

ISTITUTO NAZIONALE DI FISICA NUCLEARE

Sezione di Bari

INFN/BE-80/3  
18 Marzo 1980

R. De Leo, G. D'Erasmus, E. M. Fiore, S. Micheletti, A. Pantaleo  
and M. Pignanelli: DIFFERENTIAL CROSS SECTION AND  
SPIN-FLIP PROBABILITY DATA IN 14 - 45 MeV PROTON  
SCATTERING FROM  $^{12}\text{C}$ ,  $^{24}\text{Mg}$ ,  $^{28}\text{Si}$  AND  $^{32}\text{S}$ .

INFN/BE-80/3  
18 Marzo 1980

DIFFERENTIAL CROSS SECTION AND SPIN-FLIP PROBABILITY DATA IN 14-45 MeV  
PROTON SCATTERING FROM  $^{12}\text{C}$ ,  $^{24}\text{Mg}$ ,  $^{28}\text{Si}$  AND  $^{32}\text{S}$ .

R. De Leo, G. D'Erasmus, E. M. Fiore, A. Pantaleo  
Istituto di Fisica dell'Università di Bari, and INFN, Sezione di Bari

S. Micheletti and M. Pignanelli  
Istituto di Fisica dell'Università di Milano, and INFN, Sezione di Milano.

1. - INTRODUCTION.

The aim of the present report is to collect in numerical tables the cross sections and spin-flip probabilities (SFP) measured in the scattering of 14-45 MeV protons from  $^{12}\text{C}$ ,  $^{24}\text{Mg}$ ,  $^{28}\text{Si}$  and  $^{32}\text{S}$ . As some of these data appeared previously<sup>(1)</sup>, we report here only the ones in Table I. These measurements were undertaken to study the virtual excitation of giant resonances<sup>(2-8)</sup>.

The data presented have been collected at the Milan AVF Cyclotron and most of them have been published with drawings in Refs. (2, 3, 4).

2. - EXPERIMENTAL SET UP AND TECHNIQUES.

As detailed descriptions of the experimental apparatus can be found in Refs. (1-6), only general informations are given here.

The data were taken with the 20-45 MeV proton analyzed (energy resolution  $\sim 30$  keV) beam of the Milan Cyclotron and with a 60 cm diameter scattering chamber. Lower energies (below 20 MeV) were obtained by means of Be absorbers placed before the analyzing magnet.

The scattered protons were detected by means of 5 mm thick totally depleted surface barrier silicon detectors. When needed, stacks of two detectors were used. Only for highest energy measurements on  $^{12}\text{C}$ , absorbers were placed in front of the detectors.

In SFP measurements, gamma-rays were detected by means of a 5 cm x 5 cm NaI(Tl) cylindrical crystal positioned 30 cm away from the target outside the scattering chamber and surrounded by a lead, 10 cm thick, shield.

The angular resolution of proton and gamma detectors was kept around  $2^\circ$ - $3^\circ$  and  $4^\circ$  respectively.

TABLE I - Numerical data presented at the reported incident energies.

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $^{12}\text{C}$  | : Differential spin-flip probability in the inelastic scattering to the $2_1^+$ (4.43 MeV) level at $E_p = 15.9, 17.5, 18.5, 20.0, 22.6, 24.6, 26.2, 27.3, 28.8, 29.9, 33.1$ and $35.3$ MeV.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| $^{24}\text{Mg}$ | : Differential cross sections for inelastic scattering to the $4_1^+$ (4.12 MeV), $2_2^+$ (4.24 MeV), $3_1^+$ (5.22 MeV) and $4_2^+$ (6.01 MeV) levels at $E_p = 15.49, 16.49, 17.17, 18.54, 19.51, 20.53, 21.58, 22.51, 23.59, 26.55$ and $35.24$ MeV. In addition differential cross sections for the elastic and inelastic scattering to the $2_1^+$ (1.37 MeV) level at the following energies $E_p = 14.5, 17.59, 24.5, 25.5$ and $28.61$ MeV, not reported in Ref. (1), are presented.<br><br>Differential spin-flip probability in the inelastic scattering to the $2_1^+$ (1.37 MeV) level at $E_p = 14.5, 15.5, 16.5, 17.59, 18.54, 19.51, 20.53, 21.6, 22.5, 23.6, 24.5, 25.5, 26.6, 27.5, 28.61, 29.5, 30.3, 30.8, 31.38, 32.23, 33.02, 35.34$ and $38.38$ MeV.                                                         |
| $^{28}\text{Si}$ | : Differential cross sections for the inelastic scattering to the $4_1^+$ (4.62 MeV), $0_2^+$ (4.98 MeV) and $3_1^+$ (6.28 MeV) levels and the unresolved doublet [ $3_1^-$ (6.88 MeV), $4_2^+$ (6.89 MeV)] where the $3_1^-$ cross section is dominant <sup>(3)</sup> , at $E_p = 14.26, 15.34, 15.83, 16.3, 16.8, 17.24, 17.67, 18.18, 18.73, 19.23, 19.7, 20.17, 21.35, 22.7, 23.6, 24.24, 25.44, 26.34, 27.3, 28.37, 29.47, 30.5, 31.53, 32.47, 33.71, 34.73, 35.97, 37.21, 38.59$ and $40.21$ MeV.<br><br>Differential spin-flip probability in the inelastic scattering to the $2_1^+$ (1.78 MeV) level at $E_p = 16.3, 17.24, 17.67, 18.18, 18.73, 19.23, 19.7, 20.17, 21.35$ and $22.7$ MeV.                                                                                                                               |
| $^{32}\text{S}$  | : Differential cross sections for the elastic and inelastic scattering to the $2_1^+$ (2.23 MeV) level at $E_p = 18.24, 20.37, 23.24, 24.95, 26.55$ and $29.64$ MeV.<br><br>Differential cross sections for the inelastic scattering to the $0_2^+$ (3.78 MeV), $2_2^+$ (4.28 MeV), $4_1^+$ (4.46 MeV), $1_1^+$ (4.70 MeV), $3_1^-$ (5.01 MeV), $3_1^+$ (5.41 MeV), $2_3^+$ (5.55 MeV), $1_1^-$ (5.80 MeV), $2_1^-$ (6.22 MeV) and $4_2^+$ (6.41 MeV) levels at $E_p = 20.37$ MeV.<br><br>Differential cross sections for the inelastic scattering to the $2_2^+$ , $4_1^+$ and $4_2^+$ levels at $E_p = 24.95$ MeV.<br><br>Differential spin-flip probability in the elastic scattering to the $2_1^+$ (2.23 MeV) level at $E_p = 15.5, 15.9, 16.4, 17.4, 18.19, 19.07, 20.25, 21.2, 23.16, 26.47, 29.56, 31.97$ and $36.26$ MeV. |

Informations on target used are given in Table II.

TABLE II

| Nucleus          | Target                                                                     | Isotopic<br>% enrichment | Thickness<br>mg/cm <sup>2</sup> |
|------------------|----------------------------------------------------------------------------|--------------------------|---------------------------------|
| <sup>12</sup> C  | graphite foils and<br>(C <sub>3</sub> H <sub>4</sub> ) <sub>n</sub> sheets | natural                  | 10-30                           |
| <sup>24</sup> Mg | self-supporting foil                                                       | > 99.98                  | 1.05; 8.1                       |
| <sup>28</sup> Si | self-supporting foil                                                       | natural                  | 4.47; 11.2                      |
| <sup>32</sup> S  | evaporated on a Au<br>backing (0.6 mg/cm <sup>2</sup> )                    | natural                  | 3-6; 10-15                      |

Two target thicknesses were generally employed: the thinner one was used for cross section measurements and the thicker one for SFP measurements. The energy loss in the target was taken into account in determining the effective incident energies at which the measurement are given.

The overall energy resolution of data presented is in general 150 keV for cross sections and 350 keV for SFP.

### 3. - EXPERIMENTAL RESULTS.

The unfolding of the experimental data for cross sections and SFP required particular care in the following cases:

- In the presence of contaminants in the target. We found oxygen in the <sup>24</sup>Mg target; its contribution is hidden at forward angles in the elastic peak. We estimated this contribution and subtracted<sup>(4)</sup> it from <sup>24</sup>Mg elastic data presented.
- When the peaks of the excited levels did not appear well separated in the spectra as in the case of the 4<sub>1</sub><sup>+</sup> and 2<sub>2</sub><sup>+</sup> levels of <sup>24</sup>Mg, or in the case of the unresolved doublet (3<sub>1</sub><sup>+</sup>, 4<sub>2</sub><sup>+</sup>) of <sup>28</sup>Si and in some <sup>32</sup>S spectrum. In these cases an automatic peak-fitting program was employed to determine the relative intensities of the unresolved levels.

The errors following SFP data represent only the statistical indeterminacy is very low for elastic cross sections that, however, have an estimated overall uncertainty of 5%. This is also the case of inelastic cross sections with the exception of some weakly excited levels for which the statistical errors and the background subtraction process increase the overall indeterminacy to 10-15%.

REFERENCES.

- (1) - R. De Leo, G. D'Erasmus, E. Fabrici, S. Micheletti, A. Pantaleo, M. Pignanelli and F. Resmini, Report INFN/BE-78/8 (1978).
- (2) - R. De Leo, G. D'Erasmus, F. Ferrero, A. Pantaleo and M. Pignanelli, Nuclear Phys. A254, 156 (1975).
- (3) - R. De Leo, G. D'Erasmus, A. Pantaleo, G. Pasquariello, G. Viesti, M. Pignanelli and H. V. Geramb, Phys. Rev. C19, 646 (1979).
- (4) - R. De Leo, G. D'Erasmus, E. M. Fiore, A. Pantaleo, M. Pignanelli and H. V. Geramb, Phys. Rev. C20, 13 (1979).
- (5) - R. De Leo et al., to be published.
- (6) - R. De Leo et al., to be published.
- (7) - R. De Leo et al., to be published.
- (8) - R. De Leo et al., to be published.

INCIDENT ENERGY= 15.90 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 110.52     | 0.2265 | 0.0240 |
| 129.68     | 0.2527 | 0.0160 |
| 148.28     | 0.1541 | 0.0267 |

INCIDENT ENERGY= 18.50 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 16.44      | 0.0540 | 0.0120 |
| 27.35      | 0.0250 | 0.0090 |
| 38.18      | 0.0580 | 0.0130 |
| 48.93      | 0.0620 | 0.0110 |
| 59.55      | 0.0990 | 0.0110 |
| 70.04      | 0.0930 | 0.0100 |
| 80.37      | 0.1130 | 0.0110 |
| 90.54      | 0.0690 | 0.0150 |
| 100.53     | 0.1250 | 0.0160 |
| 110.37     | 0.1830 | 0.0190 |
| 120.04     | 0.1930 | 0.0220 |
| 129.55     | 0.2344 | 0.0240 |
| 138.96     | 0.1917 | 0.0200 |
| 148.18     | 0.1200 | 0.0180 |
| 157.35     | 0.0850 | 0.0150 |
| 166.44     | 0.0230 | 0.0120 |

INCIDENT ENERGY= 22.60 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 16.40      | 0.0570 | 0.0120 |
| 27.29      | 0.0260 | 0.0090 |
| 38.11      | 0.0700 | 0.0100 |
| 48.84      | 0.0960 | 0.0070 |
| 59.45      | 0.1130 | 0.0100 |
| 69.92      | 0.1370 | 0.0120 |
| 80.25      | 0.0990 | 0.0150 |
| 90.41      | 0.0980 | 0.0170 |
| 100.41     | 0.1050 | 0.0180 |
| 110.25     | 0.1350 | 0.0170 |
| 119.92     | 0.1740 | 0.0200 |
| 129.45     | 0.2440 | 0.0240 |
| 138.64     | 0.2570 | 0.0190 |
| 148.11     | 0.2970 | 0.0200 |
| 157.29     | 0.2650 | 0.0220 |
| 166.40     | 0.2710 | 0.0230 |

INCIDENT ENERGY= 17.50 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 70.08      | 0.0944 | 0.0121 |
| 80.50      | 0.0990 | 0.0190 |
| 110.42     | 0.1878 | 0.0209 |
| 129.60     | 0.2213 | 0.0198 |
| 148.22     | 0.1460 | 0.0125 |
| 166.45     | 0.0650 | 0.0082 |

INCIDENT ENERGY= 20.00 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 69.98      | 0.1630 | 0.0090 |
| 80.32      | 0.2040 | 0.0070 |
| 105.42     | 0.1300 | 0.0100 |
| 110.32     | 0.1329 | 0.0160 |
| 129.51     | 0.2362 | 0.0230 |
| 138.89     | 0.3110 | 0.0160 |
| 148.16     | 0.3476 | 0.0260 |
| 157.32     | 0.2260 | 0.0200 |
| 166.42     | 0.1960 | 0.0220 |

INCIDENT ENERGY= 24.60 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 27.27      | 0.0210 | 0.0060 |
| 38.08      | 0.0550 | 0.0090 |
| 48.80      | 0.0780 | 0.0050 |
| 59.40      | 0.0830 | 0.0060 |
| 69.87      | 0.0820 | 0.0070 |
| 80.19      | 0.0360 | 0.0080 |
| 90.35      | 0.0220 | 0.0080 |
| 100.35     | 0.0660 | 0.0100 |
| 110.19     | 0.1080 | 0.0130 |
| 119.87     | 0.2070 | 0.0180 |
| 129.40     | 0.2440 | 0.0210 |
| 138.80     | 0.2990 | 0.0240 |
| 148.68     | 0.3120 | 0.0280 |
| 157.27     | 0.2940 | 0.0310 |
| 166.29     | 0.3060 | 0.0260 |

INCIDENT ENERGY= 27.30 MEV

INCIDENT ENERGY= 26.20 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 40.10      | 0.0630 | 0.0080 |
| 100.24     | 0.0240 | 0.0100 |
| 152.64     | 0.3560 | 0.0210 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 38.04      | 0.0441 | 0.0060 |
| 48.74      | 0.0500 | 0.0060 |
| 59.34      | 0.0820 | 0.0090 |
| 69.80      | 0.1300 | 0.0170 |
| 80.12      | 0.1270 | 0.0200 |
| 90.28      | 0.0860 | 0.0120 |
| 100.28     | 0.0270 | 0.0100 |
| 110.12     | 0.1100 | 0.0150 |
| 119.80     | 0.2820 | 0.0230 |
| 129.34     | 0.3590 | 0.0260 |
| 138.74     | 0.4600 | 0.0330 |
| 148.04     | 0.4910 | 0.0340 |
| 157.24     | 0.4430 | 0.0470 |
| 166.37     | 0.4560 | 0.0500 |

INCIDENT ENERGY= 23.30 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 27.22      | 0.0160 | 0.0070 |
| 38.02      | 0.0400 | 0.0070 |
| 48.73      | 0.0570 | 0.0060 |
| 59.32      | 0.1060 | 0.0090 |
| 69.78      | 0.1970 | 0.0160 |
| 74.96      | 0.1920 | 0.0170 |
| 80.09      | 0.1510 | 0.0190 |
| 90.25      | 0.1060 | 0.0180 |
| 100.22     | 0.0730 | 0.0170 |
| 110.09     | 0.0990 | 0.0220 |
| 119.78     | 0.3300 | 0.0370 |
| 129.32     | 0.5430 | 0.0580 |
| 138.73     | 0.5920 | 0.0540 |
| 148.02     | 0.5280 | 0.0520 |
| 157.23     | 0.4280 | 0.0540 |
| 166.36     | 0.5340 | 0.0820 |

INCIDENT ENERGY= 29.90 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 38.01      | 0.0280 | 0.0060 |
| 48.71      | 0.0350 | 0.0080 |
| 59.30      | 0.0990 | 0.0130 |
| 69.76      | 0.1440 | 0.0150 |
| 80.07      | 0.1250 | 0.0150 |
| 90.23      | 0.0740 | 0.0140 |
| 100.23     | 0.0470 | 0.0180 |
| 110.07     | 0.1530 | 0.0190 |
| 119.76     | 0.3170 | 0.0360 |
| 129.30     | 0.5040 | 0.0390 |
| 138.71     | 0.5100 | 0.0430 |
| 148.01     | 0.4380 | 0.0350 |
| 157.22     | 0.4390 | 0.0410 |
| 166.35     | 0.4120 | 0.0430 |

INCIDENT ENERGY= 33.10 MEV

INCIDENT ENERGY= 35.30 MEV

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

12C(2+,4.43 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 37.98      | 0.0500 | 0.0060 |
| 48.68      | 0.0570 | 0.0050 |
| 59.26      | 0.0130 | 0.0080 |
| 69.72      | 0.0990 | 0.0120 |
| 80.03      | 0.1040 | 0.0160 |
| 90.19      | 0.0520 | 0.0130 |
| 100.19     | 0.0740 | 0.0170 |
| 110.03     | 0.0890 | 0.0250 |
| 119.72     | 0.2700 | 0.0310 |
| 129.26     | 0.3900 | 0.0370 |
| 138.68     | 0.3960 | 0.0370 |
| 147.98     | 0.3600 | 0.0260 |
| 157.20     | 0.4250 | 0.0390 |
| 166.34     | 0.3390 | 0.0360 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 37.97      | 0.0570 | 0.0090 |
| 48.66      | 0.0320 | 0.0070 |
| 59.24      | 0.0630 | 0.0120 |
| 69.70      | 0.0890 | 0.0190 |
| 80.00      | 0.1100 | 0.0160 |
| 90.16      | 0.0570 | 0.0240 |
| 100.16     | 0.0540 | 0.0150 |
| 110.00     | 0.1410 | 0.0400 |
| 119.69     | 0.2280 | 0.0520 |
| 129.24     | 0.3950 | 0.0380 |
| 138.66     | 0.4130 | 0.0360 |
| 147.97     | 0.4400 | 0.0360 |
| 157.19     | 0.4880 | 0.0470 |
| 163.50     | 0.3620 | 0.0580 |

INCIDENT ENERGY= 14.50 MEV

24MG GROUND STATE

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.00  | 0.5420E+03 |
| 36.40  | 0.1138E+03 |
| 46.70  | 0.9900E+01 |
| 57.00  | 0.8200E+01 |
| 67.20  | 0.2410E+02 |
| 77.30  | 0.2760E+02 |
| 87.40  | 0.1890E+02 |
| 97.40  | 0.8800E+01 |
| 107.30 | 0.3000E+01 |
| 117.20 | 0.2100E+01 |
| 127.00 | 0.3500E+01 |
| 136.70 | 0.4900E+01 |
| 146.40 | 0.5400E+01 |
| 156.00 | 0.6200E+01 |
| 165.60 | 0.7900E+01 |

INCIDENT ENERGY= 17.59 MEV

24MG GROUND STATE

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.00  | 0.5140E+03 |
| 36.40  | 0.8540E+02 |
| 46.70  | 0.6900E+01 |
| 57.00  | 0.2550E+02 |
| 67.20  | 0.3610E+02 |
| 77.30  | 0.2540E+02 |
| 87.40  | 0.1200E+02 |
| 97.40  | 0.5800E+01 |
| 107.30 | 0.4700E+01 |
| 117.20 | 0.4000E+01 |
| 127.00 | 0.3700E+01 |
| 136.70 | 0.4900E+01 |
| 146.40 | 0.6700E+01 |
| 156.00 | 0.6700E+01 |
| 165.60 | 0.4800E+01 |

INCIDENT ENERGY= 24.50 MEV

24MG GROUND STATE

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.02  | 0.4382E+03 |
| 36.38  | 0.6650E+02 |
| 46.70  | 0.2060E+02 |
| 57.00  | 0.3080E+02 |
| 67.20  | 0.2840E+02 |
| 77.30  | 0.1150E+02 |
| 87.40  | 0.3800E+01 |
| 97.40  | 0.3500E+01 |
| 107.30 | 0.4200E+01 |
| 117.20 | 0.3000E+01 |
| 127.00 | 0.1600E+01 |
| 136.70 | 0.1100E+01 |
| 146.40 | 0.1100E+01 |
| 156.00 | 0.9000E+00 |
| 165.60 | 0.5000E+00 |

INCIDENT ENERGY= 25.50 MEV

24MG GROUND STATE

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.02  | 0.4755E+03 |
| 36.38  | 0.6790E+02 |
| 46.70  | 0.2180E+02 |
| 56.97  | 0.4070E+02 |
| 67.18  | 0.2910E+02 |
| 77.31  | 0.1110E+02 |
| 87.39  | 0.3900E+01 |
| 97.40  | 0.3900E+01 |
| 107.32 | 0.3900E+01 |
| 117.18 | 0.2700E+01 |
| 126.97 | 0.1500E+01 |
| 136.70 | 0.1000E+01 |
| 146.38 | 0.9000E+00 |
| 156.02 | 0.8500E+00 |
| 165.62 | 0.7800E+00 |

INCIDENT ENERGY= 28.61 MEV

24MG GROUND STATE

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.02  | 0.4067E+03 |
| 36.38  | 0.6170E+02 |
| 46.70  | 0.2850E+02 |
| 56.97  | 0.3940E+02 |
| 67.18  | 0.2070E+02 |
| 77.31  | 0.7300E+01 |
| 87.40  | 0.3600E+01 |
| 97.40  | 0.3600E+01 |
| 107.32 | 0.2900E+01 |
| 117.18 | 0.1600E+01 |
| 126.97 | 0.9000E+00 |
| 136.70 | 0.6600E+00 |
| 146.28 | 0.5600E+00 |
| 156.02 | 0.4800E+00 |
| 165.62 | 0.3800E+00 |

INCIDENT ENERGY= 14.50 MEV

24MG 2+(1.37 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.10  | 0.1893E+02 |
| 36.40  | 0.1706E+02 |
| 46.80  | 0.1564E+02 |
| 57.10  | 0.1341E+02 |
| 67.30  | 0.1057E+02 |
| 77.40  | 0.8850E+01 |
| 87.50  | 0.7750E+01 |
| 97.50  | 0.7100E+01 |
| 107.40 | 0.6610E+01 |
| 117.30 | 0.6600E+01 |
| 127.10 | 0.7200E+01 |
| 136.80 | 0.8070E+01 |
| 146.40 | 0.8210E+01 |
| 156.10 | 0.7000E+01 |
| 165.70 | 0.4910E+01 |

INCIDENT ENERGY= 17.59 MEV

24MG 2+(1.37 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.10  | 0.1623E+02 |
| 36.40  | 0.1582E+02 |
| 46.80  | 0.1490E+02 |
| 57.10  | 0.1200E+02 |
| 67.30  | 0.9470E+01 |
| 77.40  | 0.9000E+01 |
| 87.50  | 0.9300E+01 |
| 97.50  | 0.8380E+01 |
| 107.40 | 0.6440E+01 |
| 117.30 | 0.4950E+01 |
| 127.10 | 0.4700E+01 |
| 136.80 | 0.5340E+01 |
| 146.40 | 0.5340E+01 |
| 156.10 | 0.4080E+01 |
| 165.70 | 0.2250E+01 |

INCIDENT ENERGY= 24.50 MEV

24MG 2+(1.37 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.01  | 0.2106E+02 |
| 36.40  | 0.1672E+02 |
| 46.80  | 0.1145E+02 |
| 57.00  | 0.6900E+01 |
| 67.20  | 0.6390E+01 |
| 77.40  | 0.6690E+01 |
| 87.50  | 0.5660E+01 |
| 97.50  | 0.3360E+01 |
| 107.40 | 0.1860E+01 |
| 117.20 | 0.1160E+01 |
| 127.00 | 0.1110E+01 |
| 136.80 | 0.1180E+01 |
| 146.70 | 0.1070E+01 |
| 156.00 | 0.6400E+00 |
| 165.60 | 0.2800E+00 |

INCIDENT ENERGY= 25.50 MEV

24MG 2+(1.37 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.05  | 0.2343E+02 |
| 36.42  | 0.1778E+02 |
| 46.75  | 0.1154E+02 |
| 57.02  | 0.6920E+01 |
| 67.24  | 0.6380E+01 |
| 77.36  | 0.6730E+01 |
| 87.47  | 0.5320E+01 |
| 97.46  | 0.3230E+01 |
| 107.59 | 0.1700E+01 |
| 117.24 | 0.1100E+01 |
| 127.02 | 0.9800E+00 |
| 136.75 | 0.1030E+01 |
| 146.42 | 0.9200E+00 |
| 156.04 | 0.6300E+00 |
| 165.64 | 0.3400E+00 |

INCIDENT ENERGY= 28.61 MEV

24MG 2+(1.37 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 26.04  | 0.2121E+02 |
| 36.42  | 0.1768E+02 |
| 46.75  | 0.1062E+02 |
| 57.02  | 0.6330E+01 |
| 67.24  | 0.5600E+01 |
| 77.37  | 0.5400E+01 |
| 87.46  | 0.3790E+01 |
| 97.46  | 0.2150E+01 |
| 107.38 | 0.1360E+01 |
| 117.24 | 0.9300E+00 |
| 127.02 | 0.7400E+00 |
| 136.75 | 0.7300E+00 |
| 146.42 | 0.8000E+00 |
| 156.04 | 0.7100E+00 |
| 165.64 | 0.4000E+00 |

INCIDENT ENERGY= 15.49 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.24  | 0.1630E+01 |
| 39.74  | 0.1360E+01 |
| 45.97  | 0.1330E+01 |
| 52.17  | 0.1560E+01 |
| 57.32  | 0.1670E+01 |
| 62.45  | 0.1760E+01 |
| 68.59  | 0.1760E+01 |
| 74.69  | 0.2080E+01 |
| 80.77  | 0.2180E+01 |
| 86.81  | 0.2260E+01 |
| 92.83  | 0.2320E+01 |
| 98.81  | 0.2360E+01 |
| 104.77 | 0.2430E+01 |
| 110.69 | 0.2350E+01 |
| 116.59 | 0.2200E+01 |
| 122.45 | 0.1910E+01 |
| 127.32 | 0.1680E+01 |
| 132.17 | 0.1370E+01 |
| 137.97 | 0.1570E+01 |
| 143.74 | 0.1670E+01 |
| 149.50 | 0.2420E+01 |
| 155.24 | 0.2660E+01 |
| 160.97 | 0.3130E+01 |
| 166.68 | 0.3040E+01 |

INCIDENT ENERGY= 16.49 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.23  | 0.1760E+01 |
| 33.48  | 0.1820E+01 |
| 39.72  | 0.1530E+01 |
| 45.94  | 0.1430E+01 |
| 62.42  | 0.1610E+01 |
| 68.56  | 0.1830E+01 |
| 74.66  | 0.2020E+01 |
| 80.74  | 0.2240E+01 |
| 86.78  | 0.2650E+01 |
| 92.80  | 0.2430E+01 |
| 92.80  | 0.2510E+01 |
| 98.78  | 0.2320E+01 |
| 110.66 | 0.1830E+01 |
| 116.56 | 0.1620E+01 |
| 122.42 | 0.1350E+01 |
| 127.29 | 0.9600E+00 |
| 132.14 | 0.1100E+01 |
| 137.94 | 0.1120E+01 |
| 143.72 | 0.1030E+01 |
| 149.48 | 0.1340E+01 |
| 155.23 | 0.1280E+01 |
| 160.96 | 0.1310E+01 |
| 166.68 | 0.1360E+01 |

INCIDENT ENERGY= 17.17 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.21  | 0.4700E+00 |
| 39.70  | 0.5700E+00 |
| 45.92  | 0.7000E+00 |
| 52.12  | 0.8800E+00 |
| 57.27  | 0.9300E+00 |
| 62.40  | 0.1050E+01 |
| 68.53  | 0.1370E+01 |
| 74.63  | 0.1260E+01 |
| 80.71  | 0.1380E+01 |
| 86.75  | 0.1430E+01 |
| 92.77  | 0.1490E+01 |
| 98.75  | 0.1450E+01 |
| 104.71 | 0.1360E+01 |
| 110.63 | 0.1190E+01 |
| 116.53 | 0.1200E+01 |
| 122.40 | 0.9200E+00 |
| 127.27 | 0.7600E+00 |
| 132.12 | 0.5500E+00 |
| 137.92 | 0.6000E+00 |
| 143.70 | 0.5000E+00 |
| 149.47 | 0.5800E+00 |
| 155.21 | 0.7200E+00 |
| 160.95 | 0.7300E+00 |
| 166.67 | 0.6100E+00 |

INCIDENT ENERGY= 18.54 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.45  | 0.5500E+00 |
| 39.69  | 0.5200E+00 |
| 45.91  | 0.5900E+00 |
| 52.10  | 0.6300E+00 |
| 57.25  | 0.7700E+00 |
| 62.38  | 0.7600E+00 |
| 68.51  | 0.1010E+01 |
| 74.61  | 0.9100E+00 |
| 80.69  | 0.9300E+00 |
| 86.73  | 0.9500E+00 |
| 92.75  | 0.1000E+01 |
| 98.73  | 0.1250E+01 |
| 104.69 | 0.1340E+01 |
| 110.61 | 0.1470E+01 |
| 116.51 | 0.1600E+01 |
| 122.38 | 0.1550E+01 |
| 127.25 | 0.1390E+01 |
| 132.10 | 0.1100E+01 |
| 137.91 | 0.8500E+00 |
| 143.69 | 0.6200E+00 |
| 149.45 | 0.6300E+00 |
| 155.20 | 0.7000E+00 |
| 160.94 | 0.8400E+00 |
| 166.96 | 0.9000E+00 |

INCIDENT ENERGY= 19.51 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.19  | 0.6100E+00 |
| 39.68  | 0.4300E+00 |
| 45.89  | 0.3400E+00 |
| 52.09  | 0.4700E+00 |
| 57.23  | 0.4000E+00 |
| 62.36  | 0.3800E+00 |
| 68.49  | 0.4500E+00 |
| 74.59  | 0.6100E+00 |
| 80.67  | 0.7000E+00 |
| 86.71  | 0.8200E+00 |
| 92.72  | 0.7900E+00 |
| 98.71  | 0.9000E+00 |
| 104.67 | 0.1070E+01 |
| 110.59 | 0.1050E+01 |
| 116.49 | 0.8500E+00 |
| 122.36 | 0.7300E+00 |
| 127.23 | 0.5900E+00 |
| 132.09 | 0.5000E+00 |
| 137.89 | 0.4300E+00 |
| 143.68 | 0.4000E+00 |
| 149.44 | 0.4200E+00 |
| 155.19 | 0.4600E+00 |
| 160.93 | 0.5100E+00 |
| 166.66 | 0.6700E+00 |

INCIDENT ENERGY= 20.53 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.43  | 0.5100E+00 |
| 39.67  | 0.4800E+00 |
| 45.88  | 0.4600E+00 |
| 52.07  | 0.5300E+00 |
| 57.22  | 0.5200E+00 |
| 62.34  | 0.5500E+00 |
| 68.47  | 0.6300E+00 |
| 74.57  | 0.6500E+00 |
| 80.65  | 0.7100E+00 |
| 86.69  | 0.8000E+00 |
| 92.71  | 0.1000E+01 |
| 98.71  | 0.1000E+01 |
| 98.69  | 0.1050E+01 |
| 104.65 | 0.1280E+01 |
| 110.57 | 0.1140E+01 |
| 116.47 | 0.1030E+01 |
| 122.34 | 0.8400E+00 |
| 127.22 | 0.8000E+00 |
| 132.07 | 0.5400E+00 |
| 137.88 | 0.4500E+00 |
| 143.67 | 0.4700E+00 |
| 149.43 | 0.5000E+00 |
| 155.19 | 0.5500E+00 |
| 160.93 | 0.7000E+00 |
| 166.65 | 0.7900E+00 |

INCIDENT ENERGY= 21.58 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.18  | 0.5200E+00 |
| 33.43  | 0.5200E+00 |
| 39.66  | 0.6000E+00 |
| 45.87  | 0.6400E+00 |
| 52.06  | 0.6000E+00 |
| 57.20  | 0.5700E+00 |
| 62.33  | 0.5800E+00 |
| 68.46  | 0.5000E+00 |
| 74.56  | 0.5400E+00 |
| 80.63  | 0.7000E+00 |
| 86.68  | 0.7600E+00 |
| 92.69  | 0.9200E+00 |
| 98.68  | 0.9800E+00 |
| 104.63 | 0.1020E+01 |
| 110.56 | 0.9300E+00 |
| 116.46 | 0.8300E+00 |
| 122.33 | 0.7000E+00 |
| 127.20 | 0.6200E+00 |
| 132.06 | 0.5400E+00 |
| 137.87 | 0.5100E+00 |
| 143.66 | 0.5200E+00 |
| 149.43 | 0.5500E+00 |
| 155.18 | 0.6500E+00 |
| 160.92 | 0.7800E+00 |
| 166.65 | 0.9700E+00 |

INCIDENT ENERGY= 23.59 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.41  | 0.7100E+00 |
| 39.64  | 0.8000E+00 |
| 45.85  | 0.6300E+00 |
| 52.04  | 0.4900E+00 |
| 57.18  | 0.5000E+00 |
| 62.30  | 0.4800E+00 |
| 68.43  | 0.4800E+00 |
| 74.53  | 0.4800E+00 |
| 80.60  | 0.4800E+00 |
| 86.65  | 0.4300E+00 |
| 92.66  | 0.4200E+00 |
| 92.66  | 0.4200E+00 |
| 98.65  | 0.4500E+00 |
| 104.60 | 0.4800E+00 |
| 110.53 | 0.4800E+00 |
| 116.43 | 0.5000E+00 |
| 122.30 | 0.5000E+00 |
| 127.18 | 0.4800E+00 |
| 132.04 | 0.4100E+00 |
| 137.85 | 0.3300E+00 |
| 143.64 | 0.2700E+00 |
| 149.41 | 0.2500E+00 |
| 155.17 | 0.2700E+00 |
| 160.91 | 0.3300E+00 |
| 166.64 | 0.4400E+00 |

INCIDENT ENERGY= 22.51 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.42  | 0.3100E+00 |
| 39.65  | 0.3800E+00 |
| 45.86  | 0.4000E+00 |
| 52.05  | 0.4600E+00 |
| 57.19  | 0.5400E+00 |
| 62.32  | 0.5500E+00 |
| 68.44  | 0.4400E+00 |
| 74.54  | 0.4500E+00 |
| 80.62  | 0.5000E+00 |
| 86.66  | 0.6400E+00 |
| 92.68  | 0.5600E+00 |
| 98.66  | 0.7800E+00 |
| 104.62 | 0.8100E+00 |
| 110.54 | 0.6800E+00 |
| 116.44 | 0.6100E+00 |
| 122.32 | 0.4600E+00 |
| 127.19 | 0.4200E+00 |
| 137.86 | 0.4100E+00 |
| 143.65 | 0.3900E+00 |
| 149.42 | 0.4000E+00 |
| 155.17 | 0.4400E+00 |
| 160.91 | 0.4900E+00 |
| 166.65 | 0.5800E+00 |

INCIDENT ENERGY= 26.55 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.40  | 0.3800E+00 |
| 39.63  | 0.4400E+00 |
| 45.84  | 0.3900E+00 |
| 52.03  | 0.4700E+00 |
| 57.17  | 0.3600E+00 |
| 62.29  | 0.5300E+00 |
| 68.42  | 0.5300E+00 |
| 74.52  | 0.5000E+00 |
| 80.59  | 0.4200E+00 |
| 86.64  | 0.3800E+00 |
| 92.65  | 0.3500E+00 |
| 92.65  | 0.3700E+00 |
| 98.64  | 0.4100E+00 |
| 104.59 | 0.4000E+00 |
| 110.52 | 0.4000E+00 |
| 116.42 | 0.3600E+00 |
| 122.29 | 0.3400E+00 |
| 127.17 | 0.3100E+00 |
| 132.03 | 0.2800E+00 |
| 137.84 | 0.2600E+00 |
| 143.63 | 0.2400E+00 |
| 149.40 | 0.2400E+00 |
| 155.16 | 0.2100E+00 |
| 160.91 | 0.2100E+00 |
| 166.64 | 0.2000E+00 |

INCIDENT ENERGY= 35.24 MEV

24MG 4+(4.12 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 24.03  | 0.7000E+00 |
| 28.20  | 0.4200E+00 |
| 33.40  | 0.2800E+00 |
| 38.59  | 0.2500E+00 |
| 44.81  | 0.2700E+00 |
| 51.00  | 0.3100E+00 |
| 57.17  | 0.3600E+00 |
| 61.44  | 0.3900E+00 |
| 69.44  | 0.4000E+00 |
| 72.49  | 0.3500E+00 |
| 75.53  | 0.3100E+00 |
| 79.58  | 0.2700E+00 |
| 84.62  | 0.2400E+00 |
| 89.64  | 0.1900E+00 |
| 95.64  | 0.1600E+00 |
| 101.61 | 0.1200E+00 |
| 107.56 | 0.1100E+00 |
| 113.47 | 0.1100E+00 |
| 119.36 | 0.1340E+00 |
| 125.22 | 0.1500E+00 |
| 131.22 | 0.1340E+00 |
| 136.87 | 0.1200E+00 |
| 142.67 | 0.1000E+00 |
| 148.44 | 0.8400E-01 |
| 154.20 | 0.7300E-01 |
| 158.99 | 0.5800E-01 |
| 163.77 | 0.5200E-01 |
| 167.60 | 0.4500E-01 |
| 170.46 | 0.3900E-01 |

INCIDENT ENERGY= 16.49 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.23  | 0.5070E+01 |
| 33.49  | 0.2550E+01 |
| 39.73  | 0.1570E+01 |
| 45.95  | 0.1450E+01 |
| 62.44  | 0.1850E+01 |
| 68.57  | 0.1730E+01 |
| 74.67  | 0.1890E+01 |
| 80.75  | 0.1630E+01 |
| 86.80  | 0.1290E+01 |
| 92.81  | 0.1230E+01 |
| 92.81  | 0.1310E+01 |
| 98.80  | 0.1080E+01 |
| 110.67 | 0.1280E+01 |
| 116.57 | 0.1440E+01 |
| 122.44 | 0.1930E+01 |
| 127.30 | 0.2390E+01 |
| 132.15 | 0.2560E+01 |
| 137.95 | 0.2850E+01 |
| 143.73 | 0.2970E+01 |
| 149.49 | 0.2780E+01 |
| 155.23 | 0.2460E+01 |
| 160.96 | 0.2350E+01 |
| 166.68 | 0.2030E+01 |

INCIDENT ENERGY= 15.49 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.25  | 0.3220E+01 |
| 39.75  | 0.2270E+01 |
| 45.98  | 0.2080E+01 |
| 52.18  | 0.1940E+01 |
| 57.33  | 0.2070E+01 |
| 62.46  | 0.2200E+01 |
| 68.60  | 0.2310E+01 |
| 74.71  | 0.2270E+01 |
| 80.78  | 0.2050E+01 |
| 86.83  | 0.1900E+01 |
| 92.85  | 0.1740E+01 |
| 92.85  | 0.1750E+01 |
| 98.83  | 0.1630E+01 |
| 104.78 | 0.1620E+01 |
| 110.71 | 0.1710E+01 |
| 116.60 | 0.1940E+01 |
| 122.46 | 0.2200E+01 |
| 127.33 | 0.2380E+01 |
| 132.18 | 0.2600E+01 |
| 137.98 | 0.2670E+01 |
| 143.75 | 0.2480E+01 |
| 149.51 | 0.2530E+01 |
| 155.25 | 0.2520E+01 |
| 160.97 | 0.2960E+01 |
| 166.69 | 0.3670E+01 |

INCIDENT ENERGY= 17.17 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.22  | 0.2270E+01 |
| 39.71  | 0.1260E+01 |
| 45.93  | 0.9500E+00 |
| 52.13  | 0.7500E+00 |
| 57.28  | 0.6700E+00 |
| 62.41  | 0.7400E+00 |
| 68.54  | 0.8200E+00 |
| 74.65  | 0.8200E+00 |
| 80.72  | 0.7800E+00 |
| 86.77  | 0.7600E+00 |
| 92.78  | 0.6900E+00 |
| 98.77  | 0.7400E+00 |
| 104.72 | 0.8700E+00 |
| 110.65 | 0.1000E+01 |
| 116.54 | 0.1110E+01 |
| 122.41 | 0.1330E+01 |
| 127.28 | 0.1330E+01 |
| 132.13 | 0.1560E+01 |
| 137.93 | 0.1750E+01 |
| 143.71 | 0.1890E+01 |
| 149.47 | 0.2210E+01 |
| 155.22 | 0.2670E+01 |
| 160.95 | 0.3330E+01 |
| 166.67 | 0.3780E+01 |

INCIDENT ENERGY= 18.54 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.46  | 0.2550E+01 |
| 39.70  | 0.1630E+01 |
| 45.92  | 0.1160E+01 |
| 52.11  | 0.9100E+00 |
| 57.26  | 0.8000E+00 |
| 62.39  | 0.7100E+00 |
| 68.52  | 0.8200E+00 |
| 74.62  | 0.1150E+01 |
| 80.70  | 0.1150E+01 |
| 86.74  | 0.1040E+01 |
| 92.76  | 0.9100E+00 |
| 98.74  | 0.8100E+00 |
| 104.70 | 0.6600E+00 |
| 110.62 | 0.5400E+00 |
| 116.52 | 0.5200E+00 |
| 122.39 | 0.5800E+00 |
| 127.96 | 0.7100E+00 |
| 132.11 | 0.8600E+00 |
| 137.92 | 0.1130E+01 |
| 143.70 | 0.1450E+01 |
| 149.46 | 0.1710E+01 |
| 155.21 | 0.1980E+01 |
| 160.94 | 0.2230E+01 |
| 166.67 | 0.2670E+01 |

INCIDENT ENERGY= 20.53 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.44  | 0.2320E+01 |
| 39.67  | 0.1530E+01 |
| 45.89  | 0.1140E+01 |
| 52.08  | 0.8600E+00 |
| 57.23  | 0.5900E+00 |
| 62.35  | 0.6200E+00 |
| 68.48  | 0.6200E+00 |
| 74.58  | 0.8300E+00 |
| 80.66  | 0.7900E+00 |
| 86.70  | 0.8800E+00 |
| 92.72  | 0.7900E+00 |
| 92.72  | 0.8100E+00 |
| 98.70  | 0.6800E+00 |
| 104.66 | 0.5700E+00 |
| 110.58 | 0.5200E+00 |
| 116.48 | 0.4600E+00 |
| 122.35 | 0.4600E+00 |
| 127.23 | 0.5100E+00 |
| 132.08 | 0.6500E+00 |
| 137.89 | 0.8200E+00 |
| 143.67 | 0.1210E+01 |
| 149.44 | 0.1550E+01 |
| 155.19 | 0.1880E+01 |
| 160.93 | 0.2150E+01 |
| 166.66 | 0.2290E+01 |

INCIDENT ENERGY= 19.51 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.20  | 0.3110E+01 |
| 39.68  | 0.1460E+01 |
| 45.90  | 0.1160E+01 |
| 52.10  | 0.1050E+01 |
| 57.24  | 0.9200E+00 |
| 62.37  | 0.8900E+00 |
| 68.50  | 0.8500E+00 |
| 74.60  | 0.8100E+00 |
| 80.68  | 0.7600E+00 |
| 86.72  | 0.8500E+00 |
| 92.74  | 0.8700E+00 |
| 92.74  | 0.9000E+00 |
| 98.72  | 0.8600E+00 |
| 104.68 | 0.7000E+00 |
| 110.60 | 0.5800E+00 |
| 116.50 | 0.6600E+00 |
| 122.37 | 0.6600E+00 |
| 127.24 | 0.7800E+00 |
| 132.10 | 0.8600E+00 |
| 137.90 | 0.1120E+01 |
| 143.68 | 0.1520E+01 |
| 149.45 | 0.1920E+01 |
| 155.20 | 0.2360E+01 |
| 160.94 | 0.2740E+01 |
| 166.66 | 0.3260E+01 |

INCIDENT ENERGY= 21.53 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.18  | 0.2430E+01 |
| 33.43  | 0.1870E+01 |
| 39.66  | 0.1340E+01 |
| 45.87  | 0.9100E+00 |
| 52.07  | 0.7700E+00 |
| 57.21  | 0.5900E+00 |
| 62.34  | 0.5900E+00 |
| 68.47  | 0.6800E+00 |
| 74.57  | 0.7900E+00 |
| 80.64  | 0.7900E+00 |
| 86.68  | 0.7400E+00 |
| 92.70  | 0.6900E+00 |
| 98.68  | 0.5700E+00 |
| 104.64 | 0.5000E+00 |
| 110.57 | 0.4300E+00 |
| 116.47 | 0.3500E+00 |
| 122.34 | 0.3700E+00 |
| 127.21 | 0.4100E+00 |
| 132.07 | 0.4600E+00 |
| 137.87 | 0.5700E+00 |
| 143.66 | 0.6800E+00 |
| 149.43 | 0.8100E+00 |
| 155.18 | 0.9800E+00 |
| 160.92 | 0.1180E+01 |
| 166.65 | 0.1370E+01 |

INCIDENT ENERGY= 22.51 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.42  | 0.1720E+01 |
| 39.65  | 0.1170E+01 |
| 45.86  | 0.9600E+00 |
| 52.06  | 0.8000E+00 |
| 57.20  | 0.7000E+00 |
| 62.32  | 0.7300E+00 |
| 68.45  | 0.9100E+00 |
| 74.55  | 0.9300E+00 |
| 80.63  | 0.8000E+00 |
| 86.67  | 0.7200E+00 |
| 92.68  | 0.4400E+00 |
| 98.67  | 0.6100E+00 |
| 104.63 | 0.6100E+00 |
| 110.55 | 0.6600E+00 |
| 116.45 | 0.6600E+00 |
| 122.32 | 0.6700E+00 |
| 127.20 | 0.6800E+00 |
| 137.86 | 0.7200E+00 |
| 143.65 | 0.8400E+00 |
| 149.42 | 0.1130E+01 |
| 155.18 | 0.1290E+01 |
| 160.92 | 0.1450E+01 |
| 166.65 | 0.1350E+01 |

INCIDENT ENERGY= 23.59 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.41  | 0.1240E+01 |
| 39.64  | 0.1030E+01 |
| 45.85  | 0.9400E+00 |
| 52.05  | 0.8600E+00 |
| 57.19  | 0.7600E+00 |
| 62.31  | 0.8400E+00 |
| 68.44  | 0.8600E+00 |
| 74.54  | 0.8500E+00 |
| 80.61  | 0.8600E+00 |
| 86.66  | 0.9300E+00 |
| 92.67  | 0.8700E+00 |
| 98.66  | 0.8700E+00 |
| 104.61 | 0.8200E+00 |
| 110.54 | 0.7900E+00 |
| 116.44 | 0.7000E+00 |
| 122.31 | 0.6000E+00 |
| 127.19 | 0.6300E+00 |
| 132.05 | 0.5200E+00 |
| 137.85 | 0.5900E+00 |
| 143.64 | 0.6900E+00 |
| 149.41 | 0.7000E+00 |
| 155.17 | 0.7400E+00 |
| 160.91 | 0.7200E+00 |
| 166.65 | 0.7100E+00 |
| 166.65 | 0.5700E+00 |

INCIDENT ENERGY= 26.55 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.41  | 0.2340E+01 |
| 39.64  | 0.1150E+01 |
| 45.85  | 0.8500E+00 |
| 52.04  | 0.7300E+00 |
| 57.18  | 0.7000E+00 |
| 62.30  | 0.7100E+00 |
| 68.43  | 0.7600E+00 |
| 74.53  | 0.7400E+00 |
| 80.60  | 0.8200E+00 |
| 86.64  | 0.6800E+00 |
| 92.66  | 0.5300E+00 |
| 98.64  | 0.4700E+00 |
| 104.60 | 0.4000E+00 |
| 110.53 | 0.3700E+00 |
| 116.43 | 0.3900E+00 |
| 122.30 | 0.3600E+00 |
| 127.18 | 0.3200E+00 |
| 132.04 | 0.3200E+00 |
| 137.85 | 0.3100E+00 |
| 143.64 | 0.3200E+00 |
| 149.41 | 0.3500E+00 |
| 155.16 | 0.3700E+00 |
| 160.91 | 0.3400E+00 |
| 166.64 | 0.3200E+00 |

INCIDENT ENERGY= 35.24 MEV

24MG 2+(4.24 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 24.03  | 0.3350E+01 |
| 28.20  | 0.2090E+01 |
| 33.40  | 0.1490E+01 |
| 38.59  | 0.9100E+00 |
| 44.81  | 0.4700E+00 |
| 51.00  | 0.3500E+00 |
| 57.17  | 0.3500E+00 |
| 61.44  | 0.4000E+00 |
| 69.44  | 0.4600E+00 |
| 72.49  | 0.4300E+00 |
| 75.53  | 0.3900E+00 |
| 79.58  | 0.3100E+00 |
| 84.62  | 0.2100E+00 |
| 89.64  | 0.1500E+00 |
| 95.64  | 0.1200E+00 |
| 101.61 | 0.1400E+00 |
| 107.56 | 0.1600E+00 |
| 113.47 | 0.1300E+00 |
| 119.36 | 0.9700E-01 |
| 125.22 | 0.7100E-01 |
| 131.22 | 0.4600E-01 |
| 136.87 | 0.4400E-01 |
| 142.67 | 0.5600E-01 |
| 148.44 | 0.7000E-01 |
| 154.20 | 0.9600E-01 |
| 158.99 | 0.8600E-01 |

INCIDENT ENERGY= 15.49 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.31  | 0.5500E+00 |
| 33.58  | 0.6700E+00 |
| 39.84  | 0.6900E+00 |
| 46.08  | 0.8500E+00 |
| 52.29  | 0.1020E+01 |
| 57.45  | 0.1140E+01 |
| 62.59  | 0.1210E+01 |
| 68.73  | 0.1210E+01 |
| 74.84  | 0.1370E+01 |
| 80.92  | 0.1380E+01 |
| 86.97  | 0.1460E+01 |
| 92.99  | 0.1410E+01 |
| 98.87  | 0.1590E+01 |
| 104.92 | 0.1950E+01 |
| 110.84 | 0.1950E+01 |
| 116.73 | 0.2130E+01 |
| 122.59 | 0.2140E+01 |
| 127.45 | 0.2220E+01 |
| 132.29 | 0.2090E+01 |
| 138.08 | 0.2140E+01 |
| 143.84 | 0.1900E+01 |
| 149.58 | 0.1700E+01 |
| 155.31 | 0.1410E+01 |
| 161.02 | 0.1140E+01 |
| 166.72 | 0.9900E+00 |

INCIDENT ENERGY= 17.17 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.27  | 0.9800E+00 |
| 33.54  | 0.1360E+01 |
| 39.79  | 0.9500E+00 |
| 46.01  | 0.8400E+00 |
| 52.22  | 0.7700E+00 |
| 57.38  | 0.7000E+00 |
| 62.51  | 0.6900E+00 |
| 68.65  | 0.7600E+00 |
| 74.76  | 0.7900E+00 |
| 80.84  | 0.7500E+00 |
| 86.89  | 0.7300E+00 |
| 92.90  | 0.7800E+00 |
| 92.90  | 0.7600E+00 |
| 98.89  | 0.8500E+00 |
| 104.84 | 0.7900E+00 |
| 110.76 | 0.7400E+00 |
| 116.65 | 0.7000E+00 |
| 122.51 | 0.6600E+00 |
| 127.38 | 0.6300E+00 |
| 132.22 | 0.5300E+00 |
| 138.01 | 0.4400E+00 |
| 143.79 | 0.3800E+00 |
| 149.54 | 0.3600E+00 |
| 155.27 | 0.2600E+00 |
| 160.99 | 0.3400E+00 |
| 166.70 | 0.3100E+00 |

INCIDENT ENERGY= 16.49 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.29  | 0.1710E+01 |
| 33.56  | 0.1650E+01 |
| 39.81  | 0.1840E+01 |
| 46.04  | 0.1810E+01 |
| 57.41  | 0.1850E+01 |
| 62.55  | 0.1780E+01 |
| 68.69  | 0.1800E+01 |
| 74.80  | 0.1470E+01 |
| 80.88  | 0.1380E+01 |
| 86.93  | 0.1180E+01 |
| 92.94  | 0.1220E+01 |
| 98.93  | 0.1300E+01 |
| 104.88 | 0.1380E+01 |
| 110.80 | 0.1400E+01 |
| 116.69 | 0.1490E+01 |
| 122.55 | 0.1450E+01 |
| 127.41 | 0.1470E+01 |
| 132.25 | 0.1420E+01 |
| 138.04 | 0.1370E+01 |
| 143.81 | 0.1140E+01 |
| 149.56 | 0.1010E+01 |
| 155.29 | 0.7700E+00 |
| 161.01 | 0.6100E+00 |
| 166.71 | 0.4800E+00 |

INCIDENT ENERGY= 18.54 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 20.98  | 0.2400E+00 |
| 39.76  | 0.4000E+00 |
| 45.99  | 0.4300E+00 |
| 52.20  | 0.4900E+00 |
| 57.35  | 0.5500E+00 |
| 62.48  | 0.7100E+00 |
| 68.62  | 0.9000E+00 |
| 74.73  | 0.8600E+00 |
| 80.80  | 0.8500E+00 |
| 86.85  | 0.7600E+00 |
| 92.87  | 0.7500E+00 |
| 98.85  | 0.7200E+00 |
| 104.80 | 0.6500E+00 |
| 110.73 | 0.6100E+00 |
| 116.62 | 0.5700E+00 |
| 122.48 | 0.5900E+00 |
| 127.35 | 0.5700E+00 |
| 132.20 | 0.5900E+00 |
| 137.99 | 0.5700E+00 |
| 143.76 | 0.6000E+00 |
| 149.52 | 0.5300E+00 |
| 155.26 | 0.4900E+00 |
| 160.98 | 0.4200E+00 |
| 166.69 | 0.3500E+00 |

INCIDENT ENERGY= 19.51 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.24  | 0.2900E+00 |
| 39.75  | 0.3300E+00 |
| 45.97  | 0.3600E+00 |
| 52.17  | 0.3700E+00 |
| 57.32  | 0.4400E+00 |
| 62.46  | 0.4900E+00 |
| 68.59  | 0.5900E+00 |
| 74.70  | 0.5000E+00 |
| 80.77  | 0.4600E+00 |
| 86.82  | 0.5100E+00 |
| 92.84  | 0.5400E+00 |
| 92.84  | 0.5200E+00 |
| 98.82  | 0.6200E+00 |
| 104.77 | 0.6300E+00 |
| 110.70 | 0.7200E+00 |
| 116.59 | 0.7900E+00 |
| 122.46 | 0.7800E+00 |
| 127.32 | 0.7800E+00 |
| 132.17 | 0.8500E+00 |
| 137.97 | 0.7600E+00 |
| 143.75 | 0.6600E+00 |
| 149.50 | 0.6100E+00 |
| 155.24 | 0.4900E+00 |
| 160.97 | 0.3300E+00 |
| 166.69 | 0.2500E+00 |

INCIDENT ENERGY= 20.53 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 39.73  | 0.2500E+00 |
| 45.95  | 0.2700E+00 |
| 52.15  | 0.2800E+00 |
| 57.30  | 0.3200E+00 |
| 62.43  | 0.4000E+00 |
| 68.57  | 0.4300E+00 |
| 74.67  | 0.4600E+00 |
| 80.75  | 0.4600E+00 |
| 86.79  | 0.4800E+00 |
| 92.81  | 0.5300E+00 |
| 92.81  | 0.5000E+00 |
| 98.79  | 0.5400E+00 |
| 104.75 | 0.4800E+00 |
| 110.67 | 0.4600E+00 |
| 116.57 | 0.4200E+00 |
| 122.43 | 0.4000E+00 |
| 127.30 | 0.3600E+00 |
| 132.15 | 0.3200E+00 |
| 137.95 | 0.2800E+00 |
| 143.73 | 0.2200E+00 |
| 149.49 | 0.1700E+00 |
| 155.23 | 0.1400E+00 |
| 160.96 | 0.1100E+00 |
| 166.68 | 0.8800E-01 |

INCIDENT ENERGY= 21.58 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.22  | 0.2100E+00 |
| 39.71  | 0.3300E+00 |
| 45.93  | 0.3500E+00 |
| 52.13  | 0.4000E+00 |
| 57.28  | 0.4200E+00 |
| 62.41  | 0.3800E+00 |
| 68.54  | 0.3500E+00 |
| 74.65  | 0.3200E+00 |
| 80.73  | 0.2900E+00 |
| 86.77  | 0.3100E+00 |
| 92.79  | 0.3100E+00 |
| 98.77  | 0.3300E+00 |
| 104.73 | 0.3500E+00 |
| 110.65 | 0.3400E+00 |
| 116.54 | 0.3800E+00 |
| 122.41 | 0.3700E+00 |
| 127.28 | 0.4000E+00 |
| 132.13 | 0.3500E+00 |
| 137.93 | 0.3200E+00 |
| 143.71 | 0.3000E+00 |
| 149.48 | 0.2700E+00 |
| 155.22 | 0.2200E+00 |
| 160.95 | 0.1900E+00 |
| 166.67 | 0.1400E+00 |

INCIDENT ENERGY= 22.51 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 39.70  | 0.3100E+00 |
| 45.92  | 0.3100E+00 |
| 52.12  | 0.3700E+00 |
| 57.26  | 0.4300E+00 |
| 62.39  | 0.4000E+00 |
| 68.53  | 0.3000E+00 |
| 74.63  | 0.2500E+00 |
| 80.70  | 0.2700E+00 |
| 86.75  | 0.2300E+00 |
| 92.77  | 0.2200E+00 |
| 98.75  | 0.3100E+00 |
| 104.70 | 0.3700E+00 |
| 110.63 | 0.3800E+00 |
| 116.53 | 0.3900E+00 |
| 122.39 | 0.4200E+00 |
| 127.26 | 0.4000E+00 |
| 137.92 | 0.3700E+00 |
| 143.70 | 0.3000E+00 |
| 149.46 | 0.2500E+00 |
| 155.21 | 0.1700E+00 |
| 160.95 | 0.1100E+00 |
| 166.67 | 0.6800E-01 |

INCIDENT ENERGY= 23.59 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.46  | 0.4500E+00 |
| 39.69  | 0.4500E+00 |
| 45.91  | 0.4800E+00 |
| 52.10  | 0.5400E+00 |
| 57.25  | 0.5300E+00 |
| 62.38  | 0.4300E+00 |
| 68.51  | 0.3300E+00 |
| 74.61  | 0.2500E+00 |
| 80.69  | 0.1900E+00 |
| 86.73  | 0.2200E+00 |
| 92.75  | 0.2100E+00 |
| 98.73  | 0.2400E+00 |
| 104.69 | 0.2700E+00 |
| 110.61 | 0.2200E+00 |
| 116.51 | 0.2700E+00 |
| 122.38 | 0.2300E+00 |
| 127.25 | 0.2300E+00 |
| 132.10 | 0.2300E+00 |
| 137.91 | 0.1800E+00 |
| 143.69 | 0.1800E+00 |
| 149.46 | 0.1400E+00 |
| 155.20 | 0.1400E+00 |
| 160.94 | 0.1100E+00 |
| 166.66 | 0.1000E+00 |

INCIDENT ENERGY= 35.24 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 24.07  | 0.4100E+00 |
| 28.24  | 0.4000E+00 |
| 33.45  | 0.3100E+00 |
| 38.64  | 0.2300E+00 |
| 44.85  | 0.2600E+00 |
| 51.06  | 0.2200E+00 |
| 57.24  | 0.1500E+00 |
| 63.39  | 0.1200E+00 |
| 69.51  | 0.1000E+00 |
| 72.56  | 0.8800E-01 |
| 75.61  | 0.7700E-01 |
| 79.66  | 0.6700E-01 |
| 84.68  | 0.5600E-01 |
| 89.72  | 0.4500E-01 |
| 95.72  | 0.3300E-01 |
| 101.69 | 0.2700E-01 |
| 107.63 | 0.2000E-01 |
| 113.55 | 0.1700E-01 |
| 118.45 | 0.1700E-01 |
| 125.29 | 0.1900E-01 |
| 131.12 | 0.1700E-01 |
| 136.93 | 0.1900E-01 |
| 142.72 | 0.1900E-01 |
| 148.49 | 0.1700E-01 |
| 154.24 | 0.1400E-01 |
| 159.02 | 0.1400E-01 |
| 163.80 | 0.1200E-01 |
| 167.61 | 0.9600E-02 |
| 170.48 | 0.7700E-02 |

INCIDENT ENERGY= 26.55 MEV

24MG 3+(5.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.45  | 0.3300E+00 |
| 39.68  | 0.2700E+00 |
| 45.90  | 0.3100E+00 |
| 52.09  | 0.4500E+00 |
| 57.24  | 0.4200E+00 |
| 62.36  | 0.3400E+00 |
| 68.49  | 0.2600E+00 |
| 74.60  | 0.2000E+00 |
| 80.67  | 0.1600E+00 |
| 86.71  | 0.1300E+00 |
| 92.73  | 0.1200E+00 |
| 98.71  | 0.1100E+00 |
| 104.67 | 0.8800E-01 |
| 110.60 | 0.9100E-01 |
| 116.49 | 0.9600E-01 |
| 122.36 | 0.9400E-01 |
| 127.24 | 0.9500E-01 |
| 132.09 | 0.9300E-01 |
| 137.90 | 0.8000E-01 |
| 143.68 | 0.5900E-01 |
| 149.45 | 0.4900E-01 |
| 155.20 | 0.4100E-01 |
| 160.93 | 0.2800E-01 |
| 166.66 | 0.2400E-01 |

INCIDENT ENERGY= 15.49 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.37  | 0.3950E+01 |
| 33.65  | 0.3390E+01 |
| 39.92  | 0.4550E+01 |
| 46.16  | 0.3560E+01 |
| 52.39  | 0.3090E+01 |
| 57.55  | 0.3350E+01 |
| 62.70  | 0.3060E+01 |
| 68.85  | 0.2790E+01 |
| 74.96  | 0.2660E+01 |
| 81.05  | 0.2490E+01 |
| 87.10  | 0.2160E+01 |
| 93.12  | 0.2090E+01 |
| 93.12  | 0.2070E+01 |
| 99.10  | 0.1950E+01 |
| 105.05 | 0.1850E+01 |
| 110.96 | 0.1440E+01 |
| 116.85 | 0.1440E+01 |
| 122.70 | 0.1230E+01 |
| 127.55 | 0.1170E+01 |
| 132.39 | 0.1080E+01 |
| 138.16 | 0.1000E+01 |
| 143.92 | 0.8000E+00 |
| 149.65 | 0.7000E+00 |
| 155.37 | 0.5600E+00 |
| 161.07 | 0.3800E+00 |
| 166.75 | 0.4300E+00 |

INCIDENT ENERGY= 16.49 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.34  | 0.6030E+01 |
| 33.62  | 0.4550E+01 |
| 39.88  | 0.3940E+01 |
| 46.12  | 0.4090E+01 |
| 62.65  | 0.2820E+01 |
| 68.79  | 0.2530E+01 |
| 74.91  | 0.2320E+01 |
| 80.99  | 0.1890E+01 |
| 87.04  | 0.1840E+01 |
| 93.06  | 0.1880E+01 |
| 93.06  | 0.1820E+01 |
| 99.04  | 0.1660E+01 |
| 104.99 | 0.1670E+01 |
| 110.91 | 0.1400E+01 |
| 116.79 | 0.1320E+01 |
| 122.65 | 0.1190E+01 |
| 127.50 | 0.1070E+01 |
| 132.34 | 0.8200E+00 |
| 138.12 | 0.7800E+00 |
| 143.88 | 0.5600E+00 |
| 149.62 | 0.5400E+00 |
| 155.34 | 0.4700E+00 |
| 161.04 | 0.4500E+00 |
| 166.74 | 0.3600E+00 |

INCIDENT ENERGY= 17.17 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.32  | 0.4300E+01 |
| 33.59  | 0.4180E+01 |
| 46.09  | 0.3230E+01 |
| 52.30  | 0.2920E+01 |
| 57.46  | 0.2610E+01 |
| 62.60  | 0.2310E+01 |
| 68.74  | 0.2240E+01 |
| 74.86  | 0.2010E+01 |
| 80.94  | 0.1840E+01 |
| 86.99  | 0.1760E+01 |
| 93.00  | 0.1790E+01 |
| 93.00  | 0.1580E+01 |
| 98.99  | 0.1550E+01 |
| 104.94 | 0.1310E+01 |
| 110.86 | 0.1180E+01 |
| 116.74 | 0.1120E+01 |
| 122.60 | 0.9200E+00 |
| 127.46 | 0.7100E+00 |
| 132.30 | 0.6700E+00 |
| 138.09 | 0.6500E+00 |
| 143.85 | 0.5600E+00 |
| 149.59 | 0.6800E+00 |
| 155.32 | 0.8000E+00 |
| 161.03 | 0.8400E+00 |
| 166.73 | 0.7900E+00 |

INCIDENT ENERGY= 18.54 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 21.01  | 0.3350E+01 |
| 39.82  | 0.3680E+01 |
| 46.05  | 0.3530E+01 |
| 52.27  | 0.3350E+01 |
| 57.42  | 0.2890E+01 |
| 62.56  | 0.2620E+01 |
| 68.70  | 0.2390E+01 |
| 74.81  | 0.2030E+01 |
| 80.89  | 0.1750E+01 |
| 86.94  | 0.1510E+01 |
| 92.96  | 0.1350E+01 |
| 92.96  | 0.1330E+01 |
| 98.94  | 0.1170E+01 |
| 104.89 | 0.1080E+01 |
| 110.81 | 0.9300E+00 |
| 116.70 | 0.8100E+00 |
| 122.56 | 0.6900E+00 |
| 127.42 | 0.5300E+00 |
| 132.27 | 0.5600E+00 |
| 138.05 | 0.5100E+00 |
| 143.82 | 0.4400E+00 |
| 149.57 | 0.3400E+00 |
| 155.30 | 0.3200E+00 |
| 161.01 | 0.2800E+00 |

INCIDENT ENERGY= 19.51 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.28  | 0.2660E+01 |
| 33.55  | 0.2770E+01 |
| 39.80  | 0.2680E+01 |
| 46.03  | 0.2390E+01 |
| 52.24  | 0.2130E+01 |
| 57.39  | 0.2150E+01 |
| 62.53  | 0.2010E+01 |
| 68.67  | 0.1770E+01 |
| 74.78  | 0.1650E+01 |
| 80.86  | 0.1400E+01 |
| 86.90  | 0.1250E+01 |
| 92.90  | 0.1120E+01 |
| 98.90  | 0.1000E+01 |
| 104.86 | 0.9000E+00 |
| 110.78 | 0.8100E+00 |
| 116.67 | 0.6800E+00 |
| 122.53 | 0.5500E+00 |
| 127.39 | 0.5600E+00 |
| 132.24 | 0.4400E+00 |
| 138.03 | 0.3300E+00 |
| 143.80 | 0.2500E+00 |
| 149.55 | 0.1800E+00 |
| 155.28 | 0.1400E+00 |
| 161.00 | 0.1100E+00 |
| 166.71 | 0.8900E-01 |

INCIDENT ENERGY= 20.53 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.53  | 0.2790E+01 |
| 39.78  | 0.2710E+01 |
| 46.01  | 0.2510E+01 |
| 52.21  | 0.2340E+01 |
| 57.37  | 0.1810E+01 |
| 62.50  | 0.1750E+01 |
| 68.64  | 0.1480E+01 |
| 74.75  | 0.1310E+01 |
| 80.82  | 0.1050E+01 |
| 86.87  | 0.8800E+00 |
| 92.89  | 0.6900E+00 |
| 92.89  | 0.7100E+00 |
| 98.87  | 0.7500E+00 |
| 104.82 | 0.6500E+00 |
| 110.75 | 0.6500E+00 |
| 116.64 | 0.6700E+00 |
| 122.50 | 0.6600E+00 |
| 127.37 | 0.5700E+00 |
| 132.21 | 0.5200E+00 |
| 138.01 | 0.4900E+00 |
| 143.78 | 0.4200E+00 |
| 149.53 | 0.3600E+00 |
| 155.27 | 0.3200E+00 |
| 160.99 | 0.2500E+00 |
| 166.70 | 0.1900E+00 |

INCIDENT ENERGY= 21.58 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 27.25  | 0.3530E+01 |
| 39.76  | 0.2870E+01 |
| 45.99  | 0.2560E+01 |
| 52.19  | 0.2340E+01 |
| 57.34  | 0.2180E+01 |
| 62.48  | 0.1900E+01 |
| 68.61  | 0.1510E+01 |
| 74.72  | 0.1170E+01 |
| 80.80  | 0.9800E+00 |
| 86.84  | 0.8100E+00 |
| 92.86  | 0.5400E+00 |
| 98.84  | 0.4600E+00 |
| 104.80 | 0.4000E+00 |
| 110.72 | 0.3700E+00 |
| 116.61 | 0.4000E+00 |
| 122.48 | 0.4000E+00 |
| 127.34 | 0.3900E+00 |
| 132.19 | 0.3700E+00 |
| 137.99 | 0.3300E+00 |
| 143.76 | 0.2800E+00 |
| 149.51 | 0.2400E+00 |
| 155.25 | 0.1900E+00 |
| 160.98 | 0.1400E+00 |
| 166.69 | 0.1000E+00 |

INCIDENT ENERGY= 22.51 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 39.74  | 0.2570E+01 |
| 45.97  | 0.2490E+01 |
| 52.17  | 0.2070E+01 |
| 57.32  | 0.2090E+01 |
| 62.45  | 0.1820E+01 |
| 68.59  | 0.1560E+01 |
| 74.69  | 0.1290E+01 |
| 80.77  | 0.1050E+01 |
| 86.82  | 0.9000E+00 |
| 92.83  | 0.5500E+00 |
| 98.82  | 0.6000E+00 |
| 104.77 | 0.5100E+00 |
| 110.69 | 0.4800E+00 |
| 116.59 | 0.4200E+00 |
| 122.45 | 0.4100E+00 |
| 127.32 | 0.3700E+00 |
| 137.97 | 0.3100E+00 |
| 143.74 | 0.2700E+00 |
| 149.50 | 0.2000E+00 |
| 155.24 | 0.1600E+00 |
| 160.97 | 0.1000E+00 |
| 166.69 | 0.9000E-01 |

INCIDENT ENERGY= 23.59 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 39.73  | 0.2670E+01 |
| 45.95  | 0.2530E+01 |
| 52.15  | 0.2280E+01 |
| 57.30  | 0.2150E+01 |
| 62.43  | 0.1900E+01 |
| 68.57  | 0.1570E+01 |
| 74.67  | 0.1350E+01 |
| 80.75  | 0.9800E+00 |
| 86.79  | 0.8000E+00 |
| 92.81  | 0.6000E+00 |
| 98.79  | 0.4300E+00 |
| 104.75 | 0.3700E+00 |
| 110.67 | 0.2900E+00 |
| 116.57 | 0.2600E+00 |
| 122.43 | 0.2600E+00 |
| 127.30 | 0.2700E+00 |
| 132.15 | 0.2800E+00 |
| 137.95 | 0.2600E+00 |
| 143.73 | 0.2300E+00 |
| 149.49 | 0.1700E+00 |
| 155.23 | 0.1300E+00 |
| 160.96 | 0.8500E-01 |
| 166.68 | 0.6300E-01 |

INCIDENT ENERGY= 26.55 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 33.48  | 0.2260E+01 |
| 39.72  | 0.2160E+01 |
| 45.94  | 0.2140E+01 |
| 52.14  | 0.2160E+01 |
| 57.28  | 0.1740E+01 |
| 62.42  | 0.1470E+01 |
| 68.55  | 0.1280E+01 |
| 74.65  | 0.1050E+01 |
| 80.73  | 0.7800E+00 |
| 86.77  | 0.6200E+00 |
| 92.79  | 0.4700E+00 |
| 98.77  | 0.3800E+00 |
| 104.73 | 0.3200E+00 |
| 110.65 | 0.2600E+00 |
| 116.55 | 0.2100E+00 |
| 122.42 | 0.1700E+00 |
| 127.28 | 0.1400E+00 |
| 132.14 | 0.1200E+00 |
| 137.94 | 0.1100E+00 |
| 143.72 | 0.8300E-01 |
| 149.48 | 0.8300E-01 |
| 155.22 | 0.5200E-01 |
| 160.95 | 0.5100E-01 |
| 166.67 | 0.5300E-01 |

INCIDENT ENERGY= 35.24 MEV

24MG 4+(6.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 38.68  | 0.1810E+01 |
| 44.90  | 0.2000E+01 |
| 51.10  | 0.1860E+01 |
| 57.28  | 0.1510E+01 |
| 63.44  | 0.1210E+01 |
| 69.57  | 0.8500E+00 |
| 72.62  | 0.5700E+00 |
| 75.67  | 0.4800E+00 |
| 79.72  | 0.4000E+00 |
| 84.76  | 0.3100E+00 |
| 89.78  | 0.2100E+00 |
| 95.78  | 0.1500E+00 |
| 101.75 | 0.1100E+00 |
| 107.69 | 0.8500E-01 |
| 113.60 | 0.7100E-01 |
| 119.48 | 0.6300E-01 |
| 125.34 | 0.6000E-01 |
| 131.17 | 0.5300E-01 |
| 136.97 | 0.4500E-01 |
| 142.75 | 0.4000E-01 |
| 148.52 | 0.4200E-01 |
| 154.27 | 0.4700E-01 |
| 159.04 | 0.4900E-01 |
| 163.81 | 0.4500E-01 |
| 167.63 | 0.4100E-01 |
| 170.49 | 0.4100E-01 |

INCIDENT ENERGY= 14.50 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.0679 | 0.0107 |
| 36.40      | 0.0733 | 0.0125 |
| 46.80      | 0.1541 | 0.0149 |
| 57.10      | 0.0692 | 0.0184 |
| 67.30      | 0.0705 | 0.0110 |
| 77.40      | 0.1109 | 0.0148 |
| 87.50      | 0.2019 | 0.0221 |
| 97.50      | 0.1886 | 0.0242 |
| 107.40     | 0.2181 | 0.0307 |
| 117.30     | 0.2092 | 0.0262 |
| 127.10     | 0.1887 | 0.0262 |
| 136.80     | 0.2734 | 0.0267 |
| 146.40     | 0.3512 | 0.0267 |
| 156.10     | 0.2937 | 0.0264 |
| 165.70     | 0.2991 | 0.0307 |

INCIDENT ENERGY= 15.50 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.1044 | 0.0273 |
| 31.30      | 0.0694 | 0.0111 |
| 36.50      | 0.0792 | 0.0136 |
| 46.80      | 0.0986 | 0.0193 |
| 57.10      | 0.1160 | 0.0174 |
| 67.30      | 0.0894 | 0.0171 |
| 72.30      | 0.1402 | 0.0163 |
| 77.40      | 0.1972 | 0.0148 |
| 87.50      | 0.1775 | 0.0217 |
| 97.50      | 0.1265 | 0.0239 |
| 107.40     | 0.1592 | 0.0307 |
| 117.30     | 0.2240 | 0.0193 |
| 127.10     | 0.1933 | 0.0262 |
| 136.80     | 0.2294 | 0.0239 |
| 146.50     | 0.2487 | 0.0248 |
| 156.10     | 0.2307 | 0.0294 |
| 160.90     | 0.2936 | 0.0326 |
| 165.70     | 0.2440 | 0.0341 |

INCIDENT ENERGY= 16.50 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.0819 | 0.0216 |
| 36.40      | 0.0875 | 0.0114 |
| 46.80      | 0.0481 | 0.0151 |
| 57.10      | 0.0648 | 0.0130 |
| 67.30      | 0.0999 | 0.0092 |
| 77.40      | 0.1101 | 0.0108 |
| 87.50      | 0.1099 | 0.0150 |
| 97.50      | 0.1194 | 0.0182 |
| 107.40     | 0.1787 | 0.0266 |
| 117.30     | 0.2157 | 0.0227 |
| 127.10     | 0.2465 | 0.0241 |
| 136.80     | 0.3098 | 0.0232 |
| 146.40     | 0.3006 | 0.0250 |
| 156.10     | 0.3911 | 0.0341 |
| 165.70     | 0.3858 | 0.0409 |

INCIDENT ENERGY= 17.59 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.0537 | 0.0157 |
| 36.40      | 0.0432 | 0.0111 |
| 46.80      | 0.0241 | 0.0189 |
| 57.10      | 0.0728 | 0.0148 |
| 67.30      | 0.1071 | 0.0114 |
| 77.40      | 0.0893 | 0.0125 |
| 87.50      | 0.1269 | 0.0173 |
| 97.50      | 0.1831 | 0.0205 |
| 107.40     | 0.1410 | 0.0250 |
| 117.30     | 0.2597 | 0.0262 |
| 127.10     | 0.2990 | 0.0284 |
| 136.80     | 0.3945 | 0.0284 |
| 146.40     | 0.3920 | 0.0268 |
| 156.10     | 0.4176 | 0.0310 |
| 165.70     | 0.4272 | 0.0455 |

INCIDENT ENERGY= 18.54 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.1239 | 0.0216 |
| 33.30      | 0.0910 | 0.0250 |
| 40.60      | 0.0773 | 0.0136 |
| 47.80      | 0.1165 | 0.0193 |
| 55.00      | 0.0989 | 0.0171 |
| 62.20      | 0.1097 | 0.0171 |
| 67.30      | 0.0966 | 0.0148 |
| 69.30      | 0.1137 | 0.0193 |
| 74.40      | 0.0825 | 0.0193 |
| 81.50      | 0.1182 | 0.0159 |
| 88.50      | 0.1503 | 0.0193 |
| 95.50      | 0.1421 | 0.0239 |
| 102.50     | 0.1580 | 0.0262 |
| 109.40     | 0.2081 | 0.0307 |
| 114.30     | 0.1444 | 0.0307 |
| 120.20     | 0.1779 | 0.0284 |
| 125.20     | 0.2081 | 0.0296 |
| 131.90     | 0.2269 | 0.0273 |
| 138.80     | 0.2740 | 0.0296 |
| 145.50     | 0.3752 | 0.0330 |
| 152.20     | 0.3752 | 0.0352 |
| 158.90     | 0.4337 | 0.0421 |
| 165.70     | 0.4709 | 0.0455 |

INCIDENT ENERGY= 19.51 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.0310 | 0.0250 |
| 36.40      | 0.0735 | 0.0144 |
| 46.80      | 0.0944 | 0.0182 |
| 57.00      | 0.1092 | 0.0171 |
| 67.30      | 0.0546 | 0.0099 |
| 77.40      | 0.0932 | 0.0114 |
| 87.50      | 0.0932 | 0.0182 |
| 97.50      | 0.1308 | 0.0239 |
| 107.40     | 0.2047 | 0.0307 |
| 117.30     | 0.2422 | 0.0262 |
| 127.10     | 0.1785 | 0.0273 |
| 136.80     | 0.1922 | 0.0262 |
| 146.40     | 0.2740 | 0.0330 |
| 156.10     | 0.3501 | 0.0395 |
| 165.70     | 0.3536 | 0.0563 |

INCIDENT ENERGY= 20.53 MEV

INCIDENT ENERGY= 21.60 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 33.30      | 0.0250 | 0.0088 |
| 40.60      | 0.0491 | 0.0148 |
| 47.80      | 0.0596 | 0.0182 |
| 55.00      | 0.0799 | 0.0193 |
| 62.20      | 0.0705 | 0.0182 |
| 67.30      | 0.0755 | 0.0125 |
| 69.30      | 0.0614 | 0.0182 |
| 74.40      | 0.0803 | 0.0125 |
| 77.40      | 0.0549 | 0.0182 |
| 81.50      | 0.0657 | 0.0136 |
| 87.50      | 0.0459 | 0.0216 |
| 95.50      | 0.1016 | 0.0250 |
| 102.50     | 0.1478 | 0.0296 |
| 109.40     | 0.2072 | 0.0341 |
| 117.30     | 0.1944 | 0.0246 |
| 125.00     | 0.2393 | 0.0341 |
| 131.90     | 0.2422 | 0.0330 |
| 138.70     | 0.3185 | 0.0415 |
| 145.50     | 0.2865 | 0.0409 |
| 152.20     | 0.2558 | 0.0352 |
| 158.90     | 0.4457 | 0.0466 |
| 165.70     | 0.3643 | 0.0523 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.0159 | 0.0205 |
| 36.40      | 0.0489 | 0.0102 |
| 46.80      | 0.0807 | 0.0159 |
| 57.00      | 0.0754 | 0.0159 |
| 67.30      | 0.0989 | 0.0114 |
| 77.40      | 0.0745 | 0.0128 |
| 87.50      | 0.0684 | 0.0202 |
| 97.50      | 0.0690 | 0.0222 |
| 107.40     | 0.1910 | 0.0296 |
| 117.30     | 0.2263 | 0.0364 |
| 127.00     | 0.1421 | 0.0341 |
| 136.80     | 0.2406 | 0.0337 |
| 146.40     | 0.2349 | 0.0387 |
| 156.10     | 0.2331 | 0.0449 |
| 165.60     | 0.1933 | 0.0625 |

INCIDENT ENERGY= 22.50 MEV

INCIDENT ENERGY= 23.60 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.0525 | 0.0159 |
| 36.40      | 0.0484 | 0.0116 |
| 46.80      | 0.0628 | 0.0163 |
| 57.00      | 0.0821 | 0.0173 |
| 67.30      | 0.0863 | 0.0102 |
| 77.40      | 0.0841 | 0.0136 |
| 87.50      | 0.0512 | 0.0215 |
| 97.50      | 0.0947 | 0.0255 |
| 107.40     | 0.1256 | 0.0305 |
| 117.30     | 0.2526 | 0.0355 |
| 127.00     | 0.2487 | 0.0415 |
| 136.80     | 0.2481 | 0.0399 |
| 146.40     | 0.2040 | 0.0441 |
| 156.10     | 0.2716 | 0.0561 |
| 165.60     | 0.3798 | 0.0671 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.0500 | 0.0205 |
| 36.40      | 0.0318 | 0.0193 |
| 46.80      | 0.0114 | 0.0271 |
| 57.00      | 0.0739 | 0.0330 |
| 67.30      | 0.0887 | 0.0387 |
| 77.40      | 0.0500 | 0.0171 |
| 87.50      | 0.1030 | 0.0251 |
| 97.50      | 0.0284 | 0.0296 |
| 107.40     | 0.1103 | 0.0409 |
| 117.30     | 0.2058 | 0.0478 |
| 127.00     | 0.2274 | 0.0409 |
| 136.80     | 0.1956 | 0.0387 |
| 146.40     | 0.2526 | 0.0398 |
| 156.10     | 0.3010 | 0.0478 |
| 165.60     | 0.3195 | 0.0648 |

INCIDENT ENERGY= 24.50 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.10      | 0.1251 | 0.0205 |
| 36.40      | 0.0762 | 0.0182 |
| 46.80      | 0.0515 | 0.0155 |
| 57.00      | 0.0648 | 0.0205 |
| 67.20      | 0.0524 | 0.0121 |
| 77.40      | 0.0807 | 0.0159 |
| 87.50      | 0.1118 | 0.0239 |
| 97.50      | 0.1369 | 0.0345 |
| 107.40     | 0.0915 | 0.0409 |
| 117.20     | 0.2717 | 0.0478 |
| 127.00     | 0.2172 | 0.0580 |
| 136.80     | 0.3471 | 0.0591 |
| 146.40     | 0.3799 | 0.0594 |
| 156.00     | 0.4048 | 0.0682 |
| 165.60     | 0.3675 | 0.0912 |

INCIDENT ENERGY= 25.50 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.05      | 0.0523 | 0.0239 |
| 36.42      | 0.0512 | 0.0227 |
| 46.75      | 0.0864 | 0.0330 |
| 57.02      | 0.1061 | 0.0384 |
| 67.24      | 0.0716 | 0.0168 |
| 77.38      | 0.0614 | 0.0227 |
| 87.47      | 0.0819 | 0.0330 |
| 97.46      | 0.1262 | 0.0390 |
| 107.39     | 0.1345 | 0.0435 |
| 117.24     | 0.1887 | 0.0421 |
| 127.02     | 0.2528 | 0.0450 |
| 136.75     | 0.3599 | 0.0557 |
| 146.42     | 0.3957 | 0.0568 |
| 156.04     | 0.3297 | 0.0671 |
| 165.64     | 0.2888 | 0.0739 |

INCIDENT ENERGY= 27.50 MEV

INCIDENT ENERGY= 26.60 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.04      | 0.0659 | 0.0227 |
| 36.42      | 0.0637 | 0.0193 |
| 46.75      | 0.0932 | 0.0352 |
| 57.02      | 0.1035 | 0.0409 |
| 67.24      | 0.0404 | 0.0171 |
| 77.38      | 0.0580 | 0.0193 |
| 87.46      | 0.0875 | 0.0364 |
| 97.46      | 0.1319 | 0.0409 |
| 107.39     | 0.1851 | 0.0512 |
| 117.24     | 0.2183 | 0.0466 |
| 127.02     | 0.4192 | 0.0531 |
| 136.75     | 0.4503 | 0.0580 |
| 146.42     | 0.3547 | 0.0671 |
| 156.04     | 0.3775 | 0.0591 |
| 165.64     | 0.3820 | 0.0762 |

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 117.24     | 0.2246 | 0.0483 |
| 127.02     | 0.2952 | 0.0527 |
| 136.74     | 0.3440 | 0.0500 |
| 146.41     | 0.3801 | 0.0487 |
| 156.04     | 0.4447 | 0.0559 |
| 165.63     | 0.4262 | 0.0651 |

INCIDENT ENERGY= 28.61 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 26.04      | 0.0766 | 0.0355 |
| 36.42      | 0.0648 | 0.0205 |
| 46.75      | 0.0077 | 0.0284 |
| 57.02      | 0.0972 | 0.0375 |
| 67.24      | 0.0432 | 0.0162 |
| 77.37      | 0.1002 | 0.0211 |
| 87.46      | 0.1336 | 0.0322 |
| 97.46      | 0.1532 | 0.0395 |
| 107.38     | 0.1253 | 0.0329 |
| 117.24     | 0.1795 | 0.0365 |
| 127.02     | 0.2997 | 0.0331 |
| 136.75     | 0.4056 | 0.0432 |
| 146.48     | 0.4795 | 0.0343 |
| 156.04     | 0.4116 | 0.0472 |
| 165.64     | 0.3959 | 0.0431 |

INCIDENT ENERGY= 29.50 MEV

INCIDENT ENERGY= 30.30 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 117.24     | 0.2601 | 0.0652 |
| 127.02     | 0.3923 | 0.0760 |
| 136.74     | 0.4548 | 0.0760 |
| 146.41     | 0.5217 | 0.0760 |
| 156.04     | 0.5943 | 0.0754 |
| 165.63     | 0.4285 | 0.0657 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 117.24     | 0.1794 | 0.0580 |
| 127.02     | 0.2938 | 0.0783 |
| 136.74     | 0.5544 | 0.0775 |
| 146.41     | 0.4656 | 0.0709 |
| 156.04     | 0.5290 | 0.0726 |
| 165.63     | 0.2333 | 0.0809 |

INCIDENT ENERGY= 30.80 MEV

INCIDENT ENERGY= 31.38 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 117.24     | 0.1717 | 0.0492 |
| 127.02     | 0.2714 | 0.0677 |
| 136.74     | 0.5184 | 0.0763 |
| 146.41     | 0.5472 | 0.0748 |
| 156.04     | 0.3670 | 0.0731 |
| 165.63     | 0.4007 | 0.0845 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 117.24     | 0.2184 | 0.0542 |
| 127.02     | 0.3144 | 0.0705 |
| 136.74     | 0.4938 | 0.0856 |
| 146.41     | 0.4980 | 0.0853 |
| 156.04     | 0.5221 | 0.0743 |
| 165.63     | 0.3453 | 0.0984 |

INCIDENT ENERGY= 32.23 MEV

INCIDENT ENERGY= 33.02 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 117.24     | 0.1083 | 0.0753 |
| 127.02     | 0.2327 | 0.1724 |
| 136.74     | 0.4659 | 0.1298 |
| 146.41     | 0.3890 | 0.1534 |
| 156.04     | 0.1863 | 0.1164 |
| 165.63     | 0.1494 | 0.1954 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 117.24     | 0.2101 | 0.0668 |
| 127.02     | 0.3525 | 0.0850 |
| 136.74     | 0.6684 | 0.1080 |
| 146.41     | 0.5123 | 0.1000 |
| 156.04     | 0.5027 | 0.0940 |
| 165.63     | 0.3471 | 0.1101 |

INCIDENT ENERGY= 35.34 MEV

INCIDENT ENERGY= 38.32 MEV

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

24MG(2+,1.37 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 117.24     | 0.2773 | 0.0658 |
| 127.02     | 0.3522 | 0.0914 |
| 136.74     | 0.3334 | 0.1012 |
| 146.41     | 0.6301 | 0.1068 |
| 156.04     | 0.4933 | 0.1001 |
| 165.63     | 0.6241 | 0.2443 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 117.24     | 0.2204 | 0.0705 |
| 127.02     | 0.2334 | 0.1209 |
| 136.74     | 0.2500 | 0.1380 |
| 146.41     | 0.6833 | 0.1454 |
| 156.04     | 0.3548 | 0.1577 |
| 165.63     | 0.5152 | 0.1570 |

INCIDENT ENERGY= 14.26 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.64  | C.5540E+01 |
| 21.90  | C.5810E+01 |
| 28.13  | C.5230E+01 |
| 34.36  | C.4860E+01 |
| 40.60  | C.4360E+01 |
| 47.80  | C.3740E+01 |
| 53.00  | C.3470E+01 |
| 60.11  | C.3470E+01 |
| 67.26  | C.3500E+01 |
| 73.50  | C.3180E+01 |
| 79.40  | C.2840E+01 |
| 85.50  | C.2830E+01 |
| 91.50  | C.2810E+01 |
| 97.50  | C.2340E+01 |
| 103.44 | C.2230E+01 |
| 110.40 | C.2200E+01 |
| 117.30 | C.2090E+01 |
| 124.11 | C.2520E+01 |
| 130.90 | C.2230E+01 |
| 136.76 | C.3010E+01 |
| 142.60 | C.3270E+01 |
| 148.40 | C.3810E+01 |
| 154.13 | C.4110E+01 |
| 159.90 | C.3400E+01 |
| 165.64 | C.3400E+01 |

INCIDENT ENERGY= 15.34 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.53  | C.3120E+01 |
| 21.74  | C.3260E+01 |
| 27.94  | C.3160E+01 |
| 34.12  | C.3150E+01 |
| 40.30  | C.3240E+01 |
| 46.46  | C.3360E+01 |
| 52.60  | C.3230E+01 |
| 59.75  | C.2950E+01 |
| 66.87  | C.2690E+01 |
| 72.95  | C.2410E+01 |
| 79.00  | C.2050E+01 |
| 85.05  | C.1900E+01 |
| 91.06  | C.1800E+01 |
| 97.05  | C.1720E+01 |
| 103.20 | C.1360E+01 |
| 109.96 | C.2100E+01 |
| 116.87 | C.2320E+01 |
| 123.75 | C.2290E+01 |
| 130.60 | C.1980E+01 |
| 136.46 | C.1690E+01 |
| 142.30 | C.1540E+01 |
| 148.12 | C.1290E+01 |
| 153.94 | C.9000E+00 |
| 159.74 | C.7100E+00 |
| 165.53 | C.5900E+00 |

INCIDENT ENERGY= 15.83 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.53  | C.2880E+01 |
| 21.74  | C.3210E+01 |
| 27.94  | C.3610E+01 |
| 34.12  | C.3650E+01 |
| 40.29  | C.3500E+01 |
| 46.45  | C.3070E+01 |
| 52.60  | C.2960E+01 |
| 59.75  | C.2470E+01 |
| 66.87  | C.2170E+01 |
| 72.95  | C.1870E+01 |
| 79.00  | C.1700E+01 |
| 85.04  | C.1560E+01 |
| 91.06  | C.1550E+01 |
| 97.05  | C.1350E+01 |
| 103.00 | C.1380E+01 |
| 109.96 | C.1280E+01 |
| 116.87 | C.1400E+01 |
| 123.75 | C.1380E+01 |
| 130.60 | C.1390E+01 |
| 136.46 | C.1390E+01 |
| 142.29 | C.1400E+01 |
| 148.12 | C.1330E+01 |
| 153.93 | C.1410E+01 |
| 159.70 | C.1250E+01 |
| 165.50 | C.1200E+01 |

INCIDENT ENERGY= 16.30 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | C.4580E+01 |
| 21.90  | C.4230E+01 |
| 28.10  | C.3840E+01 |
| 34.30  | C.3480E+01 |
| 40.50  | C.3370E+01 |
| 46.70  | C.3010E+01 |
| 52.90  | C.2680E+01 |
| 61.00  | C.2340E+01 |
| 67.20  | C.2160E+01 |
| 73.30  | C.1980E+01 |
| 79.40  | C.1310E+01 |
| 85.40  | C.1740E+01 |
| 91.40  | C.1670E+01 |
| 97.40  | C.1670E+01 |
| 103.40 | C.1610E+01 |
| 111.30 | C.1560E+01 |
| 117.20 | C.1500E+01 |
| 125.10 | C.1400E+01 |
| 130.90 | C.1400E+01 |
| 136.70 | C.1580E+01 |
| 142.60 | C.1600E+01 |
| 148.30 | C.1610E+01 |
| 154.10 | C.1690E+01 |
| 159.90 | C.1630E+01 |
| 165.60 | C.1660E+01 |

INCIDENT ENERGY= 16.80 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.5100E+01 |
| 21.87  | 0.4830E+01 |
| 28.00  | 0.4690E+01 |
| 34.00  | 0.4020E+01 |
| 40.50  | 0.3710E+01 |
| 46.70  | 0.3640E+01 |
| 53.00  | 0.3250E+01 |
| 60.00  | 0.2680E+01 |
| 67.20  | 0.2300E+01 |
| 73.30  | 0.1980E+01 |
| 79.40  | 0.1550E+01 |
| 85.40  | 0.1440E+01 |
| 91.44  | 0.1390E+01 |
| 97.40  | 0.1400E+01 |
| 103.40 | 0.1320E+01 |
| 110.00 | 0.1230E+01 |
| 117.00 | 0.1160E+01 |
| 124.00 | 0.1190E+01 |
| 130.90 | 0.1140E+01 |
| 136.70 | 0.1060E+01 |
| 142.50 | 0.1080E+01 |
| 148.30 | 0.9600E+00 |
| 154.10 | 0.9500E+00 |
| 160.00 | 0.7700E+00 |
| 165.60 | 0.5800E+00 |

INCIDENT ENERGY= 17.24 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.4240E+01 |
| 21.90  | 0.3920E+01 |
| 28.10  | 0.3720E+01 |
| 34.30  | 0.3170E+01 |
| 40.50  | 0.2810E+01 |
| 46.70  | 0.2470E+01 |
| 52.90  | 0.2270E+01 |
| 60.10  | 0.2150E+01 |
| 67.20  | 0.1810E+01 |
| 73.30  | 0.1730E+01 |
| 79.40  | 0.1610E+01 |
| 85.40  | 0.1390E+01 |
| 91.40  | 0.1330E+01 |
| 97.40  | 0.1180E+01 |
| 103.40 | 0.1090E+01 |
| 110.30 | 0.9420E+00 |
| 117.20 | 0.9000E+00 |
| 124.10 | 0.9540E+00 |
| 130.90 | 0.1040E+01 |
| 136.70 | 0.1000E+01 |
| 142.50 | 0.1020E+01 |
| 148.30 | 0.9910E+00 |
| 154.10 | 0.1020E+01 |
| 159.90 | 0.1000E+01 |
| 165.60 | 0.9400E+00 |

INCIDENT ENERGY= 17.67 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.4770E+01 |
| 21.90  | 0.4450E+01 |
| 28.10  | 0.4070E+01 |
| 34.30  | 0.3650E+01 |
| 40.50  | 0.3370E+01 |
| 46.70  | 0.2920E+01 |
| 52.90  | 0.3030E+01 |
| 60.00  | 0.2930E+01 |
| 67.20  | 0.2670E+01 |
| 73.20  | 0.2360E+01 |
| 79.30  | 0.2170E+01 |
| 85.40  | 0.1720E+01 |
| 91.40  | 0.1460E+01 |
| 97.40  | 0.1200E+01 |
| 103.40 | 0.1200E+01 |
| 110.30 | 0.1120E+01 |
| 117.20 | 0.1040E+01 |
| 124.00 | 0.1030E+01 |
| 130.90 | 0.1070E+01 |
| 136.70 | 0.1020E+01 |
| 142.50 | 0.1020E+01 |
| 148.30 | 0.1130E+01 |
| 154.10 | 0.1290E+01 |
| 159.90 | 0.1170E+01 |
| 165.60 | 0.1000E+01 |

INCIDENT ENERGY= 18.18 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 15.56  | 0.3770E+01 |
| 21.77  | 0.3480E+01 |
| 27.98  | 0.3230E+01 |
| 34.18  | 0.2940E+01 |
| 40.36  | 0.2640E+01 |
| 46.53  | 0.2630E+01 |
| 52.68  | 0.2440E+01 |
| 58.84  | 0.2190E+01 |
| 66.96  | 0.1790E+01 |
| 73.05  | 0.1730E+01 |
| 79.11  | 0.1370E+01 |
| 85.15  | 0.1250E+01 |
| 91.17  | 0.1130E+01 |
| 97.16  | 0.1250E+01 |
| 103.13 | 0.1200E+01 |
| 110.06 | 0.1000E+01 |
| 116.96 | 0.9200E+00 |
| 123.84 | 0.8000E+00 |
| 130.68 | 0.6900E+00 |
| 136.53 | 0.6400E+00 |
| 142.36 | 0.5800E+00 |
| 148.18 | 0.5200E+00 |
| 153.98 | 0.5400E+00 |
| 159.78 | 0.5900E+00 |
| 165.56 | 0.5500E+00 |

INCIDENT ENERGY= 18.73 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.62  | C.3720E+01 |
| 21.86  | C.3300E+01 |
| 28.08  | C.3170E+01 |
| 34.30  | C.2920E+01 |
| 40.50  | C.2770E+01 |
| 46.69  | C.2580E+01 |
| 52.86  | C.2416E+01 |
| 60.02  | C.2170E+01 |
| 67.16  | C.1800E+01 |
| 73.26  | C.1630E+01 |
| 79.32  | C.1350E+01 |
| 85.37  | C.1078E+01 |
| 91.39  | C.9820E+00 |
| 97.38  | C.9050E+00 |
| 103.34 | C.8890E+00 |
| 110.27 | C.8770E+00 |
| 117.16 | C.8300E+00 |
| 124.02 | C.8190E+00 |
| 130.86 | C.7800E+00 |
| 136.69 | C.7450E+00 |
| 142.50 | C.7160E+00 |
| 148.30 | C.8130E+00 |
| 154.08 | C.8600E+00 |
| 159.86 | C.8000E+00 |
| 165.62 | C.6500E+00 |

INCIDENT ENERGY= 19.70 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 16.60  | C.2920E+01 |
| 21.80  | C.3000E+01 |
| 28.10  | C.2910E+01 |
| 34.30  | C.2800E+01 |
| 40.50  | C.2400E+01 |
| 46.70  | C.2200E+01 |
| 52.80  | C.1840E+01 |
| 60.00  | C.1610E+01 |
| 67.10  | C.1300E+01 |
| 73.20  | C.9700E+00 |
| 79.30  | C.9000E+00 |
| 85.30  | C.7900E+00 |
| 91.30  | C.7400E+00 |
| 97.40  | C.6800E+00 |
| 103.30 | C.6100E+00 |
| 110.30 | C.5700E+00 |
| 117.10 | C.4650E+00 |
| 124.00 | C.3300E+00 |
| 130.10 | C.2800E+00 |
| 136.70 | C.2800E+00 |
| 142.50 | C.3100E+00 |
| 148.30 | C.3100E+00 |
| 154.10 | C.3400E+00 |
| 159.80 | C.3300E+00 |
| 165.00 | C.3500E+00 |

INCIDENT ENERGY= 19.23 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | C.3410E+01 |
| 21.80  | C.3380E+01 |
| 28.00  | C.3240E+01 |
| 34.30  | C.2940E+01 |
| 40.50  | C.2890E+01 |
| 46.00  | C.2360E+01 |
| 52.80  | C.2040E+01 |
| 60.00  | C.1510E+01 |
| 67.20  | C.1200E+01 |
| 73.20  | C.1080E+01 |
| 79.30  | C.1000E+01 |
| 85.40  | C.9100E+00 |
| 91.40  | C.9300E+00 |
| 97.40  | C.8900E+00 |
| 103.40 | C.8100E+00 |
| 110.30 | C.7400E+00 |
| 117.20 | C.6300E+00 |
| 124.00 | C.5700E+00 |
| 130.80 | C.4800E+00 |
| 136.70 | C.4500E+00 |
| 142.50 | C.4500E+00 |
| 148.30 | C.4400E+00 |
| 154.10 | C.4100E+00 |
| 159.80 | C.4300E+00 |
| 165.60 | C.4100E+00 |

INCIDENT ENERGY= 20.17 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | C.2650E+01 |
| 21.70  | C.2550E+01 |
| 28.00  | C.2370E+01 |
| 34.10  | C.2250E+01 |
| 40.30  | C.2180E+01 |
| 46.50  | C.1910E+01 |
| 52.60  | C.1840E+01 |
| 59.80  | C.1650E+01 |
| 66.90  | C.1390E+01 |
| 73.00  | C.1190E+01 |
| 79.00  | C.1000E+01 |
| 85.00  | C.8200E+00 |
| 91.00  | C.7400E+00 |
| 97.10  | C.6200E+00 |
| 103.00 | C.5500E+00 |
| 110.00 | C.5000E+00 |
| 116.90 | C.5100E+00 |
| 123.80 | C.3800E+00 |
| 130.60 | C.4000E+00 |
| 136.50 | C.3800E+00 |
| 142.30 | C.4200E+00 |
| 148.00 | C.4200E+00 |
| 154.00 | C.5200E+00 |
| 160.00 | C.4900E+00 |
| 165.60 | C.4400E+00 |

INCIDENT ENERGY= 21.35 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 15.60  | C.3770E+01 |
| 21.80  | C.3340E+01 |
| 28.00  | C.3000E+01 |
| 34.30  | C.2640E+01 |
| 40.50  | C.2430E+01 |
| 46.60  | C.2160E+01 |
| 52.80  | C.1910E+01 |
| 59.90  | C.1690E+01 |
| 67.10  | C.1410E+01 |
| 73.20  | C.1070E+01 |
| 79.30  | C.9100E+00 |
| 85.30  | C.7800E+00 |
| 91.30  | C.6800E+00 |
| 97.30  | C.6500E+00 |
| 103.30 | C.6500E+00 |
| 110.20 | C.6600E+00 |
| 117.10 | C.6200E+00 |
| 123.90 | C.5900E+00 |
| 130.80 | C.5800E+00 |
| 136.60 | C.5700E+00 |
| 142.50 | C.5700E+00 |
| 148.30 | C.6100E+00 |
| 154.10 | C.6300E+00 |
| 159.80 | C.6300E+00 |
| 165.60 | C.7100E+00 |

INCIDENT ENERGY= 22.70 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 15.60  | C.2700E+01 |
| 21.80  | C.2540E+01 |
| 28.00  | C.2520E+01 |
| 34.30  | C.2390E+01 |
| 40.50  | C.2080E+01 |
| 46.60  | C.1810E+01 |
| 52.80  | C.1530E+01 |
| 60.00  | C.1300E+01 |
| 67.10  | C.1085E+01 |
| 73.20  | C.9600E+00 |
| 79.30  | C.8000E+00 |
| 85.30  | C.6500E+00 |
| 91.30  | C.5700E+00 |
| 97.30  | C.5100E+00 |
| 103.30 | C.4400E+00 |
| 110.20 | C.4100E+00 |
| 117.20 | C.3700E+00 |
| 124.00 | C.3900E+00 |
| 130.80 | C.3900E+00 |
| 136.30 | C.3900E+00 |
| 142.50 | C.4100E+00 |
| 148.30 | C.4100E+00 |
| 154.00 | C.4200E+00 |
| 159.80 | C.4000E+00 |
| 165.60 | C.3400E+00 |

INCIDENT ENERGY= 23.60 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 15.50  | C.3220E+01 |
| 21.70  | C.2230E+01 |
| 27.90  | C.2100E+01 |
| 34.10  | C.2090E+01 |
| 40.30  | C.1920E+01 |
| 46.50  | C.1620E+01 |
| 52.60  | C.1300E+01 |
| 59.70  | C.1150E+01 |
| 66.90  | C.1000E+01 |
| 72.90  | C.8900E+00 |
| 79.00  | C.7600E+00 |
| 85.00  | C.7100E+00 |
| 91.00  | C.6400E+00 |
| 97.00  | C.5600E+00 |
| 103.00 | C.4400E+00 |
| 110.00 | C.4000E+00 |
| 116.80 | C.3500E+00 |
| 123.70 | C.3400E+00 |
| 130.60 | C.3500E+00 |
| 136.50 | C.4100E+00 |
| 142.30 | C.4500E+00 |
| 148.10 | C.4500E+00 |
| 153.90 | C.4300E+00 |
| 159.70 | C.3500E+00 |
| 165.60 | C.2700E+00 |

INCIDENT ENERGY= 24.24 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 15.60  | C.3300E+01 |
| 21.80  | C.3200E+01 |
| 28.10  | C.3240E+01 |
| 34.30  | C.2340E+01 |
| 40.50  | C.1895E+01 |
| 46.60  | C.1614E+01 |
| 52.80  | C.1320E+01 |
| 60.00  | C.1009E+01 |
| 67.10  | C.1000E+01 |
| 73.20  | C.8070E+00 |
| 79.30  | C.5540E+00 |
| 85.30  | C.5350E+00 |
| 91.30  | C.4960E+00 |
| 97.30  | C.4010E+00 |
| 103.30 | C.3540E+00 |
| 110.20 | C.2690E+00 |
| 117.10 | C.2400E+00 |
| 124.00 | C.2230E+00 |
| 131.00 | C.2600E+00 |
| 136.70 | C.3110E+00 |
| 142.50 | C.3830E+00 |
| 148.30 | C.4280E+00 |
| 154.10 | C.3810E+00 |
| 159.90 | C.3400E+00 |
| 165.60 | C.2550E+00 |

INCIDENT ENERGY= 25.44 MEV

INCIDENT ENERGY= 26.34 MEV

28SI 4+(4.62 MEV) LEVEL

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.3070E+01 |
| 22.00  | 0.3120E+01 |
| 28.00  | 0.2990E+01 |
| 34.30  | 0.2630E+01 |
| 40.50  | 0.2200E+01 |
| 47.00  | 0.1650E+01 |
| 52.90  | 0.1400E+01 |
| 60.00  | 0.1030E+01 |
| 67.20  | 0.6100E+00 |
| 73.30  | 0.6300E+00 |
| 79.40  | 0.5800E+00 |
| 85.00  | 0.5200E+00 |
| 91.40  | 0.4800E+00 |
| 97.40  | 0.4200E+00 |
| 103.40 | 0.3800E+00 |
| 110.30 | 0.3050E+00 |
| 117.20 | 0.2250E+00 |
| 124.00 | 0.2100E+00 |
| 131.00 | 0.2300E+00 |
| 136.70 | 0.2600E+00 |
| 142.50 | 0.2900E+00 |
| 148.30 | 0.3200E+00 |
| 154.10 | 0.3100E+00 |
| 160.00 | 0.2600E+00 |
| 165.60 | 0.2300E+00 |

|        |            |
|--------|------------|
| 15.60  | 0.3380E+01 |
| 21.80  | 0.3380E+01 |
| 28.04  | 0.2110E+01 |
| 34.25  | 0.2510E+01 |
| 40.45  | 0.2110E+01 |
| 46.60  | 0.1620E+01 |
| 52.80  | 0.1260E+01 |
| 59.90  | 0.9000E+00 |
| 67.10  | 0.8200E+00 |
| 73.20  | 0.6900E+00 |
| 79.24  | 0.5400E+00 |
| 85.30  | 0.4700E+00 |
| 91.30  | 0.4900E+00 |
| 97.30  | 0.4200E+00 |
| 103.30 | 0.4000E+00 |
| 110.20 | 0.3300E+00 |
| 117.10 | 0.2600E+00 |
| 124.00 | 0.2300E+00 |
| 131.00 | 0.2500E+00 |
| 136.60 | 0.3000E+00 |
| 142.40 | 0.3400E+00 |
| 148.20 | 0.3400E+00 |
| 154.00 | 0.3400E+00 |
| 160.00 | 0.3100E+00 |
| 165.60 | 0.2200E+00 |

INCIDENT ENERGY= 27.30 MEV

INCIDENT ENERGY= 28.37 MEV

28SI 4+(4.62 MEV) LEVEL

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.3200E+01 |
| 21.70  | 0.2800E+01 |
| 27.90  | 0.2490E+01 |
| 34.10  | 0.2200E+01 |
| 40.30  | 0.1900E+01 |
| 46.40  | 0.1500E+01 |
| 52.60  | 0.1270E+01 |
| 59.70  | 0.1020E+01 |
| 66.90  | 0.6800E+00 |
| 72.90  | 0.4800E+00 |
| 79.00  | 0.4500E+00 |
| 85.00  | 0.3900E+00 |
| 91.00  | 0.3400E+00 |
| 97.00  | 0.3500E+00 |
| 103.00 | 0.2900E+00 |
| 109.90 | 0.2700E+00 |
| 116.80 | 0.2100E+00 |
| 123.70 | 0.2000E+00 |
| 130.60 | 0.2200E+00 |
| 136.40 | 0.2600E+00 |
| 142.30 | 0.3100E+00 |
| 148.10 | 0.3400E+00 |
| 153.90 | 0.3400E+00 |
| 159.70 | 0.3000E+00 |
| 165.50 | 0.2300E+00 |

|        |            |
|--------|------------|
| 15.50  | 0.3380E+01 |
| 21.74  | 0.2870E+01 |
| 27.94  | 0.2440E+01 |
| 34.12  | 0.2180E+01 |
| 40.29  | 0.1770E+01 |
| 46.46  | 0.1490E+01 |
| 52.60  | 0.1170E+01 |
| 59.75  | 0.8400E+00 |
| 66.87  | 0.5800E+00 |
| 72.95  | 0.4300E+00 |
| 79.00  | 0.3500E+00 |
| 85.05  | 0.3300E+00 |
| 91.06  | 0.3000E+00 |
| 97.05  | 0.2800E+00 |
| 103.02 | 0.2600E+00 |
| 109.96 | 0.2400E+00 |
| 116.86 | 0.2000E+00 |
| 123.75 | 0.1750E+00 |
| 130.60 | 0.1830E+00 |
| 136.45 | 0.1900E+00 |
| 142.30 | 0.2000E+00 |
| 148.12 | 0.2000E+00 |
| 153.94 | 0.2600E+00 |
| 159.74 | 0.2200E+00 |
| 165.53 | 0.2000E+00 |

INCIDENT ENERGY= 29.47 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.3440E+01 |
| 21.70  | 0.3250E+01 |
| 24.90  | 0.2580E+01 |
| 34.10  | 0.2180E+01 |
| 40.30  | 0.1870E+01 |
| 46.50  | 0.1520E+01 |
| 52.60  | 0.1170E+01 |
| 59.70  | 0.8300E+00 |
| 66.90  | 0.6000E+00 |
| 72.90  | 0.4700E+00 |
| 79.00  | 0.3700E+00 |
| 85.00  | 0.3200E+00 |
| 91.00  | 0.3000E+00 |
| 97.00  | 0.2500E+00 |
| 103.00 | 0.2500E+00 |
| 110.00 | 0.2000E+00 |
| 116.80 | 0.1700E+00 |
| 123.70 | 0.1400E+00 |
| 130.60 | 0.1500E+00 |
| 136.50 | 0.1800E+00 |
| 142.30 | 0.2200E+00 |
| 148.10 | 0.2400E+00 |
| 153.90 | 0.2500E+00 |
| 159.70 | 0.2300E+00 |
| 165.50 | 0.1810E+00 |

INCIDENT ENERGY= 31.53 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.3510E+01 |
| 21.70  | 0.2750E+01 |
| 24.90  | 0.2410E+01 |
| 34.10  | 0.1910E+01 |
| 40.30  | 0.1590E+01 |
| 46.50  | 0.1210E+01 |
| 52.60  | 0.1040E+01 |
| 59.70  | 0.7700E+00 |
| 66.90  | 0.5200E+00 |
| 72.90  | 0.3400E+00 |
| 79.00  | 0.2950E+00 |
| 85.00  | 0.2460E+00 |
| 91.00  | 0.2000E+00 |
| 97.00  | 0.1890E+00 |
| 103.00 | 0.1500E+00 |
| 110.00 | 0.1300E+00 |
| 116.80 | 0.1200E+00 |
| 123.70 | 0.9000E-01 |
| 130.60 | 0.1000E+00 |
| 136.50 | 0.1190E+00 |
| 142.30 | 0.1290E+00 |
| 148.10 | 0.1480E+00 |
| 153.90 | 0.1780E+00 |
| 159.70 | 0.1600E+00 |
| 165.50 | 0.1470E+00 |

INCIDENT ENERGY= 30.50 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.3050E+01 |
| 21.70  | 0.2570E+01 |
| 24.90  | 0.2360E+01 |
| 34.10  | 0.2010E+01 |
| 40.30  | 0.1660E+01 |
| 46.50  | 0.1400E+01 |
| 52.60  | 0.1114E+01 |
| 59.70  | 0.8300E+00 |
| 66.90  | 0.6000E+00 |
| 72.90  | 0.4300E+00 |
| 79.00  | 0.3300E+00 |
| 85.00  | 0.2900E+00 |
| 91.00  | 0.2500E+00 |
| 97.00  | 0.2250E+00 |
| 103.00 | 0.1870E+00 |
| 110.00 | 0.1550E+00 |
| 116.80 | 0.1380E+00 |
| 123.70 | 0.1110E+00 |
| 130.60 | 0.1170E+00 |
| 136.50 | 0.1430E+00 |
| 142.30 | 0.1550E+00 |
| 148.10 | 0.1830E+00 |
| 153.90 | 0.1800E+00 |
| 159.70 | 0.1550E+00 |
| 165.50 | 0.1560E+00 |

INCIDENT ENERGY= 32.47 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.3540E+01 |
| 21.70  | 0.2660E+01 |
| 24.90  | 0.2190E+01 |
| 34.10  | 0.1910E+01 |
| 40.30  | 0.1660E+01 |
| 46.50  | 0.1220E+01 |
| 52.60  | 0.1050E+01 |
| 59.70  | 0.7800E+00 |
| 66.90  | 0.5300E+00 |
| 72.90  | 0.3600E+00 |
| 79.00  | 0.2900E+00 |
| 85.00  | 0.2500E+00 |
| 91.00  | 0.2100E+00 |
| 97.00  | 0.1910E+00 |
| 103.00 | 0.1500E+00 |
| 110.00 | 0.1270E+00 |
| 116.80 | 0.1140E+00 |
| 123.70 | 0.1020E+00 |
| 130.60 | 0.1100E+00 |
| 136.50 | 0.1220E+00 |
| 142.30 | 0.1500E+00 |
| 148.10 | 0.1600E+00 |
| 153.90 | 0.1800E+00 |
| 159.70 | 0.1670E+00 |
| 165.50 | 0.1540E+00 |

INCIDENT ENERGY= 33.71 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.3100E+01 |
| 21.70  | 0.2660E+01 |
| 27.90  | 0.2200E+01 |
| 34.10  | 0.1850E+01 |
| 40.30  | 0.1590E+01 |
| 46.40  | 0.1390E+01 |
| 52.60  | 0.1140E+01 |
| 59.70  | 0.7500E+00 |
| 66.90  | 0.5000E+00 |
| 72.90  | 0.3300E+00 |
| 79.00  | 0.2700E+00 |
| 85.00  | 0.2100E+00 |
| 91.00  | 0.1800E+00 |
| 97.00  | 0.1600E+00 |
| 103.00 | 0.1200E+00 |
| 109.90 | 0.1000E+00 |
| 116.80 | 0.8800E-01 |
| 123.70 | 0.8600E-01 |
| 130.60 | 0.9100E-01 |
| 136.40 | 0.1000E+00 |
| 142.30 | 0.1000E+00 |
| 148.10 | 0.1300E+00 |
| 153.90 | 0.1400E+00 |
| 159.70 | 0.1100E+00 |
| 165.50 | 0.8000E-01 |

INCIDENT ENERGY= 34.73 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.2850E+01 |
| 21.70  | 0.2570E+01 |
| 24.90  | 0.2050E+01 |
| 34.10  | 0.1780E+01 |
| 40.30  | 0.1340E+01 |
| 46.50  | 0.1290E+01 |
| 52.60  | 0.1060E+01 |
| 59.70  | 0.7300E+00 |
| 66.90  | 0.4600E+00 |
| 72.90  | 0.3300E+00 |
| 79.00  | 0.2700E+00 |
| 85.00  | 0.2130E+00 |
| 91.00  | 0.1600E+00 |
| 97.00  | 0.1250E+00 |
| 103.00 | 0.9100E-01 |
| 110.00 | 0.8100E-01 |
| 116.80 | 0.7500E-01 |
| 123.70 | 0.7300E-01 |
| 130.60 | 0.7600E-01 |
| 136.50 | 0.7700E-01 |
| 142.30 | 0.9300E-01 |
| 148.10 | 0.9900E-01 |
| 153.90 | 0.1230E+00 |
| 159.70 | 0.1200E+00 |
| 165.50 | 0.1100E+00 |

INCIDENT ENERGY= 35.97 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.2030E+01 |
| 21.70  | 0.2190E+01 |
| 24.90  | 0.2120E+01 |
| 34.10  | 0.1570E+01 |
| 40.30  | 0.1390E+01 |
| 46.50  | 0.1080E+01 |
| 52.60  | 0.9020E+00 |
| 59.70  | 0.6490E+00 |
| 66.90  | 0.3900E+00 |
| 72.90  | 0.2700E+00 |
| 79.00  | 0.2300E+00 |
| 85.00  | 0.1900E+00 |
| 91.00  | 0.1300E+00 |
| 97.00  | 0.9200E-01 |
| 103.00 | 0.6600E-01 |
| 110.00 | 0.7100E-01 |
| 116.80 | 0.6600E-01 |
| 123.70 | 0.7400E-01 |
| 130.60 | 0.6600E-01 |
| 136.50 | 0.7400E-01 |
| 142.30 | 0.8100E-01 |
| 148.10 | 0.9500E-01 |
| 153.90 | 0.1100E+00 |
| 159.70 | 0.1100E+00 |
| 165.50 | 0.9800E-01 |

INCIDENT ENERGY= 37.21 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.1710E+01 |
| 21.70  | 0.1900E+01 |
| 27.90  | 0.1700E+01 |
| 34.10  | 0.1540E+01 |
| 40.30  | 0.1170E+01 |
| 46.40  | 0.1100E+01 |
| 52.60  | 0.9200E+00 |
| 59.70  | 0.5900E+00 |
| 66.90  | 0.3300E+00 |
| 72.90  | 0.2300E+00 |
| 79.00  | 0.1900E+00 |
| 85.00  | 0.1500E+00 |
| 91.00  | 0.1100E+00 |
| 97.00  | 0.7000E-01 |
| 103.00 | 0.5600E-01 |
| 109.90 | 0.5000E-01 |
| 116.80 | 0.5700E-01 |
| 123.70 | 0.5900E-01 |
| 130.60 | 0.5400E-01 |
| 136.40 | 0.5700E-01 |
| 142.30 | 0.6500E-01 |
| 148.10 | 0.7100E-01 |
| 153.90 | 0.7200E-01 |
| 159.70 | 0.8300E-01 |
| 165.50 | 0.7400E-01 |

INCIDENT ENERGY= 38.59 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.1750E+01 |
| 21.70  | 0.2050E+01 |
| 24.90  | 0.1580E+01 |
| 34.10  | 0.1600E+01 |
| 40.30  | 0.1290E+01 |
| 46.50  | 0.1114E+01 |
| 52.60  | 0.8640E+00 |
| 59.70  | 0.5900E+00 |
| 66.90  | 0.3500E+00 |
| 72.90  | 0.2200E+00 |
| 79.00  | 0.1970E+00 |
| 85.00  | 0.1730E+00 |
| 91.00  | 0.1160E+00 |
| 97.00  | 0.6600E-01 |
| 103.00 | 0.5000E-01 |
| 110.00 | 0.4400E-01 |
| 116.80 | 0.5200E-01 |
| 123.70 | 0.5900E-01 |
| 130.60 | 0.5300E-01 |
| 136.50 | 0.5500E-01 |
| 142.30 | 0.5400E-01 |
| 148.10 | 0.7100E-01 |
| 153.90 | 0.7400E-01 |
| 159.70 | 0.7500E-01 |
| 165.50 | 0.7100E-01 |

INCIDENT ENERGY= 14.26 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.64  | 0.1310E+01 |
| 21.90  | 0.1240E+01 |
| 28.13  | 0.9300E+00 |
| 34.36  | 0.5300E+00 |
| 40.60  | 0.4000E+00 |
| 46.80  | 0.4000E+00 |
| 53.00  | 0.4000E+00 |
| 60.11  | 0.4800E+00 |
| 67.26  | 0.5400E+00 |
| 73.50  | 0.6200E+00 |
| 79.40  | 0.5100E+00 |
| 91.50  | 0.5400E+00 |
| 97.50  | 0.6600E+00 |
| 103.44 | 0.6100E+00 |
| 110.40 | 0.5500E+00 |
| 117.30 | 0.4400E+00 |

INCIDENT ENERGY= 40.21 MEV

28SI 4+(4.62 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.2280E+01 |
| 21.70  | 0.1820E+01 |
| 24.90  | 0.1670E+01 |
| 34.10  | 0.1420E+01 |
| 40.30  | 0.1300E+01 |
| 46.50  | 0.1154E+01 |
| 52.60  | 0.8120E+00 |
| 59.70  | 0.5400E+00 |
| 66.90  | 0.3500E+00 |
| 72.90  | 0.2400E+00 |
| 79.00  | 0.1920E+00 |
| 85.00  | 0.1350E+00 |
| 91.00  | 0.9700E-01 |
| 97.00  | 0.5300E-01 |
| 103.00 | 0.3800E-01 |
| 110.00 | 0.4600E-01 |
| 116.80 | 0.3500E-01 |
| 123.70 | 0.3600E-01 |
| 130.60 | 0.3200E-01 |
| 136.50 | 0.3600E-01 |
| 142.30 | 0.4800E-01 |
| 148.10 | 0.5100E-01 |
| 153.90 | 0.5800E-01 |
| 159.70 | 0.5700E-01 |
| 165.50 | 0.5200E-01 |

INCIDENT ENERGY= 15.34 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.53  | 0.4480E+01 |
| 21.74  | 0.3720E+01 |
| 27.94  | 0.2270E+01 |
| 34.12  | 0.9400E+00 |
| 40.30  | 0.6900E+00 |
| 46.46  | 0.3800E+00 |
| 52.60  | 0.3600E+00 |
| 59.75  | 0.3500E+00 |
| 66.87  | 0.3800E+00 |
| 72.95  | 0.5000E+00 |
| 79.00  | 0.5500E+00 |
| 85.05  | 0.5700E+00 |
| 91.06  | 0.6600E+00 |
| 97.05  | 0.6400E+00 |
| 103.20 | 0.6800E+00 |
| 109.96 | 0.6900E+00 |
| 116.87 | 0.5900E+00 |
| 123.75 | 0.5400E+00 |
| 130.60 | 0.4500E+00 |
| 136.46 | 0.4000E+00 |
| 142.30 | 0.3300E+00 |
| 148.12 | 0.2600E+00 |
| 153.94 | 0.2200E+00 |
| 159.74 | 0.2600E+00 |
| 165.53 | 0.3100E+00 |

INCIDENT ENERGY= 15.83 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.53  | 0.3540E+01 |
| 21.74  | 0.2470E+01 |
| 27.94  | 0.1680E+01 |
| 34.12  | 0.9900E+00 |
| 40.29  | 0.4900E+00 |
| 46.45  | 0.3800E+00 |
| 52.60  | 0.3820E+00 |
| 59.75  | 0.3350E+00 |
| 66.87  | 0.3000E+00 |
| 72.95  | 0.2930E+00 |
| 79.00  | 0.2640E+00 |
| 85.04  | 0.2300E+00 |
| 91.06  | 0.2300E+00 |
| 97.05  | 0.1920E+00 |
| 103.00 | 0.1850E+00 |
| 109.96 | 0.1580E+00 |
| 116.87 | 0.1120E+00 |
| 123.75 | 0.8500E-01 |
| 130.60 | 0.9400E-01 |
| 136.46 | 0.1120E+00 |
| 142.29 | 0.1040E+00 |
| 148.12 | 0.1080E+00 |
| 153.93 | 0.1120E+00 |
| 159.70 | 0.1260E+00 |
| 165.50 | 0.1120E+00 |

INCIDENT ENERGY= 16.80 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.64  | 0.2440E+01 |
| 21.89  | 0.1440E+01 |
| 28.12  | 0.9000E+00 |
| 34.35  | 0.3300E+00 |
| 40.56  | 0.2200E+00 |
| 46.75  | 0.1520E+00 |
| 52.92  | 0.9300E-01 |
| 60.10  | 0.9200E-01 |
| 67.24  | 0.1200E+00 |
| 73.34  | 0.1260E+00 |
| 79.41  | 0.1330E+00 |
| 85.46  | 0.1320E+00 |
| 91.48  | 0.1230E+00 |
| 97.47  | 0.7900E-01 |
| 103.43 | 0.3000E-01 |
| 110.36 | 0.1800E-01 |
| 117.24 | 0.2400E-01 |
| 124.10 | 0.6100E-01 |
| 130.92 | 0.1220E+00 |
| 136.76 | 0.1430E+00 |
| 142.56 | 0.1780E+00 |
| 148.35 | 0.2360E+00 |
| 154.12 | 0.2900E+00 |
| 159.88 | 0.3800E+00 |
| 165.64 | 0.3940E+00 |

INCIDENT ENERGY= 16.30 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.2500E+01 |
| 21.90  | 0.1700E+01 |
| 28.10  | 0.1200E+01 |
| 34.30  | 0.7500E+00 |
| 40.50  | 0.6100E+00 |
| 46.80  | 0.3600E+00 |
| 52.90  | 0.3800E+00 |
| 60.10  | 0.3600E+00 |
| 67.20  | 0.3600E+00 |
| 73.30  | 0.2600E+00 |
| 79.40  | 0.2300E+00 |
| 85.40  | 0.2200E+00 |
| 91.50  | 0.2400E+00 |
| 97.50  | 0.2600E+00 |
| 103.40 | 0.3300E+00 |
| 110.40 | 0.2600E+00 |
| 117.20 | 0.1300E+00 |
| 124.10 | 0.1400E+00 |
| 130.90 | 0.1100E+00 |
| 136.80 | 0.1200E+00 |
| 142.60 | 0.2400E+00 |
| 148.30 | 0.3700E+00 |
| 154.10 | 0.3300E+00 |
| 159.90 | 0.3500E+00 |
| 165.60 | 0.2600E+00 |

INCIDENT ENERGY= 17.24 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1900E+01 |
| 21.90  | 0.1000E+01 |
| 28.10  | 0.6600E+00 |
| 34.30  | 0.5100E+00 |
| 40.50  | 0.2700E+00 |
| 46.80  | 0.3100E+00 |
| 52.90  | 0.3200E+00 |
| 60.10  | 0.2200E+00 |
| 67.20  | 0.2000E+00 |
| 73.30  | 0.1300E+00 |
| 79.40  | 0.1700E+00 |
| 85.40  | 0.1700E+00 |
| 91.50  | 0.1600E+00 |
| 97.50  | 0.1300E+00 |
| 103.40 | 0.9100E-01 |
| 110.40 | 0.7700E-01 |
| 117.20 | 0.1200E+00 |
| 124.10 | 0.1700E+00 |
| 130.90 | 0.1800E+00 |
| 136.80 | 0.2500E+00 |
| 142.60 | 0.3200E+00 |
| 148.30 | 0.2900E+00 |
| 154.10 | 0.4700E+00 |
| 159.90 | 0.6500E+00 |
| 165.60 | 0.8400E+00 |

INCIDENT ENERGY= 17.67 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.2200E+01 |
| 21.90  | 0.7200E+00 |
| 28.10  | 0.6200E+00 |
| 34.30  | 0.3900E+00 |
| 40.50  | 0.1900E+00 |
| 46.80  | 0.2100E+00 |
| 52.90  | 0.2000E+00 |
| 60.10  | 0.1500E+00 |
| 67.20  | 0.1900E+00 |
| 73.30  | 0.2000E+00 |
| 79.40  | 0.1600E+00 |
| 85.40  | 0.1800E+00 |
| 91.50  | 0.1400E+00 |
| 97.50  | 0.1400E+00 |
| 103.40 | 0.1300E+00 |
| 136.80 | 0.1600E+00 |
| 142.60 | 0.2900E+00 |
| 148.30 | 0.2900E+00 |
| 154.10 | 0.5500E+00 |
| 159.90 | 0.7500E+00 |
| 165.60 | 0.7100E+00 |

INCIDENT ENERGY= 18.73 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.3000E+01 |
| 21.90  | 0.1600E+01 |
| 28.10  | 0.8700E+00 |
| 34.30  | 0.5400E+00 |
| 40.50  | 0.4700E+00 |
| 46.80  | 0.3700E+00 |
| 52.90  | 0.2800E+00 |
| 60.10  | 0.1900E+00 |
| 67.20  | 0.8200E-01 |
| 73.30  | 0.1100E+00 |
| 79.40  | 0.8000E-01 |
| 85.40  | 0.9000E-01 |
| 91.50  | 0.8400E-01 |
| 97.50  | 0.6800E-01 |
| 103.40 | 0.6000E-01 |
| 110.40 | 0.6500E-01 |
| 117.20 | 0.8300E-01 |
| 124.10 | 0.8900E-01 |
| 130.90 | 0.8500E-01 |
| 136.80 | 0.1100E+00 |
| 142.60 | 0.1200E+00 |
| 148.30 | 0.1500E+00 |
| 154.10 | 0.2200E+00 |
| 159.90 | 0.4400E+00 |
| 165.60 | 0.5900E+00 |

INCIDENT ENERGY= 18.18 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.3100E+01 |
| 21.90  | 0.1500E+01 |
| 28.10  | 0.1100E+01 |
| 34.30  | 0.6300E+00 |
| 40.50  | 0.4000E+00 |
| 46.80  | 0.2800E+00 |
| 52.90  | 0.3100E+00 |
| 60.10  | 0.1400E+00 |
| 67.20  | 0.1300E+00 |
| 73.30  | 0.1900E+00 |
| 79.40  | 0.1600E+00 |
| 85.40  | 0.1100E+00 |
| 91.50  | 0.1600E+00 |
| 97.50  | 0.1200E+00 |
| 103.40 | 0.7000E-01 |
| 110.40 | 0.6400E-01 |
| 117.20 | 0.7000E-01 |
| 124.10 | 0.6300E-01 |
| 130.90 | 0.1300E+00 |
| 136.80 | 0.1600E+00 |
| 142.60 | 0.2500E+00 |
| 148.30 | 0.3000E+00 |
| 154.10 | 0.3800E+00 |
| 159.90 | 0.4700E+00 |
| 165.60 | 0.5600E+00 |

INCIDENT ENERGY= 19.23 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1600E+01 |
| 21.90  | 0.7100E+00 |
| 28.10  | 0.6200E+00 |
| 34.30  | 0.3600E+00 |
| 40.50  | 0.3300E+00 |
| 46.80  | 0.4000E+00 |
| 52.90  | 0.3800E+00 |
| 60.10  | 0.3200E+00 |
| 67.20  | 0.2100E+00 |
| 73.30  | 0.1600E+00 |
| 79.40  | 0.8000E-01 |
| 85.40  | 0.6000E-01 |
| 91.50  | 0.5600E-01 |
| 97.50  | 0.8200E-01 |
| 103.40 | 0.1100E+00 |
| 110.40 | 0.1300E+00 |
| 117.20 | 0.1100E+00 |
| 124.10 | 0.9300E-01 |
| 130.90 | 0.1600E+00 |
| 136.80 | 0.2500E+00 |
| 142.60 | 0.3600E+00 |
| 148.30 | 0.3900E+00 |
| 154.10 | 0.3900E+00 |
| 159.90 | 0.3900E+00 |
| 165.60 | 0.3400E+00 |

INCIDENT ENERGY= 19.70 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1400E+01 |
| 21.90  | 0.6700E+00 |
| 28.10  | 0.5300E+00 |
| 34.30  | 0.4900E+00 |
| 40.50  | 0.3900E+00 |
| 46.80  | 0.3500E+00 |
| 52.90  | 0.2400E+00 |
| 60.10  | 0.1200E+00 |
| 67.20  | 0.5600E-01 |
| 73.30  | 0.4600E-01 |
| 79.40  | 0.9500E-01 |
| 85.40  | 0.1300E+00 |
| 91.50  | 0.1700E+00 |
| 97.50  | 0.1800E+00 |
| 103.40 | 0.1600E+00 |
| 110.40 | 0.1200E+00 |
| 117.20 | 0.9200E-01 |
| 124.10 | 0.1100E+00 |
| 130.90 | 0.1500E+00 |
| 136.80 | 0.1800E+00 |
| 142.60 | 0.2500E+00 |
| 148.30 | 0.2800E+00 |
| 154.10 | 0.3200E+00 |
| 159.90 | 0.3400E+00 |
| 165.60 | 0.4200E+00 |

INCIDENT ENERGY= 21.35 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1920E+01 |
| 21.90  | 0.8600E+00 |
| 28.10  | 0.3800E+00 |
| 34.30  | 0.2200E+00 |
| 40.50  | 0.1800E+00 |
| 46.80  | 0.1600E+00 |
| 52.90  | 0.1700E+00 |
| 60.10  | 0.1400E+00 |
| 67.20  | 0.1200E+00 |
| 73.30  | 0.7600E-01 |
| 79.40  | 0.5200E-01 |
| 85.40  | 0.2800E-01 |
| 91.50  | 0.4700E-01 |
| 97.50  | 0.8300E-01 |
| 103.40 | 0.7800E-01 |
| 110.40 | 0.1100E+00 |
| 117.20 | 0.7500E-01 |
| 124.10 | 0.8100E-01 |
| 130.90 | 0.1100E+00 |
| 136.80 | 0.1900E+00 |
| 142.60 | 0.2200E+00 |
| 148.30 | 0.3000E+00 |
| 154.10 | 0.3900E+00 |
| 159.90 | 0.5400E+00 |
| 165.60 | 0.7300E+00 |

INCIDENT ENERGY= 20.17 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.2010E+01 |
| 21.90  | 0.1410E+01 |
| 28.10  | 0.7900E+00 |
| 34.30  | 0.4100E+00 |
| 40.50  | 0.2400E+00 |
| 46.80  | 0.1900E+00 |
| 52.90  | 0.1800E+00 |
| 60.10  | 0.1300E+00 |
| 67.20  | 0.6000E-01 |
| 73.30  | 0.3600E-01 |
| 79.40  | 0.5300E-01 |
| 85.40  | 0.8000E-01 |
| 91.50  | 0.1100E+00 |
| 97.50  | 0.1200E+00 |
| 103.40 | 0.1300E+00 |
| 110.40 | 0.1300E+00 |
| 117.20 | 0.6400E-01 |
| 124.10 | 0.1200E+00 |
| 130.90 | 0.1100E+00 |
| 136.80 | 0.1500E+00 |
| 142.60 | 0.1700E+00 |
| 148.30 | 0.1700E+00 |
| 154.10 | 0.1500E+00 |
| 159.90 | 0.2200E+00 |
| 165.60 | 0.2600E+00 |

INCIDENT ENERGY= 22.70 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.2030E+01 |
| 21.90  | 0.1520E+01 |
| 28.10  | 0.7400E+00 |
| 34.30  | 0.3600E+00 |
| 40.50  | 0.3100E+00 |
| 46.80  | 0.2600E+00 |
| 52.90  | 0.2500E+00 |
| 60.10  | 0.1800E+00 |
| 67.20  | 0.1100E+00 |
| 73.30  | 0.9800E-01 |
| 79.40  | 0.5600E-01 |
| 85.40  | 0.4400E-01 |
| 91.50  | 0.5200E-01 |
| 97.50  | 0.7200E-01 |
| 103.40 | 0.1100E+00 |
| 110.40 | 0.1200E+00 |
| 117.20 | 0.8000E-01 |
| 124.10 | 0.7200E-01 |
| 130.90 | 0.8700E-01 |
| 136.80 | 0.9600E-01 |
| 142.60 | 0.1200E+00 |
| 148.30 | 0.1400E+00 |
| 154.10 | 0.1800E+00 |
| 159.90 | 0.2800E+00 |
| 165.60 | 0.3100E+00 |

INCIDENT ENERGY= 23.60 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1600E+01 |
| 21.90  | 0.7400E+00 |
| 28.10  | 0.5000E+00 |
| 34.30  | 0.2400E+00 |
| 40.50  | 0.2700E+00 |
| 46.80  | 0.2900E+00 |
| 52.90  | 0.2500E+00 |
| 60.10  | 0.2200E+00 |
| 67.20  | 0.1200E+00 |
| 72.30  | 0.9700E-01 |
| 79.40  | 0.9200E-01 |
| 85.40  | 0.6200E-01 |
| 91.50  | 0.5600E-01 |
| 97.50  | 0.7000E-01 |
| 103.40 | 0.8000E-01 |
| 110.40 | 0.1300E+00 |
| 117.20 | 0.1100E+00 |
| 124.10 | 0.1400E+00 |
| 130.90 | 0.1100E+00 |
| 136.80 | 0.1300E+00 |
| 142.60 | 0.1400E+00 |
| 148.30 | 0.1800E+00 |
| 154.10 | 0.1900E+00 |
| 159.90 | 0.2200E+00 |
| 165.60 | 0.2100E+00 |

INCIDENT ENERGY= 25.44 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1300E+01 |
| 21.90  | 0.6000E+00 |
| 28.10  | 0.2400E+00 |
| 34.30  | 0.1600E+00 |
| 40.50  | 0.1500E+00 |
| 46.80  | 0.1600E+00 |
| 52.90  | 0.1600E+00 |
| 60.10  | 0.1700E+00 |
| 67.20  | 0.1900E+00 |
| 72.30  | 0.1200E+00 |
| 79.40  | 0.5000E-01 |
| 85.40  | 0.2300E-01 |
| 91.50  | 0.3900E-01 |
| 97.50  | 0.8000E-01 |
| 103.40 | 0.1200E+00 |
| 110.40 | 0.1400E+00 |
| 117.20 | 0.1100E+00 |
| 124.10 | 0.5400E-01 |
| 130.90 | 0.3700E-01 |
| 136.80 | 0.9000E-01 |
| 142.60 | 0.1500E+00 |
| 148.30 | 0.2200E+00 |
| 154.10 | 0.2300E+00 |
| 159.90 | 0.2900E+00 |
| 165.60 | 0.3500E+00 |

INCIDENT ENERGY= 24.24 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1570E+01 |
| 21.80  | 0.6250E+00 |
| 28.10  | 0.4330E+00 |
| 34.30  | 0.2880E+00 |
| 40.50  | 0.2630E+00 |
| 46.60  | 0.2430E+00 |
| 52.80  | 0.2220E+00 |
| 60.00  | 0.1940E+00 |
| 67.10  | 0.1370E+00 |
| 73.20  | 0.1180E+00 |
| 79.30  | 0.7400E-01 |
| 85.30  | 0.7200E-01 |
| 91.30  | 0.8300E-01 |
| 97.30  | 0.9700E-01 |
| 103.30 | 0.1040E+00 |
| 110.20 | 0.9700E-01 |
| 117.10 | 0.8500E-01 |
| 124.00 | 0.7550E-01 |
| 131.00 | 0.9900E-01 |
| 136.70 | 0.1130E+00 |
| 142.50 | 0.1740E+00 |
| 148.30 | 0.1790E+00 |
| 154.10 | 0.1800E+00 |
| 159.90 | 0.2000E+00 |
| 165.60 | 0.2130E+00 |

INCIDENT ENERGY= 26.34 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.8600E+00 |
| 21.80  | 0.4000E+00 |
| 28.04  | 0.3300E+00 |
| 34.25  | 0.2100E+00 |
| 40.45  | 0.1900E+00 |
| 46.60  | 0.1400E+00 |
| 52.80  | 0.1400E+00 |
| 59.90  | 0.1600E+00 |
| 67.10  | 0.1600E+00 |
| 73.20  | 0.1300E+00 |
| 79.24  | 0.9000E-01 |
| 85.30  | 0.7000E-01 |
| 91.30  | 0.5000E-01 |
| 97.30  | 0.9000E-01 |
| 103.30 | 0.1300E+00 |
| 110.20 | 0.1400E+00 |
| 117.10 | 0.1200E+00 |
| 124.00 | 0.8000E-01 |
| 131.00 | 0.6000E-01 |
| 136.60 | 0.8000E-01 |
| 142.40 | 0.1500E+00 |
| 148.20 | 0.1700E+00 |
| 154.00 | 0.2500E+00 |
| 160.00 | 0.2200E+00 |
| 165.60 | 0.1400E+00 |

INCIDENT ENERGY= 27.30 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.1200E+01 |
| 21.70  | 0.3800E+01 |
| 27.90  | 0.1400E+00 |
| 34.10  | 0.1500E+00 |
| 40.30  | 0.1900E+00 |
| 46.50  | 0.1000E+00 |
| 52.60  | 0.1500E+00 |
| 59.70  | 0.1300E+00 |
| 66.90  | 0.1200E+00 |
| 72.90  | 0.8000E-01 |
| 79.00  | 0.7000E-01 |
| 85.00  | 0.5000E-01 |
| 91.00  | 0.5000E-01 |
| 97.00  | 0.1200E+00 |
| 103.00 | 0.1400E+00 |
| 110.00 | 0.1500E+00 |
| 116.80 | 0.1000E+00 |
| 123.70 | 0.6000E-01 |
| 130.60 | 0.6000E-01 |
| 136.50 | 0.8000E-01 |
| 142.30 | 0.1500E+00 |
| 148.10 | 0.2300E+00 |
| 153.90 | 0.2400E+00 |
| 159.70 | 0.2400E+00 |
| 165.50 | 0.2000E+00 |

INCIDENT ENERGY= 29.47 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1400E+01 |
| 21.90  | 0.4900E+00 |
| 28.10  | 0.3200E+00 |
| 34.30  | 0.3000E+00 |
| 40.50  | 0.3000E+00 |
| 46.80  | 0.1700E+00 |
| 52.90  | 0.1200E+00 |
| 60.10  | 0.1300E+00 |
| 67.20  | 0.1500E+00 |
| 73.30  | 0.1400E+00 |
| 79.40  | 0.8100E-01 |
| 85.40  | 0.5600E-01 |
| 91.50  | 0.7000E-01 |
| 97.50  | 0.9600E-01 |
| 103.40 | 0.1600E+00 |
| 110.40 | 0.1600E+00 |
| 117.20 | 0.1100E+00 |
| 124.10 | 0.4200E-01 |
| 130.90 | 0.1500E-01 |
| 136.80 | 0.5600E-01 |
| 142.60 | 0.1300E+00 |
| 148.30 | 0.2100E+00 |
| 154.10 | 0.2700E+00 |
| 159.90 | 0.2500E+00 |
| 165.60 | 0.1900E+00 |

INCIDENT ENERGY= 28.37 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.50  | 0.1110E+01 |
| 21.74  | 0.5300E+00 |
| 27.94  | 0.2200E+00 |
| 34.12  | 0.2540E+00 |
| 40.29  | 0.2050E+00 |
| 46.46  | 0.1650E+00 |
| 52.60  | 0.1260E+00 |
| 59.75  | 0.1160E+00 |
| 66.87  | 0.1100E+00 |
| 72.95  | 0.1220E+00 |
| 79.00  | 0.8100E-01 |
| 85.05  | 0.6300E-01 |
| 91.06  | 0.8100E-01 |
| 97.05  | 0.9800E-01 |
| 103.02 | 0.1650E+00 |
| 109.96 | 0.1700E+00 |
| 116.86 | 0.1170E+00 |
| 123.75 | 0.5500E-01 |
| 130.60 | 0.2700E-01 |
| 136.45 | 0.5800E-01 |
| 142.30 | 0.9400E-01 |
| 148.12 | 0.1810E+00 |
| 153.94 | 0.2200E+00 |
| 159.74 | 0.2130E+00 |
| 165.53 | 0.1700E+00 |

INCIDENT ENERGY= 30.50 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1100E+01 |
| 21.90  | 0.4700E+00 |
| 28.10  | 0.2300E+00 |
| 34.30  | 0.2900E+00 |
| 40.50  | 0.2900E+00 |
| 46.80  | 0.1700E+00 |
| 52.90  | 0.1000E+00 |
| 60.10  | 0.1000E+00 |
| 67.20  | 0.1500E+00 |
| 73.30  | 0.1500E+00 |
| 79.40  | 0.9000E-01 |
| 85.40  | 0.5500E-01 |
| 91.50  | 0.6000E-01 |
| 97.50  | 0.1030E+00 |
| 103.40 | 0.1300E+00 |
| 110.40 | 0.1500E+00 |
| 117.20 | 0.1100E+00 |
| 124.10 | 0.3100E-01 |
| 130.90 | 0.1900E-01 |
| 136.80 | 0.6700E-01 |
| 142.60 | 0.1200E+00 |
| 148.30 | 0.2100E+00 |
| 154.10 | 0.2600E+00 |
| 159.90 | 0.2400E+00 |
| 165.60 | 0.1900E+00 |

INCIDENT ENERGY= 31.53 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1260E+01 |
| 21.90  | 0.3400E+00 |
| 28.10  | 0.3300E+00 |
| 34.30  | 0.3500E+00 |
| 40.50  | 0.2800E+00 |
| 46.80  | 0.1600E+00 |
| 52.90  | 0.4500E-01 |
| 60.10  | 0.9500E-01 |
| 67.20  | 0.1400E+00 |
| 73.30  | 0.1400E+00 |
| 79.40  | 0.9700E-01 |
| 85.40  | 0.6700E-01 |
| 91.50  | 0.7000E-01 |
| 97.50  | 0.1100E+00 |
| 103.40 | 0.1300E+00 |
| 110.40 | 0.1200E+00 |
| 117.20 | 0.7500E-01 |
| 124.10 | 0.2200E-01 |
| 130.90 | 0.1200E-01 |
| 136.80 | 0.4400E-01 |
| 142.60 | 0.9500E-01 |
| 148.30 | 0.1700E+00 |
| 154.10 | 0.2200E+00 |
| 159.90 | 0.2000E+00 |
| 165.60 | 0.1400E+00 |

INCIDENT ENERGY= 32.47 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.1300E+01 |
| 21.90  | 0.4000E+00 |
| 28.10  | 0.3100E+00 |
| 34.30  | 0.4200E+00 |
| 40.50  | 0.3400E+00 |
| 46.80  | 0.2100E+00 |
| 52.90  | 0.4300E-01 |
| 60.10  | 0.1100E+00 |
| 67.20  | 0.1700E+00 |
| 73.30  | 0.1200E+00 |
| 79.40  | 0.1100E+00 |
| 85.40  | 0.7800E-01 |
| 91.50  | 0.9500E-01 |
| 97.50  | 0.1200E+00 |
| 103.40 | 0.1400E+00 |
| 110.40 | 0.1200E+00 |
| 117.20 | 0.7800E-01 |
| 124.10 | 0.3600E-01 |
| 130.90 | 0.1800E-01 |
| 136.80 | 0.4300E-01 |
| 142.60 | 0.1100E+00 |
| 148.30 | 0.1700E+00 |
| 154.10 | 0.2000E+00 |
| 159.90 | 0.2000E+00 |
| 165.60 | 0.1400E+00 |

INCIDENT ENERGY= 33.71 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.8300E+00 |
| 21.90  | 0.4900E+00 |
| 28.10  | 0.2900E+00 |
| 34.30  | 0.4000E+00 |
| 40.50  | 0.2700E+00 |
| 46.80  | 0.1600E+00 |
| 52.90  | 0.9000E-01 |
| 60.10  | 0.1100E+00 |
| 67.20  | 0.1300E+00 |
| 73.30  | 0.9200E-01 |
| 79.40  | 0.8500E-01 |
| 85.40  | 0.6600E-01 |
| 91.50  | 0.1000E+00 |
| 97.50  | 0.1300E+00 |
| 103.40 | 0.1300E+00 |
| 110.40 | 0.9200E-01 |
| 117.20 | 0.6300E-01 |
| 124.10 | 0.3400E-01 |
| 130.90 | 0.2900E-01 |
| 136.80 | 0.5000E-01 |
| 142.60 | 0.9800E-01 |
| 148.30 | 0.1600E+00 |
| 154.10 | 0.1700E+00 |
| 159.90 | 0.1400E+00 |
| 165.60 | 0.1200E+00 |

INCIDENT ENERGY= 34.73 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.7300E+00 |
| 21.90  | 0.2500E+00 |
| 28.10  | 0.3000E+00 |
| 34.30  | 0.4000E+00 |
| 40.50  | 0.3100E+00 |
| 46.80  | 0.1300E+00 |
| 52.90  | 0.1000E+00 |
| 60.10  | 0.1600E+00 |
| 67.20  | 0.1400E+00 |
| 73.30  | 0.1000E+00 |
| 79.40  | 0.9000E-01 |
| 85.40  | 0.8700E-01 |
| 91.50  | 0.9500E-01 |
| 97.50  | 0.1100E+00 |
| 103.40 | 0.1100E+00 |
| 110.40 | 0.8100E-01 |
| 117.20 | 0.5200E-01 |
| 124.10 | 0.3200E-01 |
| 130.90 | 0.2400E-01 |
| 136.80 | 0.4500E-01 |
| 142.60 | 0.8900E-01 |
| 148.30 | 0.1200E+00 |
| 154.10 | 0.1600E+00 |
| 159.90 | 0.1500E+00 |
| 165.60 | 0.1100E+00 |

INCIDENT ENERGY= 35.97 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.6400E+00 |
| 21.90  | 0.3100E+00 |
| 28.10  | 0.3900E+00 |
| 34.30  | 0.3600E+00 |
| 40.50  | 0.2600E+00 |
| 46.80  | 0.7200E-01 |
| 52.90  | 0.6300E-01 |
| 60.10  | 0.1200E+00 |
| 67.20  | 0.1100E+00 |
| 73.30  | 0.9500E-01 |
| 79.40  | 0.8200E-01 |
| 85.40  | 0.8300E-01 |
| 91.50  | 0.9200E-01 |
| 97.50  | 0.1000E+00 |
| 103.40 | 0.8400E-01 |
| 110.40 | 0.6300E-01 |
| 117.20 | 0.3200E-01 |
| 124.10 | 0.2900E-01 |
| 130.90 | 0.3100E-01 |
| 136.80 | 0.5100E-01 |
| 142.60 | 0.8700E-01 |
| 148.30 | 0.1200E+00 |
| 154.10 | 0.1500E+00 |
| 159.90 | 0.1400E+00 |
| 165.60 | 0.1000E+00 |

INCIDENT ENERGY= 38.59 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.5900E+00 |
| 21.90  | 0.2000E+00 |
| 28.10  | 0.3000E+00 |
| 34.30  | 0.3500E+00 |
| 40.50  | 0.1900E+00 |
| 46.80  | 0.7000E-01 |
| 52.90  | 0.9300E-01 |
| 60.10  | 0.1200E+00 |
| 67.20  | 0.9500E-01 |
| 73.30  | 0.6300E-01 |
| 79.40  | 0.7600E-01 |
| 85.40  | 0.8900E-01 |
| 91.50  | 0.9300E-01 |
| 97.50  | 0.8500E-01 |
| 103.40 | 0.5900E-01 |
| 110.40 | 0.5000E-01 |
| 117.20 | 0.3500E-01 |
| 124.10 | 0.3500E-01 |
| 130.90 | 0.3800E-01 |
| 136.80 | 0.4300E-01 |
| 142.60 | 0.5800E-01 |
| 148.30 | 0.9300E-01 |
| 154.10 | 0.9600E-01 |
| 159.90 | 0.9500E-01 |
| 165.60 | 0.7900E-01 |

INCIDENT ENERGY= 37.21 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.4400E+00 |
| 21.90  | 0.1800E+00 |
| 28.10  | 0.3000E+00 |
| 34.30  | 0.3100E+00 |
| 40.50  | 0.1500E+00 |
| 46.80  | 0.9800E-01 |
| 52.90  | 0.8900E-01 |
| 60.10  | 0.1100E+00 |
| 67.20  | 0.1000E+00 |
| 73.30  | 0.8300E-01 |
| 79.40  | 0.6400E-01 |
| 85.40  | 0.7100E-01 |
| 91.50  | 0.9300E-01 |
| 97.50  | 0.7800E-01 |
| 103.40 | 0.7500E-01 |
| 110.40 | 0.4500E-01 |
| 117.20 | 0.3100E-01 |
| 124.10 | 0.2800E-01 |
| 130.90 | 0.3100E-01 |
| 136.80 | 0.3800E-01 |
| 142.60 | 0.6200E-01 |
| 148.30 | 0.7200E-01 |
| 154.10 | 0.1200E+00 |
| 159.90 | 0.1000E+00 |
| 165.60 | 0.7700E-01 |

INCIDENT ENERGY= 40.21 MEV

28SI 0+(4.98 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.60  | 0.6100E+00 |
| 21.90  | 0.2200E+00 |
| 28.10  | 0.3600E+00 |
| 34.30  | 0.4000E+00 |
| 40.50  | 0.1800E+00 |
| 46.80  | 0.7000E-01 |
| 52.90  | 0.1000E+00 |
| 60.10  | 0.1300E+00 |
| 67.20  | 0.1200E+00 |
| 73.30  | 0.1000E+00 |
| 79.40  | 0.9500E-01 |
| 85.40  | 0.8900E-01 |
| 91.50  | 0.9800E-01 |
| 97.50  | 0.8300E-01 |
| 103.40 | 0.4900E-01 |
| 110.40 | 0.4000E-01 |
| 117.20 | 0.3500E-01 |
| 124.10 | 0.3600E-01 |
| 130.90 | 0.3200E-01 |
| 136.80 | 0.3600E-01 |
| 142.60 | 0.4800E-01 |
| 148.30 | 0.6300E-01 |
| 154.10 | 0.7100E-01 |
| 159.90 | 0.7500E-01 |
| 165.60 | 0.6400E-01 |

INCIDENT ENERGY= 14.26 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.36  | 0.1480E+01 |
| 40.60  | 0.1430E+01 |
| 47.80  | 0.1430E+01 |
| 53.00  | 0.1730E+01 |
| 60.11  | 0.1990E+01 |
| 67.26  | 0.2050E+01 |
| 73.50  | 0.2030E+01 |
| 79.40  | 0.1990E+01 |
| 85.50  | 0.2140E+01 |
| 91.50  | 0.2000E+01 |
| 97.50  | 0.2090E+01 |
| 103.44 | 0.1950E+01 |
| 110.40 | 0.1440E+01 |
| 117.30 | 0.1660E+01 |
| 124.11 | 0.1540E+01 |
| 130.90 | 0.1260E+01 |
| 136.76 | 0.7900E+00 |
| 142.60 | 0.7900E+00 |
| 148.40 | 0.7600E+00 |
| 154.13 | 0.5900E+00 |
| 159.90 | 0.5900E+00 |
| 165.64 | 0.4200E+00 |

INCIDENT ENERGY= 15.34 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.12  | 0.9700E+00 |
| 40.30  | 0.9000E+00 |
| 46.46  | 0.6900E+00 |
| 52.60  | 0.5600E+00 |
| 59.75  | 0.5700E+00 |
| 66.87  | 0.5600E+00 |
| 72.95  | 0.7200E+00 |
| 79.00  | 0.7800E+00 |
| 85.05  | 0.1040E+01 |
| 91.06  | 0.1280E+01 |
| 97.05  | 0.1530E+01 |
| 103.20 | 0.1750E+01 |
| 109.96 | 0.1800E+01 |
| 116.87 | 0.1430E+01 |
| 123.75 | 0.1420E+01 |
| 130.60 | 0.1120E+01 |
| 136.46 | 0.1080E+01 |
| 142.30 | 0.1010E+01 |
| 148.12 | 0.1130E+01 |
| 153.94 | 0.1110E+01 |
| 159.74 | 0.1340E+01 |
| 165.53 | 0.1470E+01 |

INCIDENT ENERGY= 15.83 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.12  | 0.8200E+00 |
| 40.29  | 0.7600E+00 |
| 46.45  | 0.7800E+00 |
| 52.60  | 0.8440E+00 |
| 59.75  | 0.8300E+00 |
| 66.87  | 0.8800E+00 |
| 72.95  | 0.8900E+00 |
| 79.00  | 0.8500E+00 |
| 85.04  | 0.9520E+00 |
| 91.06  | 0.1120E+01 |
| 97.05  | 0.1510E+01 |
| 103.00 | 0.1330E+01 |
| 109.96 | 0.1540E+01 |
| 116.87 | 0.1280E+01 |
| 123.75 | 0.1150E+01 |
| 130.60 | 0.1070E+01 |
| 136.46 | 0.8420E+00 |
| 142.29 | 0.3640E+00 |
| 148.12 | 0.1060E+01 |
| 153.93 | 0.1390E+01 |
| 159.70 | 0.1670E+01 |
| 165.50 | 0.1760E+01 |

INCIDENT ENERGY= 16.30 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.45  | 0.5670E+00 |
| 40.68  | 0.5660E+00 |
| 46.88  | 0.5860E+00 |
| 53.10  | 0.6580E+00 |
| 60.26  | 0.7820E+00 |
| 67.41  | 0.8550E+00 |
| 73.51  | 0.8500E+00 |
| 79.60  | 0.9450E+00 |
| 85.60  | 0.9730E+00 |
| 91.70  | 0.1000E+01 |
| 97.70  | 0.1060E+01 |
| 103.60 | 0.1040E+01 |
| 110.50 | 0.1050E+01 |
| 117.40 | 0.1100E+01 |
| 124.30 | 0.1050E+01 |
| 131.10 | 0.9970E+00 |
| 136.90 | 0.9440E+00 |
| 142.70 | 0.8000E+00 |
| 148.50 | 0.7200E+00 |
| 154.21 | 0.7100E+00 |
| 160.00 | 0.6750E+00 |
| 165.70 | 0.5860E+00 |

INCIDENT ENERGY= 16.80 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.43  | 0.6600E+00 |
| 40.66  | 0.7400E+00 |
| 46.86  | 0.7600E+00 |
| 53.04  | 0.7800E+00 |
| 60.23  | 0.8400E+00 |
| 67.39  | 0.8350E+00 |
| 73.50  | 0.8000E+00 |
| 79.57  | 0.8200E+00 |
| 85.61  | 0.7400E+00 |
| 91.63  | 0.7200E+00 |
| 97.62  | 0.7300E+00 |
| 103.54 | 0.7700E+00 |
| 110.50 | 0.7900E+00 |
| 117.39 | 0.8200E+00 |
| 124.23 | 0.8800E+00 |
| 131.05 | 0.9500E+00 |
| 136.84 | 0.9000E+00 |
| 142.66 | 0.8500E+00 |
| 148.43 | 0.7900E+00 |
| 154.20 | 0.7500E+00 |
| 159.94 | 0.7000E+00 |
| 165.68 | 0.6100E+00 |

INCIDENT ENERGY= 17.24 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.42  | 0.9060E+00 |
| 40.64  | 0.8190E+00 |
| 46.85  | 0.7740E+00 |
| 53.04  | 0.8000E+00 |
| 60.22  | 0.9200E+00 |
| 67.37  | 0.9060E+00 |
| 73.47  | 0.1050E+01 |
| 79.55  | 0.1220E+01 |
| 85.60  | 0.1210E+01 |
| 91.60  | 0.1230E+01 |
| 97.60  | 0.1246E+01 |
| 103.60 | 0.1137E+01 |
| 110.50 | 0.1074E+01 |
| 117.40 | 0.1000E+01 |
| 124.20 | 0.9620E+00 |
| 131.03 | 0.9890E+00 |
| 136.85 | 0.9850E+00 |
| 142.65 | 0.1000E+01 |
| 148.42 | 0.9300E+00 |
| 154.18 | 0.9110E+00 |
| 159.90 | 0.8310E+00 |
| 165.70 | 0.7930E+00 |

INCIDENT ENERGY= 17.67 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.41  | 0.3690E+00 |
| 40.63  | 0.4050E+00 |
| 46.84  | 0.3950E+00 |
| 53.02  | 0.4230E+00 |
| 60.20  | 0.4350E+00 |
| 67.35  | 0.4800E+00 |
| 73.46  | 0.5600E+00 |
| 79.53  | 0.5700E+00 |
| 85.58  | 0.7080E+00 |
| 91.60  | 0.8120E+00 |
| 97.59  | 0.7760E+00 |
| 103.55 | 0.8060E+00 |
| 110.47 | 0.7900E+00 |
| 117.35 | 0.7200E+00 |
| 124.20 | 0.6820E+00 |
| 131.02 | 0.6800E+00 |
| 136.84 | 0.5600E+00 |
| 142.63 | 0.5400E+00 |
| 148.41 | 0.4720E+00 |
| 154.18 | 0.4720E+00 |
| 159.93 | 0.3120E+00 |
| 165.67 | 0.2360E+00 |

INCIDENT ENERGY= 18.18 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.40  | 0.4450E+00 |
| 40.62  | 0.4170E+00 |
| 46.82  | 0.4830E+00 |
| 53.00  | 0.5170E+00 |
| 60.20  | 0.5420E+00 |
| 67.33  | 0.5200E+00 |
| 73.40  | 0.5600E+00 |
| 79.51  | 0.5000E+00 |
| 85.55  | 0.4520E+00 |
| 91.57  | 0.4150E+00 |
| 97.56  | 0.4110E+00 |
| 103.52 | 0.4300E+00 |
| 110.45 | 0.4490E+00 |
| 117.33 | 0.6100E+00 |
| 120.18 | 0.6840E+00 |
| 131.00 | 0.8440E+00 |
| 136.81 | 0.9240E+00 |
| 142.62 | 0.8520E+00 |
| 148.40 | 0.8360E+00 |
| 154.17 | 0.7610E+00 |
| 159.90 | 0.6650E+00 |
| 165.70 | 0.5020E+00 |

INCIDENT ENERGY= 18.73 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.40  | 0.3900E+00 |
| 40.61  | 0.3600E+00 |
| 46.81  | 0.3600E+00 |
| 53.00  | 0.4000E+00 |
| 60.17  | 0.4630E+00 |
| 67.32  | 0.5200E+00 |
| 73.42  | 0.4970E+00 |
| 79.48  | 0.4670E+00 |
| 85.54  | 0.4400E+00 |
| 91.56  | 0.4630E+00 |
| 97.55  | 0.4700E+00 |
| 103.51 | 0.5820E+00 |
| 110.43 | 0.6340E+00 |
| 117.32 | 0.6300E+00 |
| 124.17 | 0.7100E+00 |
| 130.99 | 0.6910E+00 |
| 136.81 | 0.6840E+00 |
| 142.61 | 0.6070E+00 |
| 148.39 | 0.5950E+00 |
| 154.16 | 0.5430E+00 |
| 159.92 | 0.4660E+00 |
| 165.66 | 0.4460E+00 |

INCIDENT ENERGY= 19.23 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.38  | 0.4500E+00 |
| 40.60  | 0.3490E+00 |
| 46.80  | 0.3700E+00 |
| 52.97  | 0.3780E+00 |
| 60.15  | 0.4780E+00 |
| 67.30  | 0.4800E+00 |
| 73.40  | 0.4750E+00 |
| 79.47  | 0.4560E+00 |
| 85.52  | 0.4430E+00 |
| 91.55  | 0.4970E+00 |
| 97.52  | 0.4780E+00 |
| 103.49 | 0.5050E+00 |
| 110.41 | 0.5390E+00 |
| 117.36 | 0.5290E+00 |
| 124.15 | 0.5630E+00 |
| 130.97 | 0.6060E+00 |
| 136.80 | 0.6200E+00 |
| 142.59 | 0.6380E+00 |
| 148.38 | 0.6410E+00 |
| 154.15 | 0.6050E+00 |
| 159.91 | 0.4650E+00 |
| 165.60 | 0.3220E+00 |

INCIDENT ENERGY= 19.70 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.38  | 0.2720E+00 |
| 40.60  | 0.2590E+00 |
| 46.79  | 0.2580E+00 |
| 52.97  | 0.2500E+00 |
| 60.15  | 0.2410E+00 |
| 68.40  | 0.2200E+00 |
| 73.40  | 0.2200E+00 |
| 79.47  | 0.2140E+00 |
| 85.51  | 0.2680E+00 |
| 91.54  | 0.3320E+00 |
| 97.52  | 0.4120E+00 |
| 103.50 | 0.4650E+00 |
| 110.41 | 0.5570E+00 |
| 117.30 | 0.6190E+00 |
| 124.15 | 0.6070E+00 |
| 130.97 | 0.6000E+00 |
| 136.80 | 0.6560E+00 |
| 142.60 | 0.7210E+00 |
| 148.38 | 0.7290E+00 |
| 154.15 | 0.6940E+00 |
| 159.90 | 0.5200E+00 |
| 164.65 | 0.4970E+00 |

INCIDENT ENERGY= 20.17 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.36  | 0.2300E+00 |
| 40.58  | 0.2310E+00 |
| 46.77  | 0.2140E+00 |
| 59.95  | 0.2240E+00 |
| 60.12  | 0.2100E+00 |
| 67.27  | 0.2100E+00 |
| 73.37  | 0.1960E+00 |
| 79.44  | 0.2200E+00 |
| 85.49  | 0.2420E+00 |
| 91.50  | 0.2840E+00 |
| 97.49  | 0.3270E+00 |
| 103.46 | 0.3690E+00 |
| 110.38 | 0.4020E+00 |
| 117.27 | 0.4300E+00 |
| 124.12 | 0.4140E+00 |
| 130.94 | 0.3950E+00 |
| 130.77 | 0.3620E+00 |
| 142.58 | 0.3550E+00 |
| 148.36 | 0.3020E+00 |
| 154.14 | 0.2870E+00 |
| 159.89 | 0.2400E+00 |
| 165.65 | 0.2440E+00 |

INCIDENT ENERGY= 21.35 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.34  | 0.2390E+00 |
| 40.55  | 0.2100E+00 |
| 46.75  | 0.2100E+00 |
| 52.92  | 0.2300E+00 |
| 60.10  | 0.2500E+00 |
| 67.24  | 0.3100E+00 |
| 73.34  | 0.3150E+00 |
| 79.41  | 0.3190E+00 |
| 85.45  | 0.3300E+00 |
| 91.47  | 0.3500E+00 |
| 97.46  | 0.3600E+00 |
| 103.43 | 0.3700E+00 |
| 110.35 | 0.3700E+00 |
| 117.24 | 0.3500E+00 |
| 124.10 | 0.3500E+00 |
| 130.91 | 0.3400E+00 |
| 136.76 | 0.3500E+00 |
| 142.55 | 0.3600E+00 |
| 148.35 | 0.3600E+00 |
| 154.12 | 0.3200E+00 |
| 159.89 | 0.2700E+00 |
| 165.64 | 0.2500E+00 |

INCIDENT ENERGY= 22.70 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.30  | 0.2500E+00 |
| 40.54  | 0.2160E+00 |
| 46.73  | 0.2190E+00 |
| 52.90  | 0.2430E+00 |
| 60.07  | 0.2700E+00 |
| 67.21  | 0.2550E+00 |
| 73.31  | 0.2400E+00 |
| 79.38  | 0.2230E+00 |
| 85.43  | 0.2240E+00 |
| 91.44  | 0.2290E+00 |
| 97.43  | 0.2390E+00 |
| 103.40 | 0.2440E+00 |
| 110.32 | 0.3040E+00 |
| 117.21 | 0.3310E+00 |
| 124.07 | 0.3930E+00 |
| 130.90 | 0.4430E+00 |
| 136.70 | 0.4460E+00 |
| 142.54 | 0.4550E+00 |
| 148.33 | 0.4390E+00 |
| 154.11 | 0.4010E+00 |
| 159.90 | 0.3220E+00 |
| 165.63 | 0.2350E+00 |

INCIDENT ENERGY= 23.60 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.2330E+00 |
| 40.30  | 0.1230E+00 |
| 46.50  | 0.1720E+00 |
| 52.60  | 0.1860E+00 |
| 59.70  | 0.2170E+00 |
| 66.90  | 0.2200E+00 |
| 72.90  | 0.2300E+00 |
| 79.00  | 0.2260E+00 |
| 85.00  | 0.2230E+00 |
| 91.00  | 0.2290E+00 |
| 97.00  | 0.2340E+00 |
| 103.00 | 0.2380E+00 |
| 110.00 | 0.2670E+00 |
| 116.80 | 0.2600E+00 |
| 123.70 | 0.2610E+00 |
| 130.60 | 0.2300E+00 |
| 136.50 | 0.2330E+00 |
| 142.30 | 0.2180E+00 |
| 148.10 | 0.1970E+00 |
| 153.90 | 0.1570E+00 |
| 159.70 | 0.1380E+00 |
| 165.60 | 0.1260E+00 |

INCIDENT ENERGY= 24.24 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.30  | 0.2090E+00 |
| 40.50  | 0.2110E+00 |
| 46.60  | 0.2140E+00 |
| 52.80  | 0.2070E+00 |
| 60.00  | 0.1850E+00 |
| 67.10  | 0.1720E+00 |
| 73.20  | 0.1920E+00 |
| 79.30  | 0.1710E+00 |
| 85.30  | 0.1650E+00 |
| 91.30  | 0.1790E+00 |
| 97.30  | 0.1800E+00 |
| 103.30 | 0.1760E+00 |
| 110.20 | 0.1840E+00 |
| 117.10 | 0.2200E+00 |
| 124.00 | 0.2340E+00 |
| 131.00 | 0.2580E+00 |
| 136.70 | 0.2680E+00 |
| 142.50 | 0.2560E+00 |
| 148.30 | 0.2180E+00 |
| 154.10 | 0.1990E+00 |
| 159.90 | 0.1420E+00 |
| 165.60 | 0.7000E-01 |

INCIDENT ENERGY= 25.44 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.40  | 0.1080E+00 |
| 40.60  | 0.1340E+00 |
| 46.80  | 0.1720E+00 |
| 52.90  | 0.1810E+00 |
| 60.10  | 0.1670E+00 |
| 67.30  | 0.1980E+00 |
| 73.30  | 0.1660E+00 |
| 79.40  | 0.1580E+00 |
| 85.40  | 0.1410E+00 |
| 91.50  | 0.1210E+00 |
| 97.50  | 0.1240E+00 |
| 103.50 | 0.1100E+00 |
| 110.40 | 0.1250E+00 |
| 117.30 | 0.1470E+00 |
| 124.20 | 0.1410E+00 |
| 130.90 | 0.1630E+00 |
| 136.80 | 0.1770E+00 |
| 142.60 | 0.1690E+00 |
| 148.30 | 0.1380E+00 |
| 154.30 | 0.9800E-01 |
| 160.00 | 0.5800E-01 |
| 166.60 | 0.4300E-01 |

INCIDENT ENERGY= 26.34 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.25  | 0.1500E+00 |
| 40.45  | 0.2000E+00 |
| 46.60  | 0.2300E+00 |
| 52.80  | 0.2500E+00 |
| 59.90  | 0.2200E+00 |
| 67.10  | 0.2200E+00 |
| 73.20  | 0.1800E+00 |
| 79.24  | 0.1700E+00 |
| 85.30  | 0.1300E+00 |
| 91.30  | 0.1500E+00 |
| 97.30  | 0.1300E+00 |
| 103.30 | 0.1500E+00 |
| 110.20 | 0.1200E+00 |
| 117.10 | 0.1200E+00 |
| 124.00 | 0.1000E+00 |
| 131.00 | 0.1300E+00 |
| 136.60 | 0.1200E+00 |
| 142.40 | 0.1100E+00 |
| 148.20 | 0.1100E+00 |
| 154.00 | 0.1000E+00 |
| 160.00 | 0.9000E-01 |
| 165.60 | 0.4000E-01 |

INCIDENT ENERGY= 27.30 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.1100E+00 |
| 40.30  | 0.1500E+00 |
| 46.50  | 0.1600E+00 |
| 52.60  | 0.1800E+00 |
| 59.70  | 0.1500E+00 |
| 66.90  | 0.1600E+00 |
| 72.90  | 0.1600E+00 |
| 79.00  | 0.1500E+00 |
| 85.00  | 0.1100E+00 |
| 91.00  | 0.1000E+00 |
| 97.00  | 0.9700E-01 |
| 103.00 | 0.8400E-01 |
| 110.00 | 0.8000E-01 |
| 116.80 | 0.7000E-01 |
| 123.70 | 0.8000E-01 |
| 130.60 | 0.1000E+00 |
| 136.50 | 0.1000E+00 |
| 142.30 | 0.1000E+00 |
| 148.10 | 0.7000E-01 |
| 153.90 | 0.6000E-01 |
| 159.70 | 0.5000E-01 |
| 165.50 | 0.3200E-01 |

INCIDENT ENERGY= 28.37 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.12  | 0.9300E-01 |
| 40.29  | 0.1290E+00 |
| 46.46  | 0.1440E+00 |
| 52.60  | 0.1590E+00 |
| 59.75  | 0.1620E+00 |
| 66.87  | 0.1460E+00 |
| 72.95  | 0.1190E+00 |
| 79.00  | 0.1020E+00 |
| 85.05  | 0.8800E-01 |
| 91.06  | 0.8200E-01 |
| 97.05  | 0.8100E-01 |
| 103.02 | 0.7500E-01 |
| 109.96 | 0.7200E-01 |
| 116.86 | 0.5700E-01 |
| 123.75 | 0.6200E-01 |
| 130.60 | 0.6600E-01 |
| 136.45 | 0.6400E-01 |
| 142.30 | 0.7300E-01 |
| 148.12 | 0.6800E-01 |
| 153.94 | 0.6500E-01 |
| 159.74 | 0.4950E-01 |
| 165.53 | 0.3200E-01 |

INCIDENT ENERGY= 29.47 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.1440E+00 |
| 40.30  | 0.1460E+00 |
| 46.50  | 0.1760E+00 |
| 52.60  | 0.1700E+00 |
| 59.70  | 0.1750E+00 |
| 66.90  | 0.1490E+00 |
| 72.90  | 0.1330E+00 |
| 79.00  | 0.8800E-01 |
| 85.00  | 0.8300E-01 |
| 91.00  | 0.7100E-01 |
| 97.00  | 0.6200E-01 |
| 103.00 | 0.6600E-01 |
| 110.00 | 0.6200E-01 |
| 116.80 | 0.7500E-01 |
| 123.70 | 0.7500E-01 |
| 130.60 | 0.7600E-01 |
| 136.50 | 0.7100E-01 |
| 142.30 | 0.7200E-01 |
| 148.10 | 0.6000E-01 |
| 153.90 | 0.6100E-01 |
| 159.70 | 0.4400E-01 |
| 165.50 | 0.3700E-01 |

INCIDENT ENERGY= 30.50 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.1240E+00 |
| 40.30  | 0.1240E+00 |
| 46.50  | 0.1460E+00 |
| 52.60  | 0.1540E+00 |
| 59.70  | 0.1530E+00 |
| 66.90  | 0.1200E+00 |
| 72.90  | 0.1000E+00 |
| 79.00  | 0.8700E-01 |
| 85.00  | 0.7300E-01 |
| 91.00  | 0.6200E-01 |
| 97.00  | 0.4900E-01 |
| 103.00 | 0.5200E-01 |
| 110.00 | 0.5900E-01 |
| 116.80 | 0.5400E-01 |
| 123.70 | 0.5100E-01 |
| 130.60 | 0.5700E-01 |
| 136.50 | 0.5800E-01 |
| 142.30 | 0.6500E-01 |
| 148.10 | 0.5400E-01 |
| 153.90 | 0.5500E-01 |
| 159.70 | 0.3800E-01 |
| 165.50 | 0.2200E-01 |

INCIDENT ENERGY= 31.53 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.1240E+00 |
| 40.30  | 0.1370E+00 |
| 46.50  | 0.1400E+00 |
| 52.60  | 0.1570E+00 |
| 59.70  | 0.1420E+00 |
| 66.90  | 0.1140E+00 |
| 72.90  | 0.9900E-01 |
| 79.00  | 0.6900E-01 |
| 85.00  | 0.6300E-01 |
| 91.00  | 0.4900E-01 |
| 97.00  | 0.4800E-01 |
| 103.00 | 0.4400E-01 |
| 110.00 | 0.4000E-01 |
| 116.80 | 0.4000E-01 |
| 123.70 | 0.4000E-01 |
| 130.60 | 0.3200E-01 |
| 136.50 | 0.3300E-01 |
| 142.30 | 0.3800E-01 |
| 148.10 | 0.3700E-01 |
| 153.90 | 0.3700E-01 |
| 159.70 | 0.4700E-01 |
| 165.50 | 0.2700E-01 |

INCIDENT ENERGY= 32.47 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.1430E+00 |
| 40.30  | 0.1400E+00 |
| 46.50  | 0.1430E+00 |
| 52.60  | 0.1330E+00 |
| 59.70  | 0.1080E+00 |
| 66.90  | 0.1100E+00 |
| 72.90  | 0.7800E-01 |
| 79.00  | 0.6800E-01 |
| 85.00  | 0.6300E-01 |
| 91.00  | 0.6000E-01 |
| 97.00  | 0.4700E-01 |
| 103.00 | 0.4300E-01 |
| 110.00 | 0.4200E-01 |
| 116.80 | 0.3600E-01 |
| 123.70 | 0.4000E-01 |
| 130.60 | 0.4300E-01 |
| 136.50 | 0.4000E-01 |
| 142.30 | 0.4200E-01 |
| 148.10 | 0.4100E-01 |
| 153.90 | 0.3500E-01 |
| 159.70 | 0.2900E-01 |
| 165.50 | 0.2100E-01 |

INCIDENT ENERGY= 33.71 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.1800E+00 |
| 40.30  | 0.1600E+00 |
| 46.50  | 0.1400E+00 |
| 52.60  | 0.1300E+00 |
| 59.70  | 0.1000E+00 |
| 66.90  | 0.8000E-01 |
| 72.90  | 0.7700E-01 |
| 79.00  | 0.7800E-01 |
| 85.00  | 0.6600E-01 |
| 91.00  | 0.5800E-01 |
| 97.00  | 0.4000E-01 |
| 103.00 | 0.3900E-01 |
| 110.00 | 0.3700E-01 |
| 116.80 | 0.3400E-01 |
| 123.70 | 0.3200E-01 |
| 130.60 | 0.3500E-01 |
| 136.50 | 0.3400E-01 |
| 142.30 | 0.3500E-01 |
| 148.10 | 0.3800E-01 |
| 153.90 | 0.3200E-01 |
| 159.70 | 0.2200E-01 |
| 165.50 | 0.1100E-01 |

INCIDENT ENERGY= 34.73 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.1100E+00 |
| 40.30  | 0.1260E+00 |
| 46.50  | 0.1210E+00 |
| 52.60  | 0.1170E+00 |
| 59.70  | 0.1040E+00 |
| 66.90  | 0.7000E-01 |
| 72.90  | 0.6000E-01 |
| 79.00  | 0.5300E-01 |
| 85.00  | 0.5300E-01 |
| 91.00  | 0.4100E-01 |
| 97.00  | 0.3500E-01 |
| 103.00 | 0.3400E-01 |
| 110.00 | 0.2500E-01 |
| 116.80 | 0.2200E-01 |
| 123.70 | 0.2600E-01 |
| 130.60 | 0.2700E-01 |
| 136.50 | 0.3200E-01 |
| 142.30 | 0.2800E-01 |
| 148.10 | 0.3100E-01 |
| 153.90 | 0.2700E-01 |
| 159.70 | 0.2500E-01 |
| 165.50 | 0.2100E-01 |

INCIDENT ENERGY= 35.97 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.6900E-01 |
| 40.30  | 0.9700E-01 |
| 46.50  | 0.1060E+00 |
| 52.60  | 0.9100E-01 |
| 59.70  | 0.7200E-01 |
| 66.90  | 0.6200E-01 |
| 72.90  | 0.4600E-01 |
| 79.00  | 0.4700E-01 |
| 85.00  | 0.4400E-01 |
| 91.00  | 0.3400E-01 |
| 97.00  | 0.2400E-01 |
| 103.00 | 0.2200E-01 |
| 110.00 | 0.2200E-01 |
| 116.80 | 0.2400E-01 |
| 123.70 | 0.2100E-01 |
| 130.60 | 0.2000E-01 |
| 136.50 | 0.2100E-01 |
| 142.30 | 0.2400E-01 |
| 148.10 | 0.2400E-01 |
| 153.90 | 0.2700E-01 |
| 159.70 | 0.2500E-01 |
| 165.50 | 0.1400E-01 |

INCIDENT ENERGY= 37.21 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.3600E-01 |
| 40.30  | 0.5110E-01 |
| 46.50  | 0.6520E-01 |
| 52.60  | 0.6470E-01 |
| 59.70  | 0.6670E-01 |
| 66.90  | 0.5000E-01 |
| 72.90  | 0.3870E-01 |
| 79.00  | 0.3710E-01 |
| 85.00  | 0.2970E-01 |
| 91.00  | 0.2530E-01 |
| 97.00  | 0.2340E-01 |
| 103.00 | 0.2270E-01 |
| 110.00 | 0.1790E-01 |
| 116.80 | 0.1440E-01 |
| 123.70 | 0.1640E-01 |
| 130.60 | 0.1480E-01 |
| 136.50 | 0.1660E-01 |
| 142.30 | 0.1880E-01 |
| 148.10 | 0.1970E-01 |
| 153.90 | 0.1870E-01 |
| 159.70 | 0.2750E-01 |
| 165.50 | 0.1440E-01 |

INCIDENT ENERGY= 38.59 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.7000E-01 |
| 40.30  | 0.7500E-01 |
| 46.50  | 0.7400E-01 |
| 52.60  | 0.6100E-01 |
| 59.70  | 0.5400E-01 |
| 66.90  | 0.4500E-01 |
| 72.90  | 0.4400E-01 |
| 79.00  | 0.4000E-01 |
| 85.00  | 0.3500E-01 |
| 91.00  | 0.2600E-01 |
| 97.00  | 0.1740E-01 |
| 103.00 | 0.1470E-01 |
| 110.00 | 0.1530E-01 |
| 116.80 | 0.1500E-01 |
| 123.70 | 0.1510E-01 |
| 130.60 | 0.1470E-01 |
| 136.50 | 0.1590E-01 |
| 142.30 | 0.1600E-01 |
| 148.10 | 0.1910E-01 |
| 153.90 | 0.1590E-01 |
| 159.70 | 0.1400E-01 |
| 165.50 | 0.1070E-01 |

INCIDENT ENERGY= 40.21 MEV

28SI 3+(6.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 34.10  | 0.7000E-01 |
| 40.30  | 0.7600E-01 |
| 46.50  | 0.7100E-01 |
| 52.60  | 0.6700E-01 |
| 59.70  | 0.6600E-01 |
| 66.90  | 0.5200E-01 |
| 72.90  | 0.5300E-01 |
| 79.00  | 0.3700E-01 |
| 85.00  | 0.2900E-01 |
| 91.00  | 0.2800E-01 |
| 97.00  | 0.2000E-01 |
| 103.00 | 0.1400E-01 |
| 110.00 | 0.1200E-01 |
| 116.80 | 0.1200E-01 |
| 123.70 | 0.1010E-01 |
| 130.60 | 0.1200E-01 |
| 136.50 | 0.1500E-01 |
| 142.30 | 0.1450E-01 |
| 148.10 | 0.1600E-01 |
| 153.90 | 0.1640E-01 |
| 159.70 | 0.1500E-01 |
| 165.50 | 0.1400E-01 |

INCIDENT ENERGY= 14.26 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4640E+01 |
| 21.90  | 0.3950E+01 |
| 28.20  | 0.4510E+01 |
| 34.40  | 0.5190E+01 |
| 40.70  | 0.5490E+01 |
| 46.90  | 0.6560E+01 |
| 53.10  | 0.7550E+01 |
| 60.30  | 0.7870E+01 |
| 67.50  | 0.9100E+01 |
| 73.60  | 0.8070E+01 |
| 79.60  | 0.7850E+01 |
| 85.70  | 0.9350E+01 |
| 91.70  | 0.9100E+01 |
| 97.70  | 0.8930E+01 |
| 103.70 | 0.8400E+01 |
| 110.60 | 0.6860E+01 |
| 117.50 | 0.6450E+01 |
| 124.30 | 0.6440E+01 |
| 131.10 | 0.5870E+01 |
| 136.90 | 0.4710E+01 |
| 142.70 | 0.4100E+01 |
| 148.50 | 0.3490E+01 |
| 154.20 | 0.3360E+01 |
| 159.90 | 0.3360E+01 |
| 165.70 | 0.1760E+01 |

INCIDENT ENERGY= 15.34 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.5170E+01 |
| 21.90  | 0.5230E+01 |
| 28.20  | 0.5240E+01 |
| 34.40  | 0.5340E+01 |
| 40.70  | 0.5220E+01 |
| 46.90  | 0.5150E+01 |
| 53.10  | 0.5130E+01 |
| 60.30  | 0.4750E+01 |
| 67.50  | 0.4500E+01 |
| 73.60  | 0.4260E+01 |
| 79.60  | 0.4170E+01 |
| 85.70  | 0.3850E+01 |
| 91.70  | 0.3870E+01 |
| 97.70  | 0.3980E+01 |
| 103.70 | 0.4010E+01 |
| 110.60 | 0.3760E+01 |
| 117.50 | 0.3300E+01 |
| 124.30 | 0.3090E+01 |
| 131.10 | 0.2750E+01 |
| 136.90 | 0.2360E+01 |
| 142.70 | 0.2320E+01 |
| 148.50 | 0.2170E+01 |
| 154.20 | 0.2180E+01 |
| 159.90 | 0.2170E+01 |
| 165.70 | 0.2370E+01 |

INCIDENT ENERGY= 15.83 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.5520E+01 |
| 21.90  | 0.4900E+01 |
| 28.20  | 0.4850E+01 |
| 34.40  | 0.4700E+01 |
| 40.70  | 0.5000E+01 |
| 46.90  | 0.4930E+01 |
| 53.10  | 0.4880E+01 |
| 60.30  | 0.4890E+01 |
| 67.50  | 0.4550E+01 |
| 73.60  | 0.4290E+01 |
| 79.60  | 0.4100E+01 |
| 85.70  | 0.3980E+01 |
| 91.70  | 0.3930E+01 |
| 97.70  | 0.3860E+01 |
| 103.70 | 0.3700E+01 |
| 110.60 | 0.3440E+01 |
| 117.50 | 0.2650E+01 |
| 124.30 | 0.2580E+01 |
| 131.10 | 0.2350E+01 |
| 136.90 | 0.2020E+01 |
| 142.70 | 0.1750E+01 |
| 148.50 | 0.1580E+01 |
| 154.20 | 0.1420E+01 |
| 159.90 | 0.1260E+01 |
| 165.70 | 0.9800E+00 |

INCIDENT ENERGY= 16.80 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.2830E+01 |
| 21.90  | 0.2510E+01 |
| 28.20  | 0.2400E+01 |
| 34.40  | 0.2600E+01 |
| 40.70  | 0.2820E+01 |
| 46.90  | 0.3220E+01 |
| 53.10  | 0.3620E+01 |
| 60.30  | 0.3900E+01 |
| 67.50  | 0.3900E+01 |
| 73.60  | 0.4010E+01 |
| 79.60  | 0.3710E+01 |
| 85.70  | 0.3190E+01 |
| 91.70  | 0.2890E+01 |
| 97.70  | 0.2530E+01 |
| 103.70 | 0.2600E+01 |
| 110.60 | 0.2500E+01 |
| 117.50 | 0.2850E+01 |
| 124.30 | 0.2890E+01 |
| 131.10 | 0.2980E+01 |
| 136.90 | 0.2960E+01 |
| 142.70 | 0.2740E+01 |
| 148.50 | 0.2420E+01 |
| 154.20 | 0.2170E+01 |
| 159.90 | 0.1910E+01 |
| 165.70 | 0.1820E+01 |

INCIDENT ENERGY= 16.30 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3370E+01 |
| 21.90  | 0.3210E+01 |
| 28.20  | 0.3200E+01 |
| 34.40  | 0.3580E+01 |
| 40.70  | 0.3970E+01 |
| 46.90  | 0.4340E+01 |
| 53.10  | 0.4900E+01 |
| 60.30  | 0.5160E+01 |
| 67.50  | 0.5500E+01 |
| 73.60  | 0.5680E+01 |
| 79.60  | 0.5190E+01 |
| 85.70  | 0.4650E+01 |
| 91.70  | 0.4320E+01 |
| 97.70  | 0.3900E+01 |
| 103.70 | 0.3550E+01 |
| 110.60 | 0.3350E+01 |
| 117.50 | 0.3250E+01 |
| 124.30 | 0.3200E+01 |
| 131.10 | 0.3110E+01 |
| 136.90 | 0.2790E+01 |
| 142.70 | 0.2560E+01 |
| 148.50 | 0.2280E+01 |
| 154.20 | 0.2070E+01 |
| 159.90 | 0.1720E+01 |
| 165.70 | 0.1530E+01 |

INCIDENT ENERGY= 17.24 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.5390E+01 |
| 21.90  | 0.4710E+01 |
| 28.20  | 0.4500E+01 |
| 34.40  | 0.4000E+01 |
| 40.70  | 0.3990E+01 |
| 46.90  | 0.4090E+01 |
| 53.10  | 0.4360E+01 |
| 60.30  | 0.4690E+01 |
| 67.50  | 0.4850E+01 |
| 73.60  | 0.4780E+01 |
| 79.60  | 0.4540E+01 |
| 85.70  | 0.4220E+01 |
| 91.70  | 0.3920E+01 |
| 97.70  | 0.3420E+01 |
| 103.70 | 0.3270E+01 |
| 110.60 | 0.3100E+01 |
| 117.50 | 0.3000E+01 |
| 124.30 | 0.3000E+01 |
| 131.10 | 0.2790E+01 |
| 136.90 | 0.2680E+01 |
| 142.70 | 0.2440E+01 |
| 148.50 | 0.2070E+01 |
| 154.20 | 0.1860E+01 |
| 159.90 | 0.1660E+01 |
| 165.70 | 0.1530E+01 |

INCIDENT ENERGY= 17.67 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.6000E+01 |
| 21.90  | 0.5150E+01 |
| 28.20  | 0.5170E+01 |
| 34.40  | 0.4860E+01 |
| 40.70  | 0.4800E+01 |
| 46.90  | 0.4700E+01 |
| 53.10  | 0.4680E+01 |
| 60.30  | 0.4510E+01 |
| 67.50  | 0.4550E+01 |
| 73.60  | 0.4630E+01 |
| 79.60  | 0.4310E+01 |
| 85.70  | 0.4300E+01 |
| 91.70  | 0.3770E+01 |
| 97.70  | 0.3000E+01 |
| 103.70 | 0.2980E+01 |
| 110.60 | 0.2610E+01 |
| 117.50 | 0.2400E+01 |
| 124.30 | 0.2130E+01 |
| 131.10 | 0.2220E+01 |
| 136.90 | 0.2230E+01 |
| 142.70 | 0.2030E+01 |
| 148.50 | 0.2360E+01 |
| 154.20 | 0.2160E+01 |
| 159.90 | 0.2130E+01 |
| 165.70 | 0.2000E+01 |

INCIDENT ENERGY= 18.73 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4400E+01 |
| 21.90  | 0.4340E+01 |
| 28.20  | 0.4110E+01 |
| 34.40  | 0.3770E+01 |
| 40.70  | 0.3750E+01 |
| 46.90  | 0.3670E+01 |
| 53.10  | 0.3650E+01 |
| 60.30  | 0.3600E+01 |
| 67.50  | 0.3680E+01 |
| 73.60  | 0.3820E+01 |
| 79.60  | 0.3340E+01 |
| 85.70  | 0.3220E+01 |
| 91.70  | 0.2890E+01 |
| 97.70  | 0.2440E+01 |
| 103.70 | 0.2150E+01 |
| 110.60 | 0.1800E+01 |
| 117.50 | 0.1680E+01 |
| 124.30 | 0.1510E+01 |
| 131.10 | 0.1510E+01 |
| 136.90 | 0.1460E+01 |
| 142.70 | 0.1490E+01 |
| 148.50 | 0.1570E+01 |
| 154.20 | 0.1440E+01 |
| 159.90 | 0.1510E+01 |
| 165.70 | 0.1400E+01 |

INCIDENT ENERGY= 18.18 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.5650E+01 |
| 21.90  | 0.4670E+01 |
| 28.20  | 0.4580E+01 |
| 34.40  | 0.4020E+01 |
| 40.70  | 0.3940E+01 |
| 46.90  | 0.4260E+01 |
| 53.10  | 0.4550E+01 |
| 60.30  | 0.4290E+01 |
| 67.50  | 0.4300E+01 |
| 73.60  | 0.4250E+01 |
| 79.60  | 0.3440E+01 |
| 85.70  | 0.2950E+01 |
| 91.70  | 0.2490E+01 |
| 97.70  | 0.2180E+01 |
| 103.70 | 0.1830E+01 |
| 110.60 | 0.1760E+01 |
| 117.50 | 0.1680E+01 |
| 124.30 | 0.1970E+01 |
| 131.10 | 0.2150E+01 |
| 136.90 | 0.2370E+01 |
| 142.70 | 0.2270E+01 |
| 148.50 | 0.2090E+01 |
| 154.20 | 0.1920E+01 |
| 159.90 | 0.1750E+01 |
| 165.70 | 0.1500E+01 |

INCIDENT ENERGY= 19.23 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3610E+01 |
| 21.90  | 0.3350E+01 |
| 28.20  | 0.3580E+01 |
| 34.40  | 0.3670E+01 |
| 40.70  | 0.3660E+01 |
| 46.90  | 0.3510E+01 |
| 53.10  | 0.3270E+01 |
| 60.30  | 0.2910E+01 |
| 67.50  | 0.2600E+01 |
| 73.60  | 0.2520E+01 |
| 79.60  | 0.2470E+01 |
| 85.70  | 0.2310E+01 |
| 91.70  | 0.2300E+01 |
| 97.70  | 0.2420E+01 |
| 103.70 | 0.2310E+01 |
| 110.60 | 0.2140E+01 |
| 117.50 | 0.1920E+01 |
| 124.30 | 0.1820E+01 |
| 131.10 | 0.1850E+01 |
| 136.90 | 0.1940E+01 |
| 142.70 | 0.2080E+01 |
| 148.50 | 0.2200E+01 |
| 154.20 | 0.2010E+01 |
| 159.90 | 0.1910E+01 |
| 165.70 | 0.1710E+01 |

INCIDENT ENERGY= 19.70 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4160E+01 |
| 21.90  | 0.4010E+01 |
| 28.20  | 0.3690E+01 |
| 34.40  | 0.3640E+01 |
| 40.70  | 0.3640E+01 |
| 46.90  | 0.3380E+01 |
| 53.10  | 0.3270E+01 |
| 60.30  | 0.3180E+01 |
| 67.50  | 0.2950E+01 |
| 73.60  | 0.2710E+01 |
| 79.60  | 0.2480E+01 |
| 85.70  | 0.2250E+01 |
| 91.70  | 0.2040E+01 |
| 97.70  | 0.1760E+01 |
| 103.70 | 0.1620E+01 |
| 110.60 | 0.1560E+01 |
| 117.50 | 0.1500E+01 |
| 124.30 | 0.1650E+01 |
| 131.10 | 0.1740E+01 |
| 136.90 | 0.1780E+01 |
| 142.70 | 0.1760E+01 |
| 148.50 | 0.1600E+01 |
| 154.20 | 0.1400E+01 |
| 159.90 | 0.1210E+01 |
| 165.70 | 0.1120E+01 |

INCIDENT ENERGY= 20.17 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3680E+01 |
| 21.90  | 0.3560E+01 |
| 28.20  | 0.3550E+01 |
| 34.40  | 0.3450E+01 |
| 40.70  | 0.3770E+01 |
| 46.90  | 0.3810E+01 |
| 53.10  | 0.3510E+01 |
| 60.30  | 0.3110E+01 |
| 67.50  | 0.2700E+01 |
| 73.60  | 0.2190E+01 |
| 79.60  | 0.2110E+01 |
| 85.70  | 0.2070E+01 |
| 91.70  | 0.2110E+01 |
| 97.70  | 0.2080E+01 |
| 103.70 | 0.2040E+01 |
| 110.60 | 0.1820E+01 |
| 117.50 | 0.1520E+01 |
| 124.30 | 0.1460E+01 |
| 131.10 | 0.1610E+01 |
| 136.90 | 0.1600E+01 |
| 142.70 | 0.1860E+01 |
| 148.50 | 0.1790E+01 |
| 154.20 | 0.1700E+01 |
| 159.90 | 0.1480E+01 |
| 165.70 | 0.1210E+01 |

INCIDENT ENERGY= 21.35 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.5060E+01 |
| 21.90  | 0.4200E+01 |
| 28.20  | 0.3980E+01 |
| 34.40  | 0.3920E+01 |
| 40.70  | 0.3850E+01 |
| 46.90  | 0.3740E+01 |
| 53.10  | 0.3540E+01 |
| 60.30  | 0.3260E+01 |
| 67.50  | 0.2900E+01 |
| 73.60  | 0.2300E+01 |
| 79.60  | 0.2190E+01 |
| 85.70  | 0.2000E+01 |
| 91.70  | 0.1930E+01 |
| 97.70  | 0.1880E+01 |
| 103.70 | 0.1890E+01 |
| 110.60 | 0.1910E+01 |
| 117.50 | 0.1900E+01 |
| 124.30 | 0.1940E+01 |
| 131.10 | 0.1930E+01 |
| 136.90 | 0.1830E+01 |
| 142.70 | 0.1720E+01 |
| 148.50 | 0.1510E+01 |
| 154.20 | 0.1360E+01 |
| 159.90 | 0.1140E+01 |
| 165.70 | 0.1120E+01 |

INCIDENT ENERGY= 22.70 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4270E+01 |
| 21.90  | 0.4080E+01 |
| 28.20  | 0.3990E+01 |
| 34.40  | 0.4080E+01 |
| 40.70  | 0.4000E+01 |
| 46.90  | 0.3890E+01 |
| 53.10  | 0.3600E+01 |
| 60.30  | 0.3290E+01 |
| 67.50  | 0.2750E+01 |
| 73.60  | 0.2490E+01 |
| 79.60  | 0.2210E+01 |
| 85.70  | 0.2080E+01 |
| 91.70  | 0.1950E+01 |
| 97.70  | 0.1800E+01 |
| 103.70 | 0.1690E+01 |
| 110.60 | 0.1650E+01 |
| 117.50 | 0.1520E+01 |
| 124.30 | 0.1520E+01 |
| 131.10 | 0.1530E+01 |
| 136.90 | 0.1480E+01 |
| 142.70 | 0.1460E+01 |
| 148.50 | 0.1290E+01 |
| 154.20 | 0.1070E+01 |
| 159.90 | 0.8600E+00 |
| 165.70 | 0.5800E+00 |

INCIDENT ENERGY= 23.60 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3140E+01 |
| 21.90  | 0.2940E+01 |
| 28.20  | 0.2720E+01 |
| 34.40  | 0.3610E+01 |
| 40.70  | 0.3950E+01 |
| 46.90  | 0.4060E+01 |
| 53.10  | 0.3810E+01 |
| 60.30  | 0.3280E+01 |
| 67.50  | 0.2700E+01 |
| 73.60  | 0.2260E+01 |
| 79.60  | 0.1940E+01 |
| 85.70  | 0.1810E+01 |
| 91.70  | 0.1750E+01 |
| 97.70  | 0.1650E+01 |
| 103.70 | 0.1320E+01 |
| 110.60 | 0.1400E+01 |
| 117.50 | 0.1260E+01 |
| 124.30 | 0.1200E+01 |
| 131.10 | 0.1100E+01 |
| 136.90 | 0.1110E+01 |
| 142.70 | 0.1060E+01 |
| 148.50 | 0.9600E+00 |
| 154.20 | 0.8500E+00 |
| 159.90 | 0.6700E+00 |
| 165.70 | 0.5100E+00 |

INCIDENT ENERGY= 25.44 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4350E+01 |
| 21.90  | 0.4130E+01 |
| 28.20  | 0.4320E+01 |
| 34.40  | 0.4620E+01 |
| 40.70  | 0.4680E+01 |
| 46.90  | 0.4330E+01 |
| 53.10  | 0.3760E+01 |
| 60.30  | 0.3190E+01 |
| 67.50  | 0.2650E+01 |
| 73.60  | 0.2340E+01 |
| 79.60  | 0.2200E+01 |
| 85.70  | 0.2000E+01 |
| 91.70  | 0.1850E+01 |
| 97.70  | 0.1560E+01 |
| 103.70 | 0.1340E+01 |
| 110.60 | 0.1050E+01 |
| 117.50 | 0.1000E+01 |
| 124.30 | 0.9300E+00 |
| 131.10 | 0.9100E+00 |
| 136.90 | 0.9600E+00 |
| 142.70 | 0.9500E+00 |
| 148.50 | 0.8800E+00 |
| 154.20 | 0.7200E+00 |
| 159.90 | 0.5300E+00 |
| 165.70 | 0.3900E+00 |

INCIDENT ENERGY= 24.24 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3970E+01 |
| 21.90  | 0.3810E+01 |
| 28.20  | 0.3770E+01 |
| 34.40  | 0.3880E+01 |
| 40.70  | 0.4030E+01 |
| 46.90  | 0.3880E+01 |
| 53.10  | 0.3590E+01 |
| 60.30  | 0.2940E+01 |
| 67.50  | 0.2540E+01 |
| 73.60  | 0.2240E+01 |
| 79.60  | 0.1730E+01 |
| 85.70  | 0.1630E+01 |
| 91.70  | 0.1490E+01 |
| 97.70  | 0.1380E+01 |
| 103.70 | 0.1170E+01 |
| 110.60 | 0.1060E+01 |
| 117.50 | 0.1000E+01 |
| 124.30 | 0.9300E+00 |
| 131.10 | 0.9600E+00 |
| 136.90 | 0.9400E+00 |
| 142.70 | 0.8400E+00 |
| 148.50 | 0.7700E+00 |
| 154.20 | 0.6600E+00 |
| 159.90 | 0.4900E+00 |
| 165.70 | 0.4010E+00 |

INCIDENT ENERGY= 26.34 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4870E+01 |
| 21.90  | 0.4860E+01 |
| 28.20  | 0.4870E+01 |
| 34.40  | 0.4900E+01 |
| 40.70  | 0.5040E+01 |
| 46.90  | 0.4690E+01 |
| 53.10  | 0.4160E+01 |
| 60.30  | 0.3250E+01 |
| 67.50  | 0.2520E+01 |
| 73.60  | 0.2430E+01 |
| 79.60  | 0.2200E+01 |
| 85.70  | 0.1980E+01 |
| 91.70  | 0.1950E+01 |
| 97.70  | 0.1700E+01 |
| 103.70 | 0.1450E+01 |
| 110.60 | 0.1100E+01 |
| 117.50 | 0.8400E+00 |
| 124.30 | 0.7300E+00 |
| 131.10 | 0.7500E+00 |
| 136.90 | 0.8000E+00 |
| 142.70 | 0.8300E+00 |
| 148.50 | 0.7800E+00 |
| 154.20 | 0.6400E+00 |
| 159.90 | 0.5300E+00 |
| 165.70 | 0.3800E+00 |

INCIDENT ENERGY= 27.30 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3250E+01 |
| 21.90  | 0.3510E+01 |
| 28.20  | 0.4040E+01 |
| 34.40  | 0.4370E+01 |
| 40.70  | 0.4660E+01 |
| 46.90  | 0.4560E+01 |
| 53.10  | 0.4104E+01 |
| 60.30  | 0.3250E+01 |
| 67.50  | 0.2470E+01 |
| 73.60  | 0.1950E+01 |
| 79.60  | 0.1790E+01 |
| 85.70  | 0.1620E+01 |
| 91.70  | 0.1540E+01 |
| 97.70  | 0.1440E+01 |
| 103.70 | 0.1180E+01 |
| 110.60 | 0.1050E+01 |
| 117.50 | 0.8500E+00 |
| 124.30 | 0.7700E+00 |
| 131.10 | 0.7200E+00 |
| 136.90 | 0.7200E+00 |
| 142.70 | 0.6800E+00 |
| 148.50 | 0.6200E+00 |
| 154.20 | 0.5200E+00 |
| 159.90 | 0.3700E+00 |
| 165.70 | 0.2200E+00 |

INCIDENT ENERGY= 28.37 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3200E+01 |
| 21.90  | 0.3510E+01 |
| 28.20  | 0.3780E+01 |
| 34.40  | 0.4270E+01 |
| 40.70  | 0.4590E+01 |
| 46.90  | 0.4380E+01 |
| 53.10  | 0.4000E+01 |
| 60.30  | 0.3130E+01 |
| 67.50  | 0.2410E+01 |
| 73.60  | 0.1820E+01 |
| 79.60  | 0.1540E+01 |
| 85.70  | 0.1520E+01 |
| 91.70  | 0.1380E+01 |
| 97.70  | 0.1240E+01 |
| 103.70 | 0.1060E+01 |
| 110.60 | 0.8800E+00 |
| 117.50 | 0.7000E+00 |
| 124.30 | 0.6100E+00 |
| 131.10 | 0.5900E+00 |
| 136.90 | 0.5700E+00 |
| 142.70 | 0.5600E+00 |
| 148.50 | 0.4800E+00 |
| 154.20 | 0.4600E+00 |
| 159.90 | 0.3400E+00 |
| 165.70 | 0.2300E+00 |

INCIDENT ENERGY= 29.47 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3050E+01 |
| 21.90  | 0.4360E+01 |
| 28.20  | 0.4520E+01 |
| 34.40  | 0.4490E+01 |
| 40.70  | 0.5100E+01 |
| 46.90  | 0.4660E+01 |
| 53.10  | 0.4130E+01 |
| 60.30  | 0.3140E+01 |
| 67.50  | 0.2400E+01 |
| 73.60  | 0.1800E+01 |
| 79.60  | 0.1590E+01 |
| 85.70  | 0.1480E+01 |
| 91.70  | 0.1400E+01 |
| 97.70  | 0.1160E+01 |
| 103.70 | 0.9700E+00 |
| 110.60 | 0.7800E+00 |
| 117.50 | 0.5800E+00 |
| 124.30 | 0.5600E+00 |
| 131.10 | 0.4800E+00 |
| 136.90 | 0.4800E+00 |
| 142.70 | 0.5200E+00 |
| 148.50 | 0.4800E+00 |
| 154.20 | 0.4000E+00 |
| 159.90 | 0.3000E+00 |
| 165.70 | 0.2200E+00 |

INCIDENT ENERGY= 30.50 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4030E+01 |
| 21.90  | 0.4750E+01 |
| 28.20  | 0.4280E+01 |
| 34.40  | 0.4690E+01 |
| 40.70  | 0.4890E+01 |
| 46.90  | 0.4530E+01 |
| 53.10  | 0.3970E+01 |
| 60.30  | 0.2870E+01 |
| 67.50  | 0.2200E+01 |
| 73.60  | 0.1750E+01 |
| 79.60  | 0.1550E+01 |
| 85.70  | 0.1450E+01 |
| 91.70  | 0.1230E+01 |
| 97.70  | 0.1050E+01 |
| 103.70 | 0.8700E+00 |
| 110.60 | 0.6500E+00 |
| 117.50 | 0.4800E+00 |
| 124.30 | 0.3710E+00 |
| 131.10 | 0.3500E+00 |
| 136.90 | 0.3700E+00 |
| 142.70 | 0.3600E+00 |
| 148.50 | 0.3900E+00 |
| 154.20 | 0.3500E+00 |
| 159.90 | 0.2600E+00 |
| 165.70 | 0.1700E+00 |

INCIDENT ENERGY= 31.53 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4910E+01 |
| 21.90  | 0.4190E+01 |
| 28.20  | 0.4600E+01 |
| 34.40  | 0.4810E+01 |
| 40.70  | 0.4950E+01 |
| 46.90  | 0.4530E+01 |
| 53.10  | 0.3710E+01 |
| 60.30  | 0.2610E+01 |
| 67.50  | 0.2030E+01 |
| 73.60  | 0.1700E+01 |
| 79.60  | 0.1520E+01 |
| 85.70  | 0.1320E+01 |
| 91.70  | 0.1110E+01 |
| 97.70  | 0.9200E+00 |
| 103.70 | 0.7600E+00 |
| 110.60 | 0.5800E+00 |
| 117.50 | 0.4200E+00 |
| 124.30 | 0.3200E+00 |
| 131.10 | 0.2960E+00 |
| 136.90 | 0.3100E+00 |
| 142.70 | 0.3400E+00 |
| 148.50 | 0.3300E+00 |
| 154.20 | 0.3250E+00 |
| 159.90 | 0.2460E+00 |
| 165.70 | 0.1740E+00 |

INCIDENT ENERGY= 33.71 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.5530E+01 |
| 21.90  | 0.5220E+01 |
| 28.20  | 0.5130E+01 |
| 34.40  | 0.5270E+01 |
| 40.70  | 0.5400E+01 |
| 46.90  | 0.4810E+01 |
| 53.10  | 0.3860E+01 |
| 60.30  | 0.2870E+01 |
| 67.50  | 0.1950E+01 |
| 73.60  | 0.1610E+01 |
| 79.60  | 0.1410E+01 |
| 85.70  | 0.1100E+01 |
| 91.70  | 0.1000E+01 |
| 97.70  | 0.8500E+00 |
| 103.70 | 0.7000E+00 |
| 110.60 | 0.5100E+00 |
| 117.50 | 0.4000E+00 |
| 124.30 | 0.3100E+00 |
| 131.10 | 0.2800E+00 |
| 136.90 | 0.2800E+00 |
| 142.70 | 0.2600E+00 |
| 148.50 | 0.2800E+00 |
| 154.20 | 0.2500E+00 |
| 159.90 | 0.1700E+00 |
| 165.70 | 0.1200E+00 |

INCIDENT ENERGY= 32.47 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4710E+01 |
| 21.90  | 0.4810E+01 |
| 28.20  | 0.4850E+01 |
| 34.40  | 0.5140E+01 |
| 40.70  | 0.5120E+01 |
| 46.90  | 0.4630E+01 |
| 53.10  | 0.3780E+01 |
| 60.30  | 0.2710E+01 |
| 67.50  | 0.2040E+01 |
| 73.60  | 0.1670E+01 |
| 79.60  | 0.1420E+01 |
| 85.70  | 0.1310E+01 |
| 91.70  | 0.1100E+01 |
| 97.70  | 0.8500E+00 |
| 103.70 | 0.7000E+00 |
| 110.60 | 0.5400E+00 |
| 117.50 | 0.3600E+00 |
| 124.30 | 0.3200E+00 |
| 131.10 | 0.3000E+00 |
| 136.90 | 0.3100E+00 |
| 142.70 | 0.2800E+00 |
| 148.50 | 0.3200E+00 |
| 154.20 | 0.2700E+00 |
| 159.90 | 0.1900E+00 |
| 165.70 | 0.1700E+00 |

INCIDENT ENERGY= 34.73 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.5340E+01 |
| 21.90  | 0.5080E+01 |
| 28.20  | 0.5030E+01 |
| 34.40  | 0.5310E+01 |
| 40.70  | 0.5320E+01 |
| 46.90  | 0.4500E+01 |
| 53.10  | 0.3630E+01 |
| 60.30  | 0.2540E+01 |
| 67.50  | 0.1860E+01 |
| 73.60  | 0.1560E+01 |
| 79.60  | 0.1350E+01 |
| 85.70  | 0.1120E+01 |
| 91.70  | 0.8900E+00 |
| 97.70  | 0.7000E+00 |
| 103.70 | 0.5700E+00 |
| 110.60 | 0.4100E+00 |
| 117.50 | 0.3620E+00 |
| 124.30 | 0.2650E+00 |
| 131.10 | 0.2500E+00 |
| 136.90 | 0.1950E+00 |
| 142.70 | 0.2300E+00 |
| 148.50 | 0.2200E+00 |
| 154.20 | 0.2230E+00 |
| 159.90 | 0.2000E+00 |
| 165.70 | 0.1360E+00 |

INCIDENT ENERGY= 35.97 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.4260E+01 |
| 21.90  | 0.4510E+01 |
| 28.20  | 0.5120E+01 |
| 34.40  | 0.5200E+01 |
| 40.70  | 0.5100E+01 |
| 46.90  | 0.4130E+01 |
| 53.10  | 0.3320E+01 |
| 60.30  | 0.2480E+01 |
| 67.50  | 0.1540E+01 |
| 73.60  | 0.1300E+01 |
| 79.60  | 0.1140E+01 |
| 85.70  | 0.9430E+00 |
| 91.70  | 0.8200E+00 |
| 97.70  | 0.6460E+00 |
| 103.70 | 0.5100E+00 |
| 110.60 | 0.4000E+00 |
| 117.50 | 0.3100E+00 |
| 124.30 | 0.2400E+00 |
| 131.10 | 0.1930E+00 |
| 136.90 | 0.1690E+00 |
| 142.70 | 0.1910E+00 |
| 148.50 | 0.1890E+00 |
| 154.20 | 0.2160E+00 |
| 159.90 | 0.1800E+00 |
| 165.70 | 0.1340E+00 |

INCIDENT ENERGY= 37.21 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3620E+01 |
| 21.90  | 0.4051E+01 |
| 28.20  | 0.4490E+01 |
| 34.40  | 0.5050E+01 |
| 40.70  | 0.4940E+01 |
| 46.90  | 0.4270E+01 |
| 53.10  | 0.3210E+01 |
| 60.30  | 0.2170E+01 |
| 67.50  | 0.1520E+01 |
| 73.60  | 0.1120E+01 |
| 79.60  | 0.1020E+01 |
| 85.70  | 0.8000E+00 |
| 91.70  | 0.5900E+00 |
| 97.70  | 0.4420E+00 |
| 103.70 | 0.3530E+00 |
| 110.60 | 0.2820E+00 |
| 117.50 | 0.2600E+00 |
| 124.30 | 0.2100E+00 |
| 131.10 | 0.1480E+00 |
| 136.90 | 0.1380E+00 |
| 142.70 | 0.1420E+00 |
| 148.50 | 0.1560E+00 |
| 154.20 | 0.1800E+00 |
| 159.90 | 0.1500E+00 |
| 165.70 | 0.1150E+00 |

INCIDENT ENERGY= 38.59 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.3050E+01 |
| 21.90  | 0.3960E+01 |
| 28.20  | 0.4720E+01 |
| 34.40  | 0.5650E+01 |
| 40.70  | 0.5190E+01 |
| 46.90  | 0.4450E+01 |
| 53.10  | 0.3240E+01 |
| 60.30  | 0.2220E+01 |
| 67.50  | 0.1500E+01 |
| 73.60  | 0.1140E+01 |
| 79.60  | 0.1003E+01 |
| 85.70  | 0.8000E+00 |
| 91.70  | 0.6000E+00 |
| 97.70  | 0.4400E+00 |
| 103.70 | 0.3600E+00 |
| 110.60 | 0.2800E+00 |
| 117.50 | 0.2400E+00 |
| 124.30 | 0.1830E+00 |
| 131.10 | 0.1830E+00 |
| 136.90 | 0.1330E+00 |
| 142.70 | 0.1300E+00 |
| 148.50 | 0.1420E+00 |
| 154.20 | 0.1400E+00 |
| 159.90 | 0.1200E+00 |
| 165.70 | 0.1050E+00 |

INCIDENT ENERGY= 40.21 MEV

28SI 3-(6.88 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 15.70  | 0.2810E+01 |
| 21.90  | 0.4710E+01 |
| 28.20  | 0.5180E+01 |
| 34.40  | 0.6090E+01 |
| 40.70  | 0.5030E+01 |
| 46.90  | 0.4150E+01 |
| 53.10  | 0.3030E+01 |
| 60.30  | 0.1940E+01 |
| 67.50  | 0.1490E+01 |
| 73.60  | 0.1170E+01 |
| 79.60  | 0.8400E+00 |
| 85.70  | 0.5900E+00 |
| 91.70  | 0.4800E+00 |
| 97.70  | 0.3800E+00 |
| 103.70 | 0.2900E+00 |
| 110.60 | 0.2400E+00 |
| 117.50 | 0.2000E+00 |
| 124.30 | 0.1510E+00 |
| 131.10 | 0.1060E+00 |
| 136.90 | 0.8800E-01 |
| 142.70 | 0.9800E-01 |
| 148.50 | 0.1060E+00 |
| 154.20 | 0.1150E+00 |
| 159.90 | 0.1140E+00 |
| 165.70 | 0.7000E-01 |

INCIDENT ENERGY= 16.30 MEV

INCIDENT ENERGY= 17.24 MEV

28SI(2+,1.78 MEV) SPIN FLIP PROBABILITY

28SI(2+,1.78 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 25.90      | 0.0550 | 0.0080 |
| 36.20      | 0.0760 | 0.0090 |
| 46.50      | 0.0620 | 0.0150 |
| 56.80      | 0.0970 | 0.0077 |
| 66.96      | 0.0810 | 0.0100 |
| 77.09      | 0.1150 | 0.0130 |
| 87.15      | 0.1420 | 0.0160 |
| 97.15      | 0.1430 | 0.0180 |
| 107.09     | 0.1110 | 0.0180 |
| 116.95     | 0.1590 | 0.0220 |
| 126.77     | 0.1980 | 0.0230 |
| 136.53     | 0.3060 | 0.0300 |
| 142.40     | 0.3230 | 0.0250 |
| 155.91     | 0.3700 | 0.0300 |
| 161.70     | 0.2380 | 0.0200 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 25.91      | 0.0390 | 0.0010 |
| 36.24      | 0.0580 | 0.0080 |
| 46.52      | 0.0307 | 0.0156 |
| 56.77      | 0.0510 | 0.0100 |
| 66.96      | 0.0920 | 0.0120 |
| 77.08      | 0.0950 | 0.0130 |
| 87.15      | 0.0990 | 0.0160 |
| 97.15      | 0.1060 | 0.0170 |
| 107.08     | 0.0740 | 0.0170 |
| 116.96     | 0.1320 | 0.0240 |
| 126.77     | 0.1820 | 0.0250 |
| 136.53     | 0.2440 | 0.0280 |
| 143.40     | 0.2670 | 0.0280 |
| 155.91     | 0.2570 | 0.0280 |
| 162.70     | 0.1750 | 0.0230 |

INCIDENT ENERGY= 17.67 MEV

INCIDENT ENERGY= 18.18 MEV

28SI(2+,1.78 MEV) SPIN FLIP PROBABILITY

28SI(2+,1.78 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 25.91      | 0.0120 | 0.0050 |
| 46.53      | 0.0250 | 0.0070 |
| 56.77      | 0.0825 | 0.0050 |
| 66.97      | 0.1120 | 0.0100 |
| 77.10      | 0.0350 | 0.0060 |
| 87.15      | 0.0900 | 0.0130 |
| 97.15      | 0.1020 | 0.0150 |
| 107.10     | 0.1370 | 0.0180 |
| 116.96     | 0.0920 | 0.0180 |
| 126.80     | 0.1230 | 0.0180 |
| 136.50     | 0.2120 | 0.0210 |
| 146.24     | 0.2467 | 0.0210 |
| 155.90     | 0.2560 | 0.0210 |
| 165.60     | 0.1556 | 0.0180 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 25.90      | 0.0520 | 0.0076 |
| 36.20      | 0.0590 | 0.0080 |
| 46.50      | 0.0540 | 0.0097 |
| 56.77      | 0.0850 | 0.0060 |
| 66.90      | 0.0860 | 0.0010 |
| 77.00      | 0.1006 | 0.0081 |
| 87.10      | 0.0820 | 0.0156 |
| 97.10      | 0.1610 | 0.0145 |
| 107.00     | 0.1650 | 0.0160 |
| 116.90     | 0.1620 | 0.0200 |
| 126.70     | 0.1070 | 0.0200 |
| 136.50     | 0.1470 | 0.0155 |
| 142.40     | 0.1780 | 0.0172 |
| 155.90     | 0.2580 | 0.0210 |
| 161.70     | 0.2130 | 0.0188 |

INCIDENT ENERGY= 18.73 MEV

INCIDENT ENERGY= 19.23 MEV

28SI(2+,1.78 MEV) SPIN FLIP PROBABILITY

28SI(2+,1.78 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 25.91      | 0.0460 | 0.0080 |
| 36.24      | 0.0500 | 0.0070 |
| 46.53      | 0.0510 | 0.0110 |
| 56.77      | 0.0350 | 0.0060 |
| 66.96      | 0.1010 | 0.0120 |
| 77.10      | 0.0960 | 0.0190 |
| 87.15      | 0.0920 | 0.0160 |
| 97.15      | 0.0847 | 0.0150 |
| 107.10     | 0.1480 | 0.0190 |
| 116.96     | 0.2113 | 0.0220 |
| 126.80     | 0.1510 | 0.0190 |
| 131.65     | 0.1450 | 0.0290 |
| 136.52     | 0.2010 | 0.0210 |
| 146.24     | 0.2300 | 0.0330 |
| 151.10     | 0.2870 | 0.0360 |
| 155.90     | 0.3410 | 0.0260 |
| 165.56     | 0.1800 | 0.0300 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 25.91      | 0.0690 | 0.0100 |
| 36.23      | 0.0750 | 0.0100 |
| 46.52      | 0.0500 | 0.0130 |
| 56.77      | 0.0344 | 0.0070 |
| 66.95      | 0.0615 | 0.0125 |
| 77.08      | 0.0675 | 0.0160 |
| 87.15      | 0.0930 | 0.0220 |
| 97.15      | 0.0493 | 0.0180 |
| 102.12     | 0.0880 | 0.0230 |
| 107.08     | 0.1098 | 0.0198 |
| 116.95     | 0.0750 | 0.0330 |
| 121.87     | 0.1260 | 0.0310 |
| 126.77     | 0.1140 | 0.0230 |
| 131.65     | 0.1080 | 0.0190 |
| 136.52     | 0.1000 | 0.0240 |
| 143.38     | 0.1190 | 0.0270 |
| 151.08     | 0.1250 | 0.0280 |
| 155.91     | 0.1310 | 0.0350 |
| 162.73     | 0.0800 | 0.0350 |

INCIDENT ENERGY= 19.70 MEV

INCIDENT ENERGY= 20.17 MEV

28SI(2+,1.73 MEV) SPIN FLIP PROBABILITY

28SI(2+,1.78 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 25.91      | 0.0680 | 0.0100 |
| 36.24      | 0.0800 | 0.0100 |
| 56.77      | 0.0530 | 0.0070 |
| 66.96      | 0.0480 | 0.0110 |
| 87.15      | 0.0530 | 0.0130 |
| 97.15      | 0.0940 | 0.0190 |
| 107.10     | 0.0600 | 0.0200 |
| 116.96     | 0.0600 | 0.0200 |
| 126.77     | 0.1170 | 0.0240 |
| 131.66     | 0.1020 | 0.0280 |
| 136.53     | 0.1130 | 0.0240 |
| 146.24     | 0.1370 | 0.0190 |
| 151.10     | 0.1220 | 0.0360 |
| 155.90     | 0.1615 | 0.0320 |
| 165.56     | 0.1330 | 0.0320 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 36.76      | 0.0570 | 0.0130 |
| 47.04      | 0.0620 | 0.0090 |
| 57.26      | 0.0410 | 0.0110 |
| 67.41      | 0.0420 | 0.0200 |
| 77.49      | 0.0950 | 0.0280 |
| 87.49      | 0.1330 | 0.0280 |
| 97.46      | 0.0710 | 0.0150 |
| 107.26     | 0.0580 | 0.0470 |
| 117.04     | 0.0890 | 0.0240 |
| 126.76     | 0.1940 | 0.0260 |
| 136.43     | 0.2230 | 0.0310 |
| 146.05     | 0.2900 | 0.0500 |
| 155.65     | 0.2670 | 0.0540 |

INCIDENT ENERGY= 21.35 MEV

INCIDENT ENERGY= 22.70 MEV

28SI(2+,1.78 MEV) SPIN FLIP PROBABILITY

28SI(2+,1.73 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 25.90      | 0.0260 | 0.0080 |
| 46.53      | 0.0390 | 0.0130 |
| 56.77      | 0.0610 | 0.0100 |
| 66.96      | 0.0340 | 0.0100 |
| 77.10      | 0.0540 | 0.0140 |
| 87.15      | 0.1014 | 0.0160 |
| 97.15      | 0.1290 | 0.0185 |
| 107.10     | 0.1897 | 0.0190 |
| 116.96     | 0.1057 | 0.0189 |
| 126.80     | 0.0985 | 0.0150 |
| 136.52     | 0.1328 | 0.0180 |
| 146.24     | 0.2220 | 0.0280 |
| 155.90     | 0.3010 | 0.0240 |
| 165.56     | 0.2130 | 0.0230 |

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 25.91      | 0.0610 | 0.0100 |
| 36.24      | 0.0640 | 0.0110 |
| 46.53      | 0.0370 | 0.0120 |
| 56.77      | 0.0990 | 0.0090 |
| 66.97      | 0.0410 | 0.0110 |
| 77.10      | 0.0430 | 0.0130 |
| 87.15      | 0.0710 | 0.0150 |
| 97.15      | 0.1780 | 0.0260 |
| 107.10     | 0.2140 | 0.0370 |
| 116.96     | 0.1180 | 0.0260 |
| 126.80     | 0.0840 | 0.0250 |
| 136.52     | 0.1280 | 0.0250 |
| 146.24     | 0.2230 | 0.0350 |
| 155.90     | 0.2610 | 0.0260 |
| 165.60     | 0.1760 | 0.0460 |

INCIDENT ENERGY= 18.24 MEV

32S GROUND STATE

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 36.00  | 0.3737E+02 |
| 46.30  | 0.1579E+02 |
| 56.50  | 0.5895E+02 |
| 66.60  | 0.5211E+02 |
| 76.70  | 0.2421E+02 |
| 86.80  | 0.8474E+01 |
| 96.80  | 0.7958E+01 |
| 106.70 | 0.7916E+01 |
| 116.60 | 0.8189E+01 |
| 126.50 | 0.6779E+01 |
| 136.30 | 0.5684E+01 |
| 146.00 | 0.5168E+01 |
| 155.70 | 0.4789E+01 |
| 165.50 | 0.5453E+01 |

INCIDENT ENERGY= 20.37 MEV

32S GROUND STATE

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 36.00  | 0.1076E+03 |
| 36.03  | 0.1835E+02 |
| 41.13  | 0.6220E+01 |
| 46.27  | 0.2512E+02 |
| 51.40  | 0.4558E+02 |
| 56.48  | 0.5230E+02 |
| 61.60  | 0.4580E+02 |
| 66.63  | 0.3440E+02 |
| 71.72  | 0.2230E+02 |
| 76.80  | 0.1210E+02 |
| 81.78  | 0.6120E+01 |
| 86.80  | 0.4700E+01 |
| 91.80  | 0.5340E+01 |
| 96.80  | 0.6580E+01 |
| 101.78 | 0.7090E+01 |
| 106.74 | 0.6300E+01 |
| 111.60 | 0.5730E+01 |
| 116.64 | 0.4430E+01 |
| 121.45 | 0.3110E+01 |
| 126.48 | 0.2570E+01 |
| 131.40 | 0.1800E+01 |
| 136.27 | 0.1700E+01 |
| 141.10 | 0.1830E+01 |
| 146.03 | 0.1920E+01 |
| 155.76 | 0.2140E+01 |
| 165.47 | 0.2670E+01 |

INCIDENT ENERGY= 24.95 MEV

32S GROUND STATE

THETA C.M. SIGMA C.M. (MB/SR)

|       |            |
|-------|------------|
| 23.40 | 0.4508E+03 |
| 30.80 | 0.7867E+02 |
| 38.10 | 0.8660E+01 |
| 44.40 | 0.2737E+02 |
| 51.10 | 0.4471E+02 |
| 58.60 | 0.3854E+02 |
| 64.70 | 0.2790E+02 |
| 71.70 | 0.1069E+02 |
| 78.80 | 0.4204E+01 |

INCIDENT ENERGY= 23.24 MEV

32S GROUND STATE

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 36.00  | 0.6000E+02 |
| 46.30  | 0.3825E+02 |
| 56.50  | 0.6712E+02 |
| 66.60  | 0.3550E+02 |
| 76.70  | 0.1215E+02 |
| 86.80  | 0.5787E+01 |
| 96.80  | 0.8412E+01 |
| 106.70 | 0.5325E+01 |
| 116.60 | 0.2812E+01 |
| 126.50 | 0.1637E+01 |
| 136.30 | 0.1012E+01 |
| 146.00 | 0.1375E+01 |
| 155.70 | 0.1162E+01 |
| 165.50 | 0.1500E+01 |

INCIDENT ENERGY= 26.55 MEV

32S GROUND STATE

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 36.00  | 0.1790E+02 |
| 46.30  | 0.4629E+02 |
| 56.50  | 0.5343E+02 |
| 66.60  | 0.2400E+02 |
| 76.70  | 0.6743E+01 |
| 86.80  | 0.5590E+01 |
| 96.80  | 0.5829E+01 |
| 106.70 | 0.3914E+01 |
| 116.60 | 0.1648E+01 |
| 126.50 | 0.8000E+00 |
| 136.30 | 0.7714E+00 |
| 146.00 | 0.9810E+00 |
| 155.70 | 0.8381E+00 |
| 165.50 | 0.5714E+00 |

INCIDENT ENERGY= 29.64 MEV

32S GROUND STATE

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 36.00  | 0.2638E+02 |
| 46.30  | 0.5476E+02 |
| 56.40  | 0.5552E+02 |
| 66.60  | 0.2143E+02 |
| 76.70  | 0.6476E+01 |
| 86.80  | 0.6857E+01 |
| 96.80  | 0.4990E+01 |
| 106.70 | 0.2800E+01 |
| 116.60 | 0.1019E+01 |
| 126.50 | 0.6286E+00 |
| 136.30 | 0.4952E+00 |
| 146.10 | 0.5810E+00 |
| 155.70 | 0.4857E+00 |
| 165.50 | 0.4095E+00 |

INCIDENT ENERGY= 18.24 MEV

32S 2+(2.23 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 36.10  | 0.1095E+02 |
| 46.40  | 0.9632E+01 |
| 56.60  | 0.6568E+01 |
| 66.70  | 0.4600E+01 |
| 76.80  | 0.3547E+01 |
| 86.90  | 0.2337E+01 |
| 96.90  | 0.1874E+01 |
| 106.90 | 0.1368E+01 |
| 116.70 | 0.1526E+01 |
| 126.60 | 0.1916E+01 |
| 136.40 | 0.1632E+01 |
| 146.10 | 0.1684E+01 |
| 155.80 | 0.1484E+01 |
| 165.50 | 0.9158E+00 |

INCIDENT ENERGY= 20.37 MEV

32S 2+(2.23 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 25.81  | 0.8010E+01 |
| 31.00  | 0.7930E+01 |
| 36.10  | 0.7690E+01 |
| 41.20  | 0.6520E+01 |
| 46.35  | 0.5680E+01 |
| 51.40  | 0.4570E+01 |
| 56.57  | 0.3500E+01 |
| 61.70  | 0.2770E+01 |
| 66.74  | 0.2380E+01 |
| 71.80  | 0.2200E+01 |
| 76.80  | 0.2120E+01 |
| 80.90  | 0.1670E+01 |
| 86.91  | 0.1390E+01 |
| 91.90  | 0.1130E+01 |
| 96.91  | 0.9660E+00 |
| 101.89 | 0.7690E+00 |
| 106.85 | 0.6600E+00 |
| 111.78 | 0.7340E+00 |
| 116.74 | 0.8130E+00 |
| 121.70 | 0.8750E+00 |
| 126.57 | 0.9980E+00 |
| 131.35 | 0.1010E+01 |
| 136.35 | 0.9970E+00 |
| 141.20 | 0.9560E+00 |
| 146.09 | 0.9090E+00 |
| 155.81 | 0.8400E+00 |
| 165.50 | 0.7370E+00 |

INCIDENT ENERGY= 23.24 MEV

32S 2+(2.23 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 36.10  | 0.7750E+01 |
| 46.30  | 0.4887E+01 |
| 56.60  | 0.3060E+01 |
| 66.70  | 0.2250E+01 |
| 76.80  | 0.2100E+01 |
| 86.90  | 0.1300E+01 |
| 96.90  | 0.9750E+00 |
| 106.80 | 0.7250E+00 |
| 116.70 | 0.6375E+00 |
| 126.60 | 0.5750E+00 |
| 136.30 | 0.6750E+00 |
| 146.10 | 0.8875E+00 |
| 155.80 | 0.6000E+00 |
| 165.50 | 0.5375E+00 |

INCIDENT ENERGY= 24.95 MEV

32S 2+(2.23 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|       |            |
|-------|------------|
| 23.40 | 0.9190E+01 |
| 30.80 | 0.7160E+01 |
| 38.10 | 0.5130E+01 |
| 44.40 | 0.3650E+01 |
| 51.10 | 0.2430E+01 |
| 58.60 | 0.1760E+01 |
| 64.70 | 0.1970E+01 |
| 71.70 | 0.1520E+01 |
| 78.80 | 0.1270E+01 |

INCIDENT ENERGY= 26.55 MEV

32S 2+(2.23 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 25.80  | 0.1086E+02 |
| 36.10  | 0.7048E+01 |
| 46.30  | 0.3590E+01 |
| 56.60  | 0.2200E+01 |
| 66.70  | 0.2200E+01 |
| 76.80  | 0.1552E+01 |
| 86.90  | 0.8952E+00 |
| 96.90  | 0.5619E+00 |
| 106.80 | 0.6381E+00 |
| 116.70 | 0.6381E+00 |
| 126.60 | 0.4286E+00 |
| 136.30 | 0.3714E+00 |
| 146.10 | 0.4857E+00 |
| 155.80 | 0.5048E+00 |
| 165.50 | 0.4476E+00 |

INCIDENT ENERGY= 29.64 MEV

32S 2+(2.23 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SR)

|        |            |
|--------|------------|
| 25.80  | 0.1048E+02 |
| 36.10  | 0.7581E+01 |
| 46.30  | 0.2905E+01 |
| 56.60  | 0.2400E+01 |
| 66.70  | 0.2514E+01 |
| 76.80  | 0.1524E+01 |
| 86.90  | 0.7524E+00 |
| 96.90  | 0.6571E+00 |
| 106.80 | 0.7810E+00 |
| 116.70 | 0.5429E+00 |
| 126.60 | 0.3238E+00 |
| 136.30 | 0.2762E+00 |
| 146.10 | 0.4286E+00 |
| 155.80 | 0.4667E+00 |
| 165.50 | 0.3714E+00 |

INCIDENT ENERGY= 20.37 MEV

32S 0+(3.78 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 31.05  | 0.4140E+00 |
| 36.15  | 0.3260E+00 |
| 40.90  | 0.2490E+00 |
| 46.42  | 0.2000E+00 |
| 51.50  | 0.1550E+00 |
| 56.64  | 0.1440E+00 |
| 61.74  | 0.1260E+00 |
| 66.82  | 0.9100E-01 |
| 71.88  | 0.8600E-01 |
| 76.92  | 0.9000E-01 |
| 81.80  | 0.9000E-01 |
| 86.99  | 0.9200E-01 |
| 92.10  | 0.1180E+00 |
| 97.00  | 0.1340E+00 |
| 101.97 | 0.1520E+00 |
| 106.92 | 0.1530E+00 |
| 111.85 | 0.1440E+00 |
| 116.82 | 0.1190E+00 |
| 121.74 | 0.8900E-01 |
| 126.65 | 0.6300E-01 |
| 131.52 | 0.3600E-01 |
| 136.42 | 0.3100E-01 |
| 141.29 | 0.4600E-01 |
| 146.15 | 0.6600E-01 |
| 155.84 | 0.1000E+00 |
| 165.52 | 0.9600E-01 |

INCIDENT ENERGY= 24.95 MEV

32S 2+(4.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|       |            |
|-------|------------|
| 23.40 | 0.1470E+01 |
| 30.80 | 0.1190E+01 |
| 38.10 | 0.7500E+00 |
| 44.40 | 0.5700E+00 |
| 51.10 | 0.5300E+00 |
| 58.60 | 0.4900E+00 |
| 64.70 | 0.5900E+00 |
| 71.70 | 0.5100E+00 |
| 78.80 | 0.7500E+00 |

INCIDENT ENERGY= 20.37 MEV

32S 2+(4.28 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 31.06  | 0.1230E+01 |
| 36.20  | 0.1120E+01 |
| 41.24  | 0.1070E+01 |
| 46.24  | 0.9900E+00 |
| 51.53  | 0.9250E+00 |
| 56.65  | 0.8400E+00 |
| 61.75  | 0.7870E+00 |
| 66.84  | 0.7500E+00 |
| 71.88  | 0.7000E+00 |
| 76.93  | 0.6300E+00 |
| 81.99  | 0.5180E+00 |
| 87.01  | 0.3980E+00 |
| 92.13  | 0.3770E+00 |
| 97.01  | 0.3590E+00 |
| 101.98 | 0.2900E+00 |
| 106.92 | 0.2320E+00 |
| 111.88 | 0.2250E+00 |
| 116.83 | 0.2370E+00 |
| 121.74 | 0.2500E+00 |
| 126.66 | 0.2700E+00 |
| 131.53 | 0.2830E+00 |
| 136.42 | 0.0        |
| 141.29 | 0.2960E+00 |
| 146.16 | 0.3080E+00 |
| 155.84 | 0.2880E+00 |
| 165.53 | 0.2040E+00 |

INCIDENT ENERGY= 20.37 MEV

32S 4+(4.46 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 31.06  | 0.2340E+01 |
| 36.20  | 0.2040E+01 |
| 41.24  | 0.1910E+01 |
| 46.24  | 0.1760E+01 |
| 51.53  | 0.1580E+01 |
| 56.65  | 0.1530E+01 |
| 61.75  | 0.1326E+01 |
| 66.84  | 0.1243E+01 |
| 71.88  | 0.1134E+01 |
| 76.93  | 0.1003E+01 |
| 81.99  | 0.8210E+00 |
| 87.01  | 0.7550E+00 |
| 92.13  | 0.6200E+00 |
| 97.01  | 0.5640E+00 |
| 101.98 | 0.5470E+00 |
| 106.92 | 0.5200E+00 |
| 111.88 | 0.5300E+00 |
| 116.83 | 0.5570E+00 |
| 121.74 | 0.5600E+00 |
| 126.66 | 0.5320E+00 |
| 131.53 | 0.4720E+00 |
| 136.42 | 0.4430E+00 |
| 141.29 | 0.4280E+00 |
| 146.16 | 0.3820E+00 |
| 155.84 | 0.3350E+00 |
| 165.53 | 0.3000E+00 |

INCIDENT ENERGY= 24.95 MEV

32S 4+(4.46 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|       |            |
|-------|------------|
| 23.40 | 0.1580E+01 |
| 30.80 | 0.1620E+01 |
| 38.10 | 0.1290E+01 |
| 44.40 | 0.1250E+01 |
| 51.10 | 0.1110E+01 |
| 58.60 | 0.9400E+00 |
| 64.70 | 0.8800E+00 |
| 71.70 | 0.5500E+00 |
| 78.80 | 0.1340E+01 |

INCIDENT ENERGY= 20.37 MEV

32S 3-(5.01 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 25.85  | 0.3920E+01 |
| 31.06  | 0.3670E+01 |
| 36.20  | 0.3540E+01 |
| 41.24  | 0.3420E+01 |
| 46.24  | 0.3340E+01 |
| 51.53  | 0.3350E+01 |
| 56.65  | 0.2880E+01 |
| 61.75  | 0.2460E+01 |
| 66.84  | 0.2090E+01 |
| 71.88  | 0.1900E+01 |
| 76.93  | 0.1690E+01 |
| 81.99  | 0.1500E+01 |
| 87.01  | 0.1440E+01 |
| 92.13  | 0.1480E+01 |
| 97.01  | 0.1400E+01 |
| 101.98 | 0.1350E+01 |
| 106.92 | 0.1210E+01 |
| 111.88 | 0.1080E+01 |
| 116.83 | 0.1000E+01 |
| 121.74 | 0.8820E+00 |
| 126.66 | 0.7930E+00 |
| 131.53 | 0.7030E+00 |
| 136.42 | 0.7060E+00 |
| 141.29 | 0.7200E+00 |
| 146.16 | 0.7650E+00 |
| 155.84 | 0.8240E+00 |
| 165.53 | 0.7410E+00 |

INCIDENT ENERGY= 20.37 MEV

32S 1+(4.70 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 31.06  | 0.4520E+00 |
| 36.20  | 0.3400E+00 |
| 41.24  | 0.1900E+00 |
| 46.41  | 0.1670E+00 |
| 51.53  | 0.1440E+00 |
| 56.65  | 0.1250E+00 |
| 61.75  | 0.1060E+00 |
| 66.84  | 0.9700E-01 |
| 71.88  | 0.0        |
| 76.93  | 0.9800E-01 |
| 81.99  | 0.7600E-01 |
| 87.01  | 0.6400E-01 |
| 92.13  | 0.5500E-01 |
| 97.01  | 0.4400E-01 |
| 101.98 | 0.4200E-01 |
| 106.92 | 0.5300E-01 |
| 111.88 | 0.6400E-01 |
| 116.83 | 0.7700E-01 |
| 121.74 | 0.8700E-01 |
| 126.66 | 0.9800E-01 |
| 131.53 | 0.1010E+00 |
| 136.42 | 0.1040E+00 |
| 141.29 | 0.1020E+00 |
| 146.16 | 0.1070E+00 |
| 155.84 | 0.1080E+00 |
| 165.53 | 0.1340E+00 |

INCIDENT ENERGY= 20.37 MEV

32S 3+(5.41 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 31.06  | 0.1030E+00 |
| 36.20  | 0.1230E+00 |
| 41.24  | 0.1330E+00 |
| 46.24  | 0.1620E+00 |
| 51.53  | 0.1680E+00 |
| 56.65  | 0.1700E+00 |
| 61.75  | 0.1660E+00 |
| 66.84  | 0.1650E+00 |
| 71.88  | 0.1560E+00 |
| 76.93  | 0.1460E+00 |
| 81.99  | 0.1310E+00 |
| 87.01  | 0.1290E+00 |
| 92.13  | 0.1300E+00 |
| 97.01  | 0.1370E+00 |
| 101.98 | 0.1520E+00 |
| 106.92 | 0.1680E+00 |
| 111.88 | 0.1800E+00 |
| 116.83 | 0.1830E+00 |
| 121.74 | 0.1760E+00 |
| 126.66 | 0.1670E+00 |
| 131.53 | 0.1470E+00 |
| 136.42 | 0.1210E+00 |
| 141.29 | 0.1170E+00 |
| 146.16 | 0.1150E+00 |
| 155.84 | 0.1120E+00 |
| 165.53 | 0.1200E+00 |

INCIDENT ENERGY= 20.37 MEV

32S 2+(5.55 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 31.06  | 0.8000E-01 |
| 36.20  | 0.1110E+00 |
| 41.24  | 0.1390E+00 |
| 46.24  | 0.1760E+00 |
| 51.53  | 0.2000E+00 |
| 56.65  | 0.2290E+00 |
| 61.75  | 0.2500E+00 |
| 66.84  | 0.2660E+00 |
| 71.88  | 0.2600E+00 |
| 76.93  | 0.2600E+00 |
| 81.99  | 0.2470E+00 |
| 87.01  | 0.2340E+00 |
| 92.13  | 0.2210E+00 |
| 97.01  | 0.2120E+00 |
| 101.98 | 0.2230E+00 |
| 106.92 | 0.2170E+00 |
| 111.88 | 0.2260E+00 |
| 116.83 | 0.2190E+00 |
| 121.74 | 0.2180E+00 |
| 126.66 | 0.2040E+00 |
| 131.53 | 0.1890E+00 |
| 136.42 | 0.1790E+00 |
| 141.29 | 0.1590E+00 |
| 146.16 | 0.1540E+00 |
| 155.84 | 0.1260E+00 |
| 165.53 | 0.9800E-01 |

INCIDENT ENERGY= 20.37 MEV

32S 2-(6.22 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 36.20  | 0.4240E+00 |
| 41.24  | 0.2930E+00 |
| 46.24  | 0.2370E+00 |
| 51.53  | 0.2130E+00 |
| 56.65  | 0.2030E+00 |
| 61.75  | 0.1620E+00 |
| 66.84  | 0.1210E+00 |
| 71.88  | 0.9700E-01 |
| 76.93  | 0.9300E-01 |
| 81.99  | 0.8300E-01 |
| 87.01  | 0.9000E-01 |
| 92.13  | 0.1100E+00 |
| 97.01  | 0.1310E+00 |
| 101.98 | 0.1520E+00 |
| 106.92 | 0.1630E+00 |
| 111.88 | 0.1860E+00 |
| 116.83 | 0.2070E+00 |
| 121.74 | 0.2290E+00 |
| 126.66 | 0.2510E+00 |
| 131.53 | 0.2570E+00 |
| 136.42 | 0.2640E+00 |
| 141.29 | 0.2550E+00 |
| 146.16 | 0.2350E+00 |
| 155.84 | 0.1740E+00 |
| 165.53 | 0.1060E+00 |

INCIDENT ENERGY= 20.37 MEV

32S 1-(5.80 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 31.06  | 0.1360E+01 |
| 36.20  | 0.9980E+00 |
| 41.24  | 0.5580E+00 |
| 46.24  | 0.3890E+00 |
| 51.53  | 0.3300E+00 |
| 56.65  | 0.1720E+00 |
| 61.75  | 0.1100E+00 |
| 66.84  | 0.9200E-01 |
| 71.88  | 0.1000E+00 |
| 76.93  | 0.1130E+00 |
| 81.99  | 0.1200E+00 |
| 87.01  | 0.1290E+00 |
| 92.13  | 0.1350E+00 |
| 97.01  | 0.1210E+00 |
| 101.98 | 0.1040E+00 |
| 106.92 | 0.9100E-01 |
| 111.88 | 0.8200E-01 |
| 116.83 | 0.7400E-01 |
| 121.74 | 0.1110E+00 |
| 126.66 | 0.1480E+00 |
| 131.53 | 0.1840E+00 |
| 136.42 | 0.2380E+00 |
| 141.29 | 0.3020E+00 |
| 146.16 | 0.3350E+00 |
| 155.84 | 0.4210E+00 |
| 165.53 | 0.3690E+00 |

INCIDENT ENERGY= 20.37 MEV

32S 4-(6.41 MEV) LEVEL

THETA C.M. SIGMA C.M.(MB/SR)

|        |            |
|--------|------------|
| 36.20  | 0.1120E+01 |
| 41.24  | 0.8500E+00 |
| 46.24  | 0.6920E+00 |
| 51.53  | 0.6260E+00 |
| 56.65  | 0.5600E+00 |
| 61.75  | 0.4530E+00 |
| 66.84  | 0.3780E+00 |
| 71.88  | 0.2690E+00 |
| 76.93  | 0.2250E+00 |
| 81.99  | 0.2070E+00 |
| 87.01  | 0.2080E+00 |
| 92.13  | 0.2000E+00 |
| 97.01  | 0.1960E+00 |
| 101.98 | 0.1930E+00 |
| 106.92 | 0.1890E+00 |
| 111.88 | 0.1720E+00 |
| 116.83 | 0.1580E+00 |
| 121.74 | 0.1500E+00 |
| 126.66 | 0.1460E+00 |
| 131.53 | 0.1380E+00 |
| 136.42 | 0.1290E+00 |
| 141.29 | 0.1250E+00 |
| 146.16 | 0.1190E+00 |
| 155.84 | 0.1400E+00 |
| 165.53 | 0.1940E+00 |

INCIDENT ENERGY= 24.95 MEV

32S 44(6.41 MEV) LEVEL

THETA C.M. SIGMA C.M. (MB/SP)

|       |            |
|-------|------------|
| 23.40 | 0.1010E+01 |
| 30.80 | 0.1320E+01 |
| 38.10 | 0.5700E+00 |
| 44.40 | 0.5000E+00 |
| 51.10 | 0.4600E+00 |
| 58.60 | 0.3600E+00 |
| 64.70 | 0.3300E+00 |
| 71.70 | 0.4100E+00 |
| 78.80 | 0.6100E+00 |

INCIDENT ENERGY= 15.50 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

THETA C.M. SEP ERROR

|        |        |        |
|--------|--------|--------|
| 116.77 | 0.3297 | 0.0530 |
| 126.60 | 0.3325 | 0.0420 |
| 136.38 | 0.3448 | 0.0350 |
| 146.12 | 0.3136 | 0.0300 |
| 155.82 | 0.3143 | 0.0310 |
| 165.51 | 0.1210 | 0.0200 |

INCIDENT ENERGY= 15.90 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

THETA C.M. SEP ERROR

|        |        |        |
|--------|--------|--------|
| 126.60 | 0.2960 | 0.0990 |
| 146.12 | 0.3330 | 0.0710 |
| 165.51 | 0.2640 | 0.0770 |

INCIDENT ENERGY= 16.40 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

THETA C.M. SEP ERROR

|        |        |        |
|--------|--------|--------|
| 116.77 | 0.2160 | 0.0640 |
| 126.60 | 0.3434 | 0.0850 |
| 136.38 | 0.3840 | 0.0530 |
| 146.12 | 0.3012 | 0.0550 |
| 155.82 | 0.3770 | 0.0550 |
| 165.51 | 0.3414 | 0.0770 |

INCIDENT ENERGY= 17.40 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

THETA C.M. SEP ERROR

|        |        |        |
|--------|--------|--------|
| 116.77 | 0.3065 | 0.0557 |
| 126.60 | 0.2415 | 0.0490 |
| 136.38 | 0.3773 | 0.0470 |
| 146.12 | 0.4335 | 0.0450 |
| 155.82 | 0.4564 | 0.0448 |
| 165.51 | 0.3020 | 0.0420 |

INCIDENT ENERGY= 18.10 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

THETA C.M. SEP ERROR

|        |        |        |
|--------|--------|--------|
| 116.77 | 0.2436 | 0.0437 |
| 126.60 | 0.3940 | 0.0520 |
| 136.38 | 0.4085 | 0.0412 |
| 146.12 | 0.3670 | 0.0400 |
| 155.82 | 0.3689 | 0.0389 |
| 165.51 | 0.4290 | 0.0550 |

INCIDENT ENERGY= 19.07 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

THETA C.M. SEP ERROR

|        |        |        |
|--------|--------|--------|
| 116.77 | 0.2946 | 0.0428 |
| 126.60 | 0.4125 | 0.0570 |
| 136.38 | 0.3980 | 0.0391 |
| 146.12 | 0.4471 | 0.0487 |
| 155.82 | 0.2322 | 0.0351 |
| 165.51 | 0.3361 | 0.0424 |

INCIDENT ENERGY= 20.25 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

THETA C.M. SEP ERROR

|        |        |        |
|--------|--------|--------|
| 116.77 | 0.1942 | 0.0546 |
| 126.60 | 0.2160 | 0.0420 |
| 136.38 | 0.4586 | 0.0520 |
| 146.12 | 0.4320 | 0.0404 |
| 155.82 | 0.4140 | 0.0560 |
| 165.51 | 0.3741 | 0.0474 |

INCIDENT ENERGY= 21.20 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 56.56      | 0.0997 | 0.0420 |
| 66.73      | 0.1139 | 0.0232 |
| 76.50      | 0.0855 | 0.0234 |
| 86.90      | 0.0991 | 0.0293 |
| 96.90      | 0.1375 | 0.0341 |
| 106.84     | 0.2231 | 0.0457 |
| 116.73     | 0.2017 | 0.0514 |
| 126.56     | 0.1870 | 0.0470 |
| 136.35     | 0.3619 | 0.0425 |
| 146.10     | 0.3291 | 0.0410 |
| 155.81     | 0.2221 | 0.0445 |
| 165.49     | 0.2665 | 0.0495 |

INCIDENT ENERGY= 23.16 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 116.77     | 0.1527 | 0.0429 |
| 126.60     | 0.2107 | 0.0500 |
| 136.38     | 0.3736 | 0.0451 |
| 146.12     | 0.3384 | 0.0442 |
| 155.82     | 0.2324 | 0.0438 |
| 165.51     | 0.2951 | 0.0471 |

INCIDENT ENERGY= 26.47 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 116.77     | 0.1240 | 0.0471 |
| 126.60     | 0.2846 | 0.0629 |
| 136.38     | 0.3769 | 0.0549 |
| 146.12     | 0.3597 | 0.0503 |
| 155.82     | 0.4600 | 0.0470 |
| 165.51     | 0.1971 | 0.0510 |

INCIDENT ENERGY= 29.56 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 116.77     | 0.1007 | 0.0501 |
| 126.60     | 0.3578 | 0.0680 |
| 136.38     | 0.2927 | 0.0617 |
| 146.12     | 0.3894 | 0.0509 |
| 155.82     | 0.3265 | 0.0509 |
| 165.51     | 0.2586 | 0.0574 |

INCIDENT ENERGY= 31.97 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 116.77     | 0.0800 | 0.0570 |
| 126.60     | 0.3902 | 0.0940 |
| 136.38     | 0.3290 | 0.0970 |
| 146.12     | 0.2873 | 0.0740 |
| 155.82     | 0.3870 | 0.0700 |
| 165.51     | 0.1766 | 0.0730 |

INCIDENT ENERGY= 35.26 MEV

32S(2+,2.23 MEV) SPIN FLIP PROBABILITY

| THETA C.M. | SFP    | ERROR  |
|------------|--------|--------|
| 116.77     | 0.1220 | 0.0600 |
| 126.60     | 0.3276 | 0.0957 |
| 136.38     | 0.2650 | 0.0935 |
| 146.12     | 0.4204 | 0.0925 |
| 165.51     | 0.1886 | 0.1130 |