Cross Section

The capture, elastic and inelastic scattering cross sections were calculated with the statistical model code CASTHY¹²⁾. The neutron transmission coefficient was calculated with the optical potential parameters described before. The γ -ray strength function was so determined that the calculated capture cross section agreed with the measured data by Kenny et al.⁷⁾; 32 mb at 100 keV. The level scheme was taken from Table of Isotope, 7th edition¹³⁾ and is shown in Table III.

The level density parameters were taken from the recommendation by Gilbert and Cameron¹⁴⁾.

The (n,p), (n, α) and (n,2n) reaction cross sections were taken into account as competing processes. The (n,p) and (n, α) cross sections were taken from the compilation by Alley and Lessler¹⁵⁾ and the (n,2n) cross sections were evaluated on the basis of the measurements by Holub and Cíndro¹⁶⁾. The adopted cross sections are given in Table IV. The presently evaluated capture cross section is shown in Fig. 8 with some measured data.

4. Concluding Remarks

Evaluation of neutron nuclear data of scandium-45 have been performed in the energy range of 10^{-5} eV to 20 MeV, and these data will be stored in JENDL-2. The presently evaluated data are shown in Table V with ENDF/B format.

The primary motive of the present evaluation is to know the total cross section near 2 keV. Hence we adopted the calculated total cross section in the fast energy region instead of following the remaining resonance structure in hundred keV region. The ignorance of the structure in this region makes ignorance of the self-shielding factor and may result in some errors in the neutron transport calculation as was pointed out¹⁷⁾ in the case of the iron data of JENDL-1. This problem should be investigated in future.

The level density parameters were taken from the recommendation by Gilbert and Cameron¹⁴⁾.

The (n,p), (n, α) and (n,2n) reaction cross sections were taken into account as competing processes. The (n,p) and (n, α) cross sections were taken from the compilation by Alley and Lessler¹⁵⁾ and the (n,2n) cross sections were evaluated on the basis of the measurements by Holub and Cindro¹⁶⁾. The adopted cross sections are given in Table IV. The presently evaluated capture cross section is shown in Fig. 8 with some measured data.

4. Concluding Remarks

Evaluation of neutron nuclear data of scandium-45 have been performed in the energy range of 10^{-5} eV to 20 MeV, and these data will be stored in JENDL-2. The presently evaluated data are shown in Table V with ENDF/B format.

The primary motive of the present evaluation is to know the total cross section near 2 keV. Hence we adopted the calculated total cross section in the fast energy region instead of following the remaining resonance structure in hundred keV region. The ignorance of the structure in this region makes ignorance of the self-shielding factor and may result in some errors in the neutron transport calculation as was pointed out¹⁷⁾ in the case of the iron data of JENDL-1. This problem should be investigated in future.

Acknowledgment

The authors wish to express their thanks to M. Hachya of Mitsui Engineering and Shipbuilding Co., Ltd. for summarizing the nuclear data of scandium-45. They also acknowledge Y. Fijita and K. Kobayashi of KUR for their communicating the preliminary cross section data. Careful typewriting by H. Terakado is much appreciated.

References

- 1) Brugger R. M., and Simpson O. D.: "Resonance Window Filters of Neutrons for Research and Development", Proc. Symp. Irradiation Facilities for Research Reactors, Teheran, Nov. 6 - 10, 1972. STI/PUB/316. IAEA, Vienna.
- 2) Mill A. J. and Harvey J. R.: "Reactor- and Accelerator-Based Filtered Beams", RD/B/N4776, Central Electricity Generating Board, 1980.
- 3) Fujita Y. and Yamamuro N.: J. At. Energy Soc. Jpn., 23, 85 (1981) [in Japanese].
- 4) Liou H. I., Chrien R. E., Block, R. C. and Kobayashi K.: Nucl. Sci. Eng., 67, 326 (1978).
- 5) Razbudey V. F., Muravitsky A. V., Vertebnyi V. P. and Kiriluk A. L.: "Nuclear Cross Sections for Technology", Proc. Int. Conf., Knoxville, Oct. 22 - 26, 1979, p.890, NBS Special Publication 594 (1980).
- 6) Fujita Y.: Private communication (1981).
- 7) Kenny M. J., Allen B. J. and Macklin R. L.: Aust. J. Phys., 30, 605 (1977).
- 8) Mughabgab S. F. and Garber D. I.: "Neutron Cross Sections, Vol. 1, Resonance Parameters", BNL-325, 3rd Edition (1973).
- 9) Nakagawa T.: J. At. Energy Soc. Jpn., 22, 559 (1980) [in Japanese].
- 10) Foster G. D. and Glasgow D. W.: Phy. Rev., C3, 576 (1971).
- 11) Barnard E., Devilliers J. A. M., Reitmann D. and Tepel J. W.: Z. Phys., 245, 36 (1971).
- 12) Igarasi S.: J. Nucl. Sci. Technol., 12, 67 (1975).
- 13) Lederer C. M. and Shirley V. S., (Editor): "Table of Isotopes", 7th Edition, p.116, A Wiley-Interscience Pub. (1978).
- 14) Gilbert A. and Cameron A. G. W.: Can. J. Phys., 43, 1446 (1965).
- 15) Alley W. E. and Lessler R. M.: Nucl. Data Tables, A11, 648 (1973).
- 16) Holub E and Cindro N.: Z. Phys., A289, 421 (1979).

- 17) Kawai M., Yamano N. and Koyama K.: "Nuclear Cross Sections for Technology", Proc. Inst. Conf., Knoxville, Oct. 22 - 26, 1979, p.586, NBS Special Publication 594 (1980).
- 18) Chou M., Fröhner F. H., Kazerouni M., Muller K. N. and Rohr G.: "Nuclear Data for Reactors", Conf. Proceedings, Helsinki, 15 - 19 June 1970, Vol. 1, p.619, IAEA (1970).
- 19) Booth R., Ball W. P. and MacGregor M. H.: Phys. Rev., 112, 226 (1958).
- 20) Perkin J. L.: J. Nucl. Energy, 17, 349 (1963).

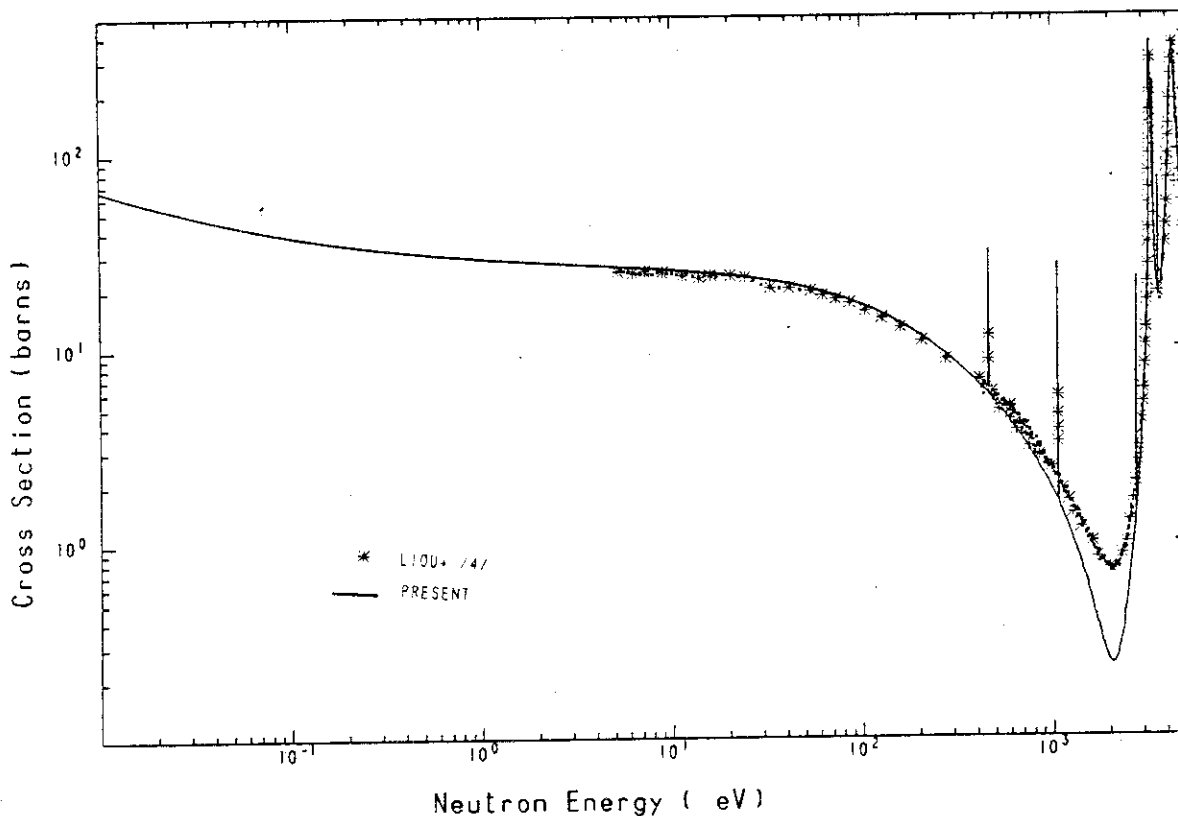


Fig. 1 The total cross section of ^{45}Sc calculated from the present resonance parameters with the measured data by Liou et al.⁴⁾ in the energy range below 5 keV.

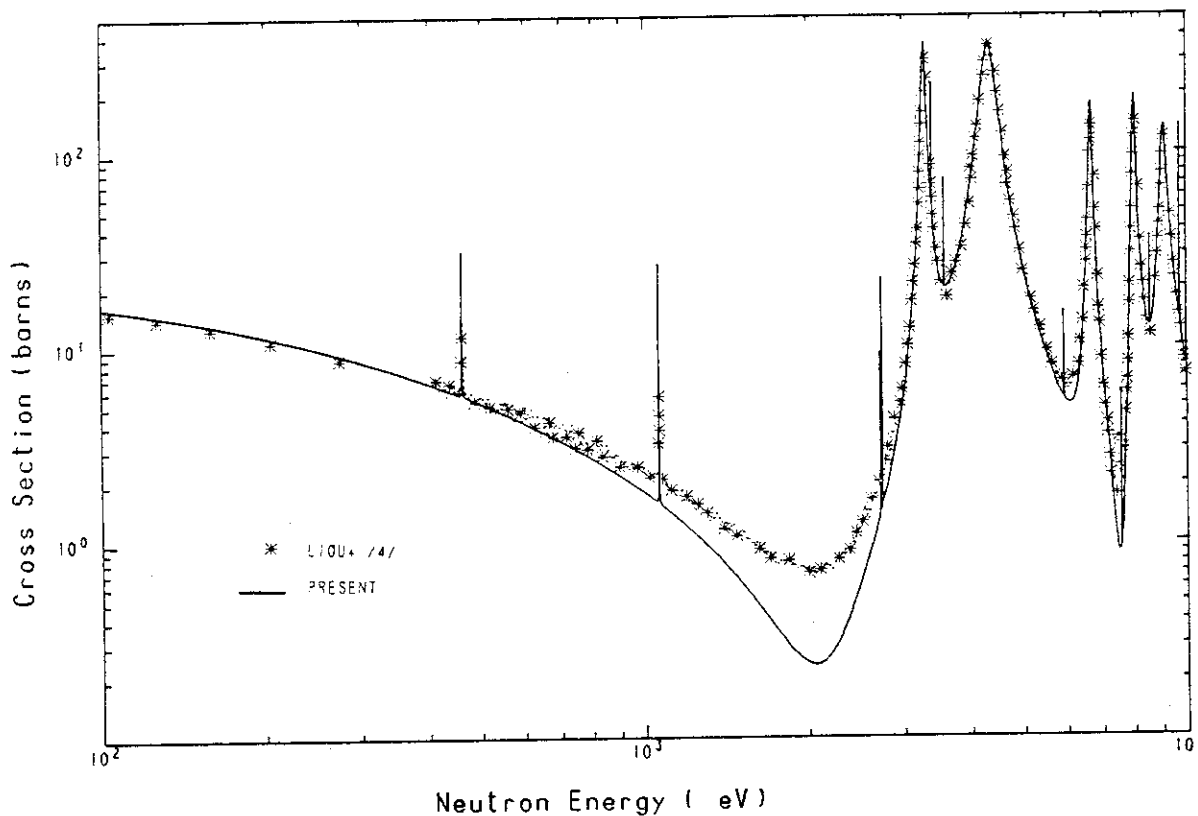


Fig. 2 The total cross section of ^{45}Sc calculated from the present resonance parameters with the measured data by Liou et al.⁴⁾ in the energy range between 100 eV and 10 keV.

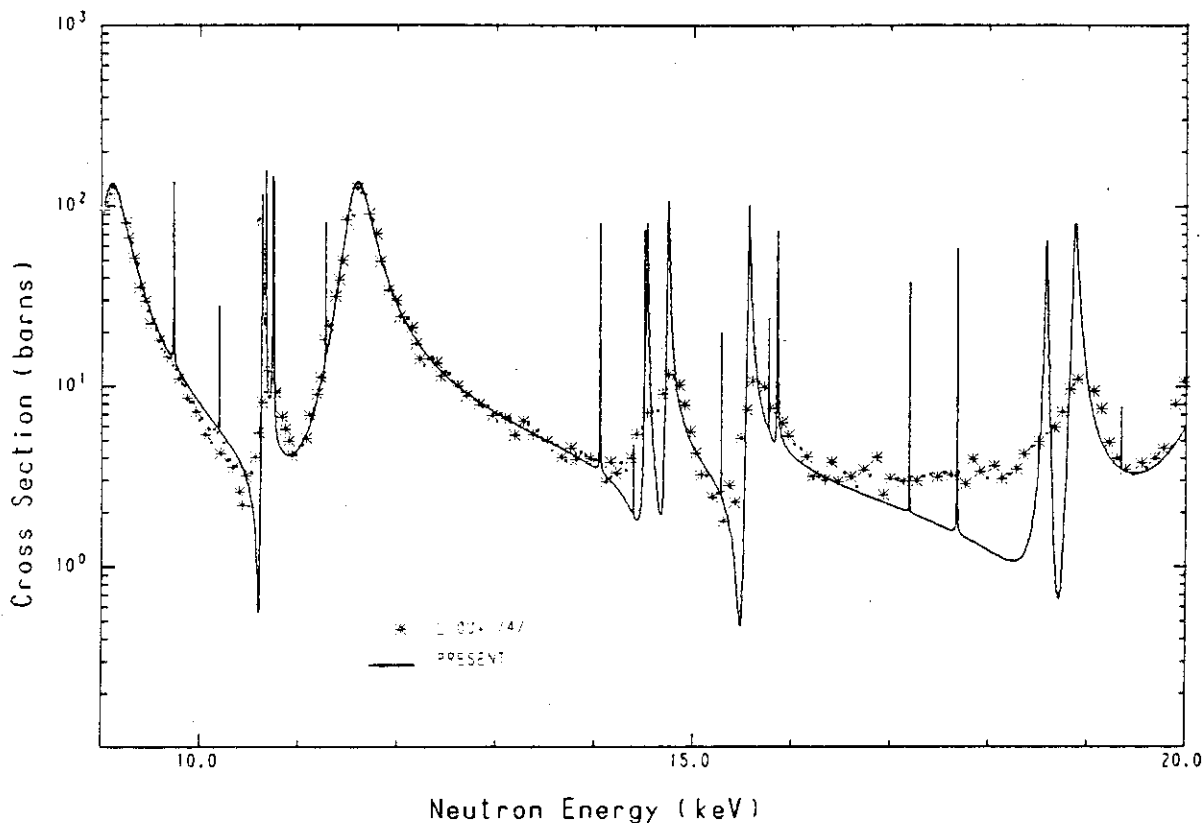


Fig. 3 The total cross section of ^{45}Sc calculated from the present resonance parameters with the measured data by Liou et al.⁴⁾ in the energy range between 9 and 20 keV.

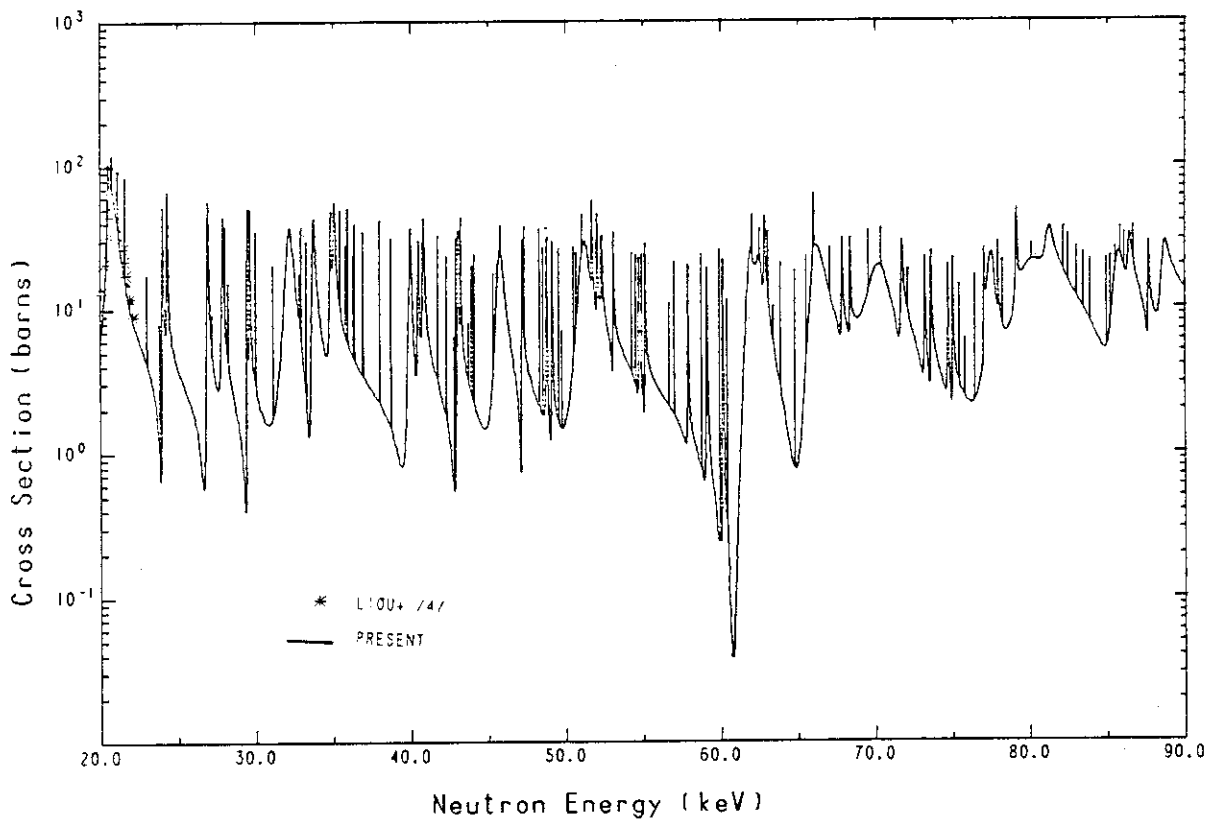


Fig. 4 The total cross section of ^{45}Sc calculated from the resonance parameters in the energy range from 20 to 90 keV.

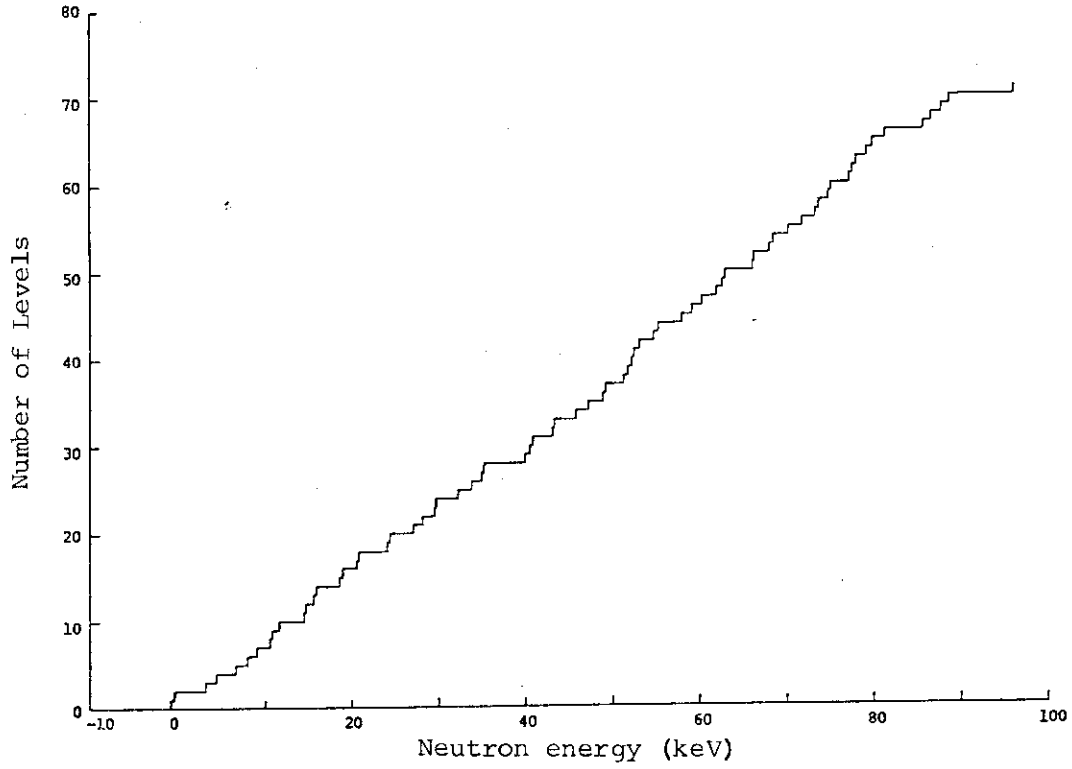


Fig. 5 Stair case plot of the s-wave resonance level sequence for ^{45}Sc .

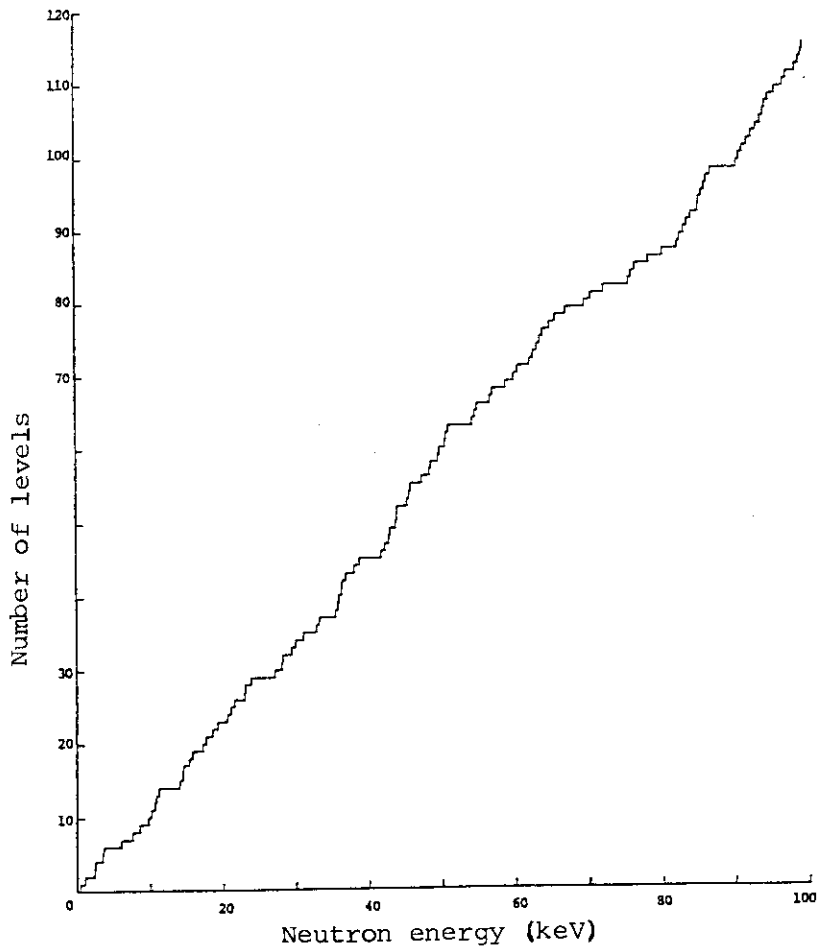


Fig. 6 Stair case plot of the p-wave resonance level sequence for ^{45}Sc .

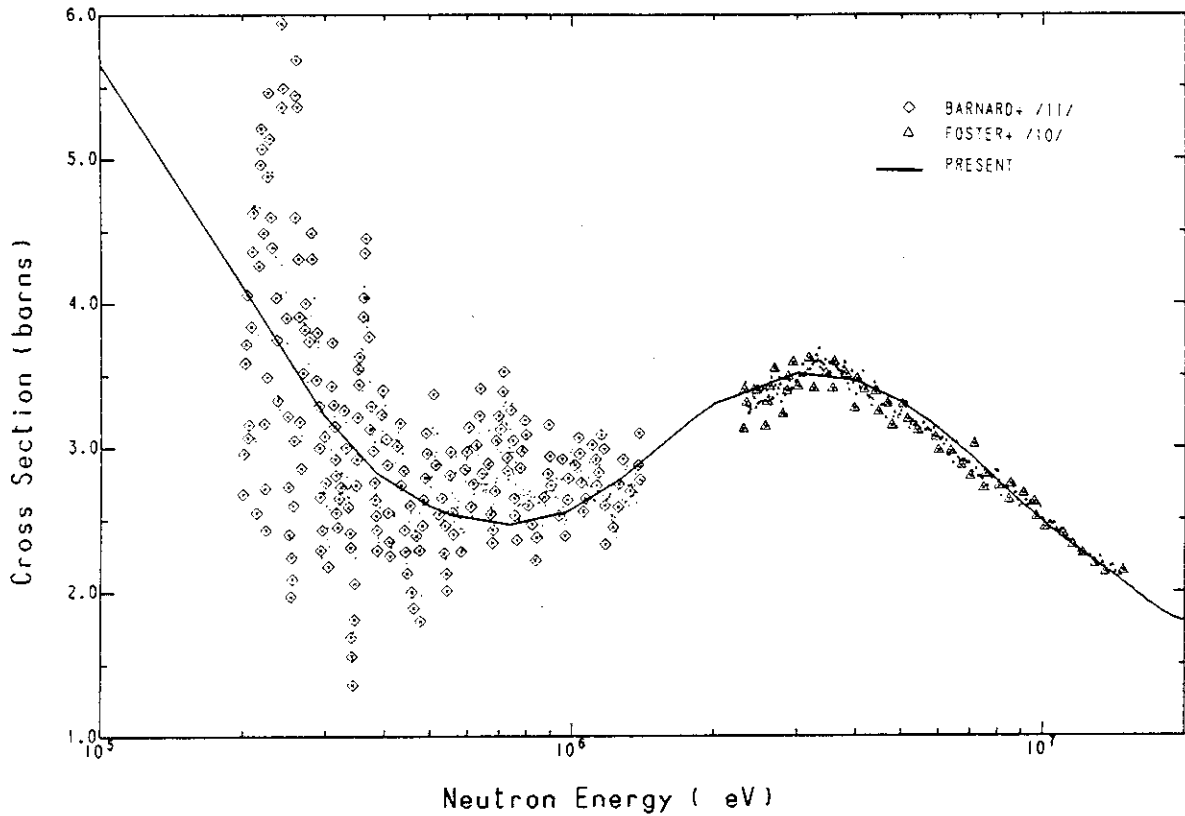


Fig. 7 The total cross section of ^{45}Sc calculated from the present optical potential parameters and the experimental values by Barnard et al.¹¹⁾ (0.2 - 1.4 MeV) and by Foster and Glasgow¹⁰⁾ (2.5 - 1.5 MeV).

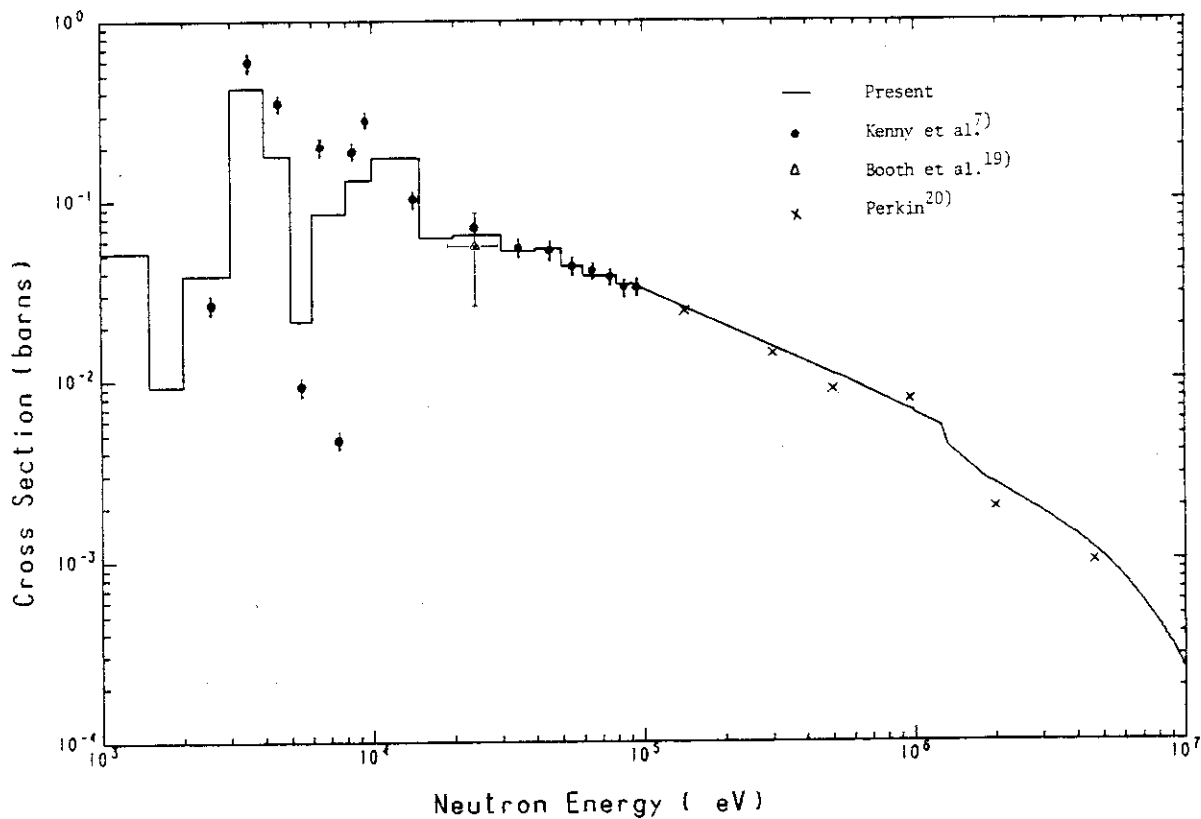


Fig. 8 The capture cross sections of ^{45}Sc . The average values are given in the resonance region.

Table I Resonance parameters of ⁴⁵Sc

ENERGY (KEV)	L	J	TOTAL WIDTH (EV)	NEUTRON WIDTH* (EV)	GAMMA WIDTH* (EV)	MISCELLANEOUS**	REFERENCE ***
-0.65 -0.5 ± 0.05	0 0	3 3	101.41	101.0 89 ±11	0.41	GNO= 4.0 ± 0.5	JENDL-2 78L10U+
-0.33 -0.22 ± 0.04	0 0	4 4	37.11	36.7 9.9 ± 1.5	0.41	GNO= 0.67 ± 0.10	JENDL-2 78L10U+
0.4606 0.4606± 0.0004	1 1	3.5	0.5044	0.0044 A 0.0044± 0.0004	0.5		JENDL-2 78L10U+
1.0604 1.0604± 0.0010	1 1	3.5	0.51	0.01 A 0.0100± 0.0014	0.5		JENDL-2 78L10U+
2.715 2.715± 0.003	1 1	3.5	0.508	0.008 A 0.008± 0.002	0.5	ARG= 7.1 ± 0.7	JENDL-2 77KENNY+
2.737 2.737± 0.003	1 1	3.5	0.522	0.022 A 0.022± 0.002	0.5	ARG= 19.9 ± 2.0	JENDL-2 77KENNY+
3.295 3.300± 0.015 3.295± 0.012	0 0 0	3 3	75.41	75.0 80 ±10 75 ± 5	0.41 B 0.62 ± 0.06	ARG= 396 ±40	JENDL-2 77KENNY+ 78L10U+
3.404 3.404± 0.003	1 1	3.5	0.871	0.371 B 0.185± 0.018	0.5	ARG= 133.8 ±13.4	JENDL-2 77KENNY+
3.582 3.582± 0.004	1 1	3.5	0.58	0.08 A 0.080± 0.008	0.5	ARG= 54.8 ± 5.5	JENDL-2 77KENNY+
4.33 4.325± 0.050 4.330± 0.018	0 0 0	4 4	340.41	340.0 320 ±40 340 ±20	0.41 B 0.71 ± 0.07	ARG= 352 ±35	JENDL-2 77KENNY+ 78L10U+
5.943 5.943± 0.006	1 1	3.5	0.522	0.022 A 0.022± 0.002	0.5	ARG= 9.2 ± 0.9	JENDL-2 77KENNY+
6.684 6.700± 0.020 6.684± 0.020	0 0 0	3 3	130.41	130.0 125 ±25 130 ±14	0.41 B 0.65 ± 0.07	ARG= 207 ±21	JENDL-2 77KENNY+ 78L10U+
7.377± 0.025	1			A 0.8 ± 0.4			78L10U+
7.56 7.560± 0.008 7.458± 0.025	1 1 1	3.5	0.514	0.014 A 0.014± 0.002 A 0.8 ± 0.4	0.5	ARG= 4.8 ± 0.5	JENDL-2 77KENNY+ 78L10U+
7.548± 0.025	1			A 0.50 ± 0.30			78L10U+
8.023 8.038± 0.030 8.023± 0.025	0 0 0	4 4	145.41	145.0 140 ±30 145 ±15	0.41 B 0.64 ± 0.06	ARG= 168 ±17	JENDL-2 77KENNY+ 78L10U+
8.558 8.558± 0.009	1 1	3.5	0.586	0.086 A 0.086± 0.008	0.5	ARG= 24.6 ± 2.5	JENDL-2 77KENNY+
9.070± 0.009	0			40 ±10 B 0.96 ± 0.10		ARG= 217 ±22	77KENNY+
9.092 9.080± 0.040 9.092± 0.030	0 0 0	3 3	300.41	300.0 250 ±50 300 ±20	0.41 B 0.82 ± 0.12	ARG= 193 ±30	JENDL-2 77KENNY+ 78L10U+
9.725 9.725± 0.010	1 1	3.5	3.03	2.53 B 0.368± 0.036	0.5	ARG= 91.8 ± 9.2	JENDL-2 77KENNY+
10.189 10.189± 0.010	1 1	3.5	0.598	0.098 A 0.098± 0.010	0.5	ARG= 23.4 ± 2.3	JENDL-2 77KENNY+
10.625 10.625± 0.035	0 0	3 3	10.41	10.0 10 ± 3	0.41		JENDL-2 78L10U+
10.662 10.662± 0.011	1 1	5.0	4.63	3.83 B 0.800± 0.080	0.8	ARG= 182.5 ±18.3	JENDL-2 77KENNY+
10.735 10.735± 0.035	0 0	4 4	5.41	5.0 5 ± 2	0.41		JENDL-2 78L10U+
10.74 10.740± 0.011	1 1	5.0	1.711	0.911 B 0.516± 0.052	0.8	ARG= 116.6 ±11.7	JENDL-2 77KENNY+
11.265 11.265± 0.011	1 1	3.5	1.093	0.593 B 0.240± 0.024	0.5	ARG= 51.5 ± 5.2	JENDL-2 77KENNY+
11.575	0	4	290.41	290.0	0.41		JENDL-2

JAERI-M 9981

Table I (cont.)

ENERGY (KEY)	L	J	TOTAL WIDTH (EV)	NEUTRON WIDTH* (EV)	GAMMA WIDTH* (EV)	MISCELLANEOUS**	REFERENCE***
11.580± 0.050 11.575± 0.050	0 0	4		300 ±50 290 ±20	^B 0.86 ± 0.09	ARG= 158 ±16	77KENNY+ 78LIOU+
14.05 14.050± 0.014	1 1	3.5	2.15	1.65	^B 0.5 0.338± 0.034	ARG= 58.4 ± 5.8	JENDL-2 77KENNY+
14.39 14.390± 0.014	1 1	3.5	0.5153	0.0153	^B 0.5 0.012± 0.002	ARG= 2.2 ± 0.2	JENDL-2 77KENNY+
14.5 14.500± 0.015	1 1	5.0	1.62	0.82	^B 0.8 0.490± 0.050	ARG= 82.1 ± 8.2	JENDL-2 77KENNY+
14.525 14.525± 0.060	0 0	3 3	20.41	20.0 20 ± 4	0.41		JENDL-2 78LIOU+
14.74 14.820± 0.015 14.740± 0.060	0 0 0	4 4 4	26.41	26.0 35 26 ± 5	^B 0.41 0.52 ± 0.05	ARG= 75.3 ± 7.5	JENDL-2 77KENNY+ 78LIOU+
15.28 15.280± 0.015	1 1	3.5	0.621	^A 0.121 0.122± 0.012	0.5	ARG= 19.2 ± 1.9	JENDL-2 77KENNY+
15.56 15.623± 0.016 15.560± 0.060	0 0 0	4 4 4	28.41	28.0 30 28 ± 5	^B 0.41 0.67 ± 0.07	ARG= 92.1 ± 9.2	JENDL-2 77KENNY+ 78LIOU+
15.763 15.763± 0.016	1 1	3.5	0.632	^A 0.132 0.132± 0.014	0.5	ARG= 20.5 ± 2.1	JENDL-2 77KENNY+
15.85 15.850± 0.060	0 0	3 3	5.41	5.0 5 ± 2	0.41		JENDL-2 78LIOU+
17.192 17.192± 0.017	1 1	3.5	0.899	0.399	^B 0.5 0.20 ± 0.02	ARG= 27.6 ± 2.8	JENDL-2 77KENNY+
17.677 17.677± 0.018	1 1	3.5	1.73	1.23	^B 0.5 0.318± 0.032	ARG= 43.0 ± 4.3	JENDL-2 77KENNY+
18.504 18.504± 0.019	1 1	3.5	0.51	^A 0.01 0.010± 0.002	0.5	ARG= 13.9 ± 1.4	JENDL-2 77KENNY+
18.58 18.580± 0.080	0 0	3 3	32.41	32.0 32 ± 6	0.41		JENDL-2 78LIOU+
18.87 19.17 19.084± 0.019 18.870± 0.080	0 0 0 0	4 4 (4) 4	62.41	62.0 60 (60) 62 ±10	0.41 0.69 ± 0.07	ARG= 85.0 ± 8.6	JENDL-2 70CHO+ 77KENNY+ 78LIOU+
19.341 19.341± 0.019	1 1	3.5	0.532	^A 0.032 0.032± 0.004	0.5	ARG= 4.0 ± 0.4	JENDL-2 77KENNY+
20.5 20.80 20.644± 0.021 20.500± 0.090	0 0 0 0	4 4 (4) 4	80.41	80.0 60 100 80 ±14	0.41 0.83 ± 0.12	ARG= 86.1 ± 8.6	JENDL-2 70CHO+ 77KENNY+ 78LIOU+
20.725 20.725± 0.021	1 1	3.5	3.4	2.9	^B 0.5 0.374± 0.038	ARG= 44.0 ± 4.4	JENDL-2 77KENNY+
20.78 20.95 20.933± 0.200 20.780± 0.100	0 0 0 0	3 3 (3) 3	710.41	710.0 800 700 ±200 710 ±60	0.41 0.60 ± 0.20	ARG= 49.2 ± 4.9	JENDL-2 70CHO+ 77KENNY+ 78LIOU+
21.114 21.114± 0.021	1 1	3.5	2.74	2.24	^B 0.5 0.360± 0.036	ARG= 41.4 ± 4.1	JENDL-2 77KENNY+
21.58 21.580± 0.022	1 1	5.0	2.36	1.86	^B 0.5 0.476± 0.048	ARG= 53.7 ± 5.4	JENDL-2 77KENNY+
23.015 23.015± 0.023	1 1	3.5	0.644	^A 0.144 0.144± 0.014	0.5	ARG= 15.3 ± 1.5	JENDL-2 77KENNY+
23.065 23.065± 0.023	1 1	3.5	0.512	^A 0.012 0.012± 0.002	0.5	ARG= 1.4 ± 0.14	JENDL-2 77KENNY+
23.838 23.838± 0.024	1 1	3.5	0.572	^A 0.072 0.072± 0.008	0.5	ARG= 7.4 ± 0.74	JENDL-2 77KENNY+
24.01	0	3	61.087	60.0	1.087		JENDL-2

JAERI-M 9981

Table I (cont.)

ENERGY (KEV)	L	J	TOTAL WIDTH (EV)	NEUTRON WIDTH* (EV)	GAMMA WIDTH* (EV)	MISCELLANEOUS**	REFERENCE***
24.18 24.010± 0.024	0	3 (3)		60 (60)	1.087± 0.109	ARG= 83.1 ± 8.3	70CHO+ 77KENNY+
24.315 24.48 24.315± 0.024	0	4 (4)	60.462	60.0 60 (60)	0.462 0.462± 0.046	ARG= 45.5 ± 4.6	JENDL-2 70CHO+ 77KENNY+
26.925 27.12 26.925± 0.027	0	4 (4)	90.9	90.0 90 (90)	0.9 0.900± 0.090	ARG= 62.0 ± 6.2	JENDL-2 70CHO+ 77KENNY+
27.19 27.190± 0.027	1 1	3.5	0.534	0.034 0.034± 0.004	0.5	ARG= 3.0 ± 0.3	JENDL-2 77KENNY+
27.9 28.12 27.900± 0.028	0	3 (3)	110.811	110.0 110 (110)	0.811 0.811± 0.081	ARG= 53.9 ± 5.4	JENDL-2 70CHO+ 77KENNY+
28.04 28.040± 0.028	1 1	3.5	1.069	0.569	0.5 0.234± 0.024	ARG= 20.3 ± 2.0	JENDL-2 77KENNY+
28.235 28.235± 0.028	1 1	3.5	0.638	0.138 0.138± 0.014	0.5	ARG= 11.9 ± 1.2	JENDL-2 77KENNY+
29.41 29.410± 0.029	1 1	3.5	0.898	0.398	0.5 0.196± 0.020	ARG= 16.1 ± 1.6	JENDL-2 77KENNY+
29.48 29.480± 0.029	0 0	4 (4)	30.613	30.0 30	0.613 0.613± 0.061	ARG= 49.0 ± 4.9	JENDL-2 77KENNY+
29.63 29.85 29.630± 0.030	0 0	3.5 4	50.723	50.0 100 50	0.723 0.723± 0.072	ARG= 51.8 ± 5.2	JENDL-2 70CHO+ 77KENNY+
30.01 30.010± 0.030	1 1	3.5	1.507	1.007	0.5 0.294± 0.030	ARG= 23.8 ± 2.4	JENDL-2 77KENNY+
31.135 31.135± 0.031	1 1	3.5	0.853	0.353	0.5 0.184± 0.018	ARG= 14.2 ± 1.4	JENDL-2 77KENNY+
32.18 32.40 32.180± 0.032	0 0	3 (3)	570.917	570.0 570 (570)	0.917 0.917± 0.092	ARG= 53.1 ± 5.3	JENDL-2 70CHO+ 77KENNY+
32.84 32.840± 0.033	1 1	3.5	0.644	0.144 0.144± 0.014	0.5	ARG= 10.6 ± 1.1	JENDL-2 77KENNY+
32.94 32.940± 0.033	1 1	5.0	1.779	0.979	0.8 0.532± 0.054	ARG= 39.3 ± 3.9	JENDL-2 77KENNY+
33.28 33.280± 0.033	1 1	3.5	1.394	0.894	0.5 0.284± 0.028	ARG= 20.6 ± 2.1	JENDL-2 77KENNY+
33.73 34.0 33.730± 0.034	0 0	3 (3)	200.866	200.0 190 200	0.866 0.866± 0.087	ARG= 47.9 ± 4.8	JENDL-2 70CHO+ 77KENNY+
34.85 34.850± 0.035	0 0	3.5	100.689	100.0 100	0.689 0.689± 0.070	ARG= 42.7 ± 4.3	JENDL-2 77KENNY+
35.08 35.3 35.080± 0.035	0 0	4 (4)	150.543	150.0 280 150	0.543 0.543± 0.054	ARG= 28.9 ± 2.9	JENDL-2 70CHO+ 77KENNY+
35.47 35.470± 0.036	1 1	5.0	1.93	1.43	0.5 0.448± 0.044	ARG= 30.7 ± 3.1	JENDL-2 77KENNY+
35.8 35.800± 0.036	1 1	3.5	1.101	0.601	0.5 0.242± 0.024	ARG= 16.3 ± 1.6	JENDL-2 77KENNY+
35.955 35.955± 0.036	1 1	5.0	3.76	3.26	0.5 0.524± 0.052	ARG= 35.4 ± 3.5	JENDL-2 77KENNY+
36.31 36.310± 0.036	1 1	3.5	0.979	0.479	0.5 0.214± 0.022	ARG= 14.4 ± 1.4	JENDL-2 77KENNY+
36.39 36.390± 0.037	1 1	3.5	4.35	3.85	0.5 0.388± 0.038	ARG= 26.0 ± 2.6	JENDL-2 77KENNY+
36.93 36.930± 0.037	1 1	3.5	2.61	2.11	0.5 0.356± 0.036	ARG= 23.4 ± 2.3	JENDL-2 77KENNY+

JAERI-M 9981

Table I (cont.)

ENERGY (KEV)	L	J	TOTAL WIDTH (EV)	NEUTRON WIDTH [*] (EV)	GAMMA WIDTH [*] (EV)	MISCELLANEOUS ^{**}	REFERENCE ^{***}
38.0 38.000± 0.038	1 1	5.0	2.55	2.05	0.5 0.486± 0.048	ARG= 31.1 ± 3.1	JENDL-2 77KENNY+
38.73 38.730± 0.039	1 1	3.5	2.65	2.15	0.5 0.356± 0.036	ARG= 22.4 ± 2.2	JENDL-2 77KENNY+
39.98 40.37 39.980± 0.040	0 0	4 4 (4)	181.067	180.0 130 180	1.067 1.067± 0.107	ARG= 63.9 ± 6.4	JENDL-2 70CHO+ 77KENNY+
40.5 40.77 40.500± 0.041	0 0	3 3 (3)	101.276	100.0 100 (100)	1.276 1.276± 0.128	ARG= 75.1 ± 7.5	JENDL-2 70CHO+ 77KENNY+
40.815 41.15 40.815± 0.041	0 0	4 4 (4)	110.639	110.0 110 (110)	0.639 0.639± 0.064	ARG= 29.1 ± 3.0	JENDL-2 70CHO+ 77KENNY+
41.74 41.740± 0.042	1 1	3.5	3.65	3.15	0.5 0.380± 0.038	ARG= 22.1 ± 2.2	JENDL-2 77KENNY+
42.3 42.300± 0.042	1 1	3.5	1.424	0.924	0.5 0.286± 0.028	ARG= 16.4 ± 1.6	JENDL-2 77KENNY+
42.79 42.790± 0.043	1 1	3.5	0.612	0.112 0.112± 0.012	0.5	ARG= 6.4 ± 0.6	JENDL-2 77KENNY+
42.9 42.900± 0.043	1 1	3.5	4.266	3.81	0.456 0.456± 0.046	ARG= 20.3 ± 2.0	JENDL-2 77KENNY+
43.05 43.35 43.050± 0.043	0 0	4 4 (4)	101.068	100.0 170 100	1.068 1.068± 0.107	ARG= 46.0 ± 4.6	JENDL-2 70CHO+ 77KENNY+
43.215 43.215± 0.043	0 0	3.5	31.074	30.0 30	1.074 1.074± 0.107	ARG= 51.8 ± 5.2	JENDL-2 77KENNY+
43.71 43.710± 0.044	1 1	3.5	0.59	0.09 0.090± 0.010	0.5	ARG= 5.0 ± 0.5	JENDL-2 77KENNY+
43.92 43.920± 0.044	1 1	3.5	1.102	0.602	0.5 0.242± 0.024	ARG= 13.3 ± 1.3	JENDL-2 77KENNY+
44.08 44.080± 0.044	1 1	3.5	1.544	1.044	0.5 0.298± 0.030	ARG= 16.4 ± 1.6	JENDL-2 77KENNY+
45.3 45.300± 0.045	1 1	3.5	0.915	0.415	0.5 0.198± 0.020	ARG= 10.7 ± 1.1	JENDL-2 77KENNY+
45.57 45.570± 0.045	1 1	3.5	0.632	0.132 0.132± 0.014	0.5	ARG= 7.1 ± 0.7	JENDL-2 77KENNY+
45.73 46.15 45.730± 0.046	0 0	3 3 (3)	480.521	480.0 480 (480)	0.521 0.521± 0.052	ARG= 21.3 ± 2.1	JENDL-2 70CHO+ 77KENNY+
45.78 45.780± 0.046	1 1	3.5	0.814	0.314	0.5 0.168± 0.016	ARG= 9.0 ± 0.9	JENDL-2 77KENNY+
47.18 47.60 47.180± 0.047	0 0	3 3 (3)	60.053	60.0 180 60	0.053 0.053± 0.054	ARG= 27.1 ± 2.7	JENDL-2 70CHO+ 77KENNY+
47.31 47.310± 0.047	1 1	5.0	1.94	1.44	0.5 0.450± 0.046	ARG= 23.1 ± 2.3	JENDL-2 77KENNY+
48.31 48.310± 0.048	1 1	5.0	4.57	4.07	0.5 0.538± 0.054	ARG= 27.1 ± 2.7	JENDL-2 77KENNY+
48.53 48.530± 0.049	1 1	5.0	2.23	1.43	0.8 0.622± 0.062	ARG= 31.1 ± 3.1	JENDL-2 77KENNY+
48.79 48.790± 0.049	0 0	4 4 (4)	40.478	40.0 40	0.478 0.478± 0.048	ARG= 23.3 ± 2.3	JENDL-2 77KENNY+
49.12 49.17 49.120± 0.049	0 0	3.5 4	40.361	40.0 160 40	0.361 0.361± 0.036	ARG= 17.5 ± 1.8	JENDL-2 70CHO+ 77KENNY+
49.54 49.540± 0.050	1 1	5.0	2.278	1.48	0.798 0.798± 0.080	ARG= 30.8 ± 3.1	JENDL-2 77KENNY+

Table I (cont.)

ENERGY (KEV)	L	J	TOTAL WIDTH (EV)	NEUTRON WIDTH * (EV)	GAMMA WIDTH * (EV)	MISCELLANEOUS **	REFERENCE ***
49.75 49.750± 0.050	1 1	3.5	0.626	0.126 a 0.126± 0.012	0.5	ARG= 4.9 ± 0.5	JENDL-2 77KENNY+
50.5 50.500± 0.051	1 1	3.5	2.42	1.92	0.5 b 0.348± 0.034	ARG= 16.8 ± 1.7	JENDL-2 77KENNY+
50.685 50.685± 0.051	1 1	3.5	1.228	0.728	0.5 b 0.260± 0.026	ARG= 12.5 ± 1.3	JENDL-2 77KENNY+
51.05 51.050± 0.051	1 1	3.5	2.12	1.62	0.5 b 0.336± 0.034	ARG= 16.0 ± 1.6	JENDL-2 77KENNY+
51.16 51.16 51.160± 0.051	0 0 (4)	4 4 (4)	841.3	840.0 840 (840)	1.3 1.300± 0.013	ARG= 46.4 ± 4.6	JENDL-2 70CHO+ 77KENNY+
51.685 51.685± 0.052	0 0	3.5	40.352	40.0 40	0.352 b 0.352± 0.035	ARG= 14.7 ± 1.5	JENDL-2 77KENNY+
52.025 52.025± 0.052	0 0	3.5	40.521	40.0 40	0.521 b 0.521± 0.052	ARG= 21.5 ± 2.1	JENDL-2 77KENNY+
52.33 52.18 52.330± 0.052	0 0 (3)	3 3 (3)	70.418	70.0 100 70	0.418 0.418± 0.04	ARG= 14.9 ± 1.5	JENDL-2 70CHO+ 77KENNY+
53.075 53.075± 0.053	0 0	3.5	40.248	40.0 40	0.248 b 0.248± 0.25	ARG= 10.0 ± 1.0	JENDL-2 77KENNY+
54.255 54.255± 0.054	1 1	5.0	2.03	1.23	0.8 b 0.583± 0.058	ARG= 26.3 ± 2.6	JENDL-2 77KENNY+
54.525 54.525± 0.054	1 1	3.5	2.45	1.95	0.5 b 0.348± 0.034	ARG= 15.6 ± 1.6	JENDL-2 77KENNY+
54.73 54.83 54.730± 0.055	0 0 (3)	3 3 (3)	41.76	40.0 220 40	1.76 1.760± 0.176	ARG= 57.7 ± 5.8	JENDL-2 70CHO+ 77KENNY+
54.92 54.920± 0.055	1 1	5.0	2.04	1.24	0.8 b 0.590± 0.060	ARG= 26.1 ± 2.6	JENDL-2 77KENNY+
55.125 55.125± 0.055	0 0	3.5	40.39	40.0 40	0.39 b 0.390± 0.039	ARG= 15.1 ± 1.5	JENDL-2 77KENNY+
56.655 56.655± 0.057	1 1	3.5	0.781	0.281	0.5 b 0.158± 0.016	ARG= 6.8 ± 0.7	JENDL-2 77KENNY+
57.01 57.010± 0.057	1 1	5.0	1.95	1.15	0.8 b 0.570± 0.058	ARG= 24.3 ± 2.4	JENDL-2 77KENNY+
57.89 57.68 57.890± 0.058	0 0 (3)	3 3 (3)	35.487	35.0 220 35	0.487 0.487± 0.049	ARG= 17.9 ± 1.8	JENDL-2 70CHO+ 77KENNY+
58.76 58.760± 0.059	1 1	5.0	2.95	2.15	0.8 b 0.706± 0.070	ARG= 29.2 ± 2.9	JENDL-2 77KENNY+
59.11 58.77 59.110± 0.059	0 0 (3)	3 3 (3)	51.047	50.0 1640 50	1.047 1.047± 0.105	ARG= 37.3 ± 3.7	JENDL-2 70CHO+ 77KENNY+
59.92 59.920± 0.060	1 1	5.0	2.7	2.2	0.5 b 0.492± 0.130	ARG= 20.0 ± 2.0	JENDL-2 77KENNY+
60.14 60.140± 0.060	0 0	3.5	40.681	40.0 40	0.681 b 0.681± 0.068	ARG= 24.0 ± 2.4	JENDL-2 77KENNY+
60.42 60.420± 0.060	1 1	3.5	0.973	0.473	0.5 b 0.214± 0.022	ARG= 8.6 ± 0.9	JENDL-2 77KENNY+
61.89 61.84 61.890± 0.062	0 0 (4)	4 4 (4)	520.7	520.0 520 (520)	0.7 0.700± 0.070	ARG= 26.9 ± 2.7	JENDL-2 70CHO+ 77KENNY+
62.025 62.025± 0.062	1 1	3.5	3.174	2.84	0.334 b 0.334± 0.034	ARG= 10.3 ± 1.0	JENDL-2 77KENNY+
62.49 62.54 62.490± 0.062	0 0 (3)	3 3 (3)	571.0	570.0 570 (570)	1.0 1.000± 0.100	ARG= 29.8 ± 3.0	JENDL-2 70CHO+ 77KENNY+

JAERI-M 9981

Table I (cont.)

ENERGY (KEV)	L	J	TOTAL WIDTH (EV)	NEUTRON WIDTH* (EV)	GAMMA WIDTH* (EV)	MISCELLANEOUS**	REFERENCE***
62.5 62.500± 0.063	1 1	3.5	1.171	0.671	0.5 0.254± 0.026	ARG= 9.8 ± 0.9	JENDL-2 77KENNY+
62.85 62.850± 0.063	0 0	3.5	100.548	100.0 100	0.548 0.548± 0.055	ARG= 18.8 ± 1.9	JENDL-2 77KENNY+
63.05 63.050± 0.063	1 1	3.5	4.602	4.11	0.492 0.492± 0.050	ARG= 14.9 ± 1.5	JENDL-2 77KENNY+
63.4 63.400± 0.063	1 1	3.5	0.632	0.132 0.132± 0.014	0.5	ARG= 5.1 ± 0.5	JENDL-2 77KENNY+
63.85 63.850± 0.064	1 1	5.0	2.05	1.25	0.8 0.592± 0.060	ARG= 22.5 ± 2.3	JENDL-2 77KENNY+
64.78 64.780± 0.065	1 1	5.0	2.04	1.24	0.8 0.588± 0.030	ARG= 22.1 ± 2.2	JENDL-2 77KENNY+
65.52 65.520± 0.066	1 1	5.0	2.28	1.48	0.8 0.628± 0.062	ARG= 23.3 ± 2.3	JENDL-2 77KENNY+
66.0 66.000± 0.066	0 0	3.5	40.287	40.0 40	0.287 0.287± 0.029	ARG= 9.3 ± 0.9	JENDL-2 77KENNY+
66.1 65.94 66.100± 0.066	0 0	4 4 (4)	1041.8	1040.0 1040 (1040)	1.8 1.800± 0.180	ARG= 50.8 ± 5.1	JENDL-2 70CHO+ 77KENNY+
67.05 67.050± 0.067	1 1	3.5	1.438	0.938	0.5 0.286± 0.028	ARG= 10.4 ± 1.0	JENDL-2 77KENNY+
67.85 67.850± 0.069	0 0	3.5	76.504	75.0 75	1.504 1.504± 0.150	ARG= 46.8 ± 4.7	JENDL-2 77KENNY+
68.375 68.375± 0.068	0 0	3.5	51.435	50.0 50	1.435 1.435± 0.144	ARG= 44.0 ± 4.4	JENDL-2 77KENNY+
69.555 69.555± 0.070	1 1	5.0	5.37	4.37	1.0 0.984± 0.098	ARG= 34.4 ± 3.4	JENDL-2 77KENNY+
70.11 70.11 70.110± 0.070	0 0	3 3 (3)	1690.6	1690.0 1690 (1690)	0.6 0.600± 0.072	ARG= 16.0 ± 1.9	JENDL-2 70CHO+ 77KENNY+
70.375 70.375± 0.071	1 1	5.0	2.28	1.48	0.8 0.628± 0.066	ARG= 21.7 ± 2.5	JENDL-2 77KENNY+
71.7 71.76 71.700± 0.072	0 0	4 4 (4)	151.606	150.0 410 150	1.606 1.606± 0.210	ARG= 53.3 ± 6.5	JENDL-2 70CHO+ 77KENNY+
72.115 72.115± 0.072	1 1	3.5	0.947	0.447	0.5 0.208± 0.022	ARG= 7.0 ± 0.9	JENDL-2 77KENNY+
73.2 73.18 73.200± 0.073	0 0	3 3 (3)	70.951	70.0 350 70	0.951 0.951± 0.140	ARG= 24.0 ± 2.9	JENDL-2 70CHO+ 77KENNY+
73.6 73.600± 0.074	0 0	3.5	60.281	60.0 60	0.281 0.281± 0.028	ARG= 8.2 ± 1.0	JENDL-2 77KENNY+
74.7 74.90 74.700± 0.075	0 0	3 3 (3)	61.177	60.0 150 60	1.177 1.177± 0.153	ARG= 28.9 ± 2.9	JENDL-2 70CHO+ 77KENNY+
75.0 75.000± 0.075	0 0	3.5	46.54	45.0 45	1.54 1.540± 0.200	ARG= 42.9 ± 4.3	JENDL-2 77KENNY+
75.43 75.430± 0.075	1 1	3.5	1.294	0.794	0.5 0.270± 0.210	ARG= 8.7 ± 1.2	JENDL-2 77KENNY+
75.78 75.780± 0.076	1 1	3.5	0.63	0.13 0.130± 0.016	0.5	ARG= 4.2 ± 0.4	JENDL-2 77KENNY+
76.42 76.420± 0.076	1 1	3.5	2.34	1.84	0.5 0.346± 0.038	ARG= 11.0 ± 1.4	JENDL-2 77KENNY+
77.025 77.15 77.025± 0.077	0 0	4 4 (4)	50.522	50.0 250 50	0.522 0.522± 0.068	ARG= 16.1 ± 2.1	JENDL-2 70CHO+ 77KENNY+
77.5	0	3	600.498	600.0	0.498		JENDL-2

JAERI-M 9981

Table I (cont.)

ENERGY (KEV)	L	J	TOTAL WIDTH (EV)	NEUTRON WIDTH * (EV)	GAMMA WIDTH * (EV)	MISCELLANEOUS **	REFERENCE ***
77.55 77.500± 0.078	0	3 (3)		600 (600)	0.498± 0.063	ARG= 12.0 ± 1.6	70CHO+ 77KENNY+
77.925 77.85 77.925± 0.078	0	4 4 (4)	40.824	40.0 150 40	0.824 0.824± 0.125	ARG= 24.9 ± 3.0	JENDL-2 70CHO+ 77KENNY+
78.215 78.215± 0.078	1 1	5.0	1.89	1.09	0.8 0.560± 0.064	ARG= 17.4 ± 2.0	JENDL-2 77KENNY+
79.15 79.00 79.150± 0.079	0 0	3 3 (3)	100.827	100.0 200 100	0.827 0.827± 0.125	ARG= 24.9 ± 3.0	JENDL-2 70CHO+ 77KENNY+
79.8 79.80 79.800± 0.500	0 0	3 3 (3)	2802.0	2800.0 2800 (2800)	2.0 2.0 ± 1.0	ARG= 50.6 ± 25	JENDL-2 70CHO+ 77KENNY+
80.1 80.100± 0.080	1 1	3.5	0.809	0.309	0.5 0.192± 0.040	ARG= 5.1 ± 1.0	JENDL-2 77KENNY+
81.2 81.10 81.200± 0.081	0 0	4 4 (4)	600.28	600.0 600 (600)	0.28 0.280± 0.090	ARG= 8.3 ± 2.8	JENDL-2 70CHO+ 77KENNY+
82.18 82.180± 0.082	1 1	5.0	6.42	5.42	1.0 1.022± 0.114	ARG= 30.2 ± 3.8	JENDL-2 77KENNY+
82.48 82.480± 0.083	1 1	5.0	3.45	2.65	0.8 0.744± 0.084	ARG= 21.9 ± 2.8	JENDL-2 77KENNY+
83.005 83.005± 0.083	1 1	5.0	4.34	2.84	1.5 1.190± 0.132	ARG= 34.8 ± 4.0	JENDL-2 77KENNY+
83.00		4		150			70CHO+
83.45 83.450± 0.084	1 1	5.0	4.18	2.68	1.5 1.164± 0.130	ARG= 33.9 ± 4.0	JENDL-2 77KENNY+
83.9 83.900± 0.084	1 1	5.0	2.08	1.28	0.8 0.596± 0.072	ARG= 17.3 ± 2.1	JENDL-2 77KENNY+
84.95 84.950± 0.085	1 1	5.0	2.15	1.66	0.5 0.466± 0.058	ARG= 13.3 ± 1.6	JENDL-2 77KENNY+
85.205 85.205± 0.085	1 1	3.5	5.47	4.97	0.6 0.400± 0.050	ARG= 11.4 ± 1.4	JENDL-2 77KENNY+
85.525 85.525± 0.086	1 1	3.5	0.947	0.447	0.5 0.208± 0.026	ARG= 5.9 ± 0.8	JENDL-2 77KENNY+
85.6 85.60 85.600± 0.086	0 0	4 4 (4)	850.35	850.0 850 (850)	0.35 0.350± 0.052	ARG= 9.8 ± 1.5	JENDL-2 70CHO+ 77KENNY+
85.84 85.840± 0.086	1 1	3.5	2.11	1.61	0.5 0.336± 0.042	ARG= 9.5 ± 1.1	JENDL-2 77KENNY+
86.105 86.105± 0.086	1 1	3.5	4.606	4.14	0.466 0.466± 0.058	ARG= 10.4 ± 1.2	JENDL-2 77KENNY+
86.4 86.00 86.400± 0.086	0 0	3 3 (3)	275.51	275.0 650 275	0.51 0.510± 0.078	ARG= 14.2 ± 2.1	JENDL-2 70CHO+ 77KENNY+
86.675 86.675± 0.087	1 1	3.5	6.61	6.11	0.5 0.404± 0.052	ARG= 11.4 ± 1.3	JENDL-2 77KENNY+
87.65 87.650± 0.088	0 0	3.5	77.934	75.0 75	2.934 2.934± 0.440	ARG= 69.5 ± 5.0	JENDL-2 77KENNY+
88.6 88.60 88.600± 0.089	0 0	3 3 (3)	550.9	550.0 550 (550)	0.9 0.900± 0.140	ARG= 18.9 ± 3.0	JENDL-2 70CHO+ 77KENNY+
90.24 90.240± 0.090	1 1	5.0	2.03	1.23	0.8 0.588± 0.074	ARG= 15.8 ± 1.8	JENDL-2 77KENNY+
90.20		4		120			70CHO+
90.575	1	5.0	4.71	3.21	1.5		JENDL-2

Table I (cont.)

ENERGY (KEV)	L	J	TOTAL WIDTH (EV)	NEUTRON WIDTH (EV)	GAMMA WIDTH (EV)	MISCELLANEOUS **	REFERENCE***
90.575± 0.091	1				^b 1.238± 0.144	ARG= 33.2 ± 4.2	77KENNY+
90.95 90.950± 0.091	1 1	5.0	3.93	3.13	0.8 ^b 0.770± 0.094	ARG= 20.6 ± 2.6	JENDL-2 77KENNY+
91.6 91.600± 0.092	1 1	5.0	3.75	2.95	0.8 ^b 0.762± 0.094	ARG= 20.2 ± 2.6	JENDL-2 77KENNY+
91.70		3		550			70CHO+
92.25 92.250± 0.092	1 1	3.5	0.542	0.042 ^a 0.042± 0.004	0.5	ARG= 1.1 ± 0.2	JENDL-2 77KENNY+
92.72 92.720± 0.093	1 1	3.5	1.59	1.09	0.5 ^b 0.300± 0.040	ARG= 7.9 ± 1.1	JENDL-2 77KENNY+
93.39 93.390± 0.093	1 1	5.0	2.12	1.32	0.8 ^b 0.604± 0.080	ARG= 15.7 ± 2.2	JENDL-2 77KENNY+
93.78 93.780± 0.094	1 1	5.0	5.63	4.13	1.5 ^b 1.330± 0.158	ARG= 34.5 ± 4.4	JENDL-2 77KENNY+
94.02 94.020± 0.094	1 1	5.0	6.63	5.13	1.5 ^b 1.402± 0.166	ARG= 36.3 ± 4.6	JENDL-2 77KENNY+
94.45 94.450± 0.094	1 1	5.0	3.37	2.57	0.8 ^b 0.740± 0.094	ARG= 19.0 ± 2.5	JENDL-2 77KENNY+
95.25 95.250± 0.095	1 1	3.5	3.46	2.96	0.5 ^b 0.374± 0.046	ARG= 9.6 ± 1.3	JENDL-2 77KENNY+
95.94 94.40 95.940± 0.096	0 0 0	3 3 (3)	80.359	80.0 800 80	0.359 0.359± 0.054	ARG= 8.0 ± 1.2	JENDL-2 70CHO+ 77KENNY+
96.44 96.440± 0.096	1 1	5.0	2.64	1.84	0.8 ^b 0.674± 0.080	ARG= 17.0 ± 2.4	JENDL-2 77KENNY+
96.9 96.900± 0.097	1 1	5.0	1.8	1.0	0.8 ^b 0.540± 0.070	ARG= 13.5 ± 2.9	JENDL-2 77KENNY+
98.26 98.260± 0.098	1 1	5.0	2.03	1.23	0.8 ^b 0.586± 0.072	ARG= 14.5 ± 2.1	JENDL-2 77KENNY+
98.585 98.585± 0.099	1 1	5.0	3.77	2.97	0.8 ^b 0.764± 0.094	ARG= 18.8 ± 2.5	JENDL-2 77KENNY+
99.08 99.080± 0.099	1 1	5.0	5.53	4.73	0.8 ^b 0.830± 0.110	ARG= 20.3 ± 2.7	JENDL-2 77KENNY+
99.2 99.200± 0.099	1 1	5.0	2.52	1.72	0.8 ^b 0.662± 0.086	ARG= 16.2 ± 2.3	JENDL-2 77KENNY+
99.80		3		2000			70CHO+
100.7		4		300			70CHO+
101.0		3		400			70CHO+
102.1		4		300			70CHO+
102.3		3		350			70CHO+
104.0		4		150			70CHO+
105.7		4		150			70CHO+

* A denotes $2g\Gamma_n$

B denotes $2g\Gamma_\gamma$

** $GNO = \Gamma_n^{(o)}$ (eV)

$ARG = 2\pi\lambda^2 g\Gamma_n \Gamma_\gamma / \Gamma$ (b·eV)

*** 78 LIOU+ : Ref. (4)

77 KENNY+ : Ref. (7)

70 CHO+ : Ref. (18)

Table II Optical potential parameters
(in MeV and fm)

real term	$V(En) = 56.15 - 0.2189 En$ $r_o = 1.16$ $a_o = 0.677$
surface term*	$W_s(En) = 8.698$ $r_s = 1.288$ $b = 0.310$
spin-orbit term	$V_{so} = 6.874$ $r_{so} = 1.185$ $a_{so} = 0.76$

* derivative Woods-Saxon type

Table III Level scheme of ^{45}Sc

level	Energy(MeV)	Spin and Parity
1	0	7/2 -
2	0.01240	3/2 +
3	0.3764	3/2 -
4	0.5429	5/2 +
5	0.7202	5/2 -
6	0.9391	1/2 +
7	0.9745	7/2 +
8	1.2364	11/2 -
9	1.3032	3/2 +
10	1.4334	9/2 +
11	1.6615	9/2 -
12	1.8006	5/2 +

Levels above 1.9 MeV were assumed to be overlapping.

Table IV (n,p), (n, α) and (n,2n) cross sections used in the evaluation

Energy MeV	cross sections, m barn			
	(n,p)	(n, α)	(n,2n)	(n,p)+(n, α)+(n,2n)
0.5	0.0	0.0		0.0
1.0	2.0	1.0		3.0
2.0	16.0	2.5		18.5
3.0	50.0	4.0		54.0
4.0	75.0	5.0		80.0
5.0	93.0	7.0		100.0
6.0	107.0	8.0		115.0
7.0	115.0	10.0		125.0
8.0	115.0	11.0		126.0
9.0	109.0	14.0		123.0
10.0	100.0	19.0		119.0
11.0	91.0	26.0		117.0
11.5	85.5	30.0	0.0	115.5
12.0	80.0	36.0	20.0	136.0
12.5	75.0	42.0	65.0	182.0
13.0	70.0	48.0	120.0	238.0
13.5	64.5	54.0	170.0	288.5
14.0	59.0	56.0	245.0	360.0
14.5	53.5	56.0	348.0	457.5
15.0	48.0	52.0	380.0	480.0
16.0	38.0	40.0	400.0	478.0
17.0	27.0	29.5	460.0	516.5
18.0	17.0	26.5	500.0	543.5
19.0	5.0	25.0	510.0	540.0
20.0	0.0	23.5	520.0	543.5

Table V Presently evaluated nuclear data of ⁴⁵Sc

.....10.....	.....20.....	.....30.....	.....40.....	.....50.....	.....60.....	MAT	MF	MT	SEQ
2.10450+ 4	4.45697+ 1	1	0	0	0	362145	1451	1	1
0.0 + 0	0.0 + 0	0	0	1	0	02145	1451	2	2
						2145	1451	3	3
		1	451	39		2145	1451	4	4
		2	151	193		2145	1451	5	5
		3	1	17		2145	1451	6	6
		3	2	17		2145	1451	7	7
		3	4	16		2145	1451	8	8
		3	16	8		2145	1451	9	9
		3	51	16		2145	1451	10	10
		3	52	15		2145	1451	11	11
		3	53	15		2145	1451	12	12
		3	54	14		2145	1451	13	13
		3	55	14		2145	1451	14	14
		3	56	14		2145	1451	15	15
		3	57	13		2145	1451	16	16
		3	58	13		2145	1451	17	17
		3	59	12		2145	1451	18	18
		3	60	12		2145	1451	19	19
		3	61	12		2145	1451	20	20
		3	91	11		2145	1451	21	21
		3	102	17		2145	1451	22	22
		3	103	12		2145	1451	23	23
		3	107	12		2145	1451	24	24
		3	251	18		2145	1451	25	25
		4	2	200		2145	1451	26	26
		4	16	10		2145	1451	27	27
		4	51	112		2145	1451	28	28
		4	52	120		2145	1451	29	29
		4	53	102		2145	1451	30	30
		4	54	111		2145	1451	31	31
		4	55	98		2145	1451	32	32
		4	56	96		2145	1451	33	33
		4	57	98		2145	1451	34	34
		4	58	90		2145	1451	35	35
		4	59	88		2145	1451	36	36
		4	60	92		2145	1451	37	37
		4	61	84		2145	1451	38	38
		4	91	88		2145	1451	39	39
						2145	1 0	40	40
						2145	0 0	41	41
2.10450+ 4	4.45697+ 1	0	0	1		02145	2151	42	42
2.10450+ 4	1.00000+ 0	0	0	1		02145	2151	43	43
1.00000- 5	9.00000+ 4	1	2	0		02145	2151	44	44
3.50000+ 0	4.55000- 1	0	0	2		02145	2151	45	45
4.45697+ 1	0.0 + 0	0	0	426		712145	2151	46	46
-3.30000+ 2	4.00000+ 0	3.71100+ 1	3.67000+ 1	4.10000- 1	0.0	+ 02145	2151	47	47
-6.50000+ 2	3.00000+ 0	1.01410+ 2	1.01000+ 2	4.10000- 1	0.0	+ 02145	2151	48	48
3.29500+ 3	3.00000+ 0	7.54100+ 1	7.50000+ 1	4.10000- 1	0.0	+ 02145	2151	49	49

JAERI-M 9981

.....10.....	.....20.....	.....30.....	.....40.....	.....50.....	.....60.....	MAT	MF	MT	SEQ
4.33000+	3 4.00000+	0 3.40410+	2 3.40000+	2 4.10000-	1 0.0	+	02145	2151	50
6.68400+	3 3.00000+	0 1.30410+	2 1.30000+	2 4.10000-	1 0.0	+	02145	2151	51
8.02300+	3 4.00000+	0 1.45410+	2 1.45000+	2 4.10000-	1 0.0	+	02145	2151	52
9.09200+	3 3.00000+	0 3.00410+	2 3.00000+	2 4.10000-	1 0.0	+	02145	2151	53
1.06250+	4 3.00000+	0 1.04100+	1 1.00000+	1 4.10000-	1 0.0	+	02145	2151	54
1.07350+	4 4.00000+	0 6.41000+	0 6.00000+	0 4.10000-	1 0.0	+	02145	2151	55
1.15750+	4 4.00000+	0 2.90410+	2 2.90000+	2 4.10000-	1 0.0	+	02145	2151	56
1.45250+	4 3.00000+	0 2.04100+	1 2.00000+	1 4.10000-	1 0.0	+	02145	2151	57
1.47400+	4 4.00000+	0 2.64100+	1 2.60000+	1 4.10000-	1 0.0	+	02145	2151	58
1.55600+	4 4.00000+	0 2.84100+	1 2.80000+	1 4.10000-	1 0.0	+	02145	2151	59
1.58500+	4 3.00000+	0 5.41000+	0 5.00000+	0 4.10000-	1 0.0	+	02145	2151	60
1.85800+	4 3.00000+	0 3.24100+	1 3.20000+	1 4.10000-	1 0.0	+	02145	2151	61
1.88700+	4 4.00000+	0 6.24100+	1 6.20000+	1 4.10000-	1 0.0	+	02145	2151	62
2.05000+	4 4.00000+	0 8.04100+	1 8.00000+	1 4.10000-	1 0.0	+	02145	2151	63
2.07800+	4 3.00000+	0 7.10410+	2 7.10000+	2 4.10000-	1 0.0	+	02145	2151	64
2.40100+	4 3.00000+	0 6.10870+	1 6.00000+	1 1.08700+	0 0.0	+	02145	2151	65
2.43150+	4 4.00000+	0 6.04620+	1 6.00000+	1 4.62000-	1 0.0	+	02145	2151	66
2.69250+	4 4.00000+	0 9.09000+	1 9.00000+	1 9.00000-	1 0.0	+	02145	2151	67
2.79000+	4 3.00000+	0 1.10811+	2 1.10000+	2 8.11000-	1 0.0	+	02145	2151	68
2.94800+	4 4.00000+	0 3.06130+	1 3.00000+	1 6.13000-	1 0.0	+	02145	2151	69
2.96300+	4 3.50000+	0 5.07230+	1 5.00000+	1 7.23000-	1 0.0	+	02145	2151	70
3.21800+	4 3.00000+	0 5.70917+	2 5.70000+	2 9.17000-	1 0.0	+	02145	2151	71
3.37300+	4 3.00000+	0 2.00866+	2 2.00000+	2 8.66000-	1 0.0	+	02145	2151	72
3.48600+	4 3.50000+	0 1.00689+	2 1.00000+	2 6.89000-	1 0.0	+	02145	2151	73
3.50800+	4 4.00000+	0 1.50543+	2 1.50000+	2 5.43000-	1 0.0	+	02145	2151	74
3.99800+	4 4.00000+	0 1.81067+	2 1.80000+	2 1.06700+	0 0.0	+	02145	2151	75
4.05000+	4 3.00000+	0 1.01276+	2 1.00000+	2 1.27600+	0 0.0	+	02145	2151	76
4.08150+	4 4.00000+	0 1.10639+	2 1.10000+	2 6.39000-	1 0.0	+	02145	2151	77
4.30500+	4 4.00000+	0 1.01068+	2 1.00000+	2 1.06800+	0 0.0	+	02145	2151	78
4.32150+	4 3.50000+	0 3.10740+	1 3.00000+	1 1.07400+	0 0.0	+	02145	2151	79
4.57300+	4 3.00000+	0 4.80521+	2 4.80000+	2 5.21000-	1 0.0	+	02145	2151	80
4.71800+	4 3.00000+	0 6.00530+	1 6.00000+	1 5.30000-	2 0.0	+	02145	2151	81
4.87900+	4 4.00000+	0 4.04780+	1 4.00000+	1 4.78000-	1 0.0	+	02145	2151	82
4.91200+	4 3.50000+	0 4.03610+	1 4.00000+	1 3.61000-	1 0.0	+	02145	2151	83
5.11600+	4 4.00000+	0 8.41300+	2 8.40000+	2 1.30000+	0 0.0	+	02145	2151	84
5.16850+	4 3.50000+	0 4.03520+	1 4.00000+	1 3.52000-	1 0.0	+	02145	2151	85
5.20250+	4 3.50000+	0 4.05210+	1 4.00000+	1 5.21000-	1 0.0	+	02145	2151	86
5.23300+	4 3.00000+	0 7.04180+	1 7.00000+	1 4.18000-	1 0.0	+	02145	2151	87
5.30750+	4 3.50000+	0 4.02480+	1 4.00000+	1 2.48000-	1 0.0	+	02145	2151	88
5.47300+	4 3.00000+	0 4.17600+	1 4.00000+	1 1.76000+	0 0.0	+	02145	2151	89
5.51250+	4 3.50000+	0 4.03900+	1 4.00000+	1 3.90000-	1 0.0	+	02145	2151	90
5.78900+	4 3.00000+	0 3.54870+	1 3.50000+	1 4.87000-	1 0.0	+	02145	2151	91
5.91100+	4 3.00000+	0 5.10470+	1 5.00000+	1 1.04700+	0 0.0	+	02145	2151	92
6.01400+	4 3.50000+	0 4.06810+	1 4.00000+	1 6.81000-	1 0.0	+	02145	2151	93
6.18900+	4 4.00000+	0 5.20700+	2 5.20000+	2 7.00000-	1 0.0	+	02145	2151	94
6.24900+	4 3.00000+	0 5.71000+	2 5.70000+	2 1.00000+	0 0.0	+	02145	2151	95
6.28500+	4 3.50000+	0 1.00548+	2 1.00000+	2 5.48000-	1 0.0	+	02145	2151	96
6.60000+	4 3.50000+	0 4.02870+	1 4.00000+	1 2.87000-	1 0.0	+	02145	2151	97
6.61000+	4 4.00000+	0 1.04180+	3 1.04000+	3 1.80000+	0 0.0	+	02145	2151	98
6.78500+	4 3.50000+	0 7.65040+	1 7.50000+	1 1.50400+	0 0.0	+	02145	2151	99
6.83750+	4 3.50000+	0 5.14350+	1 5.00000+	1 1.43500+	0 0.0	+	02145	2151	100
7.01100+	4 3.00000+	0 1.69060+	3 1.69000+	3 6.00000-	1 0.0	+	02145	2151	101
7.17000+	4 4.00000+	0 1.51606+	2 1.50000+	2 1.60600+	0 0.0	+	02145	2151	102
7.32000+	4 3.00000+	0 7.09510+	1 7.00000+	1 9.51000-	1 0.0	+	02145	2151	103
7.36000+	4 3.50000+	0 6.02810+	1 6.00000+	1 2.81000-	1 0.0	+	02145	2151	104

JAERI-M 9981

.....10.....	.....20.....	.....30.....	.....40.....	.....50.....	.....60.....	MAT	MF	MT	SEQ
7.47000+	4 3.00000+	0 6.11770+	1 6.00000+	1 1.17700+	0 0.0	+	02145	2151	105
7.50000+	4 3.50000+	0 4.65400+	1 4.50000+	1 1.54000+	0 0.0	+	02145	2151	106
7.70250+	4 4.00000+	0 5.05220+	1 5.00000+	1 5.22000-	1 0.0	+	02145	2151	107
7.75000+	4 3.00000+	0 6.00498+	2 6.00000+	2 4.98000-	1 0.0	+	02145	2151	108
7.79250+	4 4.00000+	0 4.08240+	1 4.00000+	1 8.24000-	1 0.0	+	02145	2151	109
7.91500+	4 3.00000+	0 1.00827+	2 1.00000+	2 8.27000-	1 0.0	+	02145	2151	110
7.98000+	4 3.00000+	0 2.80200+	3 2.80000+	3 2.00000+	0 0.0	+	02145	2151	111
8.12000+	4 4.00000+	0 6.00280+	2 6.00000+	2 2.80000-	1 0.0	+	02145	2151	112
8.56000+	4 4.00000+	0 8.50350+	2 8.50000+	2 3.50000-	1 0.0	+	02145	2151	113
8.64000+	4 3.00000+	0 2.75510+	2 2.75000+	2 5.10000-	1 0.0	+	02145	2151	114
8.76500+	4 3.50000+	0 7.79340+	1 7.50000+	1 2.93400+	0 0.0	+	02145	2151	115
8.86000+	4 3.00000+	0 5.50900+	2 5.50000+	2 9.00000-	1 0.0	+	02145	2151	116
9.59400+	4 3.00000+	0 8.03590+	1 8.00000+	1 3.59000-	1 0.0	+	02145	2151	117
4.45697+	1 0.0	+ 0	1	0	696	1162145	2151	118	
4.60600+	2 3.50000+	0 5.04400-	1 4.40000-	3 5.00000-	1 0.0	+	02145	2151	119
1.06040+	3 3.50000+	0 5.10000-	1 1.00000-	2 5.00000-	1 0.0	+	02145	2151	120
2.71500+	3 3.50000+	0 5.08000-	1 8.00000-	3 5.00000-	1 0.0	+	02145	2151	121
2.73700+	3 3.50000+	0 5.22000-	1 2.20000-	2 5.00000-	1 0.0	+	02145	2151	122
3.40400+	3 3.50000+	0 8.71000-	1 3.71000-	1 5.00000-	1 0.0	+	02145	2151	123
3.58200+	3 3.50000+	0 5.80000-	1 8.00000-	2 5.00000-	1 0.0	+	02145	2151	124
5.94300+	3 3.50000+	0 5.22000-	1 2.20000-	2 5.00000-	1 0.0	+	02145	2151	125
7.56000+	3 3.50000+	0 5.14000-	1 1.40000-	2 5.00000-	1 0.0	+	02145	2151	126
8.55800+	3 3.50000+	0 5.86000-	1 8.60000-	2 5.00000-	1 0.0	+	02145	2151	127
9.72500+	3 3.50000+	0 3.03000+	0 2.53000+	0 5.00000-	1 0.0	+	02145	2151	128
1.01890+	4 3.50000+	0 5.98000-	1 9.80000-	2 5.00000-	1 0.0	+	02145	2151	129
1.06620+	4 5.00000+	0 4.63000+	0 3.83000+	0 8.00000-	1 0.0	+	02145	2151	130
1.07400+	4 5.00000+	0 1.71100+	0 9.11000-	1 8.00000-	1 0.0	+	02145	2151	131
1.12650+	4 3.50000+	0 1.09300+	0 5.93000-	1 5.00000-	1 0.0	+	02145	2151	132
1.40500+	4 3.50000+	0 2.15000+	0 1.65000+	0 5.00000-	1 0.0	+	02145	2151	133
1.43900+	4 3.50000+	0 5.15300-	1 1.53000-	2 5.00000-	1 0.0	+	02145	2151	134
1.45000+	4 5.00000+	0 1.62000+	0 8.20000-	1 8.00000-	1 0.0	+	02145	2151	135
1.52800+	4 3.50000+	0 6.21000-	1 1.21000-	1 5.00000-	1 0.0	+	02145	2151	136
1.57630+	4 3.50000+	0 6.32000-	1 1.32000-	1 5.00000-	1 0.0	+	02145	2151	137
1.71920+	4 3.50000+	0 8.99000-	1 3.99000-	1 5.00000-	1 0.0	+	02145	2151	138
1.76770+	4 3.50000+	0 1.73000+	0 1.23000+	0 5.00000-	1 0.0	+	02145	2151	139
1.85040+	4 3.50000+	0 5.10000-	1 1.00000-	2 5.00000-	1 0.0	+	02145	2151	140
1.93410+	4 3.50000+	0 5.32000-	1 3.20000-	2 5.00000-	1 0.0	+	02145	2151	141
2.07260+	4 3.50000+	0 3.40000+	0 2.90000+	0 5.00000-	1 0.0	+	02145	2151	142
2.11140+	4 3.50000+	0 2.74000+	0 2.24000+	0 5.00000-	1 0.0	+	02145	2151	143
2.15800+	4 5.00000+	0 2.36000+	0 1.86000+	0 5.00000-	1 0.0	+	02145	2151	144
2.30150+	4 3.50000+	0 6.44000-	1 1.44000-	1 5.00000-	1 0.0	+	02145	2151	145
2.30650+	4 3.50000+	0 5.12000-	1 1.20000-	2 5.00000-	1 0.0	+	02145	2151	146
2.38380+	4 3.50000+	0 5.72000-	1 7.20000-	2 5.00000-	1 0.0	+	02145	2151	147
2.71900+	4 3.50000+	0 5.34000-	1 3.40000-	2 5.00000-	1 0.0	+	02145	2151	148
2.80400+	4 3.50000+	0 1.06900+	0 5.69000-	1 5.00000-	1 0.0	+	02145	2151	149
2.82350+	4 3.50000+	0 6.38000-	1 1.38000-	1 5.00000-	1 0.0	+	02145	2151	150
2.94100+	4 3.50000+	0 8.98000-	1 3.98000-	1 5.00000-	1 0.0	+	02145	2151	151
3.00100+	4 3.50000+	0 1.50700+	0 1.00700+	0 5.00000-	1 0.0	+	02145	2151	152
3.11350+	4 3.50000+	0 8.53000-	1 3.53000-	1 5.00000-	1 0.0	+	02145	2151	153
3.28400+	4 3.50000+	0 6.44000-	1 1.44000-	1 5.00000-	1 0.0	+	02145	2151	154
3.29400+	4 5.00000+	0 1.77900+	0 9.79000-	1 8.00000-	1 0.0	+	02145	2151	155
3.32800+	4 3.50000+	0 1.39400+	0 8.94000-	1 5.00000-	1 0.0	+	02145	2151	156
3.54700+	4 5.00000+	0 1.93000+	0 1.43000+	0 5.00000-	1 0.0	+	02145	2151	157
3.58000+	4 3.50000+	0 1.10100+	0 6.01000-	1 5.00000-	1 0.0	+	02145	2151	158
3.59550+	4 5.00000+	0 3.76000+	0 3.26000+	0 5.00000-	1 0.0	+	02145	2151	159

JAERI-M 9981

.....10.....	.....20.....	.....30.....	.....40.....	.....50.....	.....60.....	MAT	MF	MT	SEQ
3.63100+	4 3.50000+	0 9.79000-	1 4.79000-	1 5.00000-	1 0.0	+	02145	2151	160
3.63900+	4 3.50000+	0 4.35000+	0 3.85000+	0 5.00000-	1 0.0	+	02145	2151	161
3.69300+	4 3.50000+	0 2.61000+	0 2.11000+	0 5.00000-	1 0.0	+	02145	2151	162
3.80000+	4 5.00000+	0 2.55000+	0 2.05000+	0 5.00000-	1 0.0	+	02145	2151	163
3.87300+	4 3.50000+	0 2.65000+	0 2.15000+	0 5.00000-	1 0.0	+	02145	2151	164
4.17400+	4 3.50000+	0 3.65000+	0 3.15000+	0 5.00000-	1 0.0	+	02145	2151	165
4.23000+	4 3.50000+	0 1.42400+	0 9.24000-	1 5.00000-	1 0.0	+	02145	2151	166
4.27900+	4 3.50000+	0 6.12000-	1 1.12000-	1 5.00000-	1 0.0	+	02145	2151	167
4.29000+	4 3.50000+	0 4.26600+	0 3.81000+	0 4.56000-	1 0.0	+	02145	2151	168
4.37100+	4 3.50000+	0 5.90000-	1 9.00000-	2 5.00000-	1 0.0	+	02145	2151	169
4.39200+	4 3.50000+	0 1.10200+	0 6.02000-	1 5.00000-	1 0.0	+	02145	2151	170
4.40800+	4 3.50000+	0 1.54400+	0 1.04400+	0 5.00000-	1 0.0	+	02145	2151	171
4.53000+	4 3.50000+	0 9.15000-	1 4.15000-	1 5.00000-	1 0.0	+	02145	2151	172
4.55700+	4 3.50000+	0 6.32000-	1 1.32000-	1 5.00000-	1 0.0	+	02145	2151	173
4.57800+	4 3.50000+	0 8.14000-	1 3.14000-	1 5.00000-	1 0.0	+	02145	2151	174
4.73100+	4 5.00000+	0 1.94000+	0 1.44000+	0 5.00000-	1 0.0	+	02145	2151	175
4.83100+	4 5.00000+	0 4.57000+	0 4.07000+	0 5.00000-	1 0.0	+	02145	2151	176
4.85300+	4 5.00000+	0 2.23000+	0 1.43000+	0 8.00000-	1 0.0	+	02145	2151	177
4.95400+	4 5.00000+	0 2.27800+	0 1.48000+	0 7.98000-	1 0.0	+	02145	2151	178
4.97500+	4 3.50000+	0 6.26000-	1 1.26000-	1 5.00000-	1 0.0	+	02145	2151	179
5.05000+	4 3.50000+	0 2.42000+	0 1.92000+	0 5.00000-	1 0.0	+	02145	2151	180
5.06850+	4 3.50000+	0 1.22800+	0 7.28000-	1 5.00000-	1 0.0	+	02145	2151	181
5.10500+	4 3.50000+	0 2.12000+	0 1.62000+	0 5.00000-	1 0.0	+	02145	2151	182
5.42550+	4 5.00000+	0 2.03000+	0 1.23000+	0 8.00000-	1 0.0	+	02145	2151	183
5.45250+	4 3.50000+	0 2.45000+	0 1.95000+	0 5.00000-	1 0.0	+	02145	2151	184
5.49200+	4 5.00000+	0 2.04000+	0 1.24000+	0 8.00000-	1 0.0	+	02145	2151	185
5.66550+	4 3.50000+	0 7.81000-	1 2.81000-	1 5.00000-	1 0.0	+	02145	2151	186
5.70100+	4 5.00000+	0 1.95000+	0 1.15000+	0 8.00000-	1 0.0	+	02145	2151	187
5.87600+	4 5.00000+	0 2.95000+	0 2.15000+	0 8.00000-	1 0.0	+	02145	2151	188
5.99200+	4 5.00000+	0 2.70000+	0 2.20000+	0 5.00000-	1 0.0	+	02145	2151	189
6.04200+	4 3.50000+	0 9.73000-	1 4.73000-	1 5.00000-	1 0.0	+	02145	2151	190
6.20250+	4 3.50000+	0 3.17400+	0 2.84000+	0 3.34000-	1 0.0	+	02145	2151	191
6.25000+	4 3.50000+	0 1.17100+	0 6.71000-	1 5.00000-	1 0.0	+	02145	2151	192
6.30500+	4 3.50000+	0 4.60200+	0 4.11000+	0 4.92000-	1 0.0	+	02145	2151	193
6.34000+	4 3.50000+	0 6.32000-	1 1.32000-	1 5.00000-	1 0.0	+	02145	2151	194
6.38500+	4 5.00000+	0 2.05000+	0 1.25000+	0 8.00000-	1 0.0	+	02145	2151	195
6.47800+	4 5.00000+	0 2.04000+	0 1.24000+	0 8.00000-	1 0.0	+	02145	2151	196
6.55200+	4 5.00000+	0 2.28000+	0 1.48000+	0 8.00000-	1 0.0	+	02145	2151	197
6.70500+	4 3.50000+	0 1.43800+	0 9.38000-	1 5.00000-	1 0.0	+	02145	2151	198
6.95550+	4 5.00000+	0 5.37000+	0 4.37000+	0 1.00000+	0 0.0	+	02145	2151	199
7.03750+	4 5.00000+	0 2.28000+	0 1.48000+	0 8.00000-	1 0.0	+	02145	2151	200
7.21150+	4 3.50000+	0 9.47000-	1 4.47000-	1 5.00000-	1 0.0	+	02145	2151	201
7.54300+	4 3.50000+	0 1.29400+	0 7.94000-	1 5.00000-	1 0.0	+	02145	2151	202
7.57800+	4 3.50000+	0 6.30000-	1 1.30000-	1 5.00000-	1 0.0	+	02145	2151	203
7.64200+	4 3.50000+	0 2.34000+	0 1.84000+	0 5.00000-	1 0.0	+	02145	2151	204
7.82150+	4 5.00000+	0 1.89000+	0 1.09000+	0 8.00000-	1 0.0	+	02145	2151	205
8.01000+	4 3.50000+	0 8.09000-	1 3.09000-	1 5.00000-	1 0.0	+	02145	2151	206
8.21800+	4 5.00000+	0 6.42000+	0 5.42000+	0 1.00000+	0 0.0	+	02145	2151	207
8.24800+	4 5.00000+	0 3.45000+	0 2.65000+	0 8.00000-	1 0.0	+	02145	2151	208
8.30050+	4 5.00000+	0 4.34000+	0 2.84000+	0 1.50000+	0 0.0	+	02145	2151	209
8.34500+	4 5.00000+	0 4.18000+	0 2.68000+	0 1.50000+	0 0.0	+	02145	2151	210
8.39000+	4 5.00000+	0 2.08000+	0 1.28000+	0 8.00000-	1 0.0	+	02145	2151	211
8.49500+	4 5.00000+	0 2.16000+	0 1.66000+	0 5.00000-	1 0.0	+	02145	2151	212
8.52050+	4 3.50000+	0 5.47000+	0 4.97000+	0 5.00000-	1 0.0	+	02145	2151	213
8.55250+	4 3.50000+	0 9.47000-	1 4.47000-	1 5.00000-	1 0.0	+	02145	2151	214

JAERI-M 9981

.....10.....	.....20.....	.....30.....	.....40.....	.....50.....	.....60.....	MAT	MF	MT	SEQ
8.58400+	4 3.50000+	0 2.11000+	0 1.61000+	0 5.00000-	1 0.0	+	02145	2151	215
8.61050+	4 3.50000+	0 4.60600+	0 4.14000+	0 4.66000-	1 0.0	+	02145	2151	216
8.66750+	4 3.50000+	0 6.61000+	0 6.11000+	0 5.00000-	1 0.0	+	02145	2151	217
9.02400+	4 5.00000+	0 2.03000+	0 1.23000+	0 8.00000-	1 0.0	+	02145	2151	218
9.05750+	4 5.00000+	0 4.71000+	0 3.21000+	0 1.50000+	0 0.0	+	02145	2151	219
9.09500+	4 5.00000+	0 3.93000+	0 3.13000+	0 8.00000-	1 0.0	+	02145	2151	220
9.16000+	4 5.00000+	0 3.75000+	0 2.95000+	0 8.00000-	1 0.0	+	02145	2151	221
9.22500+	4 3.50000+	0 5.42000-	1 4.20000-	2 5.00000-	1 0.0	+	02145	2151	222
9.27200+	4 3.50000+	0 1.59000+	0 1.09000+	0 5.00000-	1 0.0	+	02145	2151	223
9.33900+	4 5.00000+	0 2.12000+	0 1.32000+	0 8.00000-	1 0.0	+	02145	2151	224
9.37800+	4 5.00000+	0 5.63000+	0 4.13000+	0 1.50000+	0 0.0	+	02145	2151	225
9.40200+	4 5.00000+	0 6.63000+	0 5.13000+	0 1.50000+	0 0.0	+	02145	2151	226
9.44500+	4 5.00000+	0 3.37000+	0 2.57000+	0 8.00000-	1 0.0	+	02145	2151	227
9.52500+	4 3.50000+	0 3.46000+	0 2.96000+	0 5.00000-	1 0.0	+	02145	2151	228
9.64400+	4 5.00000+	0 2.64000+	0 1.84000+	0 8.00000-	1 0.0	+	02145	2151	229
9.69000+	4 5.00000+	0 1.80000+	0 1.00000+	0 8.00000-	1 0.0	+	02145	2151	230
9.82600+	4 5.00000+	0 2.03000+	0 1.23000+	0 8.00000-	1 0.0	+	02145	2151	231
9.85850+	4 5.00000+	0 3.77000+	0 2.97000+	0 8.00000-	1 0.0	+	02145	2151	232
9.90800+	4 5.00000+	0 5.53000+	0 4.73000+	0 8.00000-	1 0.0	+	02145	2151	233
9.92000+	4 5.00000+	0 2.52000+	0 1.72000+	0 8.00000-	1 0.0	+	02145	2151	234
							2145	2	0 235
							2145	0	0 236
2.10450+	4 4.45698+	1 0	99	0			02145	3	1 237
0.0	+ 0 0.0	+ 0	0	0	2		412145	3	1 238
	3	2	41	5	0		02145	3	1 239
1.00000-	5 0.0	+ 0 2.53000-	2 0.0	+ 0 9.00000+	4 0.0	+	02145	3	1 240
9.00000+	4 6.00501+	0 1.00000+	5 5.66145+	0 3.84845+	5 2.82686+		02145	3	1 241
5.00000+	5 2.59478+	0 5.55081+	5 2.53344+	0 7.36359+	5 2.46736+		02145	3	1 242
9.60170+	5 2.55005+	0 9.96365+	5 2.57333+	0 1.00000+	6 2.57576+		02145	3	1 243
1.26414+	6 2.78387+	0 1.33244+	6 2.84215+	0 1.46556+	6 2.95387+		02145	3	1 244
1.69878+	6 3.13047+	0 1.84100+	6 3.22093+	0 1.94263+	6 3.27676+		02145	3	1 245
2.00000+	6 3.30507+	0 3.00000+	6 3.51727+	0 4.00000+	6 3.46121+		02145	3	1 246
5.00000+	6 3.31488+	0 6.00000+	6 3.13224+	0 7.00000+	6 2.94413+		02145	3	1 247
8.00000+	6 2.77080+	0 9.00000+	6 2.61927+	0 1.00000+	7 2.48843+		02145	3	1 248
1.10000+	7 2.37701+	0 1.15000+	7 2.32842+	0 1.20000+	7 2.28414+		02145	3	1 249
1.25000+	7 2.24330+	0 1.30000+	7 2.20484+	0 1.35000+	7 2.16760+		02145	3	1 250
1.40000+	7 2.13076+	0 1.45000+	7 2.09364+	0 1.50000+	7 2.05631+		02145	3	1 251
1.60000+	7 1.98282+	0 1.70000+	7 1.91557+	0 1.80000+	7 1.85963+		02145	3	1 252
1.90000+	7 1.81793+	0 2.00000+	7 1.79112+	0			2145	3	1 253
							2145	3	0 254
2.10450+	4 4.45698+	1 0	0	0			02145	3	2 255
0.0	+ 0 0.0	+ 0	0	0	2		412145	3	2 256
	3	2	41	5	0		02145	3	2 257
1.00000-	5 0.0	+ 0 2.53000-	2 0.0	+ 0 9.00000+	4 0.0	+	02145	3	2 258
9.00000+	4 5.91177+	0 1.00000+	5 5.57027+	0 3.84845+	5 2.70630+		02145	3	2 259
5.00000+	5 2.44532+	0 5.55081+	5 2.36887+	0 7.36359+	5 2.18107+		02145	3	2 260
9.60170+	5 2.11489+	0 9.96365+	5 2.12516+	0 1.00000+	6 2.10718+		02145	3	2 261
1.26414+	6 2.18959+	0 1.33244+	6 2.12926+	0 1.46556+	6 2.18405+		02145	3	2 262
1.69878+	6 2.26016+	0 1.84100+	6 2.27027+	0 1.94263+	6 2.30312+		02145	3	2 263
2.00000+	6 2.32030+	0 3.00000+	6 2.39523+	0 4.00000+	6 2.34110+		02145	3	2 264
5.00000+	6 2.23282+	0 6.00000+	6 2.09217+	0 7.00000+	6 1.93597+		02145	3	2 265
8.00000+	6 1.77831+	0 9.00000+	6 1.62772+	0 1.00000+	7 1.49406+		02145	3	2 266
1.10000+	7 1.37741+	0 1.15000+	7 1.32585+	0 1.20000+	7 1.27879+		02145	3	2 267
1.25000+	7 1.23598+	0 1.30000+	7 1.19706+	0 1.35000+	7 1.16154+		02145	3	2 268
1.40000+	7 1.12889+	0 1.45000+	7 1.09867+	0 1.50000+	7 1.07060+		02145	3	2 269

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....										MAT	MF	MT	SEQ		
1.60000+	7	1.02050+	0	1.70000+	7	9.78885-	1	1.80000+	7	9.46847-	12145	3	2	270	
1.90000+	7	9.25229-	1	2.00000+	7	9.14174-	1				2145	3	2	271	
											2145	3	0	272	
2.10450+	4	4.45698+	1	0		99		0			02145	3	4	273	
0.0	+	0-1.24000+	4	0		0		1			392145	3	4	274	
		39	3	0		0		0			02145	3	4	275	
1.26782+	4	0.0	+	0	3.00000+	4	2.73587-	2	1.00000+	5	5.88720-	22145	3	4	276
3.84845+	5	1.07625-	1	5.00000+	5	1.38665-	1	5.55081+	5	1.51097-	12145	3	4	277	
7.36359+	5	2.63902-	1	9.60170+	5	4.00716-	1	9.96365+	5	4.11678-	12145	3	4	278	
1.00000+	6	4.32041-	1	1.26414+	6	5.61804-	1	1.33244+	6	6.82400-	12145	3	4	279	
1.46556+	6	7.41379-	1	1.69878+	6	8.45187-	1	1.84100+	6	9.27512-	12145	3	4	280	
1.94263+	6	9.51770-	1	2.00000+	6	9.63606-	1	3.00000+	6	1.06619+	02145	3	4	281	
4.00000+	6	1.03872+	0	5.00000+	6	9.81005-	1	6.00000+	6	9.24277-	12145	3	4	282	
7.00000+	6	8.82562-	1	8.00000+	6	8.66046-	1	9.00000+	6	8.68212-	12145	3	4	283	
1.00000+	7	8.75116-	1	1.10000+	7	8.82424-	1	1.15000+	7	8.86917-	12145	3	4	284	
1.20000+	7	8.69212-	1	1.25000+	7	8.25210-	1	1.30000+	7	7.69688-	12145	3	4	285	
1.35000+	7	7.17490-	1	1.40000+	7	6.41824-	1	1.45000+	7	5.37433-	12145	3	4	286	
1.50000+	7	5.05672-	1	1.60000+	7	4.84294-	1	1.70000+	7	4.20163-	12145	3	4	287	
1.80000+	7	3.69273-	1	1.90000+	7	3.52694-	1	2.00000+	7	3.33439-	12145	3	4	288	
											2145	3	0	289	
2.10450+	4	4.45697+	1	0		99		0			02145	3	16	290	
0.0	+	0-1.13275+	7	0		0		1			132145	3	16	291	
		13	2	0		0		0			02145	3	16	292	
1.15816+	7	0.0	+	0	1.20000+	7	2.00000-	2	1.25000+	7	6.50000-	22145	3	16	293
1.30000+	7	1.20000-	1	1.35000+	7	1.70000-	1	1.40000+	7	2.45000-	12145	3	16	294	
1.45000+	7	3.48000-	1	1.50000+	7	3.80000-	1	1.60000+	7	4.00000-	12145	3	16	295	
1.70000+	7	4.60000-	1	1.80000+	7	5.00000-	1	1.90000+	7	5.10000-	12145	3	16	296	
2.00000+	7	5.20000-	1								2145	3	16	297	
											2145	3	0	298	
2.10450+	4	4.45698+	1	0		1		0			02145	3	51	299	
0.0	+	0-1.24000+	4	0		0		1			392145	3	51	300	
		39	3	0		0		0			02145	3	51	301	
1.26782+	4	0.0	+	0	3.00000+	4	2.73587-	2	1.00000+	5	5.88720-	22145	3	51	302
3.84845+	5	1.07625-	1	5.00000+	5	1.10783-	1	5.55081+	5	1.15146-	12145	3	51	303	
7.36359+	5	1.10484-	1	9.60170+	5	1.06193-	1	9.96365+	5	1.06742-	12145	3	51	304	
1.00000+	6	1.01360-	1	1.26414+	6	9.66254-	2	1.33244+	6	9.62284-	22145	3	51	305	
1.46556+	6	9.31513-	2	1.69878+	6	8.49348-	2	1.84100+	6	8.08330-	22145	3	51	306	
1.94263+	6	7.56695-	2	2.00000+	6	7.35662-	2	3.00000+	6	3.74249-	22145	3	51	307	
4.00000+	6	1.84238-	2	5.00000+	6	9.17017-	3	6.00000+	6	4.64616-	32145	3	51	308	
7.00000+	6	2.40882-	3	8.00000+	6	1.28777-	3	9.00000+	6	6.96698-	42145	3	51	309	
1.00000+	7	3.76520-	4	1.10000+	7	2.03325-	4	1.15000+	7	1.49491-	42145	3	51	310	
1.20000+	7	1.07145-	4	1.25000+	7	7.42623-	5	1.30000+	7	5.05028-	52145	3	51	311	
1.35000+	7	3.43336-	5	1.40000+	7	2.23900-	5	1.45000+	7	1.36736-	52145	3	51	312	
1.50000+	7	9.39441-	6	1.60000+	7	4.83453-	6	1.70000+	7	2.28702-	62145	3	51	313	
1.80000+	7	1.11610-	6	1.90000+	7	6.03403-	7	2.00000+	7	3.28399-	72145	3	51	314	
											2145	3	0	315	
2.10450+	4	4.45698+	1	0		2		0			02145	3	52	316	
0.0	+	0-3.76400+	5	0		0		1			362145	3	52	317	
		36	3	0		0		0			02145	3	52	318	
3.84845+	5	0.0	+	0	5.00000+	5	2.78814-	2	5.55081+	5	3.59507-	22145	3	52	319
7.36359+	5	5.21300-	2	9.60170+	5	6.97249-	2	9.96365+	5	7.33019-	22145	3	52	320	
1.00000+	6	7.27587-	2	1.26414+	6	9.49028-	2	1.33244+	6	1.00288-	12145	3	52	321	
1.46556+	6	1.08589-	1	1.69878+	6	1.18376-	1	1.84100+	6	1.17418-	12145	3	52	322	
1.94263+	6	1.17482-	1	2.00000+	6	1.15262-	1	3.00000+	6	7.40988-	22145	3	52	323	
4.00000+	6	3.63901-	2	5.00000+	6	1.69907-	2	6.00000+	6	7.94897-	32145	3	52	324	

JAERI-M 9981

										60	MAT	MF	MT	SEQ	
7.00000+	6	3.79080-	3	8.00000+	6	1.87216-	3	9.00000+	6	9.37760-	42145	3	52	325	
1.00000+	7	4.66606-	4	1.10000+	7	2.31886-	4	1.15000+	7	1.64297-	42145	3	52	326	
1.20000+	7	1.14186-	4	1.25000+	7	7.73441-	5	1.30000+	7	5.18209-	52145	3	52	327	
1.35000+	7	3.49586-	5	1.40000+	7	2.27455-	5	1.45000+	7	1.39049-	52145	3	52	328	
1.50000+	7	9.57970-	6	1.60000+	7	4.95681-	6	1.70000+	7	2.34763-	62145	3	52	329	
1.80000+	7	1.14134-	6	1.90000+	7	6.12558-	7	2.00000+	7	3.30443-	72145	3	52	330	
											2145	3	0	331	
2.10450+	4	4.45698+	1		0		3		0		02145	3	53	332	
0.0	+	0-5.42900+	5		0		0		1		342145	3	53	333	
		34	3		0		0		0		02145	3	53	334	
5.55081+	5	0.0	+	0	7.36359+	5	1.01287-	1	9.60170+	5	1.20137-	12145	3	53	335
9.96365+	5	1.23037-	1	1.00000+	6	1.19427-	1	1.26414+	6	1.26876-	12145	3	53	336	
1.33244+	6	1.28085-	1	1.46556+	6	1.28213-	1	1.69878+	6	1.19876-	12145	3	53	337	
1.84100+	6	1.14665-	1	1.94263+	6	1.09583-	1	2.00000+	6	1.06725-	12145	3	53	338	
3.00000+	6	5.95884-	2	4.00000+	6	2.93155-	2	5.00000+	6	1.42868-	22145	3	53	339	
6.00000+	6	7.12307-	3	7.00000+	6	3.65395-	3	8.00000+	6	1.93701-	32145	3	53	340	
9.00000+	6	1.03804-	3	1.00000+	7	5.54420-	4	1.10000+	7	2.96344-	42145	3	53	341	
1.15000+	7	2.17143-	4	1.20000+	7	1.55371-	4	1.25000+	7	1.07695-	42145	3	53	342	
1.30000+	7	7.33643-	5	1.35000+	7	5.00253-	5	1.40000+	7	3.27457-	52145	3	53	343	
1.45000+	7	2.00721-	5	1.50000+	7	1.38434-	5	1.60000+	7	7.16536-	62145	3	53	344	
1.70000+	7	3.39957-	6	1.80000+	7	1.66000-	6	1.90000+	7	8.96768-	72145	3	53	345	
2.00000+	7	4.87449-	7								2145	3	53	346	
											2145	3	0	347	
2.10450+	4	4.45698+	1		0		4		0		02145	3	54	348	
0.0	+	0-7.20200+	5		0		0		1		332145	3	54	349	
		33	3		0		0		0		02145	3	54	350	
7.36359+	5	0.0	+	0	9.60170+	5	1.04660-	1	9.96365+	5	1.08162-	12145	3	54	351
1.00000+	6	1.06186-	1	1.26414+	6	1.23509-	1	1.33244+	6	1.25134-	12145	3	54	352	
1.46556+	6	1.34150-	1	1.69878+	6	1.47659-	1	1.84100+	6	1.48214-	12145	3	54	353	
1.94263+	6	1.50927-	1	2.00000+	6	1.51088-	1	3.00000+	6	1.12475-	12145	3	54	354	
4.00000+	6	5.75715-	2	5.00000+	6	2.67992-	2	6.00000+	6	1.24242-	22145	3	54	355	
7.00000+	6	5.89308-	3	8.00000+	6	2.90455-	3	9.00000+	6	1.45367-	32145	3	54	356	
1.00000+	7	7.21558-	4	1.10000+	7	3.57258-	4	1.15000+	7	2.52662-	42145	3	54	357	
1.20000+	7	1.75360-	4	1.25000+	7	1.18703-	4	1.30000+	7	7.95560-	52145	3	54	358	
1.35000+	7	5.37366-	5	1.40000+	7	3.50293-	5	1.45000+	7	2.14565-	52145	3	54	359	
1.50000+	7	1.48101-	5	1.60000+	7	7.67696-	6	1.70000+	7	3.63268-	62145	3	54	360	
1.80000+	7	1.76116-	6	1.90000+	7	9.41939-	7	2.00000+	7	5.06503-	72145	3	54	361	
											2145	3	0	362	
2.10450+	4	4.45698+	1		0		5		0		02145	3	55	363	
0.0	+	0-9.39100+	5		0		0		1		322145	3	55	364	
		32	3		0		0		0		02145	3	55	365	
9.60170+	5	0.0	+	0	9.96365+	5	4.35469-	4	1.00000+	6	4.82207-	42145	3	55	366
1.26414+	6	4.99804-	3	1.33244+	6	6.19032-	3	1.46556+	6	8.17822-	32145	3	55	367	
1.69878+	6	1.13161-	2	1.84100+	6	1.28961-	2	1.94263+	6	1.33105-	22145	3	55	368	
2.00000+	6	1.36474-	2	3.00000+	6	1.14281-	2	4.00000+	6	6.39104-	32145	3	55	369	
5.00000+	6	3.37193-	3	6.00000+	6	1.79076-	3	7.00000+	6	9.59243-	42145	3	55	370	
8.00000+	6	5.21235-	4	9.00000+	6	2.84415-	4	1.00000+	7	1.55024-	42145	3	55	371	
1.10000+	7	8.47062-	5	1.15000+	7	6.27726-	5	1.20000+	7	4.54239-	52145	3	55	372	
1.25000+	7	3.18444-	5	1.30000+	7	2.19390-	5	1.35000+	7	1.51244-	52145	3	55	373	
1.40000+	7	1.00037-	5	1.45000+	7	6.19115-	6	1.50000+	7	4.30642-	62145	3	55	374	
1.60000+	7	2.25748-	6	1.70000+	7	1.07924-	6	1.80000+	7	5.29028-	72145	3	55	375	
1.90000+	7	2.86262-	7	2.00000+	7	1.55720-	7				2145	3	55	376	
											2145	3	0	377	
2.10450+	4	4.45698+	1		0		6		0		02145	3	56	378	
0.0	+	0-9.74500+	5		0		0		1		312145	3	56	379	

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....	MAT	MF	MT	SEQ	
31		3	0	0	02145 3 56 380
9.96365+ 5 0.0 + 0 1.00000+ 6 3.18272- 2 1.26414+ 6 1.14892-	12145	3	56	381	
1.33244+ 6 1.18301- 1 1.46556+ 6 1.27347- 1 1.69878+ 6 1.26194-	12145	3	56	382	
1.84100+ 6 1.20116- 1 1.94263+ 6 1.17806- 1 2.00000+ 6 1.16867-	12145	3	56	383	
3.00000+ 6 7.43125- 2 4.00000+ 6 3.83645- 2 5.00000+ 6 1.88387-	22145	3	56	384	
6.00000+ 6 9.36936- 3 7.00000+ 6 4.81122- 3 8.00000+ 6 2.56708-	32145	3	56	385	
9.00000+ 6 1.38519- 3 1.00000+ 7 7.41184- 4 1.10000+ 7 3.95132-	42145	3	56	386	
1.15000+ 7 2.88876- 4 1.20000+ 7 2.06233- 4 1.25000+ 7 1.42631-	42145	3	56	387	
1.30000+ 7 9.69796- 5 1.35000+ 7 6.60376- 5 1.40000+ 7 4.31896-	52145	3	56	388	
1.45000+ 7 2.64597- 5 1.50000+ 7 1.82418- 5 1.60000+ 7 9.43402-	62145	3	56	389	
1.70000+ 7 4.46894- 6 1.80000+ 7 2.17712- 6 1.90000+ 7 1.17295-	62145	3	56	390	
2.00000+ 7 6.35906- 7	2145	3	56	391	
	2145	3	0	392	
2.10450+ 4 4.45698+ 1	0	7	0	02145 3 57 393	
0.0 + 0-1.23640+ 6	0	0	1	292145 3 57 394	
29	3	0	0	02145 3 57 395	
1.26414+ 6 0.0 + 0 1.33244+ 6 1.08174- 1 1.46556+ 6 1.32956-	12145	3	57	396	
1.69878+ 6 1.44813- 1 1.84100+ 6 1.43044- 1 1.94263+ 6 1.47849-	12145	3	57	397	
2.00000+ 6 1.50039- 1 3.00000+ 6 1.40637- 1 4.00000+ 6 8.75361-	22145	3	57	398	
5.00000+ 6 4.63392- 2 6.00000+ 6 2.33382- 2 7.00000+ 6 1.16198-	22145	3	57	399	
8.00000+ 6 5.88012- 3 9.00000+ 6 2.96772- 3 1.00000+ 7 1.45917-	32145	3	57	400	
1.10000+ 7 7.14831- 4 1.15000+ 7 5.03321- 4 1.20000+ 7 3.48016-	42145	3	57	401	
1.25000+ 7 2.34667- 4 1.30000+ 7 1.56679- 4 1.35000+ 7 1.05456-	42145	3	57	402	
1.40000+ 7 6.85210- 5 1.45000+ 7 4.18347- 5 1.50000+ 7 2.87854-	52145	3	57	403	
1.60000+ 7 1.48311- 5 1.70000+ 7 6.97326- 6 1.80000+ 7 3.35914-	62145	3	57	404	
1.90000+ 7 1.78619- 6 2.00000+ 7 9.55912- 7	2145	3	57	405	
	2145	3	0	406	
2.10450+ 4 4.45698+ 1	0	8	0	02145 3 58 407	
0.0 + 0-1.30320+ 6	0	0	1	282145 3 58 408	
28	3	0	0	02145 3 58 409	
1.33244+ 6 0.0 + 0 1.46556+ 6 8.79421- 3 1.69878+ 6 1.68224-	22145	3	58	410	
1.84100+ 6 2.06654- 2 1.94263+ 6 2.24558- 2 2.00000+ 6 2.34380-	22145	3	58	411	
3.00000+ 6 2.39339- 2 4.00000+ 6 1.41983- 2 5.00000+ 6 7.29883-	32145	3	58	412	
6.00000+ 6 3.74431- 3 7.00000+ 6 1.96005- 3 8.00000+ 6 1.04920-	32145	3	58	413	
9.00000+ 6 5.66218- 4 1.00000+ 7 3.06270- 4 1.10000+ 7 1.66808-	42145	3	58	414	
1.15000+ 7 1.23590- 4 1.20000+ 7 8.94662- 5 1.25000+ 7 6.27819-	52145	3	58	415	
1.30000+ 7 4.33219- 5 1.35000+ 7 2.99291- 5 1.40000+ 7 1.98453-	52145	3	58	416	
1.45000+ 7 1.23141- 5 1.50000+ 7 8.58475- 6 1.60000+ 7 4.51785-	62145	3	58	417	
1.70000+ 7 2.16320- 6 1.80000+ 7 1.05984- 6 1.90000+ 7 5.72543-	72145	3	58	418	
2.00000+ 7 3.10884- 7	2145	3	58	419	
	2145	3	0	420	
2.10450+ 4 4.45698+ 1	0	9	0	02145 3 59 421	
0.0 + 0-1.43340+ 6	0	0	1	272145 3 59 422	
27	3	0	0	02145 3 59 423	
1.46556+ 6 0.0 + 0 1.69878+ 6 7.51960- 2 1.84100+ 6 8.27542-	22145	3	59	424	
1.94263+ 6 8.77574- 2 2.00000+ 6 8.96948- 2 3.00000+ 6 7.33698-	22145	3	59	425	
4.00000+ 6 4.25977- 2 5.00000+ 6 2.20615- 2 6.00000+ 6 1.13083-	22145	3	59	426	
7.00000+ 6 5.92739- 3 8.00000+ 6 3.20486- 3 9.00000+ 6 1.74139-	32145	3	59	427	
1.00000+ 7 9.34504- 4 1.10000+ 7 5.00787- 4 1.15000+ 7 3.67302-	42145	3	59	428	
1.20000+ 7 2.62964- 4 1.25000+ 7 1.82242- 4 1.30000+ 7 1.24058-	42145	3	59	429	
1.35000+ 7 8.45102- 5 1.40000+ 7 5.52594- 5 1.45000+ 7 3.38297-	52145	3	59	430	
1.50000+ 7 2.32980- 5 1.60000+ 7 1.20218- 5 1.70000+ 7 5.67962-	62145	3	59	431	
1.80000+ 7 2.75870- 6 1.90000+ 7 1.48188- 6 2.00000+ 7 8.01276-	72145	3	59	432	
	2145	3	0	433	
2.10450+ 4 4.45698+ 1	0	10	0	02145 3 60 434	

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....										MAT	MF	MT	SEQ			
0.0	+	0	-1.66150+	6		0		0		1	262145	3	60	435		
		26		3		0		0		0	02145	3	60	436		
1.69878+	6	0.0	+	0	1.84100+	6	8.69065-	2	1.94263+	6	9.34970-	22145	3	60	437	
2.00000+	6	9.56377-	2	3.00000+	6	1.07154-	1	4.00000+	6	7.79261-	22145	3	60	438		
5.00000+	6	4.11294-	2	6.00000+	6	2.00013-	2	7.00000+	6	9.71188-	32145	3	60	439		
8.00000+	6	4.83584-	3	9.00000+	6	2.41770-	3	1.00000+	7	1.19015-	32145	3	60	440		
1.10000+	7	5.85298-	4	1.15000+	7	4.12653-	4	1.20000+	7	2.85602-	42145	3	60	441		
1.25000+	7	1.92755-	4	1.30000+	7	1.28878-	4	1.35000+	7	8.69583-	52145	3	60	442		
1.40000+	7	5.67158-	5	1.45000+	7	3.48057-	5	1.50000+	7	2.40919-	52145	3	60	443		
1.60000+	7	1.25626-	5	1.70000+	7	5.96112-	6	1.80000+	7	2.88657-	62145	3	60	444		
1.90000+	7	1.53788-	6	2.00000+	7	8.23021-	7				2145	3	60	445		
											2145	3	0	446		
2.10450+	4	4.45698+	1		0		11		0		02145	3	61	447		
0.0	+	0	-1.80060+	6		0		0		1	252145	3	61	448		
		25		3		0		0		0	02145	3	61	449		
1.84100+	6	0.0	+	0	1.94263+	6	1.54316-	2	2.00000+	6	1.87383-	22145	3	61	450	
3.00000+	6	3.20925-	2	4.00000+	6	2.20265-	2	5.00000+	6	1.16354-	22145	3	61	451		
6.00000+	6	5.88911-	3	7.00000+	6	3.04099-	3	8.00000+	6	1.61438-	32145	3	61	452		
9.00000+	6	8.63067-	4	1.00000+	7	4.61186-	4	1.10000+	7	2.48309-	42145	3	61	453		
1.15000+	7	1.83040-	4	1.20000+	7	1.32000-	4	1.25000+	7	9.23397-	52145	3	61	454		
1.30000+	7	6.35727-	5	1.35000+	7	4.38660-	5	1.40000+	7	2.90838-	52145	3	61	455		
1.45000+	7	1.80638-	5	1.50000+	7	1.26166-	5	1.60000+	7	6.67298-	62145	3	61	456		
1.70000+	7	3.20997-	6	1.80000+	7	1.57729-	6	1.90000+	7	8.52978-	72145	3	61	457		
2.00000+	7	4.62999-	7								2145	3	61	458		
											2145	3	0	459		
2.10450+	4	4.45698+	1		0		98		0		02145	3	91	460		
0.0	+	0	-1.90000+	6		0		0		1	242145	3	91	461		
		24		3		0		0		0	02145	3	91	462		
1.94263+	6	0.0	+	0	2.00000+	6	8.90409-	3	3.00000+	6	3.19679-	12145	3	91	463	
4.00000+	6	6.07983-	1	5.00000+	6	7.63083-	1	6.00000+	6	8.16693-	12145	3	91	464		
7.00000+	6	8.28785-	1	8.00000+	6	8.38372-	1	9.00000+	6	8.53860-	12145	3	91	465		
1.00000+	7	8.67749-	1	1.10000+	7	8.78639-	1	1.15000+	7	8.84192-	12145	3	91	466		
1.20000+	7	8.67291-	1	1.25000+	7	8.23892-	1	1.30000+	7	7.68797-	12145	3	91	467		
1.35000+	7	7.16886-	1	1.40000+	7	6.41428-	1	1.45000+	7	5.37190-	12145	3	91	468		
1.50000+	7	5.05504-	1	1.60000+	7	4.84207-	1	1.70000+	7	4.20122-	12145	3	91	469		
1.80000+	7	3.69253-	1	1.90000+	7	3.52683-	1	2.00000+	7	3.33433-	12145	3	91	470		
											2145	3	0	471		
2.10450+	4	4.45698+	1		0		99		0		02145	3102		472		
0.0	+	0	0.0	+	0		0		2		412145	3102		473		
		3		2	41		5		0		02145	3102		474		
1.00000-	5	0.0	+	0	2.53000-	2	0.0	+	0	9.00000+	4	0.0	+	02145	3102	475
9.00000+	4	3.48675-	2	1.00000+	5	3.22904-	2	3.84845+	5	1.29344-	22145	3102		476		
5.00000+	5	1.07989-	2	5.55081+	5	1.01650-	2	7.36359+	5	8.21085-	32145	3102		477		
9.60170+	5	6.82751-	3	9.96365+	5	6.70833-	3	1.00000+	6	6.53641-	32145	3102		478		
1.26414+	6	5.51456-	3	1.33244+	6	4.30959-	3	1.46556+	6	3.80204-	32145	3102		479		
1.69878+	6	3.15819-	3	1.84100+	6	2.82279-	3	1.94263+	6	2.71435-	32145	3102		480		
2.00000+	6	2.66165-	3	3.00000+	6	1.84620-	3	4.00000+	6	1.39000-	32145	3102		481		
5.00000+	6	1.05500-	3	6.00000+	6	7.93315-	4	7.00000+	6	5.95202-	42145	3102		482		
8.00000+	6	4.50462-	4	9.00000+	6	3.36982-	4	1.00000+	7	2.47098-	42145	3102		483		
1.10000+	7	1.80617-	4	1.15000+	7	1.55115-	4	1.20000+	7	1.30505-	42145	3102		484		
1.25000+	7	1.06810-	4	1.30000+	7	8.63581-	5	1.35000+	7	7.02956-	52145	3102		485		
1.40000+	7	5.52579-	5	1.45000+	7	4.09028-	5	1.50000+	7	3.42261-	52145	3102		486		
1.60000+	7	2.63363-	5	1.70000+	7	1.86265-	5	1.80000+	7	1.34002-	52145	3102		487		
1.90000+	7	1.03599-	5	2.00000+	7	7.64765-	6				2145	3102		488		
											2145	3	0	489		

JAERI-M 9981

.....10.....		.....20.....		.....30.....		.....40.....		.....50.....		.....60.....		MAT	MF	MT	SEQ
2.10450+	4	4.45697+	1	0	99	0	0	0	0	02145	3103	490			
0.0	+ 0	5.25600-	1	0	0	0	1	1	252145	3103	491				
	25		2	0	0	0	0	0	02145	3103	492				
1.00000-	5	0.0	+ 0	1.00000+	6	2.00000-	3	2.00000+	6	1.60000-	22145	3103	493		
3.00000+	6	5.00000-	2	4.00000+	6	7.50000-	2	5.00000+	6	9.30000-	22145	3103	494		
6.00000+	6	1.07000-	1	7.00000+	6	1.15000-	1	8.00000+	6	1.15000-	12145	3103	495		
9.00000+	6	1.09000-	1	1.00000+	7	1.00000-	1	1.10000+	7	9.10000-	22145	3103	496		
1.15000+	7	8.55000-	2	1.20000+	7	8.00000-	2	1.25000+	7	7.50000-	22145	3103	497		
1.30000+	7	7.00000-	2	1.35000+	7	6.45000-	2	1.40000+	7	5.90000-	22145	3103	498		
1.45000+	7	5.35000-	2	1.50000+	7	4.80000-	2	1.60000+	7	3.80000-	22145	3103	499		
1.70000+	7	2.70000-	2	1.80000+	7	1.70000-	2	1.90000+	7	5.00000-	32145	3103	500		
2.00000+	7	0.0	+ 0							2145	3103	501			
										2145	3	0	502		
2.10450+	4	4.45697+	1	0	99	0	0	0	02145	3107	503				
0.0	+ 0	-3.97000-	1	0	0	0	1	1	252145	3107	504				
	25		2	0	0	0	0	0	02145	3107	505				
4.05900-	1	0.0	+ 0	1.00000+	6	1.00000-	3	2.00000+	6	2.50000-	32145	3107	506		
3.00000+	6	4.00000-	3	4.00000+	6	5.00000-	3	5.00000+	6	7.00000-	32145	3107	507		
6.00000+	6	8.00000-	3	7.00000+	6	1.00000-	2	8.00000+	6	1.10000-	22145	3107	508		
9.00000+	6	1.40000-	2	1.00000+	7	1.90000-	2	1.10000+	7	2.60000-	22145	3107	509		
1.15000+	7	3.00000-	2	1.20000+	7	3.60000-	2	1.25000+	7	4.20000-	22145	3107	510		
1.30000+	7	4.80000-	2	1.35000+	7	5.40000-	2	1.40000+	7	5.60000-	22145	3107	511		
1.45000+	7	5.60000-	2	1.50000+	7	5.20000-	2	1.60000+	7	4.00000-	22145	3107	512		
1.70000+	7	2.95000-	2	1.80000+	7	2.65000-	2	1.90000+	7	2.50000-	22145	3107	513		
2.00000+	7	2.35000-	2							2145	3107	514			
										2145	3	0	515		
2.10450+	4	4.45698+	1	0	0	0	0	0	02145	3251	516				
0.0	+ 0	0.0	+ 0	0	0	0	1	1	432145	3251	517				
	43		3	0	0	0	0	0	02145	3251	518				
1.00000-	5	1.49578-	2	1.00000+	2	1.49578-	2	1.00000+	3	1.49783-	22145	3251	519		
1.00000+	4	1.55718-	2	1.26782+	4	1.58246-	2	3.00000+	4	1.79344-	22145	3251	520		
1.00000+	5	3.00926-	2	3.84845+	5	8.19564-	2	5.00000+	5	9.77876-	22145	3251	521		
5.55081+	5	1.04222-	1	7.36359+	5	1.24666-	1	9.60170+	5	1.47365-	12145	3251	522		
9.96365+	5	1.50466-	1	1.00000+	6	1.52019-	1	1.26414+	6	1.81556-	12145	3251	523		
1.33244+	6	1.98000-	1	1.46556+	6	2.18199-	1	1.69878+	6	2.59960-	12145	3251	524		
1.84100+	6	2.90956-	1	1.94263+	6	3.10121-	1	2.00000+	6	3.20923-	12145	3251	525		
3.00000+	6	4.99402-	1	4.00000+	6	6.12124-	1	5.00000+	6	6.74366-	12145	3251	526		
6.00000+	6	7.08330-	1	7.00000+	6	7.26025-	1	8.00000+	6	7.32761-	12145	3251	527		
9.00000+	6	7.31696-	1	1.00000+	7	7.22766-	1	1.10000+	7	7.08611-	12145	3251	528		
1.15000+	7	7.00092-	1	1.20000+	7	6.90963-	1	1.25000+	7	6.81540-	12145	3251	529		
1.30000+	7	6.72135-	1	1.35000+	7	6.63043-	1	1.40000+	7	6.54523-	12145	3251	530		
1.45000+	7	6.46680-	1	1.50000+	7	6.39615-	1	1.60000+	7	6.27946-	12145	3251	531		
1.70000+	7	6.19657-	1	1.80000+	7	6.14981-	1	1.90000+	7	6.14268-	12145	3251	532		
2.00000+	7	6.17825-	1							2145	3251	533			
										2145	3	0	534		
										2145	0	0	535		
2.10450+	4	4.45698+	1	1	1	0	0	0	02145	4	2	536			
0.0	+ 0	4.45698+	1	0	2	361	361	182145	4	2	537				
1.00000+	0	1.49578-	2	1.00688-	4	1.32433-19	0.0	+ 0	0.0	+ 02145	4	2	538		
0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 02145	4	2	539	
0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 02145	4	2	540	
0.0	+ 0	0.0	+ 0	9.99698-	1	2.69202-	2	3.45193-	4	2.15168-	62145	4	2	541	
7.24031-	9	-3.98072-	11	0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 02145	4	2	542	
0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 0	0.0	+ 02145	4	2	543	
0.0	+ 0	0.0	+ 0	0.0	+ 0	-1.49514-	2	9.99209-	1	3.84479-	22145	4	2	544	

JAERI-M 9981

.....10.....	.....20.....	.....30.....	.....40.....	.....50.....	.....60.....	MAT	MF	MT	SEQ
7.19027-	4 7.82312-	6 5.31586-	8 1.27987-	10 0.0	+ 0 0.0	+ 02145	4	2	545
0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 02145	4	2	546
0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 3.01903-	4-2.69030-	22145	4	2	547
9.98457-	1 4.98210-	2 1.21986-	3 1.84260-	5 1.86283-	7 1.16185-	92145	4	2	548
-5.34922-	11 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 02145	4	2	549
0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0-6.45106-	62145	4	2	550
6.89849-	4-3.84137-	2 9.97452-	1 6.11132-	2 1.84676-	3 3.53690-	52145	4	2	551
4.70023-	7 7.49260-	9 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 02145	4	2	552
0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 02145	4	2	553
1.40719-	7-1.71978-	5 1.19716-	3-4.97643-	2 9.96196-	1 7.23501-	22145	4	2	554
2.59915-	3 6.00596-	5 9.46906-	7 1.08852-	8-1.08204-	8-2.91117-	92145	4	2	555
0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 02145	4	2	556
0.0	+ 0-3.09985-	9 4.20941-	7-3.41873-	5 1.82747-	3-6.10282-	22145	4	2	557
9.94689-	1 8.35413-	2 3.47648-	3 9.38862-	5 1.77176-	6 2.21574-	82145	4	2	558
9.90865-	10 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 02145	4	2	559
0.0	+ 0 0.0	+ 0 6.86587-	11-1.01711-	8 9.29338-	7-5.88816-	52145	4	2	560
2.58154-	3-7.22313-	2 9.92932-	1 9.46902-	2 4.47832-	3 1.38251-	42145	4	2	561
3.05758-	6 4.94095-	8 4.85198-	9 3.46784-	9 0.0	+ 0 0.0	+ 02145	4	2	562
0.0	+ 0 0.0	+ 0 0.0	+ 0-1.52580-	12 2.43419-	10-2.44660-	82145	4	2	563
1.76159-	6-9.26919-	5 3.45940-	3-8.33832-	2 9.90927-	1 1.05797-	12145	4	2	564
5.60416-	3 1.94545-	4 4.89504-	6 9.57666-	8-1.46411-	8 3.76801-	92145	4	2	565
0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 3.39822-	14-5.78280-	122145	4	2	566
6.29670-	10-5.02214-	8 3.02815-	6-1.37013-	4 4.46079-	3-9.44872-	22145	4	2	567
9.88673-	1 1.16860-	1 6.85338-	3 2.64144-	4 7.40879-	6 1.62774-	72145	4	2	568
-4.68648-	8-1.23275-	8 0.0	+ 0 0.0	+ 0 0.0	+ 0-7.57990-	162145	4	2	569
1.36552-	13-1.59337-	11 1.38384-	9-9.29800-	8 4.85474-	6-1.93229-	42145	4	2	570
5.58526-	3-1.05543-	1 9.86172-	1 1.27876-	1 8.22535-	3 3.48415-	42145	4	2	571
1.07673-	5 2.46272-	7 1.28680-	8 2.40876-	9 0.0	+ 0 0.0	+ 02145	4	2	572
1.69258-	17-3.21026-	15 3.97846-	13-3.71749-	11 2.73203-	9-1.59775-	72145	4	2	573
7.38241-	6-2.62714-	4 6.83231-	3-1.16550-	1 9.83424-	1 1.38843-	12145	4	2	574
9.71941-	3 4.48707-	4 1.52560-	5 4.05130-	7 6.47352-	9 0.0	+ 02145	4	2	575
0.0	+ 0-3.78258-	19 4.86718-	17-9.83403-	15 9.79026-	13-7.76726-	112145	4	2	576
4.98800-	9-2.59302-	7 1.07675-	5-3.46835-	4 8.20130-	3-1.27505-	12145	4	2	577
9.80431-	1 1.49758-	1 1.13349-	2 5.66422-	4 2.08886-	5 5.90977-	72145	4	2	578
6.21231-	8 0.0	+ 0 0.0	+ 0-8.54797-	19 1.64345-	16-2.53831-	142145	4	2	579
2.15219-	12-1.49655-	10 8.57272-	9-4.02091-	7 1.51813-	5-4.46946-	42145	4	2	580
9.69154-	3-1.38405-	1 9.77193-	1 1.60617-	1 1.30710-	2 7.02841-	42145	4	2	581
2.80062-	5 8.83316-	7 0.0	+ 0 0.0	+ 0 1.53955-	20-3.06635-	182145	4	2	582
5.69867-	16-5.84126-	14 4.35273-	12-2.70730-	10 1.40359-	8-6.00675-	72145	4	2	583
2.08104-	5-5.64392-	4 1.13023-	2-1.49248-	1 9.73712-	1 1.71415-	12145	4	2	584
1.49268-	2 8.59360-	4 3.66478-	5 0.0	+ 0 0.0	+ 0 0.0	+ 02145	4	2	585
5.79832-	20-9.74902-	18 1.47550-	15-1.23444-	13 8.24787-	12-4.65455-	102145	4	2	586
2.20794-	8-8.69754-	7 2.78560-	5-7.00507-	4 1.30327-	2-1.60028-	12145	4	2	587
9.69990-	1 1.82151-	1 1.69013-	2 1.03722-	3 0.0	+ 0 0.0	+ 02145	4	2	588
0.0	+ 0 0.0	+ 0 1.85793-	19-2.42410-	17 3.34337-	15-2.43992-	132145	4	2	589
1.48240-	11-7.67174-	10 3.35821-	8-1.22636-	6 3.65342-	5-8.56611-	42145	4	2	590
1.48818-	2-1.70744-	1 9.66027-	1 1.92819-	1 1.89938-	2 0.0	+ 02145	4	2	591
0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 4.63034-	19-5.33580-	172145	4	2	592
6.95991-	15-4.56790-	13 2.54963-	11-1.22015-	9 4.96273-	8-1.69002-	62145	4	2	593
4.70754-	5-1.03401-	3 1.68488-	2-1.81391-	1 9.61825-	1 2.03417-	12145	4	2	594
0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 0 0.0	+ 02145	4	2	595
1.01777-	18-1.08472-	16 1.36076-	14-8.17151-	13 4.22438-	11-1.88200-	92145	4	2	596
7.15313-	8-2.28291-	6 5.97246-	5-1.23401-	3 1.89325-	2-1.91966-	12145	4	2	597
9.57386-	1					2145	4	2	598
0.0	+ 0 0.0	+ 0	0	0	1	432145	4	2	599

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
	43	2	0	0	0		02145	4	2	600
0.0	+ 0	1.00000+	0	0	0	1	02145	4	2	601
0.0	+ 0						2145	4	2	602
0.0	+ 0	1.00000+	2	0	0	1	02145	4	2	603
0.0	+ 0						2145	4	2	604
0.0	+ 0	1.00000+	3	0	0	2	02145	4	2	605
2.05389-	5	5.58710-	7				2145	4	2	606
0.0	+ 0	1.00000+	4	0	0	2	02145	4	2	607
6.15262-	4	7.48514-	5				2145	4	2	608
0.0	+ 0	1.26782+	4	0	0	2	02145	4	2	609
8.68764-	4	1.11402-	4				2145	4	2	610
0.0	+ 0	3.00000+	4	0	0	4	02145	4	2	611
2.98369-	3	4.16296-	4-3.51165-	7	1.73860-	7				
0.0	+ 0	1.00000+	5	0	0	4	02145	4	2	613
1.51834-	2	2.94740-	3-2.34397-	5	1.38191-	5				
0.0	+ 0	3.84845+	5	0	0	6	02145	4	2	615
6.75895-	2	3.81225-	2-1.71454-	3	5.08156-	4	9.43646-	7	3.03258-	82145
0.0	+ 0	5.00000+	5	0	0	6	02145	4	2	617
8.37576-	2	6.02910-	2-3.32504-	3	1.04800-	3	3.69145-	6	1.10984-	72145
0.0	+ 0	5.55081+	5	0	0	6	02145	4	2	619
9.03628-	2	7.15865-	2-4.16890-	3	1.41040-	3	6.29304-	6	1.76597-	72145
0.0	+ 0	7.36359+	5	0	0	8	02145	4	2	621
1.11418-	1	1.11922-	1-6.60252-	3	3.27683-	3	1.69598-	5	2.86809-	62145
9.63442-	9	3.11890-	8				2145	4	2	623
0.0	+ 0	9.60170+	5	0	0	8	02145	4	2	624
1.34847-	1	1.60278-	1-5.89840-	3	7.11908-	3	6.71673-	5	1.16730-	52145
5.63819-	8	1.68438-	7				2145	4	2	626
0.0	+ 0	9.96365+	5	0	0	8	02145	4	2	627
1.38045-	1	1.66815-	1-5.14256-	3	7.87785-	3	8.03816-	5	1.40449-	52145
7.13944-	8	2.07709-	7				2145	4	2	629
0.0	+ 0	1.00000+	6	0	0	8	02145	4	2	630
1.39630-	1	1.68907-	1-5.10221-	3	8.02802-	3	8.25476-	5	1.44279-	52145
7.37304-	8	2.13896-	7				2145	4	2	632
0.0	+ 0	1.26414+	6	0	0	8	02145	4	2	633
1.69842-	1	2.13651-	1	6.43234-	3	1.48189-	2	2.47342-	4	4.45184-
3.24839-	7	7.36541-	7				2145	4	2	635
0.0	+ 0	1.33244+	6	0	0	8	02145	4	2	636
1.86521-	1	2.29155-	1	1.14787-	2	1.69444-	2	3.24992-	4	5.77327-
4.69661-	7	8.87973-	7				2145	4	2	638
0.0	+ 0	1.46556+	6	0	0	8	02145	4	2	639
2.06996-	1	2.47433-	1	2.24076-	2	2.11735-	2	4.87924-	4	8.77190-
8.48037-	7	9.63272-	7				2145	4	2	641
0.0	+ 0	1.69878+	6	0	0	8	02145	4	2	642
2.49210-	1	2.77332-	1	4.55282-	2	2.91568-	2	8.90019-	4	1.69011-
2.13044-	6	1.30028-	6				2145	4	2	644
0.0	+ 0	1.84100+	6	0	0	8	02145	4	2	645
2.80510-	1	2.97371-	1	6.18097-	2	3.44244-	2	1.22895-	3	2.43160-
3.56809-	6	1.71216-	6				2145	4	2	647
0.0	+ 0	1.94263+	6	0	0	8	02145	4	2	648
2.99828-	1	3.07388-	1	7.29972-	2	3.78750-	2	1.49638-	3	3.05525-
4.97913-	6	2.09744-	6				2145	4	2	650
0.0	+ 0	2.00000+	6	0	0	8	02145	4	2	651
3.10711-	1	3.12721-	1	7.92943-	2	3.97966-	2	1.66140-	3	3.45403-
5.96580-	6	2.35844-	6				2145	4	2	653
0.0	+ 0	3.00000+	6	0	0	10	02145	4	2	654

JAERI-M 9981

.....10.....	.....20.....	.....30.....	.....40.....	.....50.....	.....60.....	MAT	MF	MT	SEQ
4.90438-	1 3.94571-	1 1.79072-	1 7.21348-	2 6.71240-	3 1.78969-	32145	4	2	655
1.14274-	4 2.16778-	5 1.66927-	6 5.31018-	8		2145	4	2	656
0.0	+ 0 4.00000+	6 0	0	0	10	02145	4	2	657
6.04007-	1 4.50222-	1 2.47013-	1 1.00994-	1 1.70974-	2 5.47255-	32145	4	2	658
5.77847-	4 1.17071-	4 1.22860-	5 6.24765-	7		2145	4	2	659
0.0	+ 0 5.00000+	6 0	0	0	10	02145	4	2	660
6.66888-	1 4.92683-	1 2.94886-	1 1.29097-	1 3.24493-	2 1.13585-	22145	4	2	661
1.89343-	3 3.51847-	4 5.11648-	5 4.10491-	6		2145	4	2	662
0.0	+ 0 6.00000+	6 0	0	0	12	02145	4	2	663
7.01381-	1 5.28093-	1 3.32203-	1 1.57629-	1 5.02563-	2 1.91537-	22145	4	2	664
4.57939-	3 8.19762-	4 1.57257-	4 3.13337-	5 3.40310-	6 1.57972-	72145	4	2	665
0.0	+ 0 7.00000+	6 0	0	0	12	02145	4	2	666
7.19536-	1 5.59121-	1 3.64336-	1 1.87773-	1 7.03550-	2 3.01334-	22145	4	2	667
9.35080-	3 1.64166-	3 4.46666-	4 1.02429-	4 1.34460-	5 6.98576-	72145	4	2	668
0.0	+ 0 8.00000+	6 0	0	0	12	02145	4	2	669
7.26674-	1 5.86480-	1 3.94282-	1 2.20829-	1 9.38561-	2 4.59987-	22145	4	2	670
1.68321-	2 3.23555-	3 1.11681-	3 2.80133-	4 4.33628-	5 2.47472-	62145	4	2	671
0.0	+ 0 9.00000+	6 0	0	0	14	02145	4	2	672
7.25938-	1 6.09075-	1 4.22133-	1 2.56812-	1 1.20833-	1 6.73042-	22145	4	2	673
2.76041-	2 6.27046-	3 2.52240-	3 6.41076-	4 1.35574-	4 2.27027-	52145	4	2	674
1.91971-	6 1.22438-	7				2145	4	2	675
0.0	+ 0 1.00000+	7 0	0	0	14	02145	4	2	676
7.17203-	1 6.22735-	1 4.44711-	1 2.92816-	1 1.49371-	1 9.25542-	22145	4	2	677
4.19418-	2 1.12881-	2 4.97618-	3 1.33674-	3 2.99567-	4 5.85657-	52145	4	2	678
5.42001-	6 3.74401-	7				2145	4	2	679
0.0	+ 0 1.10000+	7 0	0	0	14	02145	4	2	680
7.03091-	1 6.26218-	1 4.60870-	1 3.26391-	1 1.78101-	1 1.19820-	12145	4	2	681
6.00265-	2 1.89289-	2 9.08807-	3 2.52269-	3 5.91110-	4 1.32923-	42145	4	2	682
1.35628-	5 1.00338-	6				2145	4	2	683
0.0	+ 0 1.15000+	7 0	0	0	14	02145	4	2	684
6.94535-	1 6.23953-	1 4.66287-	1 3.41360-	1 1.92182-	1 1.33492-	12145	4	2	685
7.03480-	2 2.39173-	2 1.19804-	2 3.34589-	3 7.99445-	4 1.91589-	42145	4	2	686
2.06350-	5 1.57425-	6				2145	4	2	687
0.0	+ 0 1.20000+	7 0	0	0	14	02145	4	2	688
6.85330-	1 6.19103-	1 4.69800-	1 3.54574-	1 2.05807-	1 1.46734-	12145	4	2	689
8.13014-	2 2.97547-	2 1.55169-	2 4.33180-	3 1.05548-	3 2.68642-	42145	4	2	690
3.06709-	5 2.40798-	6				2145	4	2	691
0.0	+ 0 1.25000+	7 0	0	0	14	02145	4	2	692
6.75794-	1 6.11821-	1 4.71262-	1 3.65586-	1 2.18677-	1 1.59168-	12145	4	2	693
9.26189-	2 3.64476-	2 1.97088-	2 5.47060-	3 1.36172-	3 3.67165-	42145	4	2	694
4.46225-	5 3.59897-	6				2145	4	2	695
0.0	+ 0 1.30000+	7 0	0	0	14	02145	4	2	696
6.66245-	1 6.02334-	1 4.70532-	1 3.74019-	1 2.30438-	1 1.70446-	12145	4	2	697
1.03987-	1 4.39473-	2 2.45057-	2 6.73902-	3 1.71951-	3 4.90293-	42145	4	2	698
6.36498-	5 5.26546-	6				2145	4	2	699
0.0	+ 0 1.35000+	7 0	0	0	14	02145	4	2	700
6.56980-	1 5.90941-	1 4.67539-	1 3.79644-	1 2.40776-	1 1.80325-	12145	4	2	701
1.15108-	1 5.21515-	2 2.98015-	2 8.10636-	3 2.13055-	3 6.41521-	42145	4	2	702
8.91584-	5 7.55481-	6				2145	4	2	703
0.0	+ 0 1.40000+	7 0	0	0	16	02145	4	2	704
6.48267-	1 5.78130-	1 4.62540-	1 3.82225-	1 2.49706-	1 1.88886-	12145	4	2	705
1.26117-	1 6.10835-	2 3.57435-	2 9.63913-	3 2.53504-	3 7.25627-	42145	4	2	706
2.06668-	4 3.23968-	5 3.66875-	6 3.02955-	7		2145	4	2	707
0.0	+ 0 1.45000+	7 0	0	0	16	02145	4	2	708
6.40215-	1 5.64077-	1 4.55343-	1 3.82352-	1 2.56773-	1 1.95913-	12145	4	2	709

JAERI-M 9981

.....10.....	.....20.....	.....30.....	.....40.....	.....50.....	.....60.....	MAT	MF	MT	SEQ
1.36218-	1 7.02982-	2 4.16615-	2 1.11440-	2 3.04985-	3 9.13044-	42145	4	2	710
2.71480-	4 4.49611-	5 5.21558-	6 4.42171-	7		2145	4	2	711
0.0	+ 0 1.50000+	7	0	0	16	02145	4	2	712
6.32929-	1 5.49263-	1 4.46443-	1 3.80214-	1 2.62269-	1 2.01742-	12145	4	2	713
1.45672-	1 7.97707-	2 4.76653-	2 1.27014-	2 3.63845-	3 1.13844-	32145	4	2	714
3.51877-	4 6.14338-	5 7.29378-	6 6.33956-	7		2145	4	2	715
0.0	+ 0 1.60000+	7	0	0	16	02145	4	2	716
6.20807-	1 5.18803-	1 4.25129-	1 3.70991-	1 2.69436-	1 2.10900-	12145	4	2	717
1.62780-	1 9.89729-	2 5.96006-	2 1.60623-	2 5.11090-	3 1.73381-	32145	4	2	718
5.71201-	4 1.09857-	4 1.36378-	5 1.24115-	6		2145	4	2	719
0.0	+ 0 1.70000+	7	0	0	16	02145	4	2	720
6.12081-	1 4.89325-	1 4.01791-	1 3.58116-	1 2.73186-	1 2.18390-	12145	4	2	721
1.77905-	1 1.17859-	1 7.12444-	2 2.00374-	2 7.13061-	3 2.57975-	32145	4	2	722
8.90037-	4 1.86196-	4 2.41413-	5 2.29004-	6		2145	4	2	723
0.0	+ 0 1.80000+	7	0	0	16	02145	4	2	724
6.07015-	1 4.62916-	1 3.79119-	1 3.44259-	1 2.75107-	1 2.25443-	12145	4	2	725
1.91365-	1 1.35826-	1 8.26805-	2 2.50529-	2 9.88552-	3 3.74323-	32145	4	2	726
1.33324-	3 2.99960-	4 4.06329-	5 4.00183-	6		2145	4	2	727
0.0	+ 0 1.90000+	7	0	0	16	02145	4	2	728
6.05984-	1 4.41251-	1 3.59063-	1 3.31044-	1 2.76058-	1 2.32389-	12145	4	2	729
2.03155-	1 1.52376-	1 9.41064-	2 3.14862-	2 1.35144-	2 5.27168-	32145	4	2	730
1.91958-	3 4.60260-	4 6.52517-	5 6.64990-	6		2145	4	2	731
0.0	+ 0 2.00000+	7	0	0	18	02145	4	2	732
6.09315-	1 4.25748-	1 3.43448-	1 3.19107-	1 2.76109-	1 2.38981-	12145	4	2	733
2.13354-	1 1.67382-	1 1.05887-	1 3.97175-	2 1.80872-	2 6.99161-	32145	4	2	734
2.41907-	3 8.21708-	4 1.97038-	4 3.21239-	5 4.20612-	6 3.73605-	72145	4	2	735
						2145	4	0	736
2.10450+	4 4.45697+	1	0	2	0	02145	4	16	737
0.0	+ 0 4.45697+	1	0	2	0	02145	4	16	738
0.0	+ 0 0.0	+ 0	0	0	1	22145	4	16	739
	2	2	0	0	0	02145	4	16	740
0.0	+ 0 1.15816+	7	0	0	1	22145	4	16	741
	2	2	0	0	0	02145	4	16	742
-1.00000+	0 5.00000-	1 1.00000+	0 5.00000-	1		2145	4	16	743
0.0	+ 0 2.00000+	7	0	0	1	22145	4	16	744
	2	2	0	0	0	02145	4	16	745
-1.00000+	0 5.00000-	1 1.00000+	0 5.00000-	1		2145	4	16	746
						2145	4	0	747
2.10450+	4 4.45698+	1	0	1	0	02145	4	51	748
0.0	+ 0 4.45698+	1	0	2	0	02145	4	51	749
0.0	+ 0 0.0	+ 0	0	0	1	392145	4	51	750
	39	2	0	0	0	02145	4	51	751
0.0	+ 0 1.26782+	4	0	0	2	02145	4	51	752
0.0	+ 0 0.0	+ 0				2145	4	51	753
0.0	+ 0 3.00000+	4	0	0	2	02145	4	51	754
0.0	+ 0-7.00949-	5				2145	4	51	755
0.0	+ 0 1.00000+	5	0	0	2	02145	4	51	756
0.0	+ 0-1.85996-	3				2145	4	51	757
0.0	+ 0 3.84845+	5	0	0	4	02145	4	51	758
0.0	+ 0-9.01334-	3 0.0	+ 0-1.56573-	5		2145	4	51	759
0.0	+ 0 5.00000+	5	0	0	4	02145	4	51	760
0.0	+ 0-1.17587-	2 0.0	+ 0-3.36652-	5		2145	4	51	761
0.0	+ 0 5.55081+	5	0	0	4	02145	4	51	762
0.0	+ 0-1.27160-	2 0.0	+ 0-4.36378-	5		2145	4	51	763
0.0	+ 0 7.36359+	5	0	0	6	02145	4	51	764

JAERI-M 9981

.....10.....	.....20.....	.....30.....	.....40.....	.....50.....	.....60.....	MAT	MF	MT	SEQ
0.0	+ 0-1.46616r 2 0.0	+ 0-8.93653- 5 0.0	+ 0-4.64840-	92145 4 51	765				
0.0	+ 0 9.60170+ 5	0	0	02145 4 51	766				
0.0	+ 0-1.60636- 2 0.0	+ 0-1.62730- 4 0.0	+ 0-2.36805-	62145 4 51	767				
0.0	+ 0 9.96365+ 5	0	0	02145 4 51	768				
0.0	+ 0-1.62719- 2 0.0	+ 0-1.75372- 4 0.0	+ 0-2.78082-	62145 4 51	769				
0.0	+ 0 1.00000+ 6	0	0	02145 4 51	770				
0.0	+ 0-1.58989- 2 0.0	+ 0-1.76257- 4 0.0	+ 0-2.97115-	62145 4 51	771				
0.0	+ 0 1.26414+ 6	0	0	02145 4 51	772				
0.0	+ 0-1.65535- 2 0.0	+ 0-2.70823- 4 0.0	+ 0-5.69522-	62145 4 51	773				
0.0	+ 0 1.33244+ 6	0	0	02145 4 51	774				
0.0	+ 0-1.70280- 2 0.0	+ 0-2.61950- 4 0.0	+ 0-3.57155-	62145 4 51	775				
0.0	+ 0 1.46556+ 6	0	0	02145 4 51	776				
0.0	+ 0-1.78651- 2 0.0	+ 0-3.22968- 4 0.0	+ 0-3.13514-	62145 4 51	777				
0.0	+ 0 1.69878+ 6	0	0	02145 4 51	778				
0.0	+ 0-1.84120- 2 0.0	+ 0-4.22798- 4 0.0	+ 0-4.23323-	62145 4 51	779				
0.0	+ 0 1.84100+ 6	0	0	02145 4 51	780				
0.0	+ 0-1.87216- 2 0.0	+ 0-4.53894- 4 0.0	+ 0-4.91126-	62145 4 51	781				
0.0	+ 0 1.94263+ 6	0	0	02145 4 51	782				
0.0	+ 0-1.87657- 2 0.0	+ 0-5.07908- 4 0.0	+ 0-5.88723-	62145 4 51	783				
0.0	+ 0 2.00000+ 6	0	0	02145 4 51	784				
0.0	+ 0-1.87942- 2 0.0	+ 0-5.37322- 4 0.0	+ 0-6.42954-	62145 4 51	785				
0.0	+ 0 3.00000+ 6	0	0	02145 4 51	786				
0.0	+ 0-1.77875- 2 0.0	+ 0-1.12352- 3 0.0	+ 0-3.55008-	52145 4 51	787				
0.0	+ 0-3.60976- 8	0	0	2145 4 51	788				
0.0	+ 0 4.00000+ 6	0	0	02145 4 51	789				
0.0	+ 0-1.40650- 2 0.0	+ 0-1.83972- 3 0.0	+ 0-1.43219-	42145 4 51	790				
0.0	+ 0-2.72878- 6	0	0	2145 4 51	791				
0.0	+ 0 5.00000+ 6	0	0	02145 4 51	792				
0.0	+ 0-8.71518- 3 0.0	+ 0-2.71245- 3 0.0	+ 0-3.53338-	42145 4 51	793				
0.0	+ 0-1.23527- 5	0	0	2145 4 51	794				
0.0	+ 0 6.00000+ 6	0	0	02145 4 51	795				
0.0	+ 0-2.92764- 3 0.0	+ 0-3.63795- 3 0.0	+ 0-6.11388-	42145 4 51	796				
0.0	+ 0-3.62470- 5 0.0	+ 0-4.82727- 8	2145 4 51	797					
0.0	+ 0 7.00000+ 6	0	0	02145 4 51	798				
0.0	+ 0 2.94583- 3 0.0	+ 0-4.46596- 3 0.0	+ 0-8.42964-	42145 4 51	799				
0.0	+ 0-7.92907- 5 0.0	+ 0-2.19442- 7	2145 4 51	800					
0.0	+ 0 8.00000+ 6	0	0	02145 4 51	801				
0.0	+ 0 9.37514- 3 0.0	+ 0-5.04410- 3 0.0	+ 0-1.00261-	32145 4 51	802				
0.0	+ 0-1.43262- 4 0.0	+ 0-8.12697- 7	2145 4 51	803					
0.0	+ 0 9.00000+ 6	0	0	02145 4 51	804				
0.0	+ 0 1.65481- 2 0.0	+ 0-5.22443- 3 0.0	+ 0-1.06761-	32145 4 51	805				
0.0	+ 0-2.23698- 4 0.0	+ 0-2.45315- 6 0.0	+ 0-1.14506-	102145 4 51	806				
0.0	+ 0 1.00000+ 7	0	0	02145 4 51	807				
0.0	+ 0 2.41532- 2 0.0	+ 0-5.04261- 3 0.0	+ 0-1.05693-	32145 4 51	808				
0.0	+ 0-3.12588- 4 0.0	+ 0-6.22012- 6 0.0	+ 0-1.25797-	82145 4 51	809				
0.0	+ 0 1.10000+ 7	0	0	02145 4 51	810				
0.0	+ 0 3.14665- 2 0.0	+ 0-4.71104- 3 0.0	+ 0-1.02296-	32145 4 51	811				
0.0	+ 0-4.03630- 4 0.0	+ 0-1.35811- 5 0.0	+ 0-3.01989-	82145 4 51	812				
0.0	+ 0 1.15000+ 7	0	0	02145 4 51	813				
0.0	+ 0 3.47589- 2 0.0	+ 0-4.55023- 3 0.0	+ 0-1.01341-	32145 4 51	814				
0.0	+ 0-4.47868- 4 0.0	+ 0-1.91877- 5 0.0	+ 0-4.52914-	82145 4 51	815				
0.0	+ 0 1.20000+ 7	0	0	02145 4 51	816				
0.0	+ 0 3.77017- 2 0.0	+ 0-4.41494- 3 0.0	+ 0-1.01606-	32145 4 51	817				
0.0	+ 0-4.90338- 4 0.0	+ 0-2.64120- 5 0.0	+ 0-6.70225-	82145 4 51	818				
0.0	+ 0 1.25000+ 7	0	0	02145 4 51	819				

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....	MAT	MF	MT	SEQ
0.0	+ 0 4.02073- 2 0.0	+ 0-4.31621- 3 0.0	+ 0-1.03383-	32145	4	51	820		
0.0	+ 0-5.30059- 4 0.0	+ 0-3.54508- 5 0.0	+ 0-9.81046-	82145	4	51	821		
0.0	+ 0 1.30000+ 7	0	12	02145	4	51	822		
0.0	+ 0 4.22657- 2 0.0	+ 0-4.25561- 3 0.0	+ 0-1.06905-	32145	4	51	823		
0.0	+ 0-5.66649- 4 0.0	+ 0-4.64891- 5 0.0	+ 0-1.42529-	72145	4	51	824		
0.0	+ 0 1.35000+ 7	0	12	02145	4	51	825		
0.0	+ 0 4.39048- 2 0.0	+ 0-4.22932- 3 0.0	+ 0-1.12270-	32145	4	51	826		
0.0	+ 0-6.00017- 4 0.0	+ 0-5.96715- 5 0.0	+ 0-2.05966-	72145	4	51	827		
0.0	+ 0 1.40000+ 7	0	14	02145	4	51	828		
0.0	+ 0 4.51729- 2 0.0	+ 0-4.23013- 3 0.0	+ 0-1.19449-	32145	4	51	829		
0.0	+ 0-6.30242- 4 0.0	+ 0-7.50067- 5 0.0	+ 0-2.96779-	72145	4	51	830		
0.0	+ 0 2.22541-11			2145	4	51	831		
0.0	+ 0 1.45000+ 7	0	14	02145	4	51	832		
0.0	+ 0 4.61653- 2 0.0	+ 0-4.23935- 3 0.0	+ 0-1.28019-	32145	4	51	833		
0.0	+ 0-6.56946- 4 0.0	+ 0-9.23502- 5 0.0	+ 0-4.30004-	72145	4	51	834		
0.0	+ 0-2.04480- 9			2145	4	51	835		
0.0	+ 0 1.50000+ 7	0	14	02145	4	51	836		
0.0	+ 0 4.69268- 2 0.0	+ 0-4.26662- 3 0.0	+ 0-1.38177-	32145	4	51	837		
0.0	+ 0-6.81570- 4 0.0	+ 0-1.12062- 4 0.0	+ 0-6.11604-	72145	4	51	838		
0.0	+ 0-2.98918- 9			2145	4	51	839		
0.0	+ 0 1.60000+ 7	0	14	02145	4	51	840		
0.0	+ 0 4.81908- 2 0.0	+ 0-4.30984- 3 0.0	+ 0-1.61696-	32145	4	51	841		
0.0	+ 0-7.25494- 4 0.0	+ 0-1.57586- 4 0.0	+ 0-1.21037-	62145	4	51	842		
0.0	+ 0-6.24714- 9			2145	4	51	843		
0.0	+ 0 1.70000+ 7	0	14	02145	4	51	844		
0.0	+ 0 4.96040- 2 0.0	+ 0-4.29070- 3 0.0	+ 0-1.87533-	32145	4	51	845		
0.0	+ 0-7.65001- 4 0.0	+ 0-2.09908- 4 0.0	+ 0-2.30679-	62145	4	51	846		
0.0	+ 0-1.26014- 8			2145	4	51	847		
0.0	+ 0 1.80000+ 7	0	14	02145	4	51	848		
0.0	+ 0 5.15659- 2 0.0	+ 0-4.17563- 3 0.0	+ 0-2.13521-	32145	4	51	849		
0.0	+ 0-8.02170- 4 0.0	+ 0-2.66698- 4 0.0	+ 0-4.20230-	62145	4	51	850		
0.0	+ 0-2.44391- 8			2145	4	51	851		
0.0	+ 0 1.90000+ 7	0	14	02145	4	51	852		
0.0	+ 0 5.42193- 2 0.0	+ 0-3.95856- 3 0.0	+ 0-2.37948-	32145	4	51	853		
0.0	+ 0-8.37774- 4 0.0	+ 0-3.24945- 4 0.0	+ 0-7.28619-	62145	4	51	854		
0.0	+ 0-4.55510- 8			2145	4	51	855		
0.0	+ 0 2.00000+ 7	0	16	02145	4	51	856		
0.0	+ 0 5.74788- 2 0.0	+ 0-3.65598- 3 0.0	+ 0-2.59702-	32145	4	51	857		
0.0	+ 0-8.71978- 4 0.0	+ 0-3.81287- 4 0.0	+ 0-1.19816-	52145	4	51	858		
0.0	+ 0-8.22792- 8 0.0	+ 0 7.46326-11		2145	4	51	859		
				2145	4	0	860		
2.10450+	4 4.45698+ 1	0	1	0	02145	4	52	861	
0.0	+ 0 4.45698+ 1	0	2	0	02145	4	52	862	
0.0	+ 0 0.0 + 0	0	0	1	362145	4	52	863	
	36	0	0	0	02145	4	52	864	
0.0	+ 0 3.84845+ 5	0	0	2	02145	4	52	865	
0.0	+ 0 0.0 + 0				2145	4	52	866	
0.0	+ 0 5.00000+ 5	0	0	4	02145	4	52	867	
0.0	+ 0-8.93789- 3 0.0	+ 0-6.69561- 5			2145	4	52	868	
0.0	+ 0 5.55081+ 5	0	0	4	02145	4	52	869	
0.0	+ 0-9.97876- 3 0.0	+ 0-1.36727- 4			2145	4	52	870	
0.0	+ 0 7.36359+ 5	0	0	6	02145	4	52	871	
0.0	+ 0-9.43809- 3 0.0	+ 0-4.78758- 4 0.0	+ 0 6.35498-	92145	4	52	872		
0.0	+ 0 9.60170+ 5	0	0	6	02145	4	52	873	
0.0	+ 0-1.12384- 2 0.0	+ 0-9.04677- 4 0.0	+ 0 2.26875-	82145	4	52	874		

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0 9.96365+ 5		0	0		6	02145	4	52	875
0.0	+ 0-1.15842- 2 0.0		+ 0-9.78641- 4 0.0		+ 0 2.59210-	82145	4	52	876	
0.0	+ 0 1.00000+ 6		0	0		6	02145	4	52	877
0.0	+ 0-1.13606- 2 0.0		+ 0-9.93811- 4 0.0		+ 0 3.29090-	82145	4	52	878	
0.0	+ 0 1.26414+ 6		0	0		8	02145	4	52	879
0.0	+ 0-1.36922- 2 0.0		+ 0-1.44007- 3 0.0		+ 0-1.13763-	72145	4	52	880	
0.0	+ 0 2.77748- 8					2145	4	52	881	
0.0	+ 0 1.33244+ 6		0	0		8	02145	4	52	882
0.0	+ 0-1.44516- 2 0.0		+ 0-1.53904- 3 0.0		+ 0-1.35797-	92145	4	52	883	
0.0	+ 0 6.32468- 9					2145	4	52	884	
0.0	+ 0 1.46556+ 6		0	0		8	02145	4	52	885
0.0	+ 0-1.58742- 2 0.0		+ 0-1.71498- 3 0.0		+ 0-4.80173-	82145	4	52	886	
0.0	+ 0 1.04805- 8					2145	4	52	887	
0.0	+ 0 1.69878+ 6		0	0		8	02145	4	52	888
0.0	+ 0-1.77976- 2 0.0		+ 0-1.89957- 3 0.0		+ 0-1.65480-	72145	4	52	889	
0.0	+ 0 2.09193- 8					2145	4	52	890	
0.0	+ 0 1.84100+ 6		0	0		8	02145	4	52	891
0.0	+ 0-1.85758- 2 0.0		+ 0-1.90705- 3 0.0		+ 0-2.84777-	72145	4	52	892	
0.0	+ 0 4.15501- 8					2145	4	52	893	
0.0	+ 0 1.94263+ 6		0	0		8	02145	4	52	894
0.0	+ 0-1.90669- 2 0.0		+ 0-1.93878- 3 0.0		+ 0-4.14436-	72145	4	52	895	
0.0	+ 0 5.78808- 8					2145	4	52	896	
0.0	+ 0 2.00000+ 6		0	0		8	02145	4	52	897
0.0	+ 0-1.92432- 2 0.0		+ 0-1.93172- 3 0.0		+ 0-5.03935-	72145	4	52	898	
0.0	+ 0 6.93407- 8					2145	4	52	899	
0.0	+ 0 3.00000+ 6		0	0		8	02145	4	52	900
0.0	+ 0-2.03256- 2 0.0		+ 0-1.67740- 3 0.0		+ 0-6.89750-	62145	4	52	901	
0.0	+ 0 7.85686- 7					2145	4	52	902	
0.0	+ 0 4.00000+ 6		0	0		10	02145	4	52	903
0.0	+ 0-1.65599- 2 0.0		+ 0-1.29931- 3 0.0		+ 0-4.86434-	52145	4	52	904	
0.0	+ 0 4.92618- 6 0.0		+ 0 2.05288- 9			2145	4	52	905	
0.0	+ 0 5.00000+ 6		0	0		10	02145	4	52	906
0.0	+ 0-9.78891- 3 0.0		+ 0-1.28879- 3 0.0		+ 0-1.78714-	42145	4	52	907	
0.0	+ 0 1.56506- 5 0.0		+ 0 1.68608- 8			2145	4	52	908	
0.0	+ 0 6.00000+ 6		0	0		12	02145	4	52	909
0.0	+ 0-3.05191- 3 0.0		+ 0-1.83077- 3 0.0		+ 0-3.95154-	42145	4	52	910	
0.0	+ 0 2.79050- 5 0.0		+ 0 1.03775- 7 0.0		+ 0 1.51744-	102145	4	52	911	
0.0	+ 0 7.00000+ 6		0	0		12	02145	4	52	912
0.0	+ 0 2.13196- 3 0.0		+ 0-2.78538- 3 0.0		+ 0-6.44083-	42145	4	52	913	
0.0	+ 0 3.33561- 5 0.0		+ 0 5.06079- 7 0.0		+ 0 8.62465-	102145	4	52	914	
0.0	+ 0 8.00000+ 6		0	0		12	02145	4	52	915
0.0	+ 0 6.21182- 3 0.0		+ 0-3.88184- 3 0.0		+ 0-8.75429-	42145	4	52	916	
0.0	+ 0 2.80062- 5 0.0		+ 0 1.99842- 6 0.0		+ 0 3.75601-	92145	4	52	917	
0.0	+ 0 9.00000+ 6		0	0		12	02145	4	52	918
0.0	+ 0 9.67136- 3 0.0		+ 0-4.80873- 3 0.0		+ 0-1.04882-	32145	4	52	919	
0.0	+ 0 7.17136- 6 0.0		+ 0 6.44165- 6 0.0		+ 0 1.29588-	82145	4	52	920	
0.0	+ 0 1.00000+ 7		0	0		14	02145	4	52	921
0.0	+ 0 1.32418- 2 0.0		+ 0-5.38915- 3 0.0		+ 0-1.17928-	32145	4	52	922	
0.0	+ 0-3.95926- 5 0.0		+ 0 1.74626- 5 0.0		+ 0 3.72860-	82145	4	52	923	
0.0	+ 0 1.65313-10					2145	4	52	924	
0.0	+ 0 1.10000+ 7		0	0		14	02145	4	52	925
0.0	+ 0 1.79361- 2 0.0		+ 0-5.66352- 3 0.0		+ 0-1.34319-	32145	4	52	926	
0.0	+ 0-1.30535- 4 0.0		+ 0 4.03152- 5 0.0		+ 0 9.55376-	82145	4	52	927	
0.0	+ 0 4.72131-10					2145	4	52	928	
0.0	+ 0 1.15000+ 7		0	0		14	02145	4	52	929

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....	MAT	MF	MT	SEQ
0.0 + 0 2.09003- 2 0.0 + 0-5.73933- 3 0.0 + 0-1.46360-	32145	4	52	930
0.0 + 0-1.97717- 4 0.0 + 0 5.74564- 5 0.0 + 0 1.47726-	72145	4	52	931
0.0 + 0 7.63268-10	2145	4	52	932
0.0 + 0 1.20000+ 7	0	0	14	02145 4 52 933
0.0 + 0 2.42593- 2 0.0 + 0-5.80674- 3 0.0 + 0-1.61653-	32145	4	52	934
0.0 + 0-2.79724- 4 0.0 + 0 7.82444- 5 0.0 + 0 2.24110-	72145	4	52	935
0.0 + 0 1.20536- 9	2145	4	52	936
0.0 + 0 1.25000+ 7	0	0	14	02145 4 52 937
0.0 + 0 2.78577- 2 0.0 + 0-5.88272- 3 0.0 + 0-1.79708-	32145	4	52	938
0.0 + 0-3.73559- 4 0.0 + 0 1.01514- 4 0.0 + 0 3.33882-	72145	4	52	939
0.0 + 0 1.86218- 9	2145	4	52	940
0.0 + 0 1.30000+ 7	0	0	14	02145 4 52 941
0.0 + 0 3.15141- 2 0.0 + 0-5.97444- 3 0.0 + 0-1.99431-	32145	4	52	942
0.0 + 0-4.74146- 4 0.0 + 0 1.25447- 4 0.0 + 0 4.89815-	72145	4	52	943
0.0 + 0 2.82481- 9	2145	4	52	944
0.0 + 0 1.35000+ 7	0	0	14	02145 4 52 945
0.0 + 0 3.50375- 2 0.0 + 0-6.07949- 3 0.0 + 0-2.19335-	32145	4	52	946
0.0 + 0-5.75295- 4 0.0 + 0 1.47911- 4 0.0 + 0 7.09531-	72145	4	52	947
0.0 + 0 4.22230- 9	2145	4	52	948
0.0 + 0 1.40000+ 7	0	0	14	02145 4 52 949
0.0 + 0 3.82597- 2 0.0 + 0-6.18899- 3 0.0 + 0-2.37889-	32145	4	52	950
0.0 + 0-6.70992- 4 0.0 + 0 1.66899- 4 0.0 + 0 1.01412-	62145	4	52	951
0.0 + 0 6.23361- 9	2145	4	52	952
0.0 + 0 1.45000+ 7	0	0	16	02145 4 52 953
0.0 + 0 4.10877- 2 0.0 + 0-6.29043- 3 0.0 + 0-2.53904-	32145	4	52	954
0.0 + 0-7.56632- 4 0.0 + 0 1.81013- 4 0.0 + 0 1.43304-	62145	4	52	955
0.0 + 0 8.99112- 9 0.0 + 0 7.38698-11	2145	4	52	956
0.0 + 0 1.50000+ 7	0	0	16	02145 4 52 957
0.0 + 0 4.34869- 2 0.0 + 0-6.38112- 3 0.0 + 0-2.66983-	32145	4	52	958
0.0 + 0-8.30068- 4 0.0 + 0 1.89587- 4 0.0 + 0 2.01781-	62145	4	52	959
0.0 + 0 1.30222- 8 0.0 + 0 1.11264-10	2145	4	52	960
0.0 + 0 1.60000+ 7	0	0	16	02145 4 52 961
0.0 + 0 4.71817- 2 0.0 + 0-6.50119- 3 0.0 + 0-2.84566-	32145	4	52	962
0.0 + 0-9.39466- 4 0.0 + 0 1.90440- 4 0.0 + 0 3.90227-	62145	4	52	963
0.0 + 0 2.66930- 8 0.0 + 0 2.45457-10	2145	4	52	964
0.0 + 0 1.70000+ 7	0	0	16	02145 4 52 965
0.0 + 0 4.98522- 2 0.0 + 0-6.52968- 3 0.0 + 0-2.93814-	32145	4	52	966
0.0 + 0-1.00666- 3 0.0 + 0 1.72735- 4 0.0 + 0 7.25802-	62145	4	52	967
0.0 + 0 5.29884- 8 0.0 + 0 5.21334-10	2145	4	52	968
0.0 + 0 1.80000+ 7	0	0	16	02145 4 52 969
0.0 + 0 5.20644- 2 0.0 + 0-6.46870- 3 0.0 + 0-2.99472-	32145	4	52	970
0.0 + 0-1.04594- 3 0.0 + 0 1.40771- 4 0.0 + 0 1.28593-	52145	4	52	971
0.0 + 0 1.01550- 7 0.0 + 0 1.06376- 9	2145	4	52	972
0.0 + 0 1.90000+ 7	0	0	16	02145 4 52 973
0.0 + 0 5.42344- 2 0.0 + 0-6.32291- 3 0.0 + 0-3.05508-	32145	4	52	974
0.0 + 0-1.07117- 3 0.0 + 0 9.73104- 5 0.0 + 0 2.15067-	52145	4	52	975
0.0 + 0 1.87504- 7 0.0 + 0 2.08334- 9	2145	4	52	976
0.0 + 0 2.00000+ 7	0	0	16	02145 4 52 977
0.0 + 0 5.65836- 2 0.0 + 0-6.09619- 3 0.0 + 0-3.14435-	32145	4	52	978
0.0 + 0-1.09319- 3 0.0 + 0 4.36361- 5 0.0 + 0 3.37156-	52145	4	52	979
0.0 + 0 3.31509- 7 0.0 + 0 3.91862- 9	2145	4	52	980
	2145	4	0	981
2.10450+ 4 4.45698+ 1	0	1	0	02145 4 53 982
0.0 + 0 4.45698+ 1	0	2	0	02145 4 53 983
0.0 + 0 0.0 + 0	0	0	1	342145 4 53 984

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
	34	2	0	0	0		02145	4	53	985
0.0	+ 0 5.55081+	5	0	0	2		02145	4	53	986
0.0	+ 0 0.0	+ 0					2145	4	53	987
0.0	+ 0 7.36359+	5	0	0	4		02145	4	53	988
0.0	+ 0 1.34045-	3 0.0	+ 0-1.45936-	5			2145	4	53	989
0.0	+ 0 9.60170+	5	0	0	6		02145	4	53	990
0.0	+ 0 4.47259-	3 0.0	+ 0-6.17362-	5 0.0	+ 0-1.47646-		82145	4	53	991
0.0	+ 0 9.96365+	5	0	0	6		02145	4	53	992
0.0	+ 0 5.01126-	3 0.0	+ 0-7.06901-	5 0.0	+ 0-2.03505-		82145	4	53	993
0.0	+ 0 1.00000+	6	0	0	6		02145	4	53	994
0.0	+ 0 5.32639-	3 0.0	+ 0-7.54118-	5 0.0	+ 0-2.16589-		82145	4	53	995
0.0	+ 0 1.26414+	6	0	0	6		02145	4	53	996
0.0	+ 0 9.44275-	3 0.0	+ 0-1.53624-	4 0.0	+ 0-1.26633-		72145	4	53	997
0.0	+ 0 1.33244+	6	0	0	6		02145	4	53	998
0.0	+ 0 9.57672-	3 0.0	+ 0-1.56026-	4 0.0	+ 0 4.18857-		72145	4	53	999
0.0	+ 0 1.46556+	6	0	0	6		02145	4	53	1000
0.0	+ 0 9.91654-	3 0.0	+ 0-1.73095-	4 0.0	+ 0 5.08092-		72145	4	53	1001
0.0	+ 0 1.69878+	6	0	0	6		02145	4	53	1002
0.0	+ 0 8.29117-	3 0.0	+ 0-1.64706-	4 0.0	+ 0 9.18396-		72145	4	53	1003
0.0	+ 0 1.84100+	6	0	0	6		02145	4	53	1004
0.0	+ 0 8.94981-	3 0.0	+ 0-1.81545-	4 0.0	+ 0 1.21525-		62145	4	53	1005
0.0	+ 0 1.94263+	6	0	0	6		02145	4	53	1006
0.0	+ 0 9.30542-	3 0.0	+ 0-1.96816-	4 0.0	+ 0 1.51800-		62145	4	53	1007
0.0	+ 0 2.00000+	6	0	0	6		02145	4	53	1008
0.0	+ 0 9.27810-	3 0.0	+ 0-2.01832-	4 0.0	+ 0 1.67857-		62145	4	53	1009
0.0	+ 0 3.00000+	6	0	0	8		02145	4	53	1010
0.0	+ 0 1.02197-	2 0.0	+ 0-2.60895-	4 0.0	+ 0 6.81342-		62145	4	53	1011
0.0	+ 0-4.36214-	8					2145	4	53	1012
0.0	+ 0 4.00000+	6	0	0	8		02145	4	53	1013
0.0	+ 0 1.22490-	2 0.0	+ 0-4.45737-	5 0.0	+ 0 2.62729-		52145	4	53	1014
0.0	+ 0 1.96523-	7					2145	4	53	1015
0.0	+ 0 5.00000+	6	0	0	8		02145	4	53	1016
0.0	+ 0 1.64309-	2 0.0	+ 0 4.93507-	4 0.0	+ 0 6.35103-		52145	4	53	1017
0.0	+ 0 1.00553-	6					2145	4	53	1018
0.0	+ 0 6.00000+	6	0	0	10		02145	4	53	1019
0.0	+ 0 2.19529-	2 0.0	+ 0 1.19863-	3 0.0	+ 0 9.14712-		52145	4	53	1020
0.0	+ 0 3.47306-	6 0.0	+ 0 4.26326-	9			2145	4	53	1021
0.0	+ 0 7.00000+	6	0	0	10		02145	4	53	1022
0.0	+ 0 2.76750-	2 0.0	+ 0 1.83974-	3 0.0	+ 0 6.87882-		52145	4	53	1023
0.0	+ 0 8.90243-	6 0.0	+ 0 2.02054-	8			2145	4	53	1024
0.0	+ 0 8.00000+	6	0	0	10		02145	4	53	1025
0.0	+ 0 3.31962-	2 0.0	+ 0 2.34384-	3 0.0	+ 0-6.60978-		62145	4	53	1026
0.0	+ 0 1.86505-	5 0.0	+ 0 8.49355-	8			2145	4	53	1027
0.0	+ 0 9.00000+	6	0	0	12		02145	4	53	1028
0.0	+ 0 3.81284-	2 0.0	+ 0 2.74951-	3 0.0	+ 0-8.62007-		52145	4	53	1029
0.0	+ 0 3.31531-	5 0.0	+ 0 2.83046-	7 0.0	+ 0-8.67073-		102145	4	53	1030
0.0	+ 0 1.00000+	7	0	0	12		02145	4	53	1031
0.0	+ 0 4.21879-	2 0.0	+ 0 3.12258-	3 0.0	+ 0-1.12793-		42145	4	53	1032
0.0	+ 0 5.10858-	5 0.0	+ 0 7.67261-	7 0.0	+ 0 1.15751-		92145	4	53	1033
0.0	+ 0 1.10000+	7	0	0	12		02145	4	53	1034
0.0	+ 0 4.55679-	2 0.0	+ 0 3.53300-	3 0.0	+ 0-6.11678-		52145	4	53	1035
0.0	+ 0 7.12191-	5 0.0	+ 0 1.68650-	6 0.0	+ 0 2.61257-		92145	4	53	1036
0.0	+ 0 1.15000+	7	0	0	12		02145	4	53	1037
0.0	+ 0 4.70417-	2 0.0	+ 0 3.75311-	3 0.0	+ 0-1.05144-		52145	4	53	1038
0.0	+ 0 8.14812-	5 0.0	+ 0 2.37068-	6 0.0	+ 0 3.79298-		92145	4	53	1039

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0	1.20000+ 7	0	0	0	12	02145	4	53	1040
0.0	+ 0	4.83873- 2 0.0	+ 0	3.97787- 3 0.0	+ 0	5.11811-	52145	4	53	1041
0.0	+ 0	9.14062- 5 0.0	+ 0	3.24077- 6 0.0	+ 0	5.45540-	92145	4	53	1042
0.0	+ 0	1.25000+ 7	0	0	0	12	02145	4	53	1043
0.0	+ 0	4.95699- 2 0.0	+ 0	4.19761- 3 0.0	+ 0	1.19042-	42145	4	53	1044
0.0	+ 0	1.00464- 4 0.0	+ 0	4.31237- 6 0.0	+ 0	7.78811-	92145	4	53	1045
0.0	+ 0	1.30000+ 7	0	0	0	12	02145	4	53	1046
0.0	+ 0	5.05990- 2 0.0	+ 0	4.40746- 3 0.0	+ 0	1.89413-	42145	4	53	1047
0.0	+ 0	1.08242- 4 0.0	+ 0	5.60825- 6 0.0	+ 0	1.10934-	82145	4	53	1048
0.0	+ 0	1.35000+ 7	0	0	0	12	02145	4	53	1049
0.0	+ 0	5.14914- 2 0.0	+ 0	4.60393- 3 0.0	+ 0	2.59665-	42145	4	53	1050
0.0	+ 0	1.14414- 4 0.0	+ 0	7.15460- 6 0.0	+ 0	1.58160-	82145	4	53	1051
0.0	+ 0	1.40000+ 7	0	0	0	14	02145	4	53	1052
0.0	+ 0	5.22605- 2 0.0	+ 0	4.78362- 3 0.0	+ 0	3.27567-	42145	4	53	1053
0.0	+ 0	1.18729- 4 0.0	+ 0	8.95154- 6 0.0	+ 0	2.12900-	82145	4	53	1054
0.0	+ 0	-3.57509-10	0	0	0		2145	4	53	1055
0.0	+ 0	1.45000+ 7	0	0	0	14	02145	4	53	1056
0.0	+ 0	5.29211- 2 0.0	+ 0	4.94548- 3 0.0	+ 0	3.93212-	42145	4	53	1057
0.0	+ 0	1.21158- 4 0.0	+ 0	1.10662- 5 0.0	+ 0	3.03449-	82145	4	53	1058
0.0	+ 0	-5.21878-10	0	0	0		2145	4	53	1059
0.0	+ 0	1.50000+ 7	0	0	0	14	02145	4	53	1060
0.0	+ 0	5.35400- 2 0.0	+ 0	5.09623- 3 0.0	+ 0	4.57246-	42145	4	53	1061
0.0	+ 0	1.22119- 4 0.0	+ 0	1.35115- 5 0.0	+ 0	4.60529-	82145	4	53	1062
0.0	+ 0	4.72990-11	0	0	0		2145	4	53	1063
0.0	+ 0	1.60000+ 7	0	0	0	14	02145	4	53	1064
0.0	+ 0	5.47302- 2 0.0	+ 0	5.36167- 3 0.0	+ 0	5.84357-	42145	4	53	1065
0.0	+ 0	1.20115- 4 0.0	+ 0	1.94850- 5 0.0	+ 0	9.30671-	82145	4	53	1066
0.0	+ 0	7.48383-11	0	0	0		2145	4	53	1067
0.0	+ 0	1.70000+ 7	0	0	0	14	02145	4	53	1068
0.0	+ 0	5.61066- 2 0.0	+ 0	5.60689- 3 0.0	+ 0	7.19410-	42145	4	53	1069
0.0	+ 0	1.15940- 4 0.0	+ 0	2.68961- 5 0.0	+ 0	1.84125-	72145	4	53	1070
0.0	+ 0	1.30425-10	0	0	0		2145	4	53	1071
0.0	+ 0	1.80000+ 7	0	0	0	14	02145	4	53	1072
0.0	+ 0	5.78459- 2 0.0	+ 0	5.85023- 3 0.0	+ 0	8.70104-	42145	4	53	1073
0.0	+ 0	1.12524- 4 0.0	+ 0	3.54520- 5 0.0	+ 0	3.51918-	72145	4	53	1074
0.0	+ 0	2.59881-10	0	0	0		2145	4	53	1075
0.0	+ 0	1.90000+ 7	0	0	0	14	02145	4	53	1076
0.0	+ 0	5.99972- 2 0.0	+ 0	6.09762- 3 0.0	+ 0	1.03777-	32145	4	53	1077
0.0	+ 0	1.11717- 4 0.0	+ 0	4.44747- 5 0.0	+ 0	6.43908-	72145	4	53	1078
0.0	+ 0	5.73650-10	0	0	0		2145	4	53	1079
0.0	+ 0	2.00000+ 7	0	0	0	16	02145	4	53	1080
0.0	+ 0	6.24826- 2 0.0	+ 0	6.34356- 3 0.0	+ 0	1.21673-	32145	4	53	1081
0.0	+ 0	1.14078- 4 0.0	+ 0	5.29948- 5 0.0	+ 0	1.10802-	62145	4	53	1082
0.0	+ 0	5.36386-10 0.0	+ 0	-2.34255-10	0		2145	4	53	1083
							2145	4	0	1084
2.10450+ 4	4.45698+ 1	0	0	1	0		02145	4	54	1085
0.0	+ 0	4.45698+ 1	0	2	0		02145	4	54	1086
0.0	+ 0	0.0 + 0	0	0	1		332145	4	54	1087
	33	2	0	0	0		02145	4	54	1088
0.0	+ 0	7.36359+ 5	0	0	2		02145	4	54	1089
0.0	+ 0	0.0 + 0	0	0			2145	4	54	1090
0.0	+ 0	9.60170+ 5	0	0	4		02145	4	54	1091
0.0	+ 0	2.16972- 4 0.0	+ 0	-2.79390- 4			2145	4	54	1092
0.0	+ 0	9.96365+ 5	0	0	4		02145	4	54	1093
0.0	+ 0	5.50534- 4 0.0	+ 0	-3.71518- 4			2145	4	54	1094

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0	1.00000+ 6	0	0	0	4	02145	4	54	1095
0.0	+ 0	7.63519- 4 0.0	+ 0	-3.89563- 4			2145	4	54	1096
0.0	+ 0	1.26414+ 6	0	0	6		02145	4	54	1097
0.0	+ 0	4.28031- 3 0.0	+ 0	-1.21961- 3 0.0	+ 0	-3.75661-	72145	4	54	1098
0.0	+ 0	1.33244+ 6	0	0	6		02145	4	54	1099
0.0	+ 0	3.37186- 3 0.0	+ 0	-1.08832- 3 0.0	+ 0	-2.69877-	72145	4	54	1100
0.0	+ 0	1.46556+ 6	0	0	6		02145	4	54	1101
0.0	+ 0	4.74375- 3 0.0	+ 0	-1.41874- 3 0.0	+ 0	-2.69923-	72145	4	54	1102
0.0	+ 0	1.69878+ 6	0	0	8		02145	4	54	1103
0.0	+ 0	6.97424- 3 0.0	+ 0	-1.91595- 3 0.0	+ 0	-8.93512-	72145	4	54	1104
0.0	+ 0	-1.51248- 7					2145	4	54	1105
0.0	+ 0	1.84100+ 6	0	0	8		02145	4	54	1106
0.0	+ 0	7.22216- 3 0.0	+ 0	-2.01109- 3 0.0	+ 0	-1.14530-	62145	4	54	1107
0.0	+ 0	-2.12302- 7					2145	4	54	1108
0.0	+ 0	1.94263+ 6	0	0	8		02145	4	54	1109
0.0	+ 0	7.93519- 3 0.0	+ 0	-2.15584- 3 0.0	+ 0	-1.32179-	62145	4	54	1110
0.0	+ 0	-2.57784- 7					2145	4	54	1111
0.0	+ 0	2.00000+ 6	0	0	8		02145	4	54	1112
0.0	+ 0	8.22690- 3 0.0	+ 0	-2.20265- 3 0.0	+ 0	-1.42360-	62145	4	54	1113
0.0	+ 0	-2.85573- 7					2145	4	54	1114
0.0	+ 0	3.00000+ 6	0	0	8		02145	4	54	1115
0.0	+ 0	1.15573- 2 0.0	+ 0	-2.39346- 3 0.0	+ 0	-6.05241-	62145	4	54	1116
0.0	+ 0	-2.14015- 6					2145	4	54	1117
0.0	+ 0	4.00000+ 6	0	0	10		02145	4	54	1118
0.0	+ 0	1.29967- 2 0.0	+ 0	-1.93836- 3 0.0	+ 0	-3.15193-	52145	4	54	1119
0.0	+ 0	-1.55318- 5 0.0	+ 0	-3.45960- 9			2145	4	54	1120
0.0	+ 0	5.00000+ 6	0	0	10		02145	4	54	1121
0.0	+ 0	1.58134- 2 0.0	+ 0	-1.33232- 3 0.0	+ 0	-1.02681-	42145	4	54	1122
0.0	+ 0	-5.84431- 5 0.0	+ 0	-2.85093- 8			2145	4	54	1123
0.0	+ 0	6.00000+ 6	0	0			02145	4	54	1124
0.0	+ 0	2.02263- 2 0.0	+ 0	-5.80343- 4 0.0	+ 0	-1.91990-	42145	4	54	1125
0.0	+ 0	-1.18541- 4 0.0	+ 0	-1.83773- 7 0.0	+ 0	-1.96673-	102145	4	54	1126
0.0	+ 0	7.00000+ 6	0	0	12		02145	4	54	1127
0.0	+ 0	2.52569- 2 0.0	+ 0	2.63648- 4 0.0	+ 0	-2.51643-	42145	4	54	1128
0.0	+ 0	-1.59557- 4 0.0	+ 0	-9.31677- 7 0.0	+ 0	-1.16665-	92145	4	54	1129
0.0	+ 0	8.00000+ 6	0	0	12		02145	4	54	1130
0.0	+ 0	3.02467- 2 0.0	+ 0	1.07502- 3 0.0	+ 0	-2.97515-	42145	4	54	1131
0.0	+ 0	-1.72727- 4 0.0	+ 0	-3.79620- 6 0.0	+ 0	-5.26561-	92145	4	54	1132
0.0	+ 0	9.00000+ 6	0	0	12		02145	4	54	1133
0.0	+ 0	3.44338- 2 0.0	+ 0	1.69458- 3 0.0	+ 0	-3.67076-	42145	4	54	1134
0.0	+ 0	-1.73984- 4 0.0	+ 0	-1.25172- 5 0.0	+ 0	-1.85809-	82145	4	54	1135
0.0	+ 0	1.00000+ 7	0	0	14		02145	4	54	1136
0.0	+ 0	3.76062- 2 0.0	+ 0	2.09406- 3 0.0	+ 0	-4.59287-	42145	4	54	1137
0.0	+ 0	-1.89944- 4 0.0	+ 0	-3.43876- 5 0.0	+ 0	-5.49028-	82145	4	54	1138
0.0	+ 0	-2.00739-10					2145	4	54	1139
0.0	+ 0	1.10000+ 7	0	0	14		02145	4	54	1140
0.0	+ 0	4.07152- 2 0.0	+ 0	2.43460- 3 0.0	+ 0	-5.36342-	42145	4	54	1141
0.0	+ 0	-2.47745- 4 0.0	+ 0	-8.03361- 5 0.0	+ 0	-1.41164-	72145	4	54	1142
0.0	+ 0	-5.76014-10					2145	4	54	1143
0.0	+ 0	1.15000+ 7	0	0	14		02145	4	54	1144
0.0	+ 0	4.25817- 2 0.0	+ 0	2.63640- 3 0.0	+ 0	-5.57542-	42145	4	54	1145
0.0	+ 0	-2.97779- 4 0.0	+ 0	-1.15415- 4 0.0	+ 0	-2.18221-	72145	4	54	1146
0.0	+ 0	-9.31409-10					2145	4	54	1147
0.0	+ 0	1.20000+ 7	0	0	14		02145	4	54	1148
0.0	+ 0	4.47545- 2 0.0	+ 0	2.87317- 3 0.0	+ 0	-5.63692-	42145	4	54	1149

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0-3.61401-	4 0.0	+ 0-1.58569-	4 0.0	+ 0-3.30677-	72145	4	54	1150	
0.0	+ 0-1.46975-	9				2145	4	54	1151	
0.0	+ 0 1.25000+	7	0	0	14	02145	4	54	1152	
0.0	+ 0 4.71652-	2 0.0	+ 0 3.13937-	3 0.0	+ 0-5.53004-	42145	4	54	1153	
0.0	+ 0-4.34458-	4 0.0	+ 0-2.07749-	4 0.0	+ 0-4.91525-	72145	4	54	1154	
0.0	+ 0-2.26616-	9				2145	4	54	1155	
0.0	+ 0 1.30000+	7	0	0	14	02145	4	54	1156	
0.0	+ 0 4.97046-	2 0.0	+ 0 3.42389-	3 0.0	+ 0-5.24951-	42145	4	54	1157	
0.0	+ 0-5.10569-	4 0.0	+ 0-2.59450-	4 0.0	+ 0-7.18662-	72145	4	54	1158	
0.0	+ 0-3.42681-	9				2145	4	54	1159	
0.0	+ 0 1.35000+	7	0	0	14	02145	4	54	1160	
0.0	+ 0 5.22206-	2 0.0	+ 0 3.71146-	3 0.0	+ 0-4.80059-	42145	4	54	1161	
0.0	+ 0-5.82196-	4 0.0	+ 0-3.09353-	4 0.0	+ 0-1.03664-	62145	4	54	1162	
0.0	+ 0-5.10103-	9				2145	4	54	1163	
0.0	+ 0 1.40000+	7	0	0	14	02145	4	54	1164	
0.0	+ 0 5.45497-	2 0.0	+ 0 3.98561-	3 0.0	+ 0-4.19879-	42145	4	54	1165	
0.0	+ 0-6.42225-	4 0.0	+ 0-3.53254-	4 0.0	+ 0-1.48006-	62145	4	54	1166	
0.0	+ 0-7.49491-	9				2145	4	54	1167	
0.0	+ 0 1.45000+	7	0	0	14	02145	4	54	1168	
0.0	+ 0 5.65705-	2 0.0	+ 0 4.23437-	3 0.0	+ 0-3.46696-	42145	4	54	1169	
0.0	+ 0-6.85962-	4 0.0	+ 0-3.88176-	4 0.0	+ 0-2.09175-	62145	4	54	1170	
0.0	+ 0-1.08987-	8				2145	4	54	1171	
0.0	+ 0 1.50000+	7	0	0	16	02145	4	54	1172	
0.0	+ 0 5.82494-	2 0.0	+ 0 4.45423-	3 0.0	+ 0-2.63848-	42145	4	54	1173	
0.0	+ 0-7.11583-	4 0.0	+ 0-4.12769-	4 0.0	+ 0-2.92720-	62145	4	54	1174	
0.0	+ 0-1.59079-	8 0.0	+ 0-1.18648-	10		2145	4	54	1175	
0.0	+ 0 1.60000+	7	0	0	16	02145	4	54	1176	
0.0	+ 0 6.06012-	2 0.0	+ 0 4.80156-	3 0.0	+ 0-8.39166-	52145	4	54	1177	
0.0	+ 0-7.14210-	4 0.0	+ 0-4.32865-	4 0.0	+ 0-5.63282-	62145	4	54	1178	
0.0	+ 0-3.24279-	8 0.0	+ 0-2.60246-	10		2145	4	54	1179	
0.0	+ 0 1.70000+	7	0	0	16	02145	4	54	1180	
0.0	+ 0 6.19674-	2 0.0	+ 0 5.05064-	3 0.0	+ 0 9.47351-	52145	4	54	1181	
0.0	+ 0-6.71969-	4 0.0	+ 0-4.24464-	4 0.0	+ 0-1.04676-	52145	4	54	1182	
0.0	+ 0-6.42047-	8 0.0	+ 0-5.51132-	10		2145	4	54	1183	
0.0	+ 0 1.80000+	7	0	0	16	02145	4	54	1184	
0.0	+ 0 6.28545-	2 0.0	+ 0 5.24031-	3 0.0	+ 0 2.55256-	42145	4	54	1185	
0.0	+ 0-6.11321-	4 0.0	+ 0-4.02822-	4 0.0	+ 0-1.85997-	52145	4	54	1186	
0.0	+ 0-1.22993-	7 0.0	+ 0-1.12361-	9		2145	4	54	1187	
0.0	+ 0 1.90000+	7	0	0	16	02145	4	54	1188	
0.0	+ 0 6.36813-	2 0.0	+ 0 5.40828-	3 0.0	+ 0 3.90870-	42145	4	54	1189	
0.0	+ 0-5.51349-	4 0.0	+ 0-3.80652-	4 0.0	+ 0-3.12936-	52145	4	54	1190	
0.0	+ 0-2.27241-	7 0.0	+ 0-2.20066-	9		2145	4	54	1191	
0.0	+ 0 2.00000+	7	0	0	16	02145	4	54	1192	
0.0	+ 0 6.47062-	2 0.0	+ 0 5.58323-	3 0.0	+ 0 5.02152-	42145	4	54	1193	
0.0	+ 0-5.01502-	4 0.0	+ 0-3.65879-	4 0.0	+ 0-4.94761-	52145	4	54	1194	
0.0	+ 0-4.04793-	7 0.0	+ 0-4.13912-	9		2145	4	54	1195	
						2145	4	0	1196	
2.10450+	4 4.45698+	1	0	1	0	02145	4	55	1197	
0.0	+ 0 4.45698+	1	0	2	0	02145	4	55	1198	
0.0	+ 0 0.0	+ 0	0	0	1	322145	4	55	1199	
	32	2	0	0	0	02145	4	55	1200	
0.0	+ 0 9.60170+	5	0	0	2	02145	4	55	1201	
0.0	+ 0 0.0	+ 0				2145	4	55	1202	
0.0	+ 0 9.96365+	5	0	0	4	02145	4	55	1203	
0.0	+ 0-1.05773-	2 0.0	+ 0 3.45368-	6		2145	4	55	1204	

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0 1.00000+	6	0	0	4	02145	4	55	1205	
0.0	+ 0-1.09384-	2 0.0	+ 0 3.46069-	6	2145	4	55	1206		
0.0	+ 0 1.26414+	6	0	6	02145	4	55	1207		
0.0	+ 0-1.72150-	2 0.0	+ 0 6.56757-	5 0.0	+ 0 1.12189-	82145	4	55	1208	
0.0	+ 0 1.33244+	6	0	6	02145	4	55	1209		
0.0	+ 0-1.78345-	2 0.0	+ 0 9.23498-	5 0.0	+ 0 1.95603-	82145	4	55	1210	
0.0	+ 0 1.46556+	6	0	6	02145	4	55	1211		
0.0	+ 0-1.95865-	2 0.0	+ 0 1.58575-	4 0.0	+ 0 4.84315-	82145	4	55	1212	
0.0	+ 0 1.69878+	6	0	6	02145	4	55	1213		
0.0	+ 0-2.12420-	2 0.0	+ 0 3.02140-	4 0.0	+ 0 2.43156-	72145	4	55	1214	
0.0	+ 0 1.84100+	6	0	6	02145	4	55	1215		
0.0	+ 0-2.19297-	2 0.0	+ 0 4.03068-	4 0.0	+ 0 4.10868-	72145	4	55	1216	
0.0	+ 0 1.94263+	6	0	6	02145	4	55	1217		
0.0	+ 0-2.19837-	2 0.0	+ 0 4.59025-	4 0.0	+ 0 6.29679-	72145	4	55	1218	
0.0	+ 0 2.00000+	6	0	6	02145	4	55	1219		
0.0	+ 0-2.21311-	2 0.0	+ 0 4.97884-	4 0.0	+ 0 7.78247-	72145	4	55	1220	
0.0	+ 0 3.00000+	6	0	8	02145	4	55	1221		
0.0	+ 0-2.40001-	2 0.0	+ 0 1.08792-	3 0.0	+ 0 1.30811-	52145	4	55	1222	
0.0	+ 0 4.67670-	8	0	8	2145	4	55	1223		
0.0	+ 0 4.00000+	6	0	8	02145	4	55	1224		
0.0	+ 0-2.46812-	2 0.0	+ 0 1.09602-	3 0.0	+ 0 8.61503-	52145	4	55	1225	
0.0	+ 0 1.54352-	6	0	8	2145	4	55	1226		
0.0	+ 0 5.00000+	6	0	8	02145	4	55	1227		
0.0	+ 0-2.42901-	2 0.0	+ 0 1.70831-	4 0.0	+ 0 2.88248-	42145	4	55	1228	
0.0	+ 0 9.82788-	6	0	10	2145	4	55	1229		
0.0	+ 0 6.00000+	6	0	10	02145	4	55	1230		
0.0	+ 0-2.29631-	2 0.0	+ 0-1.43089-	3 0.0	+ 0 5.80808-	42145	4	55	1231	
0.0	+ 0 3.49508-	5 0.0	+ 0 1.24090-	8	2145	4	55	1232		
0.0	+ 0 7.00000+	6	0	10	02145	4	55	1233		
0.0	+ 0-2.09301-	2 0.0	+ 0-3.21414-	3 0.0	+ 0 8.28111-	42145	4	55	1234	
0.0	+ 0 8.55742-	5 0.0	+ 0 1.92192-	7	2145	4	55	1235		
0.0	+ 0 8.00000+	6	0	10	02145	4	55	1236		
0.0	+ 0-1.76351-	2 0.0	+ 0-5.02374-	3 0.0	+ 0 9.06632-	42145	4	55	1237	
0.0	+ 0 1.65956-	4 0.0	+ 0 7.87460-	7	2145	4	55	1238		
0.0	+ 0 9.00000+	6	0	12	02145	4	55	1239		
0.0	+ 0-1.24001-	2 0.0	+ 0-6.86354-	3 0.0	+ 0 7.24550-	42145	4	55	1240	
0.0	+ 0 2.72160-	4 0.0	+ 0 2.58032-	6 0.0	+ 0 1.18906-	92145	4	55	1241	
0.0	+ 0 1.00000+	7	0	12	02145	4	55	1242		
0.0	+ 0-5.00300-	3 0.0	+ 0-8.76404-	3 0.0	+ 0 2.65628-	42145	4	55	1243	
0.0	+ 0 3.95539-	4 0.0	+ 0 7.00767-	6 0.0	+ 0 1.38087-	82145	4	55	1244	
0.0	+ 0 1.10000+	7	0	12	02145	4	55	1245		
0.0	+ 0 4.00088-	3 0.0	+ 0-1.06828-	2 0.0	+ 0-4.04212-	42145	4	55	1246	
0.0	+ 0 5.25976-	4 0.0	+ 0 1.63213-	5 0.0	+ 0 3.56023-	82145	4	55	1247	
0.0	+ 0 1.15000+	7	0	12	02145	4	55	1248		
0.0	+ 0 8.76479-	3 0.0	+ 0-1.15966-	2 0.0	+ 0-7.78896-	42145	4	55	1249	
0.0	+ 0 5.89550-	4 0.0	+ 0 2.37368-	5 0.0	+ 0 5.49265-	82145	4	55	1250	
0.0	+ 0 1.20000+	7	0	12	02145	4	55	1251		
0.0	+ 0 1.34761-	2 0.0	+ 0-1.24477-	2 0.0	+ 0-1.15693-	32145	4	55	1252	
0.0	+ 0 6.49551-	4 0.0	+ 0 3.35523-	5 0.0	+ 0 8.31831-	82145	4	55	1253	
0.0	+ 0 1.25000+	7	0	12	02145	4	55	1254		
0.0	+ 0 1.79315-	2 0.0	+ 0-1.32094-	2 0.0	+ 0-1.51973-	32145	4	55	1255	
0.0	+ 0 7.03679-	4 0.0	+ 0 4.61323-	5 0.0	+ 0 1.24015-	72145	4	55	1256	
0.0	+ 0 1.30000+	7	0	12	02145	4	55	1257		
0.0	+ 0 2.19912-	2 0.0	+ 0-1.38649-	2 0.0	+ 0-1.85451-	32145	4	55	1258	
0.0	+ 0 7.50298-	4 0.0	+ 0 6.18234-	5 0.0	+ 0 1.82721-	72145	4	55	1259	

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....	MAT	MF	MT	SEQ
0.0 + 0 1.35000+ 7	0	0	12	02145 4 55 1260
0.0 + 0 2.55616- 2 0.0	+ 0-1.44055- 2 0.0	+ 0-2.15335-	32145 4 55 1261	
0.0 + 0 7.88253- 4 0.0	+ 0 8.09177- 5 0.0	+ 0 2.66859-	72145 4 55 1262	
0.0 + 0 1.40000+ 7	0	14	02145 4 55 1263	
0.0 + 0 2.85984- 2 0.0	+ 0-1.48276- 2 0.0	+ 0-2.41295-	32145 4 55 1264	
0.0 + 0 8.16387- 4 0.0	+ 0 1.03511- 4 0.0	+ 0 3.88996-	72145 4 55 1265	
0.0 + 0 4.05171-10			2145 4 55 1266	
0.0 + 0 1.45000+ 7	0	0	14	02145 4 55 1267
0.0 + 0 3.11016- 2 0.0	+ 0-1.51404- 2 0.0	+ 0-2.63516-	32145 4 55 1268	
0.0 + 0 8.35225- 4 0.0	+ 0 1.29869- 4 0.0	+ 0 5.60337-	72145 4 55 1269	
0.0 + 0 6.12128-10			2145 4 55 1270	
0.0 + 0 1.50000+ 7	0	0	14	02145 4 55 1271
0.0 + 0 3.31783- 2 0.0	+ 0-1.53359- 2 0.0	+ 0-2.82416-	32145 4 55 1272	
0.0 + 0 8.43843- 4 0.0	+ 0 1.59502- 4 0.0	+ 0 8.08069-	72145 4 55 1273	
0.0 + 0 3.93458- 9			2145 4 55 1274	
0.0 + 0 1.60000+ 7	0	0	14	02145 4 55 1275
0.0 + 0 3.62426- 2 0.0	+ 0-1.55101- 2 0.0	+ 0-3.15704-	32145 4 55 1276	
0.0 + 0 8.37254- 4 0.0	+ 0 2.30576- 4 0.0	+ 0 1.62404-	62145 4 55 1277	
0.0 + 0 8.40506- 9			2145 4 55 1278	
0.0 + 0 1.70000+ 7	0	0	14	02145 4 55 1279
0.0 + 0 3.86402- 2 0.0	+ 0-1.54395- 2 0.0	+ 0-3.49725-	32145 4 55 1280	
0.0 + 0 8.01396- 4 0.0	+ 0 3.14992- 4 0.0	+ 0 3.15477-	62145 4 55 1281	
0.0 + 0 1.73593- 8			2145 4 55 1282	
0.0 + 0 1.80000+ 7	0	0	14	02145 4 55 1283
0.0 + 0 4.11075- 2 0.0	+ 0-1.52023- 2 0.0	+ 0-3.92073-	32145 4 55 1284	
0.0 + 0 7.41158- 4 0.0	+ 0 4.09713- 4 0.0	+ 0 5.87530-	62145 4 55 1285	
0.0 + 0 3.45035- 8			2145 4 55 1286	
0.0 + 0 1.90000+ 7	0	0	14	02145 4 55 1287
0.0 + 0 4.41020- 2 0.0	+ 0-1.48510- 2 0.0	+ 0-4.46931-	32145 4 55 1288	
0.0 + 0 6.60115- 4 0.0	+ 0 5.10195- 4 0.0	+ 0 1.04288-	52145 4 55 1289	
0.0 + 0 6.58601- 8			2145 4 55 1290	
0.0 + 0 2.00000+ 7	0	0	16	02145 4 55 1291
0.0 + 0 4.77629- 2 0.0	+ 0-1.44204- 2 0.0	+ 0-5.14302-	32145 4 55 1292	
0.0 + 0 5.60894- 4 0.0	+ 0 6.10628- 4 0.0	+ 0 1.75681-	52145 4 55 1293	
0.0 + 0 1.22526- 7 0.0	+ 0 1.69591-10		2145 4 55 1294	
			2145 4 0 1295	
2.10450+ 4 4.45698+ 1	0	1	0	02145 4 56 1296
0.0 + 0 4.45698+ 1	0	2	0	02145 4 56 1297
0.0 + 0 0.0 + 0	0	0	1	312145 4 56 1298
31	0	0	0	02145 4 56 1299
0.0 + 0 9.96365+ 5	0	0	2	02145 4 56 1300
0.0 + 0 0.0 + 0				2145 4 56 1301
0.0 + 0 1.00000+ 6	0	0	2	02145 4 56 1302
0.0 + 0 8.22317- 5				2145 4 56 1303
0.0 + 0 1.26414+ 6	0	0	6	02145 4 56 1304
0.0 + 0 7.54169- 3 0.0	+ 0 8.35923- 5 0.0	+ 0-4.55100-	82145 4 56 1305	
0.0 + 0 1.33244+ 6	0	0	6	02145 4 56 1306
0.0 + 0 7.21278- 3 0.0	+ 0 9.49095- 5 0.0	+ 0-1.06158-	72145 4 56 1307	
0.0 + 0 1.46556+ 6	0	0	6	02145 4 56 1308
0.0 + 0 8.79510- 3 0.0	+ 0 1.31975- 4 0.0	+ 0-1.85137-	72145 4 56 1309	
0.0 + 0 1.69878+ 6	0	0	6	02145 4 56 1310
0.0 + 0 1.11692- 2 0.0	+ 0 2.01544- 4 0.0	+ 0-3.59370-	72145 4 56 1311	
0.0 + 0 1.84100+ 6	0	0	6	02145 4 56 1312
0.0 + 0 1.21686- 2 0.0	+ 0 2.72023- 4 0.0	+ 0-5.51785-	72145 4 56 1313	
0.0 + 0 1.94263+ 6	0	0	6	02145 4 56 1314

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0 1.31295-	2 0.0	+ 0 3.25315-	4 0.0	+ 0-6.41688-	72145	4	56	1315	
0.0	+ 0 2.00000+	6	0	0	6	02145	4	56	1316	
0.0	+ 0 1.35960-	2 0.0	+ 0 3.54802-	4 0.0	+ 0-6.76267-	72145	4	56	1317	
0.0	+ 0 3.00000+	6	0	0	8	02145	4	56	1318	
0.0	+ 0 1.95919-	2 0.0	+ 0 8.72226-	4 0.0	+ 0-2.57533-	72145	4	56	1319	
0.0	+ 0-3.50471-	8				2145	4	56	1320	
0.0	+ 0 4.00000+	6	0	0	8	02145	4	56	1321	
0.0	+ 0 2.31696-	2 0.0	+ 0 1.26679-	3 0.0	+ 0 7.54532-	62145	4	56	1322	
0.0	+ 0 2.62912-	8				2145	4	56	1323	
0.0	+ 0 5.00000+	6	0	0	8	02145	4	56	1324	
0.0	+ 0 2.63728-	2 0.0	+ 0 1.68258-	3 0.0	+ 0 4.42050-	52145	4	56	1325	
0.0	+ 0 6.86154-	7				2145	4	56	1326	
0.0	+ 0 6.00000+	6	0	0	10	02145	4	56	1327	
0.0	+ 0 3.03356-	2 0.0	+ 0 2.30149-	3 0.0	+ 0 1.46155-	42145	4	56	1328	
0.0	+ 0 2.88178-	6 0.0	+ 0 1.42624-	9		2145	4	56	1329	
0.0	+ 0 7.00000+	6	0	0	10	02145	4	56	1330	
0.0	+ 0 3.53289-	2 0.0	+ 0 3.22152-	3 0.0	+ 0 3.41498-	42145	4	56	1331	
0.0	+ 0 7.00585-	6 0.0	+ 0 1.79039-	8		2145	4	56	1332	
0.0	+ 0 8.00000+	6	0	0	10	02145	4	56	1333	
0.0	+ 0 4.10511-	2 0.0	+ 0 4.38638-	3 0.0	+ 0 6.14263-	42145	4	56	1334	
0.0	+ 0 1.24533-	5 0.0	+ 0 7.34426-	8		2145	4	56	1335	
0.0	+ 0 9.00000+	6	0	0	12	02145	4	56	1336	
0.0	+ 0 4.64141-	2 0.0	+ 0 5.52637-	3 0.0	+ 0 8.88312-	42145	4	56	1337	
0.0	+ 0 1.86490-	5 0.0	+ 0 2.36094-	7 0.0	+ 0 2.23677-	102145	4	56	1338	
0.0	+ 0 1.00000+	7	0	0	12	02145	4	56	1339	
0.0	+ 0 5.02096-	2 0.0	+ 0 6.34192-	3 0.0	+ 0 1.08625-	32145	4	56	1340	
0.0	+ 0 2.74782-	5 0.0	+ 0 6.48895-	7 0.0	+ 0 1.44553-	92145	4	56	1341	
0.0	+ 0 1.10000+	7	0	0	12	02145	4	56	1342	
0.0	+ 0 5.24194-	2 0.0	+ 0 6.78282-	3 0.0	+ 0 1.18631-	32145	4	56	1343	
0.0	+ 0 4.03926-	5 0.0	+ 0 1.56107-	6 0.0	+ 0 4.07901-	92145	4	56	1344	
0.0	+ 0 1.15000+	7	0	0	12	02145	4	56	1345	
0.0	+ 0 5.30761-	2 0.0	+ 0 6.90117-	3 0.0	+ 0 1.20928-	32145	4	56	1346	
0.0	+ 0 4.87805-	5 0.0	+ 0 2.30769-	6 0.0	+ 0 6.55294-	92145	4	56	1347	
0.0	+ 0 1.20000+	7	0	0	12	02145	4	56	1348	
0.0	+ 0 5.35456-	2 0.0	+ 0 6.98138-	3 0.0	+ 0 1.22277-	32145	4	56	1349	
0.0	+ 0 5.86224-	5 0.0	+ 0 3.30695-	6 0.0	+ 0 1.02710-	82145	4	56	1350	
0.0	+ 0 1.25000+	7	0	0	12	02145	4	56	1351	
0.0	+ 0 5.38584-	2 0.0	+ 0 7.04005-	3 0.0	+ 0 1.23306-	32145	4	56	1352	
0.0	+ 0 7.01074-	5 0.0	+ 0 4.59971-	6 0.0	+ 0 1.57720-	82145	4	56	1353	
0.0	+ 0 1.30000+	7	0	0	12	02145	4	56	1354	
0.0	+ 0 5.40781-	2 0.0	+ 0 7.09309-	3 0.0	+ 0 1.24528-	32145	4	56	1355	
0.0	+ 0 8.33111-	5 0.0	+ 0 6.21798-	6 0.0	+ 0 2.38097-	82145	4	56	1356	
0.0	+ 0 1.35000+	7	0	0	12	02145	4	56	1357	
0.0	+ 0 5.42579-	2 0.0	+ 0 7.15163-	3 0.0	+ 0 1.26306-	32145	4	56	1358	
0.0	+ 0 9.82692-	5 0.0	+ 0 8.18226-	6 0.0	+ 0 3.54411-	82145	4	56	1359	
0.0	+ 0 1.40000+	7	0	0	14	02145	4	56	1360	
0.0	+ 0 5.44305-	2 0.0	+ 0 7.22114-	3 0.0	+ 0 1.28828-	32145	4	56	1361	
0.0	+ 0 1.14932-	4 0.0	+ 0 1.04804-	5 0.0	+ 0 5.26891-	82145	4	56	1362	
0.0	+ 0 1.50699-	10				2145	4	56	1363	
0.0	+ 0 1.45000+	7	0	0	14	02145	4	56	1364	
0.0	+ 0 5.46091-	2 0.0	+ 0 7.30370-	3 0.0	+ 0 1.32200-	32145	4	56	1365	
0.0	+ 0 1.33284-	4 0.0	+ 0 1.31438-	5 0.0	+ 0 7.66946-	82145	4	56	1366	
0.0	+ 0 2.30172-	10				2145	4	56	1367	
0.0	+ 0 1.50000+	7	0	0	14	02145	4	56	1368	
0.0	+ 0 5.48380-	2 0.0	+ 0 7.40046-	3 0.0	+ 0 1.36369-	32145	4	56	1369	

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0 1.53088-	4 0.0	+ 0 1.61187-	5 0.0	+ 0 1.11764-	72145	4	56	1370	
0.0	+ 0 6.88518-	10				2145	4	56	1371	
0.0	+ 0 1.60000+	7	0	0	14	02145	4	56	1372	
0.0	+ 0 5.54729-	2 0.0	+ 0 7.62894-	3 0.0	+ 0 1.46793-	32145	4	56	1373	
0.0	+ 0 1.96403-	4 0.0	+ 0 2.30204-	5 0.0	+ 0 2.25115-	72145	4	56	1374	
0.0	+ 0 1.51560-	9				2145	4	56	1375	
0.0	+ 0 1.70000+	7	0	0	14	02145	4	56	1376	
0.0	+ 0 5.64066-	2 0.0	+ 0 7.88599-	3 0.0	+ 0 1.59058-	32145	4	56	1377	
0.0	+ 0 2.42978-	4 0.0	+ 0 3.10008-	5 0.0	+ 0 4.33332-	72145	4	56	1378	
0.0	+ 0 3.17959-	9				2145	4	56	1379	
0.0	+ 0 1.80000+	7	0	0	14	02145	4	56	1380	
0.0	+ 0 5.76505-	2 0.0	+ 0 8.15085-	3 0.0	+ 0 1.72130-	32145	4	56	1381	
0.0	+ 0 2.91034-	4 0.0	+ 0 3.99512-	5 0.0	+ 0 7.93165-	72145	4	56	1382	
0.0	+ 0 6.35038-	9				2145	4	56	1383	
0.0	+ 0 1.90000+	7	0	0	14	02145	4	56	1384	
0.0	+ 0 5.91646-	2 0.0	+ 0 8.40821-	3 0.0	+ 0 1.85237-	32145	4	56	1385	
0.0	+ 0 3.39332-	4 0.0	+ 0 4.98732-	5 0.0	+ 0 1.37582-	62145	4	56	1386	
0.0	+ 0 1.20803-	8				2145	4	56	1387	
0.0	+ 0 2.00000+	7	0	0	16	02145	4	56	1388	
0.0	+ 0 6.08605-	2 0.0	+ 0 8.64818-	3 0.0	+ 0 1.97887-	32145	4	56	1389	
0.0	+ 0 3.87343-	4 0.0	+ 0 6.08697-	5 0.0	+ 0 2.25742-	62145	4	56	1390	
0.0	+ 0 2.24097-	8 0.0	+ 0 1.24725-	10		2145	4	56	1391	
						2145	4	0	1392	
2.10450+	4 4.45698+	1	0	1	0	02145	4	57	1393	
0.0	+ 0 4.45698+	1	0	2	0	02145	4	57	1394	
0.0	+ 0 0.0	+ 0	0	0	1	292145	4	57	1395	
	29	2	0	0	0	02145	4	57	1396	
0.0	+ 0 1.26414+	6	0	0	2	02145	4	57	1397	
0.0	+ 0 0.0	+ 0				2145	4	57	1398	
0.0	+ 0 1.33244+	6	0	0	4	02145	4	57	1399	
0.0	+ 0-6.78804-	4 0.0	+ 0-1.03836-	6		2145	4	57	1400	
0.0	+ 0 1.46556+	6	0	0	4	02145	4	57	1401	
0.0	+ 0-1.98310-	3 0.0	+ 0-4.05405-	5		2145	4	57	1402	
0.0	+ 0 1.69878+	6	0	0	6	02145	4	57	1403	
0.0	+ 0-3.84289-	3 0.0	+ 0-2.52613-	4 0.0	+ 0 3.94989-	82145	4	57	1404	
0.0	+ 0 1.84100+	6	0	0	6	02145	4	57	1405	
0.0	+ 0-5.62783-	3 0.0	+ 0-3.67978-	4 0.0	+ 0 8.15338-	82145	4	57	1406	
0.0	+ 0 1.94263+	6	0	0	6	02145	4	57	1407	
0.0	+ 0-6.95002-	3 0.0	+ 0-4.88070-	4 0.0	+ 0 1.16601-	72145	4	57	1408	
0.0	+ 0 2.00000+	6	0	0	6	02145	4	57	1409	
0.0	+ 0-7.66387-	3 0.0	+ 0-5.53096-	4 0.0	+ 0 1.34634-	72145	4	57	1410	
0.0	+ 0 3.00000+	6	0	0	8	02145	4	57	1411	
0.0	+ 0-1.38395-	2 0.0	+ 0-1.05921-	3 0.0	+ 0-2.58218-	62145	4	57	1412	
0.0	+ 0 5.68127-	7				2145	4	57	1413	
0.0	+ 0 4.00000+	6	0	0	8	02145	4	57	1414	
0.0	+ 0-9.33919-	3 0.0	+ 0-6.37029-	4 0.0	+ 0-2.37585-	52145	4	57	1415	
0.0	+ 0 3.67413-	6				2145	4	57	1416	
0.0	+ 0 5.00000+	6	0	0	10	02145	4	57	1417	
0.0	+ 0-1.73519-	3 0.0	+ 0-4.51393-	4 0.0	+ 0-1.02535-	42145	4	57	1418	
0.0	+ 0 1.33261-	5 0.0	+ 0 9.72137-	9		2145	4	57	1419	
0.0	+ 0 6.00000+	6	0	0	10	02145	4	57	1420	
0.0	+ 0 4.64938-	3 0.0	+ 0-9.13630-	4 0.0	+ 0-2.48923-	42145	4	57	1421	
0.0	+ 0 2.83260-	5 0.0	+ 0 5.78380-	8		2145	4	57	1422	
0.0	+ 0 7.00000+	6	0	0	12	02145	4	57	1423	
0.0	+ 0 9.01001-	3 0.0	+ 0-1.80700-	3 0.0	+ 0-4.16121-	42145	4	57	1424	

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0 3.94662-	5 0.0	+ 0 2.86427-	7 0.0	+ 0 4.60456-	102145	4	57	1425	
0.0	+ 0 8.00000+	6	0	0	12	02145	4	57	1426	
0.0	+ 0 1.21813-	2 0.0	+ 0-2.75389-	3 0.0	+ 0-5.60551-	42145	4	57	1427	
0.0	+ 0 4.05839-	5 0.0	+ 0 1.17495-	6 0.0	+ 0 2.10576-	92145	4	57	1428	
0.0	+ 0 9.00000+	6	0	0	12	02145	4	57	1429	
0.0	+ 0 1.49807-	2 0.0	+ 0-3.44466-	3 0.0	+ 0-6.67809-	42145	4	57	1430	
0.0	+ 0 2.97657-	5 0.0	+ 0 3.93196-	6 0.0	+ 0 7.50991-	92145	4	57	1431	
0.0	+ 0 1.00000+	7	0	0	12	02145	4	57	1432	
0.0	+ 0 1.74240-	2 0.0	+ 0-3.76389-	3 0.0	+ 0-7.57619-	42145	4	57	1433	
0.0	+ 0 2.32054-	6 0.0	+ 0 1.08350-	5 0.0	+ 0 2.21423-	82145	4	57	1434	
0.0	+ 0 1.10000+	7	0	0	14	02145	4	57	1435	
0.0	+ 0 2.04397-	2 0.0	+ 0-3.73295-	3 0.0	+ 0-8.78049-	42145	4	57	1436	
0.0	+ 0-4.90309-	5 0.0	+ 0 2.49860-	5 0.0	+ 0 5.56506-	82145	4	57	1437	
0.0	+ 0 2.64569-	10				2145	4	57	1438	
0.0	+ 0 1.15000+	7	0	0	14	02145	4	57	1439	
0.0	+ 0 2.22294-	2 0.0	+ 0-3.64721-	3 0.0	+ 0-9.69327-	42145	4	57	1440	
0.0	+ 0-8.67829-	5 0.0	+ 0 3.56557-	5 0.0	+ 0 8.48204-	82145	4	57	1441	
0.0	+ 0 4.23186-	10				2145	4	57	1442	
0.0	+ 0 1.20000+	7	0	0	14	02145	4	57	1443	
0.0	+ 0 2.41672-	2 0.0	+ 0-3.55335-	3 0.0	+ 0-1.08814-	32145	4	57	1444	
0.0	+ 0-1.33302-	4 0.0	+ 0 4.87466-	5 0.0	+ 0 1.26626-	72145	4	57	1445	
0.0	+ 0 6.59754-	10				2145	4	57	1446	
0.0	+ 0 1.25000+	7	0	0	14	02145	4	57	1447	
0.0	+ 0 2.61221-	2 0.0	+ 0-3.47869-	3 0.0	+ 0-1.23362-	32145	4	57	1448	
0.0	+ 0-1.87576-	4 0.0	+ 0 6.36625-	5 0.0	+ 0 1.85405-	72145	4	57	1449	
0.0	+ 0 1.00454-	9				2145	4	57	1450	
0.0	+ 0 1.30000+	7	0	0	14	02145	4	57	1451	
0.0	+ 0 2.79896-	2 0.0	+ 0-3.43705-	3 0.0	+ 0-1.39924-	32145	4	57	1452	
0.0	+ 0-2.47268-	4 0.0	+ 0 7.94258-	5 0.0	+ 0 2.67135-	72145	4	57	1453	
0.0	+ 0 1.50018-	9				2145	4	57	1454	
0.0	+ 0 1.35000+	7	0	0	14	02145	4	57	1455	
0.0	+ 0 2.96753-	2 0.0	+ 0-3.42825-	3 0.0	+ 0-1.57350-	32145	4	57	1456	
0.0	+ 0-3.08964-	4 0.0	+ 0 9.47490-	5 0.0	+ 0 3.79936-	72145	4	57	1457	
0.0	+ 0 2.20596-	9				2145	4	57	1458	
0.0	+ 0 1.40000+	7	0	0	14	02145	4	57	1459	
0.0	+ 0 3.11109-	2 0.0	+ 0-3.43853-	3 0.0	+ 0-1.74182-	32145	4	57	1460	
0.0	+ 0-3.68714-	4 0.0	+ 0 1.08273-	4 0.0	+ 0 5.36302-	72145	4	57	1461	
0.0	+ 0 3.20227-	9				2145	4	57	1462	
0.0	+ 0 1.45000+	7	0	0	14	02145	4	57	1463	
0.0	+ 0 3.22445-	2 0.0	+ 0-3.45689-	3 0.0	+ 0-1.89317-	32145	4	57	1464	
0.0	+ 0-4.23527-	4 0.0	+ 0 1.18911-	4 0.0	+ 0 7.47987-	72145	4	57	1465	
0.0	+ 0 4.60265-	9				2145	4	57	1466	
0.0	+ 0 1.50000+	7	0	0	14	02145	4	57	1467	
0.0	+ 0 3.31068-	2 0.0	+ 0-3.46540-	3 0.0	+ 0-2.01910-	32145	4	57	1468	
0.0	+ 0-4.71126-	4 0.0	+ 0 1.26053-	4 0.0	+ 0 1.03614-	62145	4	57	1469	
0.0	+ 0 6.56521-	9				2145	4	57	1470	
0.0	+ 0 1.60000+	7	0	0	16	02145	4	57	1471	
0.0	+ 0 3.41818-	2 0.0	+ 0-3.41605-	3 0.0	+ 0-2.18525-	32145	4	57	1472	
0.0	+ 0-5.41889-	4 0.0	+ 0 1.29481-	4 0.0	+ 0 1.95069-	62145	4	57	1473	
0.0	+ 0 1.30445-	8 0.0	+ 0 1.17444-	10		2145	4	57	1474	
0.0	+ 0 1.70000+	7	0	0	16	02145	4	57	1475	
0.0	+ 0 3.47217-	2 0.0	+ 0-3.26700-	3 0.0	+ 0-2.25400-	32145	4	57	1476	
0.0	+ 0-5.84126-	4 0.0	+ 0 1.20648-	4 0.0	+ 0 3.55822-	62145	4	57	1477	
0.0	+ 0 2.53281-	8 0.0	+ 0 2.44511-	10		2145	4	57	1478	
0.0	+ 0 1.80000+	7	0	0	16	02145	4	57	1479	

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....	MAT	MF	MT	SEQ
0.0	+ 0 3.50838- 2 0.0	+ 0-3.04347- 3 0.0	+ 0-2.26350-	32145	4	57	1480		
0.0	+ 0-6.08299- 4 0.0	+ 0 1.03259- 4 0.0	+ 0 6.22697-	62145	4	57	1481		
0.0	+ 0 4.76783- 8 0.0	+ 0 4.90926-10		2145	4	57	1482		
0.0	+ 0 1.90000+ 7	0	16	02145	4	57	1483		
0.0	+ 0 3.55051- 2 0.0	+ 0-2.78182- 3 0.0	+ 0-2.25013-	32145	4	57	1484		
0.0	+ 0-6.25664- 4 0.0	+ 0 8.02815- 5 0.0	+ 0 1.03472-	52145	4	57	1485		
0.0	+ 0 8.66863- 8 0.0	+ 0 9.47997-10		2145	4	57	1486		
0.0	+ 0 2.00000+ 7	0	16	02145	4	57	1487		
0.0	+ 0 3.61160- 2 0.0	+ 0-2.50744- 3 0.0	+ 0-2.23773-	32145	4	57	1488		
0.0	+ 0-6.45027- 4 0.0	+ 0 5.34413- 5 0.0	+ 0 1.61877-	52145	4	57	1489		
0.0	+ 0 1.51755- 7 0.0	+ 0 1.75862- 9		2145	4	57	1490		
				2145	4	0	1491		
2.10450+	4 4.45698+ 1	0	1	0	02145	4	58	1492	
0.0	+ 0 4.45698+ 1	0	2	0	02145	4	58	1493	
0.0	+ 0 0.0 + 0	0	0	1	282145	4	58	1494	
	28	0	0	0	02145	4	58	1495	
0.0	+ 0 1.33244+ 6	0	0	2	02145	4	58	1496	
0.0	+ 0 0.0 + 0				2145	4	58	1497	
0.0	+ 0 1.46556+ 6	0	0	4	02145	4	58	1498	
0.0	+ 0-8.13786- 3 0.0	+ 0-5.69581- 6		2145	4	58	1499		
0.0	+ 0 1.69878+ 6	0	0	6	02145	4	58	1500	
0.0	+ 0-1.37150- 2 0.0	+ 0-4.39807- 5 0.0	+ 0-9.35128-	92145	4	58	1501		
0.0	+ 0 1.84100+ 6	0	0	6	02145	4	58	1502	
0.0	+ 0-1.53728- 2 0.0	+ 0-8.10342- 5 0.0	+ 0-2.41171-	82145	4	58	1503		
0.0	+ 0 1.94263+ 6	0	0	6	02145	4	58	1504	
0.0	+ 0-1.63331- 2 0.0	+ 0-1.13892- 4 0.0	+ 0-4.47627-	82145	4	58	1505		
0.0	+ 0 2.00000+ 6	0	0	6	02145	4	58	1506	
0.0	+ 0-1.67039- 2 0.0	+ 0-1.34635- 4 0.0	+ 0-6.06639-	82145	4	58	1507		
0.0	+ 0 3.00000+ 6	0	0	8	02145	4	58	1508	
0.0	+ 0-1.90652- 2 0.0	+ 0-6.41124- 4 0.0	+ 0-5.13966-	62145	4	58	1509		
0.0	+ 0-4.08888- 9			2145	4	58	1510		
0.0	+ 0 4.00000+ 6	0	0	8	02145	4	58	1511	
0.0	+ 0-1.82415- 2 0.0	+ 0-1.26047- 3 0.0	+ 0-4.08850-	52145	4	58	1512		
0.0	+ 0-1.03332- 7			2145	4	58	1513		
0.0	+ 0 5.00000+ 6	0	0	8	02145	4	58	1514	
0.0	+ 0-1.45961- 2 0.0	+ 0-2.01399- 3 0.0	+ 0-1.70601-	42145	4	58	1515		
0.0	+ 0-3.37169- 6			2145	4	58	1516		
0.0	+ 0 6.00000+ 6	0	0	10	02145	4	58	1517	
0.0	+ 0-9.00343- 3 0.0	+ 0-2.93300- 3 0.0	+ 0-4.17028-	42145	4	58	1518		
0.0	+ 0-1.38982- 5 0.0	+ 0-1.57049- 9		2145	4	58	1519		
0.0	+ 0 7.00000+ 6	0	0	10	02145	4	58	1520	
0.0	+ 0-2.87831- 3 0.0	+ 0-3.90594- 3 0.0	+ 0-7.00652-	42145	4	58	1521		
0.0	+ 0-3.79165- 5 0.0	+ 0-7.49638- 8		2145	4	58	1522		
0.0	+ 0 8.00000+ 6	0	0	10	02145	4	58	1523	
0.0	+ 0 3.17235- 3 0.0	+ 0-4.76816- 3 0.0	+ 0-9.25608-	42145	4	58	1524		
0.0	+ 0-7.93775- 5 0.0	+ 0-3.31060- 7		2145	4	58	1525		
0.0	+ 0 9.00000+ 6	0	0	12	02145	4	58	1526	
0.0	+ 0 9.31140- 3 0.0	+ 0-5.35490- 3 0.0	+ 0-1.04775-	32145	4	58	1527		
0.0	+ 0-1.38196- 4 0.0	+ 0-1.14536- 6 0.0	+ 0-5.31991-	112145	4	58	1528		
0.0	+ 0 1.00000+ 7	0	0	12	02145	4	58	1529	
0.0	+ 0 1.57402- 2 0.0	+ 0-5.61359- 3 0.0	+ 0-1.07746-	32145	4	58	1530		
0.0	+ 0-2.11127- 4 0.0	+ 0-3.21170- 6 0.0	+ 0-2.46458-	102145	4	58	1531		
0.0	+ 0 1.10000+ 7	0	0	12	02145	4	58	1532	
0.0	+ 0 2.25014- 2 0.0	+ 0-5.60008- 3 0.0	+ 0-1.05709-	32145	4	58	1533		
0.0	+ 0-2.93653- 4 0.0	+ 0-7.63222- 6 0.0	+ 0-1.53756-	82145	4	58	1534		

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....										MAT	MF	MT	SEQ
0.0	+ 0	1.15000+	7	0	0	12	02145	4	58	1535			
0.0	+ 0	2.58767-	2 0.0	+ 0-5.52645-	3 0.0	+ 0-1.04267-	32145	4	58	1536			
0.0	+ 0	-3.37256-	4 0.0	+ 0-1.11463-	5 0.0	+ 0-2.38931-	82145	4	58	1537			
0.0	+ 0	1.20000+	7	0	0	12	02145	4	58	1538			
0.0	+ 0	2.91519-	2 0.0	+ 0-5.42409-	3 0.0	+ 0-1.03297-	32145	4	58	1539			
0.0	+ 0	-3.81302-	4 0.0	+ 0-1.57998-	5 0.0	+ 0-3.64062-	82145	4	58	1540			
0.0	+ 0	1.25000+	7	0	0	12	02145	4	58	1541			
0.0	+ 0	3.22146-	2 0.0	+ 0-5.30647-	3 0.0	+ 0-1.03149-	32145	4	58	1542			
0.0	+ 0	-4.24591-	4 0.0	+ 0-2.17636-	5 0.0	+ 0-5.45476-	82145	4	58	1543			
0.0	+ 0	1.30000+	7	0	0	12	02145	4	58	1544			
0.0	+ 0	3.49989-	2 0.0	+ 0-5.18445-	3 0.0	+ 0-1.04194-	32145	4	58	1545			
0.0	+ 0	-4.66275-	4 0.0	+ 0-2.92081-	5 0.0	+ 0-8.06965-	82145	4	58	1546			
0.0	+ 0	1.35000+	7	0	0	12	02145	4	58	1547			
0.0	+ 0	3.74548-	2 0.0	+ 0-5.06844-	3 0.0	+ 0-1.06722-	32145	4	58	1548			
0.0	+ 0	-5.05571-	4 0.0	+ 0-3.82869-	5 0.0	+ 0-1.18249-	72145	4	58	1549			
0.0	+ 0	1.40000+	7	0	0	14	02145	4	58	1550			
0.0	+ 0	3.95502-	2 0.0	+ 0-4.96672-	3 0.0	+ 0-1.10914-	32145	4	58	1551			
0.0	+ 0	-5.41847-	4 0.0	+ 0-4.90719-	5 0.0	+ 0-1.72281-	72145	4	58	1552			
0.0	+ 0	1.29005-	11	0	0	14	2145	4	58	1553			
0.0	+ 0	1.45000+	7	0	0	14	02145	4	58	1554			
0.0	+ 0	4.12769-	2 0.0	+ 0-4.88703-	3 0.0	+ 0-1.16774-	32145	4	58	1555			
0.0	+ 0	-5.74569-	4 0.0	+ 0-6.17342-	5 0.0	+ 0-2.48760-	72145	4	58	1556			
0.0	+ 0	1.03536-	11	0	0	14	2145	4	58	1557			
0.0	+ 0	1.50000+	7	0	0	14	02145	4	58	1558			
0.0	+ 0	4.26791-	2 0.0	+ 0-4.82996-	3 0.0	+ 0-1.24308-	32145	4	58	1559			
0.0	+ 0	-6.03859-	4 0.0	+ 0-7.63357-	5 0.0	+ 0-3.57022-	72145	4	58	1560			
0.0	+ 0	2.44632-	12	0	0	14	2145	4	58	1561			
0.0	+ 0	1.60000+	7	0	0	14	02145	4	58	1562			
0.0	+ 0	4.47913-	2 0.0	+ 0-4.75947-	3 0.0	+ 0-1.43649-	32145	4	58	1563			
0.0	+ 0	-6.52951-	4 0.0	+ 0-1.11283-	4 0.0	+ 0-7.30600-	72145	4	58	1564			
0.0	+ 0	-3.50962-	9	0	0	14	2145	4	58	1565			
0.0	+ 0	1.70000+	7	0	0	14	02145	4	58	1566			
0.0	+ 0	4.64269-	2 0.0	+ 0-4.72717-	3 0.0	+ 0-1.67508-	32145	4	58	1567			
0.0	+ 0	-6.93640-	4 0.0	+ 0-1.54152-	4 0.0	+ 0-1.42981-	62145	4	58	1568			
0.0	+ 0	-7.30647-	9	0	0	14	2145	4	58	1569			
0.0	+ 0	1.80000+	7	0	0	14	02145	4	58	1570			
0.0	+ 0	4.81781-	2 0.0	+ 0-4.66582-	3 0.0	+ 0-1.93565-	32145	4	58	1571			
0.0	+ 0	-7.29788-	4 0.0	+ 0-2.03715-	4 0.0	+ 0-2.68726-	62145	4	58	1572			
0.0	+ 0	-1.46669-	8	0	0	14	2145	4	58	1573			
0.0	+ 0	1.90000+	7	0	0	14	02145	4	58	1574			
0.0	+ 0	5.04276-	2 0.0	+ 0-4.53223-	3 0.0	+ 0-2.19679-	32145	4	58	1575			
0.0	+ 0	-7.64365-	4 0.0	+ 0-2.57903-	4 0.0	+ 0-4.81807-	62145	4	58	1576			
0.0	+ 0	-2.83053-	8	0	0	14	2145	4	58	1577			
0.0	+ 0	2.00000+	7	0	0	16	02145	4	58	1578			
0.0	+ 0	5.33056-	2 0.0	+ 0-4.30974-	3 0.0	+ 0-2.44096-	32145	4	58	1579			
0.0	+ 0	-7.98808-	4 0.0	+ 0-3.13781-	4 0.0	+ 0-8.19133-	62145	4	58	1580			
0.0	+ 0	-5.28325-	8 0.0	+ 0 4.80775-	11	2145	4	58	1581				
						2145	4	0	1582				
2.10450+	4	4.45698+	1	0	1	0	02145	4	59	1583			
0.0	+ 0	4.45698+	1	0	2	0	02145	4	59	1584			
0.0	+ 0	0.0	+ 0	0	0	1	272145	4	59	1585			
	27		2	0	0	0	02145	4	59	1586			
0.0	+ 0	1.46556+	6	0	0	2	02145	4	59	1587			
0.0	+ 0	0.0	+ 0	0	0		2145	4	59	1588			
0.0	+ 0	1.69878+	6	0	0	4	02145	4	59	1589			

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0 5.97522- 3 0.0		+ 0 2.55342- 5						2145 4 59	1590
0.0	+ 0 1.84100+ 6		0	0	6				02145 4 59	1591
0.0	+ 0 8.42538- 3 0.0		+ 0 4.34654- 5 0.0		+ 0 2.29749-		72145	4 59	1592	
0.0	+ 0 1.94263+ 6		0	0	6				02145 4 59	1593
0.0	+ 0 9.38990- 3 0.0		+ 0 5.50066- 5 0.0		+ 0 4.08894-		72145	4 59	1594	
0.0	+ 0 2.00000+ 6		0	0	6				02145 4 59	1595
0.0	+ 0 9.77741- 3 0.0		+ 0 5.98011- 5 0.0		+ 0 5.28721-		72145	4 59	1596	
0.0	+ 0 3.00000+ 6		0	0	8				02145 4 59	1597
0.0	+ 0 1.22728- 2 0.0		+ 0 1.43653- 4 0.0		+ 0 5.07878-		62145	4 59	1598	
0.0	+ 0 9.86606- 8								2145 4 59	1599
0.0	+ 0 4.00000+ 6		0	0	8				02145 4 59	1600
0.0	+ 0 1.49777- 2 0.0		+ 0 4.15381- 4 0.0		+ 0 2.24282-		52145	4 59	1601	
0.0	+ 0 5.59486- 7								2145 4 59	1602
0.0	+ 0 5.00000+ 6		0	0	8				02145 4 59	1603
0.0	+ 0 1.91057- 2 0.0		+ 0 8.83574- 4 0.0		+ 0 6.29024-		52145	4 59	1604	
0.0	+ 0 2.44228- 6								2145 4 59	1605
0.0	+ 0 6.00000+ 6		0	0	10				02145 4 59	1606
0.0	+ 0 2.43313- 2 0.0		+ 0 1.50723- 3 0.0		+ 0 1.18256-		42145	4 59	1607	
0.0	+ 0 9.48842- 6 0.0		+ 0 7.78779- 9						2145 4 59	1608
0.0	+ 0 7.00000+ 6		0	0	10				02145 4 59	1609
0.0	+ 0 3.01292- 2 0.0		+ 0 2.19720- 3 0.0		+ 0 1.66331-		42145	4 59	1610	
0.0	+ 0 2.61934- 5 0.0		+ 0 2.30452- 8						2145 4 59	1611
0.0	+ 0 8.00000+ 6		0	0	10				02145 4 59	1612
0.0	+ 0 3.60098- 2 0.0		+ 0 2.88870- 3 0.0		+ 0 2.02635-		42145	4 59	1613	
0.0	+ 0 5.45213- 5 0.0		+ 0 8.88334- 8						2145 4 59	1614
0.0	+ 0 9.00000+ 6		0	0	12				02145 4 59	1615
0.0	+ 0 4.14126- 2 0.0		+ 0 3.55721- 3 0.0		+ 0 2.47022-		42145	4 59	1616	
0.0	+ 0 9.08927- 5 0.0		+ 0 2.79304- 7 0.0		+ 0 9.80056-		102145	4 59	1617	
0.0	+ 0 1.00000+ 7		0	0	12				02145 4 59	1618
0.0	+ 0 4.54679- 2 0.0		+ 0 4.11870- 3 0.0		+ 0 3.09571-		42145	4 59	1619	
0.0	+ 0 1.24967- 4 0.0		+ 0 7.19279- 7 0.0		+ 0 2.85772-		92145	4 59	1620	
0.0	+ 0 1.10000+ 7		0	0	12				02145 4 59	1621
0.0	+ 0 4.83794- 2 0.0		+ 0 4.60987- 3 0.0		+ 0 4.01716-		42145	4 59	1622	
0.0	+ 0 1.50847- 4 0.0		+ 0 1.59232- 6 0.0		+ 0 2.99655-		92145	4 59	1623	
0.0	+ 0 1.15000+ 7		0	0	12				02145 4 59	1624
0.0	+ 0 4.94462- 2 0.0		+ 0 4.82425- 3 0.0		+ 0 4.54507-		42145	4 59	1625	
0.0	+ 0 1.60228- 4 0.0		+ 0 2.31161- 6 0.0		+ 0 4.22382-		92145	4 59	1626	
0.0	+ 0 1.20000+ 7		0	0	12				02145 4 59	1627
0.0	+ 0 5.02881- 2 0.0		+ 0 5.01585- 3 0.0		+ 0 5.08650-		42145	4 59	1628	
0.0	+ 0 1.67702- 4 0.0		+ 0 3.30584- 6 0.0		+ 0 5.84217-		92145	4 59	1629	
0.0	+ 0 1.25000+ 7		0	0	12				02145 4 59	1630
0.0	+ 0 5.08860- 2 0.0		+ 0 5.17595- 3 0.0		+ 0 5.59849-		42145	4 59	1631	
0.0	+ 0 1.73357- 4 0.0		+ 0 4.66074- 6 0.0		+ 0 7.95293-		92145	4 59	1632	
0.0	+ 0 1.30000+ 7		0	0	12				02145 4 59	1633
0.0	+ 0 5.12854- 2 0.0		+ 0 5.30871- 3 0.0		+ 0 6.07265-		42145	4 59	1634	
0.0	+ 0 1.77895- 4 0.0		+ 0 6.46972- 6 0.0		+ 0 1.07274-		82145	4 59	1635	
0.0	+ 0 1.35000+ 7		0	0	12				02145 4 59	1636
0.0	+ 0 5.15427- 2 0.0		+ 0 5.42209- 3 0.0		+ 0 6.51508-		42145	4 59	1637	
0.0	+ 0 1.82135- 4 0.0		+ 0 8.82497- 6 0.0		+ 0 1.44054-		82145	4 59	1638	
0.0	+ 0 1.40000+ 7		0	0	14				02145 4 59	1639
0.0	+ 0 5.17121- 2 0.0		+ 0 5.52583- 3 0.0		+ 0 6.94072-		42145	4 59	1640	
0.0	+ 0 1.86772- 4 0.0		+ 0 1.17922- 5 0.0		+ 0 2.07233-		82145	4 59	1641	
0.0	+ 0 3.21630-10								2145 4 59	1642
0.0	+ 0 1.45000+ 7		0	0	14				02145 4 59	1643
0.0	+ 0 5.18260- 2 0.0		+ 0 5.62687- 3 0.0		+ 0 7.36484-		42145	4 59	1644	

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....	MAT	MF	MT	SEQ
0.0	+ 0 1.92534- 4 0.0	+ 0 1.53738- 5 0.0		+ 0 2.78445-	82145	4	59	1645	
0.0	+ 0 4.62939-10				2145	4	59	1646	
0.0	+ 0 1.50000+ 7	0	0	14	02145	4	59	1647	
0.0	+ 0 5.19523- 2 0.0	+ 0 5.73673- 3 0.0		+ 0 7.81119-	42145	4	59	1648	
0.0	+ 0 1.99969- 4 0.0	+ 0 1.95501- 5 0.0		+ 0 3.74180-	82145	4	59	1649	
0.0	+ 0 6.62356-10				2145	4	59	1650	
0.0	+ 0 1.60000+ 7	0	0	14	02145	4	59	1651	
0.0	+ 0 5.23824- 2 0.0	+ 0 6.00221- 3 0.0		+ 0 8.80801-	42145	4	59	1652	
0.0	+ 0 2.20393- 4 0.0	+ 0 2.93260- 5 0.0		+ 0 6.43499-	82145	4	59	1653	
0.0	+ 0 2.06470-10				2145	4	59	1654	
0.0	+ 0 1.70000+ 7	0	0	14	02145	4	59	1655	
0.0	+ 0 5.31332- 2 0.0	+ 0 6.33329- 3 0.0		+ 0 9.94277-	42145	4	59	1656	
0.0	+ 0 2.47432- 4 0.0	+ 0 4.01413- 5 0.0		+ 0 1.15410-	72145	4	59	1657	
0.0	+ 0 2.89303-10				2145	4	59	1658	
0.0	+ 0 1.80000+ 7	0	0	14	02145	4	59	1659	
0.0	+ 0 5.42015- 2 0.0	+ 0 6.70794- 3 0.0		+ 0 1.11389-	32145	4	59	1660	
0.0	+ 0 2.77973- 4 0.0	+ 0 5.08315- 5 0.0		+ 0 2.06122-	72145	4	59	1661	
0.0	+ 0 3.61397-10				2145	4	59	1662	
0.0	+ 0 1.90000+ 7	0	0	14	02145	4	59	1663	
0.0	+ 0 5.55035- 2 0.0	+ 0 7.09549- 3 0.0		+ 0 1.23026-	32145	4	59	1664	
0.0	+ 0 3.08593- 4 0.0	+ 0 6.04125- 5 0.0		+ 0 3.64634-	72145	4	59	1665	
0.0	+ 0 3.81063-10				2145	4	59	1666	
0.0	+ 0 2.00000+ 7	0	0	16	02145	4	59	1667	
0.0	+ 0 5.69159- 2 0.0	+ 0 7.46617- 3 0.0		+ 0 1.33514-	32145	4	59	1668	
0.0	+ 0 3.36189- 4 0.0	+ 0 6.81783- 5 0.0		+ 0 6.37423-	72145	4	59	1669	
0.0	+ 0 9.58417-10 0.0	+ 0 1.49524-10			2145	4	59	1670	
					2145	4	0	1671	
2.10450+	4 4.45698+ 1	0	1	0	02145	4	60	1672	
0.0	+ 0 4.45698+ 1	0	2	0	02145	4	60	1673	
0.0	+ 0 0.0 + 0	0	0	1	262145	4	60	1674	
	26	0	0	0	02145	4	60	1675	
0.0	+ 0 1.69878+ 6	0	0	2	02145	4	60	1676	
0.0	+ 0 0.0 + 0				2145	4	60	1677	
0.0	+ 0 1.84100+ 6	0	0	4	02145	4	60	1678	
0.0	+ 0 2.77001- 4 0.0	+ 0-4.41515- 5			2145	4	60	1679	
0.0	+ 0 1.94263+ 6	0	0	4	02145	4	60	1680	
0.0	+ 0 7.35324- 4 0.0	+ 0-1.47344- 4			2145	4	60	1681	
0.0	+ 0 2.00000+ 6	0	0	4	02145	4	60	1682	
0.0	+ 0 1.07750- 3 0.0	+ 0-2.32804- 4			2145	4	60	1683	
0.0	+ 0 3.00000+ 6	0	0	8	02145	4	60	1684	
0.0	+ 0 9.11653- 3 0.0	+ 0-2.06814- 3 0.0		+ 0-1.92610-	62145	4	60	1685	
0.0	+ 0-4.51332- 7				2145	4	60	1686	
0.0	+ 0 4.00000+ 6	0	0	8	02145	4	60	1687	
0.0	+ 0 1.33868- 2 0.0	+ 0-1.91984- 3 0.0		+ 0-1.41443-	52145	4	60	1688	
0.0	+ 0-5.25229- 6				2145	4	60	1689	
0.0	+ 0 5.00000+ 6	0	0	10	02145	4	60	1690	
0.0	+ 0 1.72743- 2 0.0	+ 0-1.25137- 3 0.0		+ 0-6.42038-	52145	4	60	1691	
0.0	+ 0-2.85960- 5 0.0	+ 0-9.78308- 9			2145	4	60	1692	
0.0	+ 0 6.00000+ 6	0	0	10	02145	4	60	1693	
0.0	+ 0 2.17313- 2 0.0	+ 0-5.73405- 4 0.0		+ 0-1.71179-	42145	4	60	1694	
0.0	+ 0-8.00591- 5 0.0	+ 0-7.40653- 8			2145	4	60	1695	
0.0	+ 0 7.00000+ 6	0	0	12	02145	4	60	1696	
0.0	+ 0 2.65531- 2 0.0	+ 0 8.93238- 5 0.0		+ 0-2.92329-	42145	4	60	1697	
0.0	+ 0-1.33697- 4 0.0	+ 0-4.26419- 7 0.0		+ 0-4.98584-10	2145	4	60	1698	
0.0	+ 0 8.00000+ 6	0	0	12	02145	4	60	1699	

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0 3.12827-	2 0.0	+ 0 7.39816-	4 0.0	+ 0-3.78512-	42145	4	60	1700	
0.0	+ 0-1.61145-	4 0.0	+ 0-1.92101-	6 0.0	+ 0-2.54436-	92145	4	60	1701	
0.0	+ 0 9.00000+	6	0	0	12	02145	4	60	1702	
0.0	+ 0 3.53979-	2 0.0	+ 0 1.32445-	3 0.0	+ 0-4.32241-	42145	4	60	1703	
0.0	+ 0-1.66017-	4 0.0	+ 0-6.85278-	6 0.0	+ 0-9.85595-	92145	4	60	1704	
0.0	+ 0 1.00000+	7	0	0	12	02145	4	60	1705	
0.0	+ 0 3.83984-	2 0.0	+ 0 1.78956-	3 0.0	+ 0-4.74375-	42145	4	60	1706	
0.0	+ 0-1.71012-	4 0.0	+ 0-2.00706-	5 0.0	+ 0-3.09384-	82145	4	60	1707	
0.0	+ 0 1.10000+	7	0	0	14	02145	4	60	1708	
0.0	+ 0 4.09818-	2 0.0	+ 0 2.20146-	3 0.0	+ 0-5.22587-	42145	4	60	1709	
0.0	+ 0-2.03087-	4 0.0	+ 0-4.93440-	5 0.0	+ 0-8.34195-	82145	4	60	1710	
0.0	+ 0-3.21867-	10				2145	4	60	1711	
0.0	+ 0 1.15000+	7	0	0	14	02145	4	60	1712	
0.0	+ 0 4.23549-	2 0.0	+ 0 2.42031-	3 0.0	+ 0-5.49747-	42145	4	60	1713	
0.0	+ 0-2.35757-	4 0.0	+ 0-7.27911-	5 0.0	+ 0-1.30770-	72145	4	60	1714	
0.0	+ 0-5.29956-	10				2145	4	60	1715	
0.0	+ 0 1.20000+	7	0	0	14	02145	4	60	1716	
0.0	+ 0 4.38867-	2 0.0	+ 0 2.66094-	3 0.0	+ 0-5.79115-	42145	4	60	1717	
0.0	+ 0-2.81124-	4 0.0	+ 0-1.03050-	4 0.0	+ 0-2.00473-	72145	4	60	1718	
0.0	+ 0-8.49068-	10				2145	4	60	1719	
0.0	+ 0 1.25000+	7	0	0	14	02145	4	60	1720	
0.0	+ 0 4.55463-	2 0.0	+ 0 2.92111-	3 0.0	+ 0-6.09535-	42145	4	60	1721	
0.0	+ 0-3.37702-	4 0.0	+ 0-1.39556-	4 0.0	+ 0-3.00986-	72145	4	60	1722	
0.0	+ 0-1.32638-	9				2145	4	60	1723	
0.0	+ 0 1.30000+	7	0	0	14	02145	4	60	1724	
0.0	+ 0 4.72906-	2 0.0	+ 0 3.19546-	3 0.0	+ 0-6.38923-	42145	4	60	1725	
0.0	+ 0-4.01888-	4 0.0	+ 0-1.80545-	4 0.0	+ 0-4.43739-	72145	4	60	1726	
0.0	+ 0-2.02769-	9				2145	4	60	1727	
0.0	+ 0 1.35000+	7	0	0	14	02145	4	60	1728	
0.0	+ 0 4.90361-	2 0.0	+ 0 3.47408-	3 0.0	+ 0-6.64043-	42145	4	60	1729	
0.0	+ 0-4.68420-	4 0.0	+ 0-2.23255-	4 0.0	+ 0-6.44091-	72145	4	60	1730	
0.0	+ 0-3.04383-	9				2145	4	60	1731	
0.0	+ 0 1.40000+	7	0	0	14	02145	4	60	1732	
0.0	+ 0 5.06674-	2 0.0	+ 0 3.74480-	3 0.0	+ 0-6.80228-	42145	4	60	1733	
0.0	+ 0-5.30826-	4 0.0	+ 0-2.64205-	4 0.0	+ 0-9.19611-	72145	4	60	1734	
0.0	+ 0-4.49805-	9				2145	4	60	1735	
0.0	+ 0 1.45000+	7	0	0	14	02145	4	60	1736	
0.0	+ 0 5.20787-	2 0.0	+ 0 3.99716-	3 0.0	+ 0-6.83653-	42145	4	60	1737	
0.0	+ 0-5.83480-	4 0.0	+ 0-3.00232-	4 0.0	+ 0-1.30247-	62145	4	60	1738	
0.0	+ 0-6.56362-	9				2145	4	60	1739	
0.0	+ 0 1.50000+	7	0	0	14	02145	4	60	1740	
0.0	+ 0 5.32249-	2 0.0	+ 0 4.22677-	3 0.0	+ 0-6.71457-	42145	4	60	1741	
0.0	+ 0-6.22557-	4 0.0	+ 0-3.29039-	4 0.0	+ 0-1.82869-	62145	4	60	1742	
0.0	+ 0-9.48505-	9				2145	4	60	1743	
0.0	+ 0 1.60000+	7	0	0	16	02145	4	60	1744	
0.0	+ 0 5.46914-	2 0.0	+ 0 4.61542-	3 0.0	+ 0-5.98069-	42145	4	60	1745	
0.0	+ 0-6.55377-	4 0.0	+ 0-3.61561-	4 0.0	+ 0-3.52965-	62145	4	60	1746	
0.0	+ 0-1.96763-	8 0.0	+ 0-1.50803-	10		2145	4	60	1747	
0.0	+ 0 1.70000+	7	0	0	16	02145	4	60	1748	
0.0	+ 0 5.52725-	2 0.0	+ 0 4.92910-	3 0.0	+ 0-4.71618-	42145	4	60	1749	
0.0	+ 0-6.37366-	4 0.0	+ 0-3.64671-	4 0.0	+ 0-6.59757-	62145	4	60	1750	
0.0	+ 0-3.90985-	8 0.0	+ 0-3.21316-	10		2145	4	60	1751	
0.0	+ 0 1.80000+	7	0	0	16	02145	4	60	1752	
0.0	+ 0 5.53847-	2 0.0	+ 0 5.19849-	3 0.0	+ 0-3.17257-	42145	4	60	1753	
0.0	+ 0-5.90895-	4 0.0	+ 0-3.49966-	4 0.0	+ 0-1.18566-	52145	4	60	1754	

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0-7.53757-	8 0.0	+ 0-6.60561-	10			2145	4	60	1755
0.0	+ 0 1.90000+	7	0	0	16		02145	4	60	1756
0.0	+ 0 5.54018-	2 0.0	+ 0 5.44785-	3 0.0	+ 0-1.58668-		42145	4	60	1757
0.0	+ 0-5.37421-	4 0.0	+ 0-3.29704-	4 0.0	+ 0-2.02779-		52145	4	60	1758
0.0	+ 0-1.40420-	7 0.0	+ 0-1.30643-	9			2145	4	60	1759
0.0	+ 0 2.00000+	7	0	0	16		02145	4	60	1760
0.0	+ 0 5.55724-	2 0.0	+ 0 5.69167-	3 0.0	+ 0-1.09349-		52145	4	60	1761
0.0	+ 0-4.91022-	4 0.0	+ 0-3.12952-	4 0.0	+ 0-3.26967-		52145	4	60	1762
0.0	+ 0-2.50911-	7 0.0	+ 0-2.48080-	9			2145	4	60	1763
							2145	4	0	1764
2.10450+	4 4.45698+	1	0	1	0		02145	4	61	1765
0.0	+ 0 4.45698+	1	0	2	0		02145	4	61	1766
0.0	+ 0 0.0	+ 0	0	0	1		252145	4	61	1767
	25	2	0	0	0		02145	4	61	1768
0.0	+ 0 1.84100+	6	0	0	2		02145	4	61	1769
0.0	+ 0 0.0	+ 0	0	0			2145	4	61	1770
0.0	+ 0 1.94263+	6	0	0	4		02145	4	61	1771
0.0	+ 0 3.03188-	4 0.0	+ 0-3.17144-	6			2145	4	61	1772
0.0	+ 0 2.00000+	6	0	0	4		02145	4	61	1773
0.0	+ 0 5.47927-	4 0.0	+ 0-7.63006-	6			2145	4	61	1774
0.0	+ 0 3.00000+	6	0	0	8		02145	4	61	1775
0.0	+ 0 6.48637-	3 0.0	+ 0-2.61499-	4 0.0	+ 0 1.81336-		72145	4	61	1776
0.0	+ 0-2.76950-	9					2145	4	61	1777
0.0	+ 0 4.00000+	6	0	0	8		02145	4	61	1778
0.0	+ 0 9.45793-	3 0.0	+ 0-4.17112-	4 0.0	+ 0 2.76968-		62145	4	61	1779
0.0	+ 0-6.12699-	8					2145	4	61	1780
0.0	+ 0 5.00000+	6	0	0	8		02145	4	61	1781
0.0	+ 0 1.18685-	2 0.0	+ 0-2.22122-	4 0.0	+ 0 1.82688-		52145	4	61	1782
0.0	+ 0-9.32975-	8					2145	4	61	1783
0.0	+ 0 6.00000+	6	0	0	10		02145	4	61	1784
0.0	+ 0 1.62623-	2 0.0	+ 0 3.42702-	4 0.0	+ 0 5.26347-		52145	4	61	1785
0.0	+ 0-7.06912-	7 0.0	+ 0-1.90547-	9			2145	4	61	1786
0.0	+ 0 7.00000+	6	0	0	10		02145	4	61	1787
0.0	+ 0 2.21002-	2 0.0	+ 0 1.08634-	3 0.0	+ 0 6.90548-		52145	4	61	1788
0.0	+ 0-2.32613-	6 0.0	+ 0 4.32694-	9			2145	4	61	1789
0.0	+ 0 8.00000+	6	0	0	10		02145	4	61	1790
0.0	+ 0 2.79800-	2 0.0	+ 0 1.70354-	3 0.0	+ 0 1.44248-		52145	4	61	1791
0.0	+ 0-4.04467-	6 0.0	+ 0 2.52766-	8			2145	4	61	1792
0.0	+ 0 9.00000+	6	0	0	12		02145	4	61	1793
0.0	+ 0 3.30117-	2 0.0	+ 0 2.08864-	3 0.0	+ 0-1.02228-		42145	4	61	1794
0.0	+ 0-3.39666-	6 0.0	+ 0 1.04811-	7 0.0	+ 0-3.78300-		102145	4	61	1795
0.0	+ 0 1.00000+	7	0	0	12		02145	4	61	1796
0.0	+ 0 3.69781-	2 0.0	+ 0 2.32408-	3 0.0	+ 0-2.16174-		42145	4	61	1797
0.0	+ 0 1.76520-	6 0.0	+ 0 3.19420-	7 0.0	+ 0-1.20536-		92145	4	61	1798
0.0	+ 0 1.10000+	7	0	0	12		02145	4	61	1799
0.0	+ 0 4.02894-	2 0.0	+ 0 2.56539-	3 0.0	+ 0-2.64364-		42145	4	61	1800
0.0	+ 0 1.26034-	5 0.0	+ 0 7.65514-	7 0.0	+ 0 9.01801-		102145	4	61	1801
0.0	+ 0 1.15000+	7	0	0	12		02145	4	61	1802
0.0	+ 0 4.17843-	2 0.0	+ 0 2.71700-	3 0.0	+ 0-2.55962-		42145	4	61	1803
0.0	+ 0 2.00064-	5 0.0	+ 0 1.08744-	6 0.0	+ 0 1.37907-		92145	4	61	1804
0.0	+ 0 1.20000+	7	0	0	12		02145	4	61	1805
0.0	+ 0 4.32222-	2 0.0	+ 0 2.89689-	3 0.0	+ 0-2.26673-		42145	4	61	1806
0.0	+ 0 2.86537-	5 0.0	+ 0 1.47264-	6 0.0	+ 0 2.07824-		92145	4	61	1807
0.0	+ 0 1.25000+	7	0	0	12		02145	4	61	1808
0.0	+ 0 4.45667-	2 0.0	+ 0 3.10010-	3 0.0	+ 0-1.79480-		42145	4	61	1809

JAERI-M 9981

.....10.....20.....30.....40.....50.....60.....	MAT	MF	MT	SEQ
0.0	+ 0 3.79166- 5 0.0	+ 0 1.91035- 6 0.0	+ 0 3.09354-	92145	4	61	1810		
0.0	+ 0 1.30000+ 7	0	0	12	02145	4	61	1811	
0.0	+ 0 4.58232- 2 0.0	+ 0 3.32132- 3 0.0	+ 0-1.18653-	42145	4	61	1812		
0.0	+ 0 4.72364- 5 0.0	+ 0 2.38337- 6 0.0	+ 0 4.57533-	92145	4	61	1813		
0.0	+ 0 1.35000+ 7	0	0	12	02145	4	61	1814	
0.0	+ 0 4.69958- 2 0.0	+ 0 3.55359- 3 0.0	+ 0-4.84622-	52145	4	61	1815		
0.0	+ 0 5.59598- 5 0.0	+ 0 2.87437- 6 0.0	+ 0 6.74678-	92145	4	61	1816		
0.0	+ 0 1.40000+ 7	0	0	14	02145	4	61	1817	
0.0	+ 0 4.80743- 2 0.0	+ 0 3.78655- 3 0.0	+ 0 2.61769-	52145	4	61	1818		
0.0	+ 0 6.33304- 5 0.0	+ 0 3.35747- 6 0.0	+ 0 9.18703-	92145	4	61	1819		
0.0	+ 0-2.04500-10				2145	4	61	1820	
0.0	+ 0 1.45000+ 7	0	0	14	02145	4	61	1821	
0.0	+ 0 4.90463- 2 0.0	+ 0 4.01002- 3 0.0	+ 0 1.01777-	42145	4	61	1822		
0.0	+ 0 6.86928- 5 0.0	+ 0 3.87545- 6 0.0	+ 0 1.34523-	82145	4	61	1823		
0.0	+ 0-3.02696-10				2145	4	61	1824	
0.0	+ 0 1.50000+ 7	0	0	14	02145	4	61	1825	
0.0	+ 0 4.99299- 2 0.0	+ 0 4.21769- 3 0.0	+ 0 1.75452-	42145	4	61	1826		
0.0	+ 0 7.16489- 5 0.0	+ 0 4.45854- 6 0.0	+ 0 1.96616-	82145	4	61	1827		
0.0	+ 0-4.43854-10				2145	4	61	1828	
0.0	+ 0 1.60000+ 7	0	0	14	02145	4	61	1829	
0.0	+ 0 5.15181- 2 0.0	+ 0 4.57531- 3 0.0	+ 0 3.12819-	42145	4	61	1830		
0.0	+ 0 7.03507- 5 0.0	+ 0 6.09459- 6 0.0	+ 0 4.45967-	82145	4	61	1831		
0.0	+ 0-3.98364-11				2145	4	61	1832	
0.0	+ 0 1.70000+ 7	0	0	14	02145	4	61	1833	
0.0	+ 0 5.30110- 2 0.0	+ 0 4.85655- 3 0.0	+ 0 4.40435-	42145	4	61	1834		
0.0	+ 0 6.14027- 5 0.0	+ 0 8.87297- 6 0.0	+ 0 9.16044-	82145	4	61	1835		
0.0	+ 0-8.26143-11				2145	4	61	1836	
0.0	+ 0 1.80000+ 7	0	0	14	02145	4	61	1837	
0.0	+ 0 5.46536- 2 0.0	+ 0 5.09416- 3 0.0	+ 0 5.71096-	42145	4	61	1838		
0.0	+ 0 4.96267- 5 0.0	+ 0 1.32188- 5 0.0	+ 0 1.81114-	72145	4	61	1839		
0.0	+ 0-1.41003-10				2145	4	61	1840	
0.0	+ 0 1.90000+ 7	0	0	14	02145	4	61	1841	
0.0	+ 0 5.66096- 2 0.0	+ 0 5.31889- 3 0.0	+ 0 7.16111-	42145	4	61	1842		
0.0	+ 0 3.96036- 5 0.0	+ 0 1.91203- 5 0.0	+ 0 3.41237-	72145	4	61	1843		
0.0	+ 0-1.83689-10				2145	4	61	1844	
0.0	+ 0 2.00000+ 7	0	0	16	02145	4	61	1845	
0.0	+ 0 5.89159- 2 0.0	+ 0 5.54727- 3 0.0	+ 0 8.79178-	42145	4	61	1846		
0.0	+ 0 3.42970- 5 0.0	+ 0 2.60494- 5 0.0	+ 0 5.99153-	72145	4	61	1847		
0.0	+ 0-6.06495-10	+ 0-1.50050-10			2145	4	61	1848	
					2145	4	0	1849	
2.10450+	4 4.45698+ 1	0	1	0	02145	4	91	1850	
0.0	+ 0 4.45698+ 1	0	2	0	02145	4	91	1851	
0.0	+ 0 0.0 + 0	0	0	1	242145	4	91	1852	
	24	2	0	0	02145	4	91	1853	
0.0	+ 0 1.94263+ 6	0	0	2	02145	4	91	1854	
0.0	+ 0 0.0 + 0				2145	4	91	1855	
0.0	+ 0 2.00000+ 6	0	0	4	02145	4	91	1856	
0.0	+ 0 6.45012- 4 0.0	+ 0 4.24715- 6			2145	4	91	1857	
0.0	+ 0 3.00000+ 6	0	0	8	02145	4	91	1858	
0.0	+ 0 1.32184- 2 0.0	+ 0 1.26664- 3 0.0	+ 0 3.61011-	72145	4	91	1859		
0.0	+ 0 4.32632- 8				2145	4	91	1860	
0.0	+ 0 4.00000+ 6	0	0	8	02145	4	91	1861	
0.0	+ 0 1.96467- 2 0.0	+ 0 2.25622- 3 0.0	+ 0 3.93421-	62145	4	91	1862		
0.0	+ 0 7.28118- 7				2145	4	91	1863	
0.0	+ 0 5.00000+ 6	0	0	10	02145	4	91	1864	

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0	2.19079-	2 0.0	+ 0	2.53387-	3 0.0	+ 0	1.77182-	52145	4 91 1865
0.0	+ 0	3.85053-	6 0.0	+ 0	8.19103-	10			2145	4 91 1866
0.0	+ 0	6.00000+	6	0	0		10		02145	4 91 1867
0.0	+ 0	2.29938-	2 0.0	+ 0	2.65411-	3 0.0	+ 0	4.65438-	52145	4 91 1868
0.0	+ 0	1.02546-	5 0.0	+ 0	5.14303-	9			2145	4 91 1869
0.0	+ 0	7.00000+	6	0	0		12		02145	4 91 1870
0.0	+ 0	2.37933-	2 0.0	+ 0	2.76604-	3 0.0	+ 0	8.49383-	52145	4 91 1871
0.0	+ 0	1.74970-	5 0.0	+ 0	2.29633-	8 0.0	+ 0	1.88315-	112145	4 91 1872
0.0	+ 0	8.00000+	6	0	0		12		02145	4 91 1873
0.0	+ 0	2.43782-	2 0.0	+ 0	2.86167-	3 0.0	+ 0	1.23565-	42145	4 91 1874
0.0	+ 0	2.29608-	5 0.0	+ 0	7.72559-	8 0.0	+ 0	7.44577-	112145	4 91 1875
0.0	+ 0	9.00000+	6	0	0		12		02145	4 91 1876
0.0	+ 0	2.45559-	2 0.0	+ 0	2.90347-	3 0.0	+ 0	1.53369-	42145	4 91 1877
0.0	+ 0	2.57852-	5 0.0	+ 0	2.01606-	7 0.0	+ 0	2.22623-	102145	4 91 1878
0.0	+ 0	1.00000+	7	0	0		12		02145	4 91 1879
0.0	+ 0	2.44786-	2 0.0	+ 0	2.90952-	3 0.0	+ 0	1.71304-	42145	4 91 1880
0.0	+ 0	2.69152-	5 0.0	+ 0	4.24318-	7 0.0	+ 0	5.11387-	102145	4 91 1881
0.0	+ 0	1.10000+	7	0	0		14		02145	4 91 1882
0.0	+ 0	2.42781-	2 0.0	+ 0	2.89358-	3 0.0	+ 0	1.82214-	42145	4 91 1883
0.0	+ 0	2.80361-	5 0.0	+ 0	7.57164-	7 0.0	+ 0	1.00175-	92145	4 91 1884
0.0	+ 0	2.16673-	12						2145	4 91 1885
0.0	+ 0	1.15000+	7	0	0		14		02145	4 91 1886
0.0	+ 0	2.41561-	2 0.0	+ 0	2.88223-	3 0.0	+ 0	1.86991-	42145	4 91 1887
0.0	+ 0	2.89628-	5 0.0	+ 0	9.63139-	7 0.0	+ 0	1.33708-	92145	4 91 1888
0.0	+ 0	2.93430-	12						2145	4 91 1889
0.0	+ 0	1.20000+	7	0	0		14		02145	4 91 1890
0.0	+ 0	2.40294-	2 0.0	+ 0	2.87128-	3 0.0	+ 0	1.91683-	42145	4 91 1891
0.0	+ 0	3.01535-	5 0.0	+ 0	1.19096-	6 0.0	+ 0	1.79325-	92145	4 91 1892
0.0	+ 0	4.47447-	12						2145	4 91 1893
0.0	+ 0	1.25000+	7	0	0		14		02145	4 91 1894
0.0	+ 0	2.39109-	2 0.0	+ 0	2.86262-	3 0.0	+ 0	1.96844-	42145	4 91 1895
0.0	+ 0	3.16526-	5 0.0	+ 0	1.43239-	6 0.0	+ 0	2.32925-	92145	4 91 1896
0.0	+ 0	5.86365-	12						2145	4 91 1897
0.0	+ 0	1.30000+	7	0	0		14		02145	4 91 1898
0.0	+ 0	2.38015-	2 0.0	+ 0	2.85633-	3 0.0	+ 0	2.02263-	42145	4 91 1899
0.0	+ 0	3.33549-	5 0.0	+ 0	1.67906-	6 0.0	+ 0	2.99485-	92145	4 91 1900
0.0	+ 0	7.56342-	12						2145	4 91 1901
0.0	+ 0	1.35000+	7	0	0		14		02145	4 91 1902
0.0	+ 0	2.37008-	2 0.0	+ 0	2.85230-	3 0.0	+ 0	2.08283-	42145	4 91 1903
0.0	+ 0	3.52934-	5 0.0	+ 0	1.92437-	6 0.0	+ 0	3.83577-	92145	4 91 1904
0.0	+ 0	1.08950-	11						2145	4 91 1905
0.0	+ 0	1.40000+	7	0	0		14		02145	4 91 1906
0.0	+ 0	2.36234-	2 0.0	+ 0	2.85255-	3 0.0	+ 0	2.14866-	42145	4 91 1907
0.0	+ 0	3.74380-	5 0.0	+ 0	2.15972-	6 0.0	+ 0	4.87606-	92145	4 91 1908
0.0	+ 0	1.44464-	11						2145	4 91 1909
0.0	+ 0	1.45000+	7	0	0		14		02145	4 91 1910
0.0	+ 0	2.35725-	2 0.0	+ 0	2.85850-	3 0.0	+ 0	2.22033-	42145	4 91 1911
0.0	+ 0	3.97597-	5 0.0	+ 0	2.38232-	6 0.0	+ 0	6.24659-	92145	4 91 1912
0.0	+ 0	1.83300-	11						2145	4 91 1913
0.0	+ 0	1.50000+	7	0	0		14		02145	4 91 1914
0.0	+ 0	2.35413-	2 0.0	+ 0	2.86842-	3 0.0	+ 0	2.29293-	42145	4 91 1915
0.0	+ 0	4.21367-	5 0.0	+ 0	2.58566-	6 0.0	+ 0	7.88952-	92145	4 91 1916
0.0	+ 0	2.56969-	11						2145	4 91 1917
0.0	+ 0	1.60000+	7	0	0		16		02145	4 91 1918
0.0	+ 0	2.35262-	2 0.0	+ 0	2.89696-	3 0.0	+ 0	2.43985-	42145	4 91 1919

JAERI-M 9981

	10	20	30	40	50	60	MAT	MF	MT	SEQ
0.0	+ 0 4.70577- 5 0.0		+ 0 2.93654- 6 0.0		+ 0 1.23341-	82145	4	91	1920	
0.0	+ 0 4.17216-11 0.0		+ 0 1.38985-13			2145	4	91	1921	
0.0	+ 0 1.70000+ 7		0	0	16	02145	4	91	1922	
0.0	+ 0 2.35651- 2 0.0		+ 0 2.93569- 3 0.0		+ 0 2.59771-	42145	4	91	1923	
0.0	+ 0 5.23583- 5 0.0		+ 0 3.24460- 6 0.0		+ 0 1.89148-	82145	4	91	1924	
0.0	+ 0 6.55140-11 0.0		+ 0 2.68359-13			2145	4	91	1925	
0.0	+ 0 1.80000+ 7		0	0	16	02145	4	91	1926	
0.0	+ 0 2.36309- 2 0.0		+ 0 2.97908- 3 0.0		+ 0 2.76375-	42145	4	91	1927	
0.0	+ 0 5.80449- 5 0.0		+ 0 3.52924- 6 0.0		+ 0 2.83542-	82145	4	91	1928	
0.0	+ 0 1.10686-10 0.0		+ 0 4.10851-13			2145	4	91	1929	
0.0	+ 0 1.90000+ 7		0	0	16	02145	4	91	1930	
0.0	+ 0 2.36963- 2 0.0		+ 0 3.02114- 3 0.0		+ 0 2.92704-	42145	4	91	1931	
0.0	+ 0 6.37463- 5 0.0		+ 0 3.81794- 6 0.0		+ 0 4.15425-	82145	4	91	1932	
0.0	+ 0 1.69668-10 0.0		+ 0 7.79680-13			2145	4	91	1933	
0.0	+ 0 2.00000+ 7		0	0	16	02145	4	91	1934	
0.0	+ 0 2.37638- 2 0.0		+ 0 3.06088- 3 0.0		+ 0 3.08186-	42145	4	91	1935	
0.0	+ 0 6.92862- 5 0.0		+ 0 4.12409- 6 0.0		+ 0 5.85368-	82145	4	91	1936	
0.0	+ 0 2.54156-10 0.0		+ 0 1.23070-12			2145	4	0	1937	
						2145	4	0	1938	
						2145	0	0	1939	
							0	0	0	1940
							-1	0	0	0