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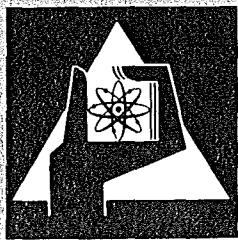
TOTAL ABSORPTION CROSS SECTION OF VIRTUAL PHOTONS WITH MASSES $0.1 (\text{GeV}/c)^2 \leq q^2 \leq 1.5 (\text{GeV}/c)^2$ ON PROTONS AND DEUTERONS IN THE RESONANCE REGION

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ABSTRACT:

The twofold differential cross section for inelastic electron-proton, electron-deuteron, and electron-neutron scattering in the resonance region ($W \leq 1.90$ GeV) for four-momentum transfers $0.1 (\text{GeV}/c)^2 \leq q^2 \leq 1.5 (\text{GeV}/c)^2$ is tabulated. The error sources are discussed.

ZUSAMMENFASSUNG:

Der zweifach differentielle Wirkungsquerschnitt für die inelastische Elektron-Proton-, Elektron-Deuteron- und Elektron-Neutronstreuung im Resonanzgebiet ($W \leq 1.90$ GeV) wird für Viererimpulsüberträge im Bereich $0.1 (\text{GeV}/c)^2 \leq q^2 \leq 1.5 (\text{GeV}/c)^2$ in Tabellenform angegeben. Die Fehlerquellen werden diskutiert.

The total absorption cross section of virtual photons

$$\sigma_{\text{total}} = \sigma_t + \epsilon \cdot \sigma_l \quad (1)$$

has been determined in different experiments on protons [1 - 10] and deuterons [11]. This cross section is related to the measured differential cross section

$$\frac{d^2\sigma}{d\Omega dE_3} = \Gamma_t \{ \sigma_t(q^2, v) + \epsilon \cdot \sigma_l(q^2, v) \} \quad (2)$$

with

Γ_t flux of the transverse polarized virtual photons

ϵ transverse polarization of the virtual photons

σ_t, σ_l absorption cross section for transversal and longitudinal polarized photons respectively

q^2 four-momentum transfer squared

v energy loss of the scattered electron.

The relation to the Rosenbluth formula for elastic electron nucleon scattering is emphasized by another representation which is useful to display some general features of the cross section

$$\frac{d^2\sigma}{d\Omega dE_3} = \sigma_M \{ W_2(q^2, v) + 2 \operatorname{tg}^2(\theta/2) W_1(q^2, v) \} \quad (3)$$

with

σ_M Mott cross section

θ electron scattering angle

w_1, w_2 structure functions.

In the present experiment the twofold differential cross section was measured on protons and deuterons in a kinematical region as given in figs. 1 and 2, which is characterized roughly by the invariant masses $W \leq 1.90$ GeV and the four-momentum transfer squared $0.1 (\text{GeV}/c)^2 \leq q^2 \leq 1.5 (\text{GeV}/c)^2$. In this paper we will discuss the error sources of the data and their magnitude. Furthermore we present a tabulation of the cross sections in a way that they are readily accessible and usable by other physicists. For $q^2 \leq 0.5 (\text{GeV}/c)^2$ and $W \gtrsim 1.5$ GeV no data existed for the inelastic electron-proton scattering. For the inelastic electron-deuteron scattering data have been published [11] only for $q^2 < 0.5 (\text{GeV}/c)^2$ and $W < 1.45$ GeV. A detailed discussion and interpretation of the data will be given in a forthcoming paper [15].

The present experiment has been performed with a wire spark chamber spectrometer, using a Cerenkov counter and a shower counter for particle identification. The details of the apparatus have been described in former publications [10, 11, 12]. For each setting of the primary energy and electron scattering angle the contributions of the target-empty rate, of Dalitz pairs and of pion background [10] have been measured separately and were subtracted. From the resulting spectrum the elastic radiative tail was subtracted. The inelastic radiative corrections were handled by unfolding the inelastic scattering data according to the method of Mo and Tsai [13].

In table I the main corrections and error sources are listed. In the first column the order of magnitude of the different corrections and in the second column the uncertainties of these corrections are given.

In table II the systematic errors are compiled. We have calculated the total systematic error of the normalization by quadratic addition of the contributions. The total systematic error of normalization is consistent with fig. 3, where we have plotted the measured elastic cross sections and compared them with calculated values, using the Rosenbluth formula and the dipole fit.

The cross sections for inelastic scattering of electrons on protons and deuterons are listed in tables III - XI together with the total error which has been calculated from the error sources of table I. Folding the proton cross section to account for fermi-motion within a nucleus and subtracting it from the deuteron data gives as a result the cross section for inelastic electron-neutron scattering which has been included in the tables.

In fig. 1 and fig. 2 we have plotted lines of constant vW_2 which give a general impression of the whole data of the present experiment. To calculate W_2 from formula (3) a ratio $\sigma_l/\sigma_t = 0.18$ has been assumed [14].

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We acknowledge the untiring help of Ing. H. Sindt during the data taking period. This work has been supported by the Bundesministerium für Forschung und Technologie.

REFERENCES:

- [1] A.A. Cone, K.W. Chen, J.R. Dunning, G. Hartwig,
N.F. Ramsey, J.K. Walker, R. Wilson
Phys. Rev. 156, 1490 (1967)
- [2] F.W. Brasse, J. Engler, E. Ganßauge, M. Schweizer
Nuovo Cimento 55A, 679 (1968)
- [3] W. Albrecht, F.W. Brasse, W. Flauger, K.H. Frank,
J. Gayler, H. Hultschig, J. May, E. Ganßauge
Phys. Lett. 28B, 225 (1968)
- [4] W. Albrecht, F.W. Brasse, H. Dorner, W. Flauger,
K.H. Frank, J. Gayler, H. Hultschig, J. May,
E. Ganßauge
Nucl. Phys. B13, 1 (1969)
- [5] W. Bartel, B. Dudelzack, H. Krehbiel, J. McElroy,
U. Meyer-Berkhout, W. Schmidt, V. Walther, G. Weber
Phys. Lett. 27B, 660 (1968)
Phys. Lett. 28B, 148 (1968)
W. Bartel, thesis
DESY Interner Bericht F22-69/3 (1969)
- [6] H.L. Lynch, J.W. Allaby, D.M. Ritson
Phys. Rev. 164, 1635 (1967)
- [7] E.D. Bloom, D.H. Coward, H. DeStaebler, J. Drees,
G. Miller, L.W. Mo, R.E. Taylor, M. Breidenbach,
J.I. Friedman, G.C. Hartmann, H.W. Kendall
Phys. Rev. Lett. 23, 930 (1969)

- [8] M. Breidenbach, J.I. Friedman, H.W. Kendall, E.D. Bloom,
D.H. Coward, H. DeStaebler, J. Drees, L.W. Mo,
R.E. Taylor
Phys. Rev. Lett. 23, 935 (1969)
- [9] G. Miller, E.D. Bloom, G. Buschhorn, D.H. Coward,
H. DeStaebler, J. Drees, C.L. Jordan, L.W. Mo,
R.E. Taylor, J.I. Friedman, G.C. Hartmann, H.W. Kendall,
R. Verdier
Phys. Rev. D5, 528 (1971)
- [10] J. Moritz, K.H. Schmidt, D. Wegener, J. Bleckwenn,
E. Engels Jr.
Nucl. Phys. B41, 336 (1972)
- [11] J. Bleckwenn, H. Klein, J. Moritz, K.H. Schmidt,
D. Wegener
Nucl. Phys. B33, 475 (1971)
- [12] S. Galster, G. Hartwig, H. Klein, J. Moritz, K.H. Schmidt,
W. Schmidt-Parzefall, D. Wegener, J. Bleckwenn
Phys. Rev. D5, 519 (1972)
- [13] L.W. Mo and Y.S. Tsai
Rev. Mod. Phys. 41, 205 (1969)
- [14] F.W. Brasse, W. Fehrenbach, W. Flauger, K.H. Frank,
J. Gayler, V. Korbel, J. May, P.D. Zimmerman,
E. Ganßauge
DESY report 71/2 (1971)
- [15] M. Köbberling, J. Moritz, K.H. Schmidt, D. Wegener,
D. Zeller, J. Bleckwenn to be published
Paper No. 548 presented to the XVI. International
Conference on High Energy Physics, Sept. 1972,
NAL, Batavia, Illinois
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FIGURE CAPTIONS:

Fig. 1: Lines of constant vW_2 in the (v, q^2) -plane for protons. Data were taken along the straight lines of constant scattering angle.

Fig. 2: Same as fig. 1 for deuterons.

Fig. 3: Ratio of the measured elastic electron-proton cross section and the calculated one.

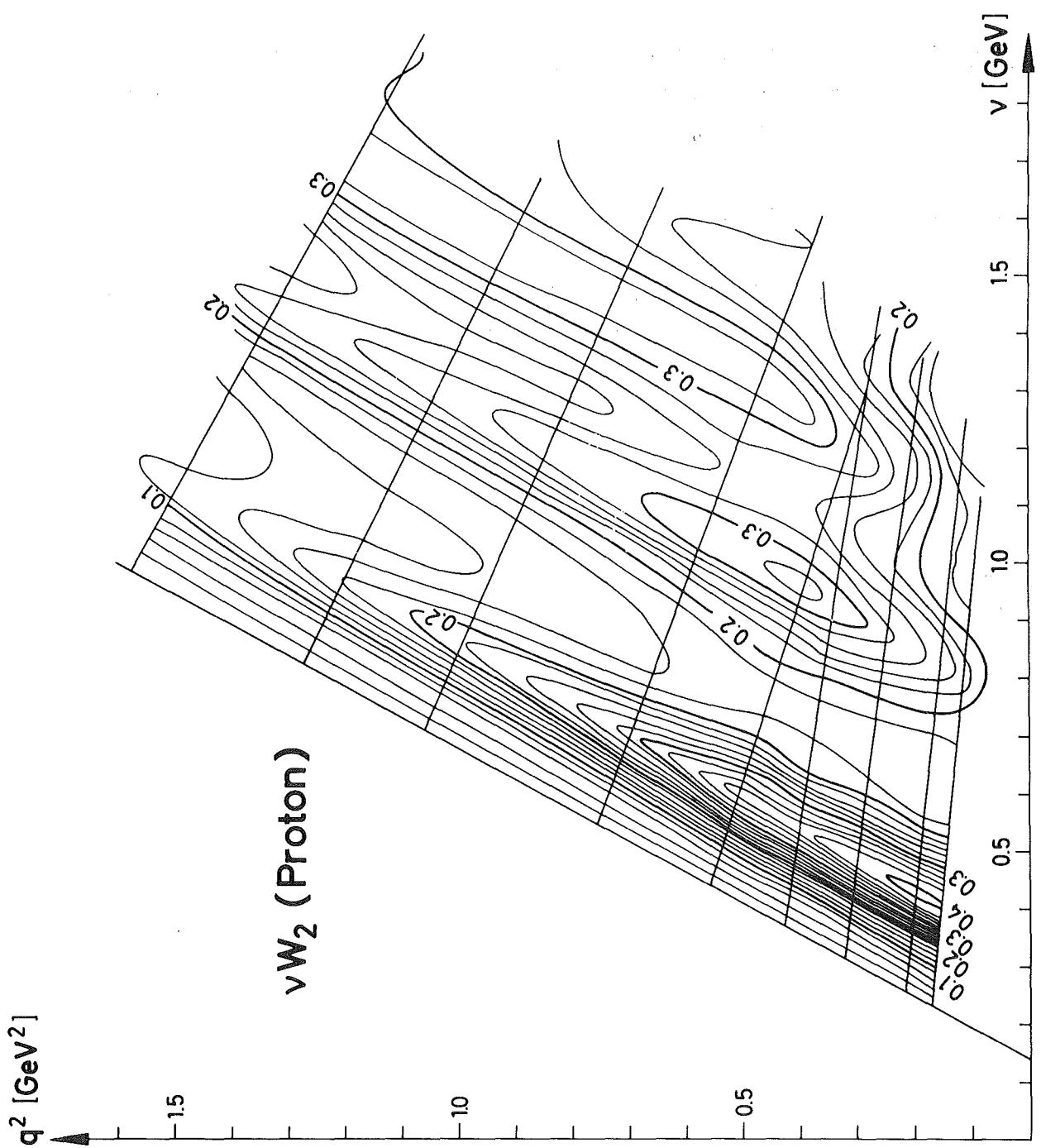
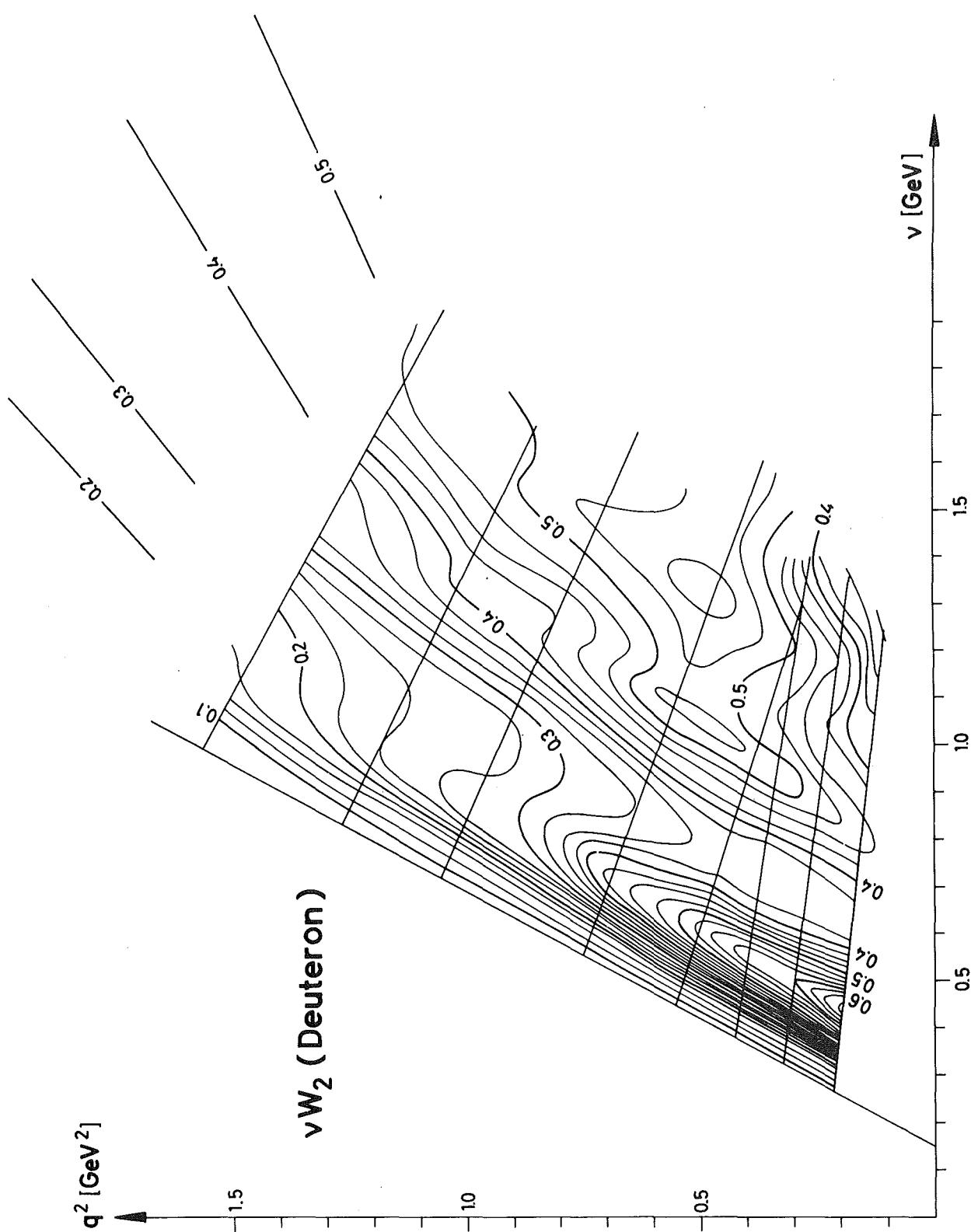


FIG. 1



elastic scattering

$$\frac{\sigma - \sigma^{\text{Dipol}}}{\sigma}$$

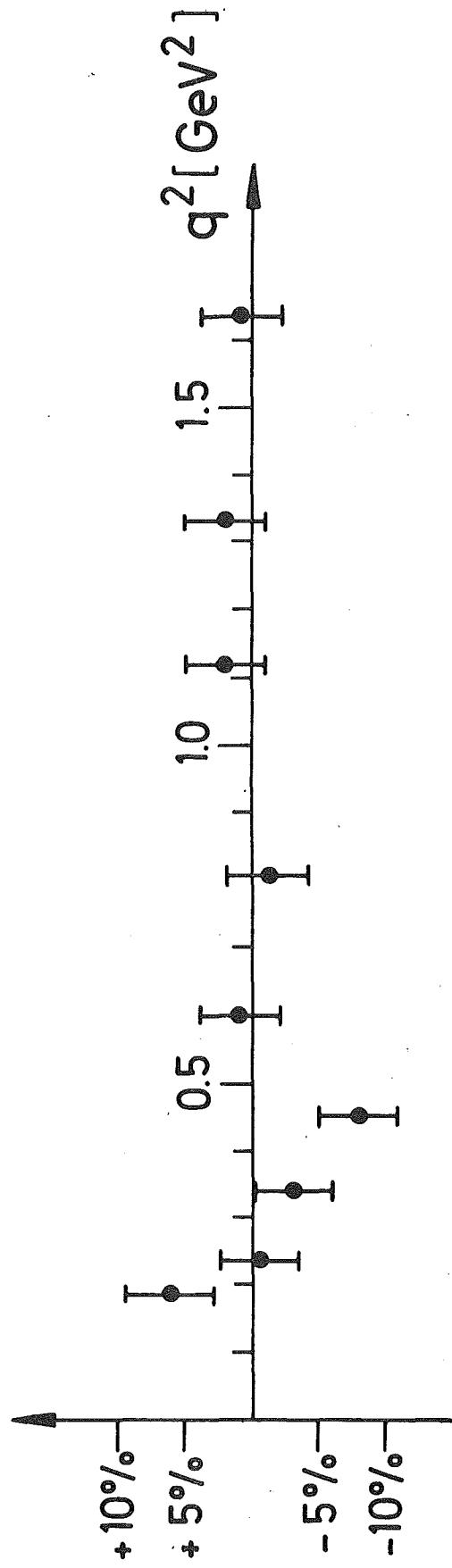


FIG. 3

Table I: Corrections and error sources

	Correction	Uncertainty
Statistics	-	
target-empty rate	10%	2% - 5%
background of pions	<20%	≤2%
Dalitz pairs	≤ 1%	<0.5%
momentum acceptance	≤50%	1%
radiative corrections	≤30%	2% - 4%
typical total error		4% - 6%

Table II: Systematic errors of normalization

absolute intensity (faraday cup)	2%
target-density and dimensions	2%
primary energy	1%
solid angle acceptance	0.5%
dead time correction	1%
efficiency of spark chambers	0.5%
efficiency of counters	1%
total systematic error	3.5%

Tables III to XI: Tabulation of measured cross sections

THETA	electron scattering angle
EO	energy of the primary electron
E3	energy of the scattered electron
W	invariant mass of the excited hadron system
-Q**2	four momentum transfer squared
SIGMA-H	$\sigma_t + \epsilon\sigma_1$ for free protons
SIGMA-D	$\sigma_t + \epsilon\sigma_1$ for deuterons
SIGMA-N	$\sigma_t + \epsilon\sigma_1$ for bound state neutrons
	The errors according to table I are also given.
RAD.-CORR.	inelastic radiative correction factors applied (H = protons, D = deuterons)
GAMMAT	flux of transverse polarized virtual photons.

TABLE 3

E0=3.820 GEV, THETA=22 DEGREES

E3 GEV	H GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	%	SIGMA-D MIKROBARN	%	SIGMA-N MIKROBARN	%	RAD.-KRR. H D	GAMMAT 1/GEV

1.895	1.854	1.054	57.96	4.4	54.48	3.4	36.19	11.3	0.974	0.984
1.905	1.848	1.060	57.38	4.4	53.61	3.4	35.36	11.4	0.972	0.984
1.915	1.841	1.065	56.43	4.3	51.52	3.4	33.29	11.7	0.968	0.979
1.925	1.835	1.071	56.38	4.2	50.29	3.3	31.99	12.0	0.969	0.977
1.935	1.828	1.076	56.92	4.1	49.86	3.3	31.54	12.0	0.973	0.977
1.945	1.821	1.082	57.29	4.1	49.85	3.3	31.49	12.0	0.976	0.979
1.955	1.815	1.088	57.18	4.1	49.76	3.3	31.33	12.0	0.976	0.980
1.965	1.808	1.093	56.93	4.1	49.82	3.3	31.28	11.9	0.976	0.982
1.975	1.801	1.099	56.79	4.1	49.02	3.2	31.33	12.0	0.976	0.984
1.985	1.794	1.104	57.04	4.1	49.20	3.2	31.29	11.9	0.978	0.986
1.995	1.787	1.110	57.28	4.1	50.34	3.2	31.24	11.9	0.979	0.988
2.005	1.781	1.115	57.38	4.1	50.95	3.2	31.60	11.8	0.980	0.992
2.015	1.774	1.121	57.56	4.0	51.91	3.2	32.20	11.6	0.981	0.997
2.025	1.767	1.127	58.29	4.0	53.23	3.2	33.19	11.3	0.985	1.004
2.035	1.760	1.132	59.70	4.0	54.35	3.2	33.89	11.2	0.993	1.010
2.045	1.753	1.138	61.23	3.9	55.07	3.2	34.13	11.3	1.001	1.015
2.055	1.746	1.143	62.50	3.9	55.22	3.2	33.88	11.5	1.008	1.019
2.065	1.739	1.149	63.40	3.8	54.85	3.1	33.04	11.6	1.014	1.021
2.075	1.732	1.154	64.64	3.9	54.16	3.2	31.85	12.2	1.022	1.022
2.085	1.725	1.160	65.26	3.8	53.53	3.1	30.84	12.6	1.031	1.023
2.095	1.718	1.165	67.58	3.8	53.20	3.1	30.15	13.0	1.040	1.025
2.105	1.711	1.171	68.11	3.8	52.90	3.2	29.61	13.3	1.047	1.028
2.115	1.704	1.177	68.31	3.9	52.63	3.2	29.13	13.5	1.052	1.030
2.125	1.697	1.182	68.50	3.9	52.65	3.2	29.12	13.6	1.058	1.034
2.135	1.690	1.188	68.66	3.9	52.55	3.2	29.04	13.7	1.064	1.037
2.145	1.682	1.193	68.40	3.9	52.15	3.2	28.90	13.8	1.068	1.040
2.155	1.675	1.199	67.57	3.9	51.33	3.2	28.41	13.6	1.071	1.041
2.165	1.668	1.204	66.13	3.9	50.27	3.2	27.81	13.9	1.072	1.042
2.175	1.660	1.210	64.05	4.1	49.11	3.2	27.23	14.1	1.070	1.042
2.185	1.653	1.216	61.37	4.1	48.08	3.2	26.85	14.0	1.064	1.042

TABLE 3 (CONTINUED)

E0=3.320 GEV, THETA=22 DEGREES

E3 GEV	N GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	RAD.-KCRR. H D 1/GEV	GAMMAT 1/GEV

2.195	1.546	1.221	58.74	4.1	87.36	3.2	26.85 13.8 1.057 1.043 0.000879
2.205	1.638	1.227	56.57	4.2	86.51	3.2	26.83 13.6 1.051 1.044 0.000875
2.215	1.631	1.232	54.48	4.3	85.15	3.2	26.32 13.8 1.044 1.043 0.000872
2.225	1.623	1.238	52.18	4.3	83.46	3.2	25.38 13.8 1.034 1.041 0.000858
2.235	1.616	1.243	50.18	4.4	81.74	3.2	24.39 14.0 1.024 1.037 0.000864
2.245	1.608	1.249	48.84	4.5	80.31	3.2	23.65 14.3 1.015 1.035 0.000850
2.255	1.601	1.254	48.52	4.5	79.79	3.2	23.72 14.3 1.014 1.034 0.000855
2.265	1.593	1.260	48.25	4.4	80.19	3.2	24.63 13.6 1.014 1.039 0.000851
2.275	1.586	1.266	47.97	4.5	80.49	3.2	25.17 13.4 1.012 1.042 0.000840
2.285	1.578	1.271	48.38	4.5	80.39	3.3	25.19 13.5 1.017 1.043 0.000841
2.295	1.570	1.277	48.96	4.5	80.47	3.3	25.42 13.5 1.011 1.047 0.000836
2.305	1.562	1.282	51.11	4.5	80.62	3.3	25.46 13.7 1.029 1.049 0.000831
2.315	1.555	1.288	53.46	4.4	81.08	3.3	25.62 13.9 1.043 1.052 0.000826
2.325	1.547	1.293	55.73	4.3	81.77	3.3	26.05 13.8 1.054 1.057 0.000820
2.335	1.539	1.299	58.12	4.3	82.73	3.3	26.62 13.9 1.067 1.063 0.000815
2.345	1.531	1.305	60.35	4.2	83.76	3.3	27.29 13.7 1.079 1.069 0.000809
2.355	1.523	1.310	62.67	4.2	84.74	3.3	27.93 13.7 1.095 1.074 0.000803
2.365	1.515	1.316	64.58	4.3	85.77	3.3	28.66 13.8 1.109 1.083 0.000797
2.375	1.507	1.321	65.82	4.3	86.16	3.3	28.96 13.9 1.121 1.091 0.000790
2.385	1.499	1.327	65.95	4.4	85.55	3.3	28.33 14.4 1.130 1.092 0.000784
2.395	1.491	1.332	64.76	4.5	84.72	3.4	27.67 14.8 1.135 1.097 0.000777
2.405	1.482	1.338	61.97	4.5	82.93	3.4	26.37 15.0 1.133 1.095 0.000770
2.415	1.474	1.343	58.18	4.6	81.04	3.4	25.02 15.3 1.126 1.092 0.000762
2.425	1.466	1.349	54.55	4.7	79.58	3.4	24.46 15.3 1.121 1.092 0.000755
2.435	1.458	1.355	51.31	4.9	78.52	3.5	24.31 15.2 1.113 1.096 0.000747
2.445	1.449	1.360	48.60	5.0	77.06	3.5	23.92 15.2 1.103 1.096 0.000740
2.455	1.441	1.366	46.59	5.2	75.19	3.5	22.98 15.6 1.103 1.092 0.000732
2.465	1.432	1.371	44.45	5.1	73.68	3.5	22.50 15.4 1.093 1.092 0.000723
2.475	1.424	1.377	42.98	5.3	72.25	3.6	22.04 15.6 1.087 1.089 0.000713
2.485	1.415	1.382	42.00	5.4	71.07	3.6	21.77 15.7 1.084 1.087 0.000703

TABLE 3 (CONTINUED)

E0=3.820 GEV, THETA=22 DEGREES

F3 GFV	V GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	%	SIGMA-D MIKROBARN	%	SIGMA-N MIKROBARN	%	RAD.-KORR. H D	GAMMAT 1/GEV

2.495	1.407	1.388	41.10	5.3	70.19	3.6	21.51	15.4	1.081 1.086	0.000697
2.505	1.398	1.394	40.43	5.4	69.61	3.5	21.59	15.3	1.077 1.086	0.000688
2.515	1.389	1.399	39.92	5.6	69.51	3.5	21.94	15.4	1.075 1.088	0.000678
2.525	1.380	1.405	39.96	5.5	69.65	3.7	22.49	15.0	1.076 1.090	0.000659
2.535	1.372	1.410	40.58	5.4	69.95	3.7	23.04	14.7	1.080 1.093	0.000659
2.545	1.363	1.416	41.89	5.5	70.13	3.7	23.34	15.0	1.089 1.095	0.000649
2.555	1.354	1.421	42.97	5.7	70.05	3.8	23.32	15.4	1.098 1.096	0.000638
2.565	1.345	1.427	43.29	5.8	70.30	3.7	23.44	15.5	1.100 1.099	0.000627
2.575	1.336	1.433	42.76	5.9	71.16	3.8	24.12	15.4	1.097 1.102	0.000616
2.585	1.327	1.438	42.39	5.8	72.36	3.9	25.08	14.9	1.095 1.107	0.000605
2.595	1.317	1.444	42.74	5.7	73.61	3.8	25.85	14.4	1.096 1.112	0.000594
2.605	1.308	1.449	43.95	5.7	75.25	3.9	26.83	14.3	1.101 1.119	0.000582
2.615	1.299	1.455	45.96	5.8	77.82	3.9	28.66	14.1	1.113 1.130	0.000570
2.625	1.289	1.460	48.17	5.8	80.64	3.9	30.62	13.7	1.123 1.140	0.000553
2.635	1.280	1.456	51.06	5.9	83.21	3.9	32.17	13.8	1.139 1.150	0.000543
2.645	1.270	1.471	54.81	5.8	85.43	4.0	33.30	14.1	1.157 1.161	0.000532
2.655	1.261	1.477	58.89	5.7	87.57	4.1	34.36	14.3	1.178 1.171	0.000519
2.665	1.251	1.483	62.98	5.7	89.81	4.1	35.64	14.4	1.199 1.182	0.000505
2.675	1.241	1.488	67.24	5.7	92.01	4.2	37.00	14.7	1.221 1.194	0.000492
2.685	1.231	1.494	71.00	5.7	94.34	4.2	38.83	14.7	1.243 1.208	0.000478
2.695	1.222	1.499	72.41	5.8	96.56	4.4	40.98	14.5	1.260 1.222	0.000454
2.705	1.212	1.505	70.16	6.1	97.58	4.4	42.34	14.4	1.273 1.235	0.000449
2.715	1.201	1.510	64.87	6.5	96.39	4.6	42.13	14.6	1.280 1.246	0.000434
2.725	1.191	1.516	58.40	5.9	93.16	4.9	40.10	15.0	1.286 1.255	0.000419
2.735	1.181	1.522	51.90	7.6	89.20	5.0	37.93	15.7	1.292 1.264	0.000404
2.745	1.171	1.527	45.51	8.2	84.72	5.3	35.58	16.4	1.297 1.272	0.000388
2.755	1.160	1.533	39.27	9.3	79.44	5.6	32.55	17.7	1.302 1.282	0.000372
2.765	1.150	1.538	33.52	10.7	73.52	5.8	29.07	19.2	1.307 1.291	0.000355
2.775	1.139	1.544	28.31	12.5	67.97	6.4	26.26	21.4	1.313 1.304	0.000339
2.785	1.128	1.549	24.13	14.6	62.93	7.0	23.83	23.7	1.323 1.319	0.000321

TABLE 3 (CONTINUED)

E0=3.820 GEV, THETA=22 DEGREES

E3 GEV	A GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KERR. H D	GAMMAT 1/GEV

2.785	1.128	1.549	24.13	14.6	62.93	7.0	23.83 23.7 1.323 1.319 0.000321
2.795	1.118	1.555	20.77	18.0	57.62	8.0	21.15 28.0 1.338 1.337 0.000304
2.805	1.107	1.560	18.09	19.9	51.34	8.9	17.33 33.6 1.359 1.359 0.000286
2.815	1.096	1.566	15.23	23.9	44.65	10.4	13.00 45.5 1.377 1.377 0.000268
2.825	1.084	1.572	12.95	29.9	36.65	13.2	7.65 80.9 1.377 1.377 0.000250

TABLE 4

E0=3.400 GEV, THETA=22 DEGREES

E3 GEV	H GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	%	SIGMA-D MIKROBARN	%	SIGMA-N MIKROBARN	%	RAD.-KCRR. H	D	GAMMAT 1/GEV

1.725	1.780	0.854	64.64	4.8	112.73	3.9	44.90	11.8	0.953	0.969	0.001096
1.735	1.774	0.859	65.87	4.9	114.39	3.7	46.17	11.6	0.959	0.976	0.001095
1.745	1.767	0.864	66.22	4.8	114.69	3.7	46.11	11.5	0.960	0.979	0.001095
1.755	1.760	0.869	65.50	4.7	113.63	3.7	44.61	11.7	0.956	0.978	0.001095
1.765	1.753	0.874	64.86	4.7	111.76	3.7	42.14	12.2	0.952	0.975	0.001094
1.775	1.747	0.879	66.01	4.7	111.18	3.6	40.94	12.4	0.957	0.974	0.001094
1.785	1.740	0.884	69.13	4.5	113.00	3.6	42.03	12.2	0.970	0.980	0.001093
1.795	1.733	0.889	72.84	4.3	115.10	3.6	43.34	12.1	0.986	0.987	0.001092
1.805	1.726	0.894	75.52	4.4	115.47	3.6	43.09	12.4	0.998	0.990	0.001091
1.815	1.719	0.899	76.98	4.4	114.67	3.6	41.67	12.8	1.005	0.990	0.001090
1.825	1.712	0.904	78.16	4.3	114.80	3.6	41.06	12.9	1.011	0.991	0.001089
1.835	1.705	0.909	79.71	4.3	116.13	3.6	41.89	12.8	1.020	0.996	0.001088
1.845	1.698	0.914	81.07	4.2	118.04	3.6	43.39	12.5	1.029	1.003	0.001086
1.855	1.691	0.918	81.45	4.3	119.51	3.5	44.53	12.2	1.033	1.009	0.001084
1.865	1.684	0.923	81.00	4.2	120.72	3.5	45.63	11.9	1.037	1.014	0.001083
1.875	1.677	0.928	80.04	4.3	121.30	3.5	46.19	11.8	1.038	1.019	0.001081
1.885	1.670	0.933	79.02	4.3	120.89	3.6	45.95	11.9	1.039	1.020	0.001079
1.895	1.663	0.938	77.31	4.3	119.19	3.5	44.62	11.9	1.038	1.019	0.001076
1.905	1.656	0.943	75.20	4.4	116.94	3.5	42.72	12.3	1.035	1.016	0.001074
1.915	1.649	0.948	73.05	4.5	115.91	3.5	42.18	12.4	1.031	1.017	0.001072
1.925	1.642	0.953	71.28	4.5	116.48	3.5	43.34	12.0	1.028	1.020	0.001069
1.935	1.634	0.958	69.42	4.5	117.83	3.5	45.32	11.4	1.025	1.027	0.001066
1.945	1.627	0.963	67.72	4.5	118.17	3.5	46.24	11.2	1.021	1.031	0.001063
1.955	1.620	0.968	66.24	4.6	117.21	3.5	45.90	11.3	1.017	1.032	0.001060
1.965	1.613	0.973	65.13	4.7	115.70	3.5	44.94	11.4	1.014	1.031	0.001056
1.975	1.605	0.973	64.00	4.5	114.48	3.5	44.13	11.3	1.011	1.031	0.001053
1.985	1.598	0.983	63.24	4.6	113.85	3.5	43.86	11.3	1.008	1.033	0.001049
1.995	1.590	0.983	62.95	4.7	112.94	3.6	43.24	11.5	1.007	1.033	0.001045
2.005	1.583	0.993	63.01	4.7	112.25	3.6	42.57	11.7	1.007	1.035	0.001041
2.015	1.575	0.998	63.30	4.7	112.05	3.6	42.36	11.8	1.008	1.037	0.001036

TABLE 4 (CONTINUED)

E0=3.400 GEV, THETA=22 DEGREES

F3 GEV	W GEV	-Q**2 GEV	SIGMA-H MIKROBARN %	SIGMA-D MIKROBARN %	SIGMA-N MIKROBARN %	RAD.-KORR. H D	GAMMAT 1/GEV

2.025	1.568	1.003	64.20	4.7	112.07	3.5	42.16 11.9 1.012 1.039 0.001032
2.035	1.560	1.008	65.07	4.7	112.01	3.6	41.82 12.2 1.020 1.041 0.001027
2.045	1.553	1.013	69.21	4.6	112.07	3.6	41.46 12.4 1.034 1.044 0.001022
2.055	1.545	1.018	72.72	4.6	112.85	3.6	41.75 12.6 1.050 1.049 0.001016
2.065	1.537	1.022	75.35	4.6	114.16	3.5	42.69 12.7 1.062 1.056 0.001011
2.075	1.529	1.027	76.95	4.5	115.61	3.6	43.66 12.5 1.070 1.062 0.001005
2.085	1.522	1.032	77.95	4.5	116.70	3.7	44.37 12.5 1.079 1.069 0.000999
2.095	1.514	1.037	78.63	4.5	116.12	3.7	43.65 12.8 1.087 1.072 0.000993
2.105	1.506	1.042	79.45	4.6	113.94	3.7	41.49 13.4 1.096 1.071 0.000986
2.115	1.498	1.047	79.56	4.6	111.76	3.7	39.56 14.1 1.103 1.070 0.000980
2.125	1.490	1.052	78.09	4.7	110.20	3.7	38.41 14.4 1.106 1.071 0.000973
2.135	1.482	1.057	75.18	4.7	109.06	3.8	37.95 14.3 1.104 1.072 0.000966
2.145	1.474	1.062	71.21	5.0	107.62	3.8	37.35 14.4 1.098 1.072 0.000958
2.155	1.466	1.067	67.44	5.1	106.19	3.9	37.05 14.4 1.091 1.072 0.000950
2.165	1.458	1.072	64.53	5.2	104.57	3.9	36.58 14.3 1.086 1.072 0.000942
2.175	1.450	1.077	62.25	5.2	102.72	3.9	35.89 14.4 1.081 1.070 0.000934
2.185	1.442	1.082	59.88	5.4	100.98	3.9	35.40 14.4 1.075 1.069 0.000925
2.195	1.433	1.087	57.07	5.5	99.48	4.0	35.08 14.3 1.066 1.067 0.000916
2.205	1.425	1.092	54.25	5.5	98.29	4.0	35.09 14.0 1.054 1.066 0.000907
2.215	1.417	1.097	52.00	5.7	97.33	4.0	35.10 14.0 1.043 1.065 0.000897
2.225	1.408	1.102	51.27	5.7	96.42	4.0	34.95 13.9 1.040 1.064 0.000886
2.235	1.400	1.107	51.91	5.8	95.90	4.0	35.00 14.0 1.042 1.064 0.000877
2.245	1.391	1.112	53.19	5.8	96.23	4.0	35.62 14.0 1.049 1.066 0.000857
2.255	1.383	1.117	54.14	5.8	97.06	4.1	36.50 14.0 1.053 1.069 0.000856
2.265	1.374	1.122	54.67	5.7	97.91	4.1	37.22 13.8 1.055 1.072 0.000845
2.275	1.366	1.126	54.98	5.7	98.40	4.1	37.47 13.7 1.056 1.074 0.000834
2.285	1.357	1.131	55.45	5.8	98.95	4.2	37.57 13.9 1.057 1.076 0.000822
2.295	1.348	1.136	56.65	5.6	99.82	4.1	37.80 13.7 1.061 1.079 0.000810
2.305	1.339	1.141	57.64	5.8	101.04	4.1	38.23 13.9 1.064 1.082 0.000797
2.315	1.330	1.146	57.84	5.8	102.19	4.2	38.43 14.2 1.063 1.084 0.000784

TABLE 4 (CONTINUED)

$E_0 = 3.400$ GEV, $\Theta_T = 22$ DEGREES

E3 GEV	N GEV	$\rightarrow Q^{\star\star 2}$ GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H	GAMMAT 1/GEV

2.325	1.322	1.151	58.21	5.7	103.03	4.2	38.07
2.335	1.312	1.156	60.24	5.8	104.59	4.2	38.16
2.345	1.303	1.161	63.72	5.7	107.38	4.2	39.22
2.355	1.294	1.166	67.13	5.6	111.56	4.2	41.39
2.365	1.285	1.171	70.68	5.5	117.28	4.2	44.31
2.375	1.276	1.176	75.06	5.4	124.26	4.2	49.40
2.385	1.267	1.181	81.07	5.3	131.79	4.2	54.30
2.395	1.257	1.186	88.38	5.2	138.26	4.3	58.09
2.405	1.248	1.191	96.56	5.2	142.30	4.3	59.53
2.415	1.238	1.196	105.03	5.3	144.57	4.4	59.62
2.425	1.228	1.201	112.36	5.3	146.50	4.5	59.94
2.435	1.219	1.206	116.46	5.3	148.44	4.5	61.11
2.445	1.209	1.211	115.37	5.6	150.18	4.6	62.96
2.455	1.199	1.216	109.03	6.0	150.41	4.8	64.44
2.465	1.189	1.221	98.26	6.4	148.39	5.0	64.76
2.475	1.179	1.225	85.53	7.0	144.63	5.2	64.05
2.485	1.169	1.230	73.10	7.5	138.62	5.5	61.82
2.495	1.159	1.235	61.67	8.6	130.22	5.7	57.82
2.505	1.149	1.240	50.63	10.2	119.83	6.0	52.31
2.515	1.138	1.245	40.39	12.6	109.42	6.7	46.77
2.525	1.128	1.250	31.95	16.4	99.39	7.6	41.66
2.535	1.117	1.255	26.71	19.9	89.17	8.6	36.18
2.545	1.107	1.260	24.17	22.6	78.00	9.7	29.70
2.555	1.096	1.265	22.61	24.9	65.21	12.0	22.03
2.565	1.085	1.270	20.96	28.7	54.34	14.8	14.24

TABLE 5

E0=3.030 GEV, THETA=22 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KCRR. H D	GAMMAT 1/GEV

1.415	1.835	0.635	66.26	6.6	127.98	4.1	58.32 11.8 0.398 0.918 0.001231
1.425	1.829	0.639	67.78	6.5	127.92	4.1	58.06 11.8 0.906 0.920 0.001233
1.435	1.823	0.644	68.63	6.5	127.23	4.1	57.19 11.9 0.911 0.919 0.001235
1.445	1.817	0.648	69.22	6.4	127.04	4.1	56.82 12.0 0.915 0.920 0.001237
1.455	1.810	0.653	69.11	6.4	127.34	4.1	56.89 12.0 0.915 0.921 0.001238
1.465	1.804	0.657	68.97	6.4	128.29	4.0	57.60 11.8 0.916 0.924 0.001240
1.475	1.797	0.662	68.83	6.4	130.61	4.0	59.60 11.5 0.916 0.931 0.001242
1.485	1.791	0.666	68.66	6.4	132.78	4.0	61.49 11.3 0.916 0.938 0.001243
1.495	1.784	0.671	67.95	6.5	133.51	4.0	61.81 11.2 0.912 0.941 0.001245
1.505	1.778	0.675	67.37	6.5	132.97	3.9	60.83 11.2 0.909 0.940 0.001246
1.515	1.771	0.680	66.66	6.5	132.35	3.9	59.66 11.4 0.903 0.940 0.001247
1.525	1.765	0.684	65.98	6.5	132.79	3.9	59.40 11.4 0.398 0.943 0.001249
1.535	1.758	0.689	67.43	6.2	134.77	3.9	60.53 11.1 0.902 0.948 0.001250
1.545	1.752	0.693	71.52	6.0	138.03	3.8	62.75 10.9 0.919 0.957 0.001250
1.555	1.745	0.697	76.50	5.9	140.26	3.8	63.98 10.9 0.939 0.964 0.001251
1.565	1.738	0.702	80.59	5.7	140.98	3.8	63.59 11.1 0.955 0.968 0.001252
1.575	1.731	0.706	83.67	5.8	140.68	3.8	62.28 11.5 0.967 0.969 0.001252
1.585	1.725	0.711	86.44	5.7	141.35	3.8	61.78 11.7 0.979 0.973 0.001253
1.595	1.718	0.715	88.97	4.9	142.76	3.4	62.24 10.4 0.990 0.978 0.001253
1.605	1.711	0.720	90.24	4.4	143.62	3.3	62.32 9.9 0.998 0.983 0.001253
1.615	1.704	0.724	90.08	4.6	143.70	3.3	61.60 10.1 1.001 0.986 0.001253
1.625	1.698	0.729	88.74	4.6	143.32	3.3	60.73 10.3 1.001 0.988 0.001253
1.635	1.691	0.733	87.64	4.5	142.88	3.3	59.86 10.2 1.001 0.991 0.001253
1.645	1.684	0.738	87.60	4.5	142.21	3.2	59.01 10.2 1.005 0.993 0.001252
1.655	1.677	0.742	86.12	4.7	141.41	3.3	58.16 10.6 1.012 0.994 0.001252
1.665	1.670	0.747	87.62	4.7	140.30	3.3	57.24 10.8 1.015 0.995 0.001251
1.675	1.663	0.751	85.12	4.6	139.05	3.3	56.40 10.8 1.010 0.995 0.001250
1.685	1.656	0.756	82.48	4.5	137.97	3.3	55.65 10.6 1.006 0.996 0.001249
1.695	1.649	0.760	80.72	4.4	137.72	3.2	55.87 10.2 1.004 0.999 0.001247
1.705	1.642	0.765	79.72	4.7	136.21	3.2	56.98 10.2 1.005 1.003 0.001246

TABLE 5 (CONTINUED)

E0=3.080 GEV, THETA=22 DEGREES

E3 GEV	W GEV	-Q**2 GEV	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

1.715	1.635	0.769	78.39	4.7	138.56	3.3	57.95 10.1 1.003 1.008 0.001244
1.725	1.628	0.774	76.49	4.8	137.81	3.2	57.86 10.0 0.999 1.009 0.001242
1.735	1.620	0.778	74.08	5.1	135.70	3.3	56.35 10.5 0.992 1.008 0.001240
1.745	1.613	0.783	71.19	5.2	133.21	3.3	54.42 10.6 0.981 1.007 0.001238
1.755	1.606	0.787	69.29	5.1	130.89	3.3	52.49 10.7 0.973 1.004 0.001235
1.765	1.599	0.792	68.57	5.1	129.16	3.4	50.96 11.1 0.969 1.003 0.001233
1.775	1.592	0.796	68.67	5.1	127.93	3.3	49.71 11.2 0.968 1.002 0.001230
1.785	1.584	0.801	69.25	5.1	127.86	3.4	49.47 11.2 0.968 1.003 0.001226
1.795	1.577	0.805	70.85	4.8	128.54	3.3	49.59 11.1 0.973 1.006 0.001223
1.805	1.569	0.810	74.00	4.7	129.67	3.3	50.11 11.0 0.984 1.011 0.001219
1.815	1.562	0.814	78.25	4.8	130.92	3.3	50.43 11.4 1.000 1.015 0.001215
1.825	1.555	0.819	82.41	4.7	132.20	3.3	50.68 11.4 1.015 1.020 0.001211
1.835	1.547	0.823	86.03	4.6	134.10	3.3	51.49 11.5 1.028 1.026 0.001207
1.845	1.540	0.828	89.78	4.5	136.30	3.3	52.59 11.5 1.042 1.033 0.001202
1.855	1.532	0.832	92.75	4.6	137.79	3.3	53.14 11.8 1.054 1.040 0.001197
1.865	1.524	0.837	94.93	4.6	137.82	3.3	52.29 12.1 1.065 1.043 0.001191
1.875	1.517	0.841	95.71	4.4	136.70	3.3	50.68 12.3 1.073 1.044 0.001186
1.885	1.509	0.846	96.11	4.5	135.52	3.4	49.32 12.7 1.080 1.046 0.001180
1.895	1.501	0.850	96.02	4.5	134.96	3.3	48.82 12.8 1.087 1.048 0.001174
1.905	1.494	0.854	94.50	4.4	134.85	3.3	49.09 12.6 1.091 1.053 0.001167
1.915	1.486	0.859	91.18	4.6	134.62	3.4	49.77 12.4 1.090 1.057 0.001160
1.925	1.478	0.863	86.98	5.0	133.72	3.4	50.00 12.5 1.086 1.060 0.001153
1.935	1.470	0.868	82.12	5.0	131.80	3.4	49.38 12.3 1.078 1.061 0.001146
1.945	1.462	0.872	77.12	4.9	128.41	3.5	47.56 12.4 1.069 1.058 0.001138
1.955	1.454	0.877	72.75	5.2	124.56	3.5	45.38 12.6 1.059 1.055 0.001130
1.965	1.446	0.881	69.59	5.4	120.96	3.4	43.55 12.8 1.051 1.050 0.001121
1.975	1.438	0.886	67.38	5.5	117.98	3.6	42.15 13.3 1.046 1.046 0.001112
1.985	1.430	0.890	65.10	5.1	116.07	3.5	41.75 12.6 1.040 1.045 0.001103
1.995	1.422	0.895	63.55	5.8	115.18	3.5	42.25 12.9 1.035 1.046 0.001093
2.005	1.414	0.899	62.23	5.9	114.86	3.6	43.17 12.8 1.031 1.047 0.001083

TABLE 5 (CONTINUED)

E0=3.080 GEV, THETA=22 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	%	SIGMA-D MIKROBARN	%	SIGMA-N MIKROBARN	%	RAD.-KORR. H D	GAMMAT 1/GEV

2.015	1.405	0.904	60.53	5.1	114.21	3.6	43.52	12.8	1.023 1.048	0.001073
2.025	1.397	0.908	56.76	5.9	112.34	3.7	42.92	12.6	1.014 1.045	0.001062
2.035	1.389	0.913	58.06	6.0	110.63	3.7	41.08	13.2	1.009 1.040	0.001050
2.045	1.380	0.917	59.02	6.0	108.89	3.8	39.40	13.8	1.012 1.036	0.001039
2.055	1.372	0.922	60.87	5.9	108.81	3.8	39.04	14.1	1.017 1.034	0.001027
2.065	1.363	0.926	62.25	5.9	110.56	3.7	40.20	13.7	1.021 1.038	0.001014
2.075	1.355	0.931	63.32	5.9	113.19	3.7	41.95	13.3	1.022 1.041	0.001001
2.085	1.346	0.935	64.44	5.9	116.05	3.5	43.56	12.9	1.023 1.046	0.000987
2.095	1.338	0.940	66.50	5.8	119.46	3.5	45.43	12.8	1.028 1.052	0.000974
2.105	1.329	0.944	69.70	6.0	124.17	3.6	48.19	12.7	1.038 1.060	0.000959
2.115	1.320	0.949	73.16	5.6	130.15	3.6	51.84	12.0	1.045 1.071	0.000944
2.125	1.311	0.953	76.51	5.5	136.39	3.6	55.39	11.7	1.053 1.080	0.000929
2.135	1.302	0.958	79.59	5.4	142.26	3.5	58.23	11.4	1.059 1.090	0.000913
2.145	1.293	0.962	83.35	5.6	147.64	3.5	60.20	11.6	1.065 1.098	0.000897
2.155	1.284	0.967	88.65	5.5	152.86	3.6	61.50	12.0	1.077 1.106	0.000880
2.165	1.275	0.971	95.09	5.3	158.60	3.6	63.01	12.2	1.094 1.116	0.000863
2.175	1.266	0.976	105.22	5.1	165.51	3.6	65.43	12.4	1.115 1.127	0.000845
2.185	1.257	0.980	116.27	5.2	173.79	3.7	69.17	12.8	1.139 1.141	0.000826
2.195	1.248	0.985	126.70	4.9	182.58	3.8	73.50	12.6	1.166 1.156	0.000807
2.205	1.238	0.989	140.76	5.0	190.90	3.7	77.81	12.9	1.192 1.172	0.000788
2.215	1.229	0.994	151.21	4.8	197.96	3.9	81.80	13.0	1.216 1.187	0.000768
2.225	1.219	0.998	156.31	5.1	203.68	3.8	85.73	13.1	1.236 1.202	0.000747
2.235	1.210	1.002	154.53	5.4	205.76	4.0	87.62	13.4	1.252 1.216	0.000726
2.245	1.200	1.007	148.65	5.6	203.44	4.2	86.59	13.6	1.265 1.228	0.000704
2.255	1.190	1.011	132.82	8.0	197.18	5.4	83.48	18.0	1.273 1.237	0.000682
2.265	1.181	1.016	115.12	8.6	188.85	5.8	79.47	18.5	1.278 1.249	0.000659
2.275	1.171	1.020	96.22	10.0	176.47	6.0	72.57	19.7	1.280 1.257	0.000635
2.285	1.161	1.025	79.88	11.8	161.38	6.5	63.75	22.1	1.284 1.264	0.000612
2.295	1.151	1.029	67.39	13.7	146.62	7.1	55.95	24.9	1.290 1.273	0.000587
2.305	1.140	1.034	57.21	15.8	133.38	7.8	49.81	28.4	1.299 1.285	0.000562

TABLE 5 (CONTINUED)

E0=3.080 GEV, THETA=22 DEGREES

E3 GEV	W GEV	-Q**2 GEV	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

2.305	1.140	1.034	57.21	16.8	133.38	7.8	49.81 28.4 1.299 1.285 0.000552
2.315	1.130	1.038	48.51	18.7	121.22	8.6	45.03 30.8 1.310 1.300 0.000530
2.325	1.120	1.043	40.36	23.7	108.51	9.8	39.40 36.2 1.324 1.317 0.000510
2.335	1.109	1.047	31.55	30.4	93.48	11.9	31.35 46.8 1.339 1.336 0.000483
2.345	1.099	1.052	23.19	44.3	79.27	15.0	19.71 77.3 1.357 1.355 0.000455
2.355	1.088	1.056	16.46	66.6	55.00	20.7	5.39 293.6 1.362 1.362 0.000427

TABLE 6

E0=2.570 GEV, THETA=22 DEGREES

E ² GEV	w GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	%	SIGMA-D MIKROBARN	%	SIGMA-N MIKROBARN	%	RAD.-KCRR. H D	GAMMAT 1/GEV

0.965	1.879	0.361	93.57	5.3	197.16	3.9	101.00	9.1	0.869 0.885	0.001427
0.975	1.873	0.365	94.31	5.3	203.03	3.9	106.96	8.8	0.875 0.896	0.001432
0.985	1.867	0.369	94.79	5.2	206.07	3.8	110.16	8.5	0.877 0.903	0.001438
0.995	1.861	0.372	95.89	5.2	208.88	3.8	110.99	8.5	0.882 0.906	0.001443
1.005	1.855	0.376	97.39	5.1	206.58	3.8	110.78	8.4	0.885 0.908	0.001449
1.015	1.849	0.380	98.26	5.1	205.46	3.8	109.67	8.5	0.894 0.910	0.001454
1.025	1.843	0.384	96.59	5.1	202.30	3.8	106.73	8.5	0.890 0.908	0.001459
1.035	1.837	0.387	93.64	5.2	197.93	3.8	102.38	8.8	0.882 0.904	0.001465
1.045	1.831	0.391	92.28	5.1	195.17	3.8	99.70	8.9	0.879 0.901	0.001470
1.055	1.824	0.395	93.17	5.2	195.49	3.8	100.01	8.9	0.883 0.904	0.001476
1.065	1.818	0.399	94.87	5.1	197.29	3.8	101.96	8.8	0.890 0.909	0.001481
1.075	1.812	0.402	94.53	5.1	198.42	3.8	103.15	8.7	0.891 0.913	0.001486
1.085	1.806	0.406	92.60	5.2	197.40	3.8	102.12	8.7	0.886 0.914	0.001491
1.095	1.800	0.410	90.48	5.2	196.19	3.8	100.77	8.8	0.879 0.914	0.001497
1.105	1.793	0.414	89.57	5.2	196.27	3.8	100.56	8.7	0.875 0.917	0.001502
1.115	1.787	0.417	89.68	5.2	196.48	3.8	100.56	8.7	0.875 0.919	0.001507
1.125	1.781	0.421	89.59	5.3	194.72	3.8	98.25	8.9	0.874 0.919	0.001511
1.135	1.774	0.425	89.50	5.3	191.59	3.9	94.38	9.3	0.872 0.915	0.001516
1.145	1.768	0.429	91.13	5.2	189.42	3.8	91.32	9.5	0.876 0.913	0.001521
1.155	1.762	0.432	95.04	5.1	190.02	3.8	90.72	9.5	0.887 0.915	0.001526
1.165	1.755	0.436	99.53	4.9	192.13	3.8	91.75	9.5	0.901 0.920	0.001530
1.175	1.749	0.440	103.15	4.8	194.37	3.7	92.59	9.5	0.912 0.925	0.001535
1.185	1.742	0.444	105.46	4.9	195.58	3.8	92.33	9.7	0.919 0.928	0.001539
1.195	1.736	0.447	107.76	4.7	195.49	3.8	90.78	9.8	0.925 0.929	0.001543
1.205	1.729	0.451	110.96	4.8	196.26	3.7	90.08	10.0	0.935 0.931	0.001547
1.215	1.723	0.455	114.66	4.7	199.16	3.7	91.52	10.0	0.946 0.937	0.001552
1.225	1.716	0.458	117.97	4.5	202.97	3.7	94.19	9.8	0.957 0.945	0.001555
1.235	1.710	0.462	120.25	4.5	205.04	3.7	95.30	9.8	0.966 0.950	0.001559
1.245	1.703	0.466	120.80	4.5	205.13	3.7	94.63	9.8	0.972 0.953	0.001563
1.255	1.697	0.470	119.25	4.6	204.55	3.7	93.53	9.9	0.972 0.955	0.001566

TABLE S (CONTINUED)

E0=2.570 GEV, THETA=22 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KCRR. H D	GAMMAT 1/GEV

1.265	1.690	0.473	116.45	4.6	203.85	3.7	0.956 0.001570
1.275	1.683	0.477	113.92	4.6	202.55	3.7	0.957 0.001573
1.285	1.677	0.481	112.43	4.7	200.38	3.7	0.956 0.001576
1.295	1.670	0.485	111.15	4.8	198.68	3.7	0.955 0.001579
1.305	1.663	0.488	109.32	4.7	197.46	3.8	0.955 0.001582
1.315	1.656	0.492	107.50	4.9	196.57	3.8	0.956 0.001584
1.325	1.649	0.496	106.53	4.9	196.73	3.7	0.958 0.001586
1.335	1.643	0.500	105.94	4.8	198.22	3.7	0.962 0.001589
1.345	1.636	0.503	105.12	4.9	199.31	3.7	0.966 0.001591
1.355	1.629	0.507	103.69	4.8	199.03	3.7	0.968 0.001592
1.365	1.622	0.511	101.65	5.0	197.84	3.7	0.959 0.001594
1.375	1.615	0.515	99.69	5.0	196.93	3.8	0.954 0.001595
1.385	1.608	0.518	98.50	4.1	197.00	3.2	0.951 0.001596
1.395	1.601	0.522	97.89	4.1	197.66	3.2	0.950 0.001597
1.405	1.594	0.526	97.73	4.0	197.41	3.2	0.948 0.001597
1.415	1.587	0.530	98.54	4.0	196.63	3.2	0.951 0.001597
1.425	1.580	0.533	100.17	3.9	196.27	3.2	0.955 0.001597
1.435	1.573	0.537	102.63	3.9	197.63	3.1	0.961 0.001597
1.445	1.565	0.541	105.56	3.6	200.46	3.1	0.968 0.001596
1.455	1.558	0.545	109.01	3.7	203.97	3.1	0.978 0.001595
1.465	1.551	0.548	112.92	3.6	206.90	3.1	0.989 0.001594
1.475	1.544	0.552	116.31	3.7	208.00	3.1	0.998 0.001592
1.485	1.536	0.556	119.22	3.7	208.76	3.1	1.003 0.001590
1.495	1.529	0.560	122.73	3.6	209.89	3.1	1.007 0.001588
1.505	1.522	0.563	127.11	3.6	211.39	3.2	1.032 0.001585
1.515	1.514	0.567	130.46	3.6	211.99	3.2	1.044 0.001582
1.525	1.507	0.571	131.26	3.7	210.50	3.2	1.052 0.001579
1.535	1.499	0.575	129.55	3.7	207.16	3.2	1.057 0.001575
1.545	1.492	0.578	126.03	3.8	202.00	3.3	1.058 0.001570
1.555	1.484	0.582	120.92	3.9	197.12	3.2	1.055 0.001566

TABLE 5 (CONTINUED)

E0=2.570 GEV, THETA=22 DEGREES

F3 GEV	V GEV	$\rightarrow Q^2$ GEV 2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

1.565	1.477	0.586	114.66	4.0	193.88	3.3	80.44 9.9 1.048 1.021 0.001560
1.575	1.469	0.589	108.13	4.1	191.63	3.4	80.54 9.7 1.040 1.022 0.001555
1.585	1.461	0.593	102.11	4.3	188.98	3.4	80.34 9.7 1.030 1.022 0.001548
1.595	1.454	0.597	97.10	4.4	185.97	3.4	79.98 9.6 1.022 1.021 0.001542
1.605	1.446	0.601	92.61	4.3	181.95	3.5	78.59 9.5 1.012 1.019 0.001534
1.615	1.438	0.604	89.01	4.7	177.31	3.5	76.44 9.8 1.005 1.015 0.001527
1.625	1.430	0.608	86.14	4.8	172.87	3.6	74.09 10.0 0.997 1.010 0.001518
1.635	1.422	0.612	84.46	4.7	169.97	3.5	73.06 9.9 0.993 1.007 0.001510
1.645	1.414	0.616	83.32	4.8	167.70	3.6	72.32 10.0 0.990 1.004 0.001500
1.655	1.406	0.619	82.73	4.8	164.87	3.7	70.52 10.3 0.988 1.000 0.001490
1.665	1.398	0.623	82.24	5.0	161.79	3.7	68.32 10.7 0.985 0.994 0.001480
1.675	1.390	0.627	81.99	5.9	160.36	4.3	67.35 12.5 0.983 0.990 0.001469
1.685	1.382	0.631	82.38	6.0	162.28	4.4	69.33 12.4 0.983 0.992 0.001457
1.695	1.374	0.634	84.06	5.9	167.77	4.3	74.29 11.8 0.986 0.999 0.001444
1.705	1.366	0.638	86.79	5.7	173.50	4.3	79.17 11.2 0.993 1.006 0.001431
1.715	1.358	0.642	88.76	5.7	177.31	4.2	81.77 11.0 0.997 1.010 0.001417
1.725	1.349	0.646	88.68	5.7	179.00	4.1	81.98 10.9 0.994 1.010 0.001403
1.735	1.341	0.649	87.20	5.8	181.32	4.2	82.23 11.1 0.985 1.010 0.001388
1.745	1.332	0.653	86.90	5.8	186.05	4.2	84.50 11.0 0.976 1.014 0.001372
1.755	1.324	0.657	89.39	5.9	193.59	4.2	88.93 10.9 0.978 1.020 0.001355
1.765	1.315	0.661	95.55	5.7	203.07	4.1	94.28 10.6 0.987 1.028 0.001337
1.775	1.307	0.664	102.94	5.4	215.35	4.0	101.50 10.2 1.000 1.040 0.001319
1.785	1.298	0.668	111.44	5.2	230.80	3.9	111.13 9.7 1.013 1.056 0.001300
1.795	1.290	0.672	121.45	5.0	248.67	4.0	122.23 9.5 1.028 1.073 0.001280
1.805	1.281	0.676	133.20	4.9	266.01	4.0	131.93 9.4 1.046 1.088 0.001260
1.815	1.272	0.679	147.14	4.7	281.04	3.9	138.58 9.4 1.067 1.102 0.001238
1.825	1.263	0.683	164.49	4.7	294.02	3.9	142.61 9.7 1.092 1.115 0.001216
1.835	1.254	0.687	185.46	4.6	309.05	4.0	147.65 10.1 1.121 1.130 0.001193
1.845	1.245	0.691	207.09	4.5	325.18	4.0	154.72 10.3 1.149 1.146 0.001169
1.855	1.236	0.694	224.82	4.5	339.72	4.0	161.16 10.6 1.172 1.162 0.001144

TABLE 6 (CONTINUED)

E0=2.570 GEV, THETA=22 DEGREES

E3 GEV	d GEV	-Q**2 GEV	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

1.855	1.236	0.694	224.82	4.5	339.72	4.0	1.172 1.162 0.001144
1.865	1.227	0.698	235.76	4.5	349.83	4.1	1.192 1.177 0.001118
1.875	1.218	0.702	240.09	4.7	353.95	4.3	1.210 1.191 0.001091
1.885	1.208	0.706	237.05	4.8	349.56	4.3	1.224 1.201 0.001063
1.895	1.199	0.709	227.30	5.0	338.28	4.5	1.237 1.211 0.001034
1.905	1.190	0.713	212.01	5.4	322.40	4.7	1.249 1.220 0.001005
1.915	1.180	0.717	192.20	5.7	304.42	4.8	1.2772 1.261 1.228 0.000974
1.925	1.171	0.720	168.09	6.2	284.29	5.1	1.268 1.236 0.000942
1.935	1.161	0.724	141.25	7.0	260.96	5.5	1.276 1.244 0.000910
1.945	1.151	0.728	114.72	8.4	235.94	5.9	1.281 1.252 0.000876
1.955	1.141	0.732	90.01	10.2	211.67	6.5	1.285 1.260 0.000841
1.965	1.131	0.735	68.97	13.2	190.13	7.4	1.289 1.273 0.000806
1.975	1.121	0.739	53.88	17.0	170.21	8.3	1.298 1.288 0.000769
1.985	1.111	0.743	43.74	22.1	149.32	9.6	1.314 1.309 0.000731
1.995	1.101	0.747	34.96	28.5	126.01	11.9	1.335 1.332 0.000693
2.005	1.091	0.750	25.26	39.4	97.92	15.6	1.351 1.351 0.000653
2.015	1.081	0.754	14.43	75.8	63.32	24.3	1.350 1.350 0.000612

TABLE 7

E0=2.190 GEV, THETA=22 DEGREES

E3 GEV	A GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	%	RAD.-KORR. H D	GAMMAT 1/GEV

0.855	1.764	0.273	108.30	6.3	207.26	4.0	91.53 11.7 0.853 0.851	0.001736
0.865	1.758	0.276	112.07	6.1	213.93	3.9	97.56 11.0 0.863 0.860	0.001744
0.875	1.752	0.279	113.07	6.0	221.05	3.8	103.71 10.4 0.865 0.869	0.001753
0.885	1.746	0.282	113.66	5.9	229.65	3.7	111.22 9.8 0.865 0.881	0.001761
0.895	1.739	0.285	115.72	5.8	237.48	3.7	117.70 9.3 0.870 0.892	0.001770
0.905	1.733	0.289	119.22	5.6	242.22	3.6	120.86 9.1 0.878 0.899	0.001778
0.915	1.727	0.292	123.88	5.5	243.95	3.5	121.02 9.1 0.886 0.902	0.001786
0.925	1.720	0.295	129.33	5.3	245.06	3.5	120.41 9.1 0.902 0.905	0.001795
0.935	1.714	0.298	133.62	5.3	247.72	3.5	121.36 9.2 0.913 0.909	0.001803
0.945	1.707	0.301	135.95	5.2	251.42	3.5	123.64 9.1 0.921 0.916	0.001811
0.955	1.701	0.305	135.85	5.2	253.72	3.4	124.63 9.0 0.923 0.920	0.001819
0.965	1.694	0.308	135.15	5.2	254.09	3.4	123.87 9.0 0.923 0.923	0.001827
0.975	1.688	0.311	135.28	5.1	253.94	3.4	122.85 9.0 0.925 0.926	0.001835
0.985	1.681	0.314	136.18	5.1	253.31	3.4	121.52 9.1 0.930 0.927	0.001842
0.995	1.675	0.317	136.70	5.1	251.94	3.4	119.84 9.3 0.934 0.928	0.001850
1.005	1.668	0.321	135.99	5.1	249.64	3.4	117.36 9.4 0.935 0.928	0.001858
1.015	1.662	0.324	133.63	5.2	247.58	3.4	115.45 9.5 0.933 0.927	0.001865
1.025	1.655	0.327	130.71	5.1	246.73	3.4	114.69 9.4 0.928 0.929	0.001872
1.035	1.649	0.330	128.94	5.2	246.18	3.4	114.42 9.4 0.926 0.930	0.001879
1.045	1.642	0.333	129.48	5.2	245.81	3.4	114.21 9.3 0.930 0.931	0.001886
1.055	1.635	0.336	129.76	5.1	245.26	3.4	114.07 9.3 0.933 0.933	0.001893
1.065	1.628	0.340	128.10	5.3	244.78	3.4	113.99 9.4 0.930 0.934	0.001899
1.075	1.622	0.343	124.74	5.2	244.12	3.4	113.56 9.3 0.924 0.935	0.001906
1.085	1.615	0.346	122.04	5.3	243.66	3.4	113.20 9.2 0.918 0.937	0.001912
1.095	1.608	0.349	121.24	5.3	243.69	3.3	113.16 9.2 0.916 0.939	0.001918
1.105	1.601	0.352	121.82	5.3	242.50	3.3	111.53 9.3 0.917 0.939	0.001923
1.115	1.594	0.356	123.40	5.2	239.38	3.4	107.90 9.8 0.919 0.937	0.001929
1.125	1.587	0.359	126.38	5.2	236.21	3.4	103.73 10.0 0.926 0.933	0.001934
1.135	1.581	0.362	129.88	5.1	235.87	3.4	102.13 10.1 0.933 0.933	0.001939
1.145	1.574	0.365	133.68	5.0	239.48	3.4	104.10 10.1 0.942 0.938	0.001943

TABLE 7 (CONTINUED)

E⁰=2.190 GEV, THETA=22 DEGREES

E ₃ GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV
1.155	1.567	0.368	136.98	4.9	245.57	3.3	108.54 0.948 0.946 0.001943
1.165	1.560	0.372	138.50	4.9	251.07	3.3	112.06 0.951 0.953 0.001952
1.175	1.552	0.375	139.88	4.9	254.23	3.3	113.08 0.954 0.958 0.001955
1.185	1.545	0.378	143.83	4.9	255.85	3.3	112.48 0.962 0.961 0.001959
1.195	1.538	0.381	150.60	4.8	257.92	3.2	112.41 0.976 0.965 0.001961
1.205	1.531	0.384	157.43	4.7	261.20	3.3	113.54 0.991 0.971 0.001964
1.215	1.524	0.388	162.30	4.6	264.78	3.2	115.35 1.002 0.977 0.001966
1.225	1.517	0.391	164.80	3.7	268.01	2.9	117.29 1.011 0.983 0.001968
1.235	1.509	0.394	165.81	3.7	270.18	2.8	118.63 1.018 0.989 0.001969
1.245	1.502	0.397	165.70	3.7	269.77	2.8	118.18 1.024 0.992 0.001970
1.255	1.495	0.400	163.54	3.6	266.73	2.8	115.88 1.028 0.993 0.001970
1.265	1.488	0.403	158.69	3.7	261.58	2.9	112.24 1.027 0.991 0.001970
1.275	1.480	0.407	151.13	3.8	256.86	2.8	109.79 1.021 0.989 0.001969
1.285	1.473	0.410	141.88	3.8	253.42	2.8	109.25 1.011 0.989 0.001968
1.295	1.465	0.413	133.06	3.9	250.56	2.8	109.56 1.00 0.999 0.988 0.001965
1.305	1.458	0.416	126.00	4.0	247.21	2.8	109.60 7.9 0.988 0.988 0.001964
1.315	1.450	0.419	120.99	4.1	243.51	2.8	108.85 7.8 0.979 0.986 0.001965
1.325	1.443	0.423	118.36	4.2	239.79	2.9	107.94 7.9 0.975 0.984 0.001957
1.335	1.435	0.426	117.45	4.2	236.34	2.9	107.05 7.8 0.975 0.982 0.001952
1.345	1.427	0.429	117.76	4.2	232.28	2.9	105.18 7.9 0.977 0.978 0.001947
1.355	1.420	0.432	117.34	4.2	228.50	2.9	103.23 8.0 0.977 0.974 0.001941
1.365	1.412	0.435	115.36	4.2	226.43	2.9	102.80 7.9 0.973 0.972 0.001935
1.375	1.404	0.439	112.12	4.4	226.05	2.9	103.71 7.9 0.966 0.970 0.001927
1.385	1.396	0.442	108.38	4.5	226.60	3.0	105.35 7.9 0.954 0.970 0.001919
1.395	1.388	0.445	105.74	4.4	227.51	2.9	106.90 7.6 0.945 0.970 0.001910
1.405	1.380	0.448	105.03	4.6	228.79	3.0	108.24 7.8 0.938 0.969 0.001900
1.415	1.372	0.451	106.79	4.7	230.52	3.0	109.28 7.8 0.939 0.968 0.001890
1.425	1.364	0.454	110.06	4.6	232.38	3.0	109.64 7.8 0.943 0.967 0.001878
1.435	1.356	0.458	113.33	4.5	235.88	3.0	110.65 7.9 0.945 0.967 0.001865
1.445	1.348	0.461	115.57	4.5	242.42	2.9	114.05 7.7 0.944 0.970 0.001852

TABLE 7 (CONTINUED)

E0=2.190 GEV, THETA=22 DEGREES

E3 GEV	d GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	%	SIGMA-D MIKROBARN	%	SIGMA-N MIKRCBARN	%	RAD.-KORK. H	RAD.-KORK. D	GAMMAT 1/GEV

1.455	1.340	0.464	118.77	4.4	252.07	2.9	119.64	7.6	0.945	0.975	0.001837
1.465	1.332	0.467	123.58	4.6	262.69	2.9	125.45	7.6	0.948	0.982	0.001822
1.475	1.323	0.470	129.05	5.3	274.60	3.3	131.43	8.6	0.951	0.988	0.001805
1.485	1.315	0.474	135.03	5.0	290.04	3.2	139.34	8.3	0.955	0.998	0.001787
1.495	1.307	0.477	144.74	4.9	309.67	3.2	150.00	8.1	0.965	1.010	0.001768
1.505	1.298	0.480	159.96	4.7	330.91	3.2	160.88	8.0	0.983	1.023	0.001748
1.515	1.290	0.483	179.60	4.5	352.60	3.1	170.28	8.0	1.006	1.035	0.001727
1.525	1.281	0.486	200.28	4.4	376.51	3.1	180.51	8.1	1.027	1.049	0.001704
1.535	1.273	0.490	220.85	4.2	404.27	3.1	193.89	8.0	1.047	1.065	0.001680
1.545	1.264	0.493	243.95	4.1	434.02	3.1	207.34	8.1	1.069	1.082	0.001655
1.555	1.255	0.496	272.09	4.1	463.02	3.1	219.78	8.3	1.094	1.098	0.001629
1.565	1.247	0.499	303.60	4.0	490.02	3.1	230.65	8.5	1.121	1.114	0.001601
1.575	1.238	0.502	333.89	4.0	515.69	3.2	240.70	8.8	1.147	1.131	0.001572
1.585	1.229	0.506	356.13	4.1	537.69	3.3	250.78	9.1	1.170	1.147	0.001542
1.595	1.220	0.509	365.51	4.2	551.11	3.3	256.15	9.3	1.188	1.161	0.001510
1.605	1.211	0.512	362.25	4.4	553.20	3.4	255.09	9.7	1.204	1.174	0.001476
1.615	1.202	0.515	346.80	4.5	544.65	3.5	248.08	10.0	1.216	1.185	0.001441
1.625	1.193	0.518	320.53	4.7	528.41	3.6	238.84	10.2	1.227	1.195	0.001405
1.635	1.183	0.521	287.21	5.1	506.47	3.8	228.84	10.5	1.235	1.205	0.001367
1.645	1.174	0.525	250.47	5.4	478.72	3.9	217.56	10.6	1.241	1.215	0.001328
1.655	1.165	0.528	213.37	6.1	442.99	4.1	203.04	11.0	1.246	1.224	0.001287
1.665	1.155	0.531	178.56	6.9	401.48	4.3	183.38	11.6	1.251	1.232	0.001244
1.675	1.146	0.534	147.55	7.9	357.67	4.6	162.88	12.4	1.256	1.240	0.001200
1.685	1.136	0.537	120.57	9.3	315.54	5.0	143.61	13.4	1.261	1.248	0.001155
1.695	1.126	0.541	97.19	11.4	276.30	5.5	125.46	15.0	1.268	1.259	0.001107
1.705	1.117	0.544	78.68	14.1	240.42	6.3	108.87	17.2	1.277	1.274	0.001058
1.715	1.107	0.547	63.34	18.5	206.95	7.2	93.01	20.4	1.293	1.293	0.001007
1.725	1.097	0.550	51.14	23.6	174.63	8.7	76.06	25.5	1.322	1.324	0.000955
1.735	1.087	0.553	42.44	29.4	137.71	11.3	52.55	38.0	1.341	1.340	0.000901

TABLE 3

E0=3.080 GEV, THETA=13 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

1.635	1.826	0.258	106.89	10.2	192.78	5.6	0.952 0.005208
1.645	1.820	0.260	108.44	9.8	196.96	5.4	0.955 0.005240
1.655	1.815	0.261	111.09	9.9	199.37	5.5	0.962 0.005272
1.665	1.809	0.263	117.24	9.5	202.51	5.4	0.968 0.005304
1.675	1.803	0.264	123.49	9.2	204.29	5.2	0.971 0.005336
1.685	1.798	0.266	124.39	8.8	204.55	5.1	0.970 0.005368
1.695	1.792	0.268	119.90	8.8	205.55	5.1	0.973 0.005400
1.705	1.786	0.269	113.81	9.0	206.90	5.1	0.974 0.005433
1.715	1.781	0.271	109.07	9.5	208.41	5.1	0.978 0.005465
1.725	1.775	0.272	104.13	10.0	209.54	5.1	0.980 0.005498
1.735	1.769	0.274	100.97	9.8	209.38	5.2	0.979 0.005531
1.745	1.764	0.276	101.92	9.4	207.61	5.0	0.976 0.005563
1.755	1.758	0.277	108.05	9.2	206.75	5.0	0.974 0.005596
1.765	1.752	0.279	114.49	9.1	208.56	4.9	0.976 0.005629
1.775	1.746	0.280	121.14	8.5	211.58	5.0	0.980 0.005662
1.785	1.740	0.282	128.34	8.1	214.74	4.9	0.985 0.005695
1.795	1.734	0.283	134.93	8.0	216.30	4.9	0.987 0.005728
1.805	1.729	0.285	138.36	8.1	217.84	4.8	0.990 0.005761
1.815	1.723	0.287	136.40	7.9	221.78	4.7	0.995 0.005794
1.825	1.717	0.288	131.66	7.8	226.70	4.7	1.003 0.005827
1.835	1.711	0.290	130.12	7.8	230.54	4.7	1.009 0.005860
1.845	1.705	0.291	135.24	6.4	233.84	4.7	1.015 0.005893
1.855	1.699	0.293	145.23	6.2	238.11	4.6	1.022 0.005926
1.865	1.693	0.294	153.09	5.6	242.84	4.6	1.029 0.005959
1.875	1.687	0.296	156.34	5.7	245.52	4.5	1.034 0.005991
1.885	1.681	0.298	155.86	5.7	246.52	4.5	1.038 0.006024
1.895	1.675	0.299	154.55	5.2	246.36	4.6	1.040 0.006056
1.905	1.669	0.301	153.21	5.2	244.89	4.7	1.040 0.006089
1.915	1.663	0.302	150.97	5.6	240.83	4.6	1.037 0.006121
1.925	1.656	0.304	148.83	5.5	237.63	4.6	1.034 0.006152

TABLE 8 (CONTINUED)

F0=3.080 GEV, THETA=13 DEGREES

E3 GEV	V GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT. 1/GEV

1.935	1.650	0.305	146.67	5.1	239.16	4.7	96.15 14.0 0.972 1.039 0.006184
1.945	1.644	0.307	146.97	5.2	241.97	4.6	99.54 13.5 0.972 1.044 0.006216
1.955	1.638	0.309	141.40	5.2	241.57	4.5	100.20 13.2 0.966 1.044 0.006247
1.965	1.632	0.310	135.72	5.3	238.31	4.5	97.97 13.3 0.956 1.041 0.006278
1.975	1.625	0.312	129.23	5.5	236.20	4.6	96.57 13.5 0.942 1.039 0.006308
1.985	1.619	0.313	126.29	5.6	236.50	4.6	97.36 13.3 0.936 1.042 0.006338
1.995	1.613	0.315	127.81	5.9	237.27	4.5	98.54 13.3 0.939 1.044 0.006366
2.015	1.607	0.317	130.89	5.6	238.22	4.5	99.40 13.0 0.946 1.045 0.006398
2.015	1.600	0.318	133.66	5.5	239.32	4.5	100.35 13.1 0.952 1.048 0.006427
2.025	1.594	0.320	135.06	5.4	239.66	4.5	100.15 13.1 0.954 1.049 0.006455
2.035	1.587	0.321	135.20	5.4	240.79	4.5	100.49 13.0 0.954 1.051 0.006483
2.045	1.581	0.323	134.62	5.8	243.30	4.5	101.91 13.1 0.952 1.055 0.006510
2.055	1.575	0.324	135.23	5.7	245.98	4.4	103.03 13.0 0.953 1.058 0.006537
2.065	1.568	0.326	138.17	5.4	247.28	4.4	102.51 12.9 0.958 1.060 0.006563
2.075	1.562	0.328	144.21	5.3	248.75	4.5	101.64 13.2 0.969 1.063 0.006599
2.085	1.555	0.329	150.38	5.3	252.50	4.4	103.30 13.3 0.981 1.068 0.006614
2.095	1.549	0.331	155.47	4.8	258.37	4.4	106.56 12.7 0.990 1.076 0.006638
2.105	1.542	0.332	159.43	4.9	266.32	4.3	111.99 12.4 0.998 1.087 0.006661
2.115	1.535	0.334	162.94	5.0	274.41	4.3	117.60 12.3 1.006 1.098 0.006683
2.125	1.529	0.335	166.89	5.1	279.05	4.4	120.06 12.4 1.015 1.105 0.006705
2.135	1.522	0.337	171.74	5.0	279.39	4.3	118.36 12.5 1.025 1.109 0.006725
2.145	1.515	0.339	175.54	4.9	277.69	4.3	114.90 12.9 1.034 1.110 0.006745
2.155	1.509	0.340	178.02	4.8	277.52	4.3	113.55 13.0 1.042 1.113 0.006763
2.165	1.502	0.342	178.50	4.8	277.70	4.3	113.12 13.0 1.045 1.116 0.006781
2.175	1.495	0.343	177.14	4.9	276.46	4.4	111.97 13.4 1.049 1.119 0.006797
2.185	1.488	0.345	171.91	4.9	271.60	4.4	107.75 13.5 1.046 1.117 0.006812
2.195	1.481	0.347	165.13	5.0	266.81	4.4	104.17 13.9 1.042 1.116 0.006825
2.205	1.475	0.348	159.66	5.1	264.58	4.5	103.84 13.8 1.038 1.117 0.006837
2.215	1.468	0.350	157.13	5.4	264.76	4.4	106.31 13.5 1.038 1.121 0.006848
2.225	1.461	0.351	155.17	5.2	262.66	4.5	106.75 13.4 1.038 1.121 0.006857

TABLE 8 (CONTINUED)

E0=3.080 GEV, THETA=13 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

2.235	1.454	0.353	150.63	5.3	256.69	4.5	103.72
2.265	1.447	0.354	144.51	5.1	247.16	4.5	97.23
2.255	1.440	0.356	137.88	5.5	238.58	4.7	91.94
2.265	1.433	0.358	131.95	5.4	231.97	4.8	88.35
2.275	1.425	0.359	126.67	5.6	228.18	4.8	87.67
2.285	1.418	0.361	122.73	5.5	225.04	4.9	87.14
2.295	1.411	0.362	119.50	5.6	223.00	4.7	87.31
2.305	1.404	0.364	118.03	6.1	224.08	4.7	90.29
2.315	1.397	0.365	118.37	6.0	227.13	4.7	94.57
2.325	1.389	0.367	118.94	5.8	229.11	4.7	97.15
2.335	1.382	0.369	117.63	6.1	229.13	4.7	97.35
2.345	1.375	0.370	115.96	6.1	227.63	4.7	95.43
2.355	1.367	0.372	116.78	6.3	226.65	4.8	93.31
2.365	1.360	0.373	121.45	5.7	232.11	4.7	96.77
2.375	1.352	0.375	127.25	5.7	243.94	4.7	105.83
2.385	1.345	0.377	133.88	5.5	257.62	4.5	115.62
2.395	1.337	0.378	139.81	5.8	266.76	4.5	120.18
2.405	1.329	0.380	145.71	5.2	270.71	4.5	118.75
2.415	1.322	0.381	149.64	5.3	275.00	4.5	116.87
2.425	1.314	0.383	152.45	5.1	283.30	4.4	118.22
2.435	1.306	0.384	156.13	5.3	297.40	4.4	124.11
2.445	1.298	0.386	165.51	5.3	318.06	4.3	134.94
2.455	1.291	0.388	183.25	5.0	345.95	4.4	151.02
2.465	1.283	0.389	207.38	4.7	378.95	4.3	170.62
2.475	1.275	0.391	234.34	4.5	415.54	4.3	191.03
2.485	1.267	0.392	262.03	4.2	455.59	4.3	213.60
2.495	1.259	0.394	289.73	4.3	497.69	4.3	237.00
2.505	1.251	0.395	318.64	4.2	536.44	4.4	256.23
2.515	1.242	0.397	347.92	4.2	565.99	4.5	267.68
2.525	1.234	0.399	375.77	4.1	587.39	4.5	272.25

TABLE 8 (CONTINUED)

E0=3.080 GEV, THETA=13 DEGREES

E3 GEV	M GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	%	RAD.-KORR. H D	GAMMAT 1/GEV

2.525	1.234	0.399	375.77	4.1	587.39	4.5	272.25	11.3 1.179 1.287 0.005921
2.535	1.226	0.400	401.22	4.2	604.83	4.7	274.45	12.0 1.199 1.303 0.005830
2.545	1.218	0.402	419.32	4.3	618.86	4.7	276.64	12.4 1.217 1.318 0.005733
2.555	1.209	0.403	424.08	4.4	626.36	4.9	277.75	12.8 1.230 1.333 0.005631
2.565	1.201	0.405	412.80	4.5	622.82	5.0	274.11	13.3 1.241 1.347 0.005523
2.575	1.192	0.407	388.19	4.7	605.94	5.2	263.23	13.8 1.250 1.360 0.005410
2.585	1.184	0.408	354.41	5.0	575.57	5.4	245.35	14.7 1.257 1.372 0.005290
2.595	1.175	0.410	317.32	5.6	534.74	5.6	220.71	15.8 1.263 1.384 0.005165
2.605	1.166	0.411	279.32	5.7	488.11	6.0	195.68	17.1 1.268 1.398 0.005034
2.615	1.158	0.413	240.20	8.1	441.99	6.5	173.41	20.0 1.272 1.415 0.004896
2.625	1.149	0.414	198.68	9.1	396.90	7.1	152.57	21.9 1.273 1.435 0.004752
2.635	1.140	0.416	159.51	11.6	348.37	7.8	127.79	25.7 1.273 1.460 0.004601
2.645	1.131	0.418	129.62	13.8	294.97	8.9	97.20	32.7 1.275 1.493 0.004444
2.655	1.122	0.419	107.67	17.1	241.78	11.0	65.88	49.0 1.280 1.542 0.004281
2.665	1.113	0.421	92.84	20.8	190.49	14.2	34.47	96.4 1.294 1.619 0.004110

TABLE 9

E0=2.673 GEV, THETA=13 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

1.315	1.802	0.180	112.75	7.4	235.88	5.0	112.43 0.811 0.872 0.005643
1.325	1.797	0.182	118.29	7.1	239.98	4.8	116.03 0.825 0.875 0.005634
1.335	1.791	0.183	119.96	7.0	244.19	4.7	119.35 0.829 0.880 0.005725
1.345	1.786	0.184	122.60	6.9	252.13	4.6	126.47 0.835 0.889 0.005767
1.355	1.780	0.186	125.10	6.7	257.20	4.6	130.34 0.841 0.894 0.005809
1.365	1.774	0.187	125.64	6.7	256.02	4.6	127.99 0.842 0.892 0.005851
1.375	1.769	0.188	126.10	6.7	252.30	4.5	122.84 0.836 0.887 0.005894
1.385	1.763	0.190	121.64	6.7	253.34	4.5	122.29 0.828 0.887 0.005937
1.395	1.757	0.191	122.93	6.6	258.87	4.5	125.91 0.831 0.893 0.005980
1.405	1.751	0.193	128.78	6.4	265.30	4.4	130.05 0.844 0.899 0.006023
1.415	1.746	0.194	136.11	6.1	270.81	4.3	133.58 0.860 0.905 0.006067
1.425	1.740	0.195	142.38	5.9	277.37	4.3	137.65 0.871 0.912 0.006111
1.435	1.734	0.197	147.17	5.7	282.84	4.2	140.27 0.881 0.918 0.006155
1.445	1.728	0.198	151.05	5.0	285.49	4.2	140.18 0.889 0.921 0.006200
1.455	1.722	0.199	155.00	5.8	286.49	4.1	138.34 0.897 0.922 0.006245
1.465	1.717	0.201	160.74	5.7	290.79	4.1	140.17 0.909 0.927 0.006290
1.475	1.711	0.202	166.69	5.5	300.24	4.1	147.15 0.921 0.937 0.006335
1.485	1.705	0.203	171.62	5.4	307.66	4.1	152.39 0.932 0.946 0.006380
1.495	1.699	0.205	175.07	5.3	308.59	4.0	151.41 0.941 0.949 0.006426
1.505	1.693	0.206	175.84	5.6	305.63	4.0	147.25 0.944 0.948 0.006472
1.515	1.687	0.208	171.53	5.6	301.63	4.0	142.07 0.940 0.945 0.006518
1.525	1.681	0.209	165.45	5.4	297.22	4.0	137.11 0.932 0.943 0.006564
1.535	1.675	0.210	160.96	5.5	292.87	4.0	132.37 0.926 0.940 0.006610
1.545	1.669	0.212	160.89	5.5	289.18	4.0	128.59 0.928 0.937 0.006657
1.555	1.663	0.213	163.20	5.4	287.61	4.0	126.95 0.934 0.936 0.006703
1.565	1.657	0.214	164.74	5.7	287.85	4.0	127.55 0.940 0.937 0.006750
1.575	1.651	0.216	163.02	5.3	290.43	4.0	130.65 0.940 0.940 0.006797
1.585	1.645	0.217	158.54	5.4	294.44	4.0	135.46 0.933 0.945 0.006844
1.595	1.638	0.219	152.53	5.5	295.63	4.0	137.29 0.923 0.947 0.006890
1.605	1.632	0.220	149.05	5.6	291.62	4.0	133.77 0.917 0.945 0.006937

TABLE 9 (CONTINUED)

E0=2.673 GEV, THETA=13 DEGREES

E3 GEV	N GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	%	RAD.-KORR. H D	GAMMAT 1/GEV

1.615	1.626	0.221	150.20	5.5	284.80	3.9	127.72	10.9 0.921 0.939 0.006984
1.625	1.620	0.223	152.33	5.5	278.93	4.0	122.04	11.3 0.926 0.931 0.007031
1.635	1.614	0.224	154.16	5.1	278.93	3.6	122.51	10.4 0.931 0.931 0.007077
1.645	1.607	0.225	152.73	5.1	282.58	3.6	126.48	10.1 0.928 0.935 0.007124
1.655	1.601	0.227	148.26	4.8	288.14	3.5	132.08	9.4 0.920 0.940 0.007170
1.665	1.595	0.228	145.09	4.6	291.71	3.5	135.25	9.0 0.913 0.943 0.007216
1.675	1.589	0.230	144.17	4.9	293.02	3.5	136.05	9.1 0.910 0.944 0.007252
1.685	1.582	0.231	146.28	4.8	293.25	3.4	134.92	9.1 0.912 0.944 0.007308
1.695	1.576	0.232	152.18	4.9	292.52	3.4	132.87	9.4 0.923 0.942 0.007353
1.705	1.569	0.234	158.01	4.8	294.39	3.4	132.46	9.5 0.933 0.944 0.007393
1.715	1.563	0.235	163.11	4.7	299.07	3.4	134.76	9.4 0.942 0.948 0.007443
1.725	1.557	0.236	168.15	4.6	304.78	3.3	137.97	9.2 0.949 0.954 0.007487
1.735	1.550	0.238	174.21	4.7	310.31	3.4	140.48	9.5 0.960 0.960 0.007531
1.745	1.544	0.239	181.27	4.6	315.80	3.3	142.85	9.4 0.973 0.965 0.007574
1.755	1.537	0.240	185.90	4.3	322.17	3.3	146.38	9.0 0.981 0.971 0.007617
1.765	1.530	0.242	189.32	4.2	327.72	3.2	149.24	8.9 0.988 0.977 0.007659
1.775	1.524	0.243	192.07	4.2	332.07	3.2	151.03	8.8 0.995 0.983 0.007700
1.785	1.517	0.245	195.07	4.3	335.49	3.2	152.57	9.0 1.003 0.987 0.007741
1.795	1.511	0.246	197.29	4.3	337.89	3.2	153.46	8.9 1.009 0.991 0.007781
1.805	1.504	0.247	198.36	4.1	339.29	3.2	154.23	8.7 1.014 0.995 0.007819
1.815	1.497	0.249	198.17	4.1	339.57	3.2	154.26	8.8 1.019 0.998 0.007857
1.825	1.490	0.250	195.85	4.3	337.99	3.2	153.41	9.0 1.020 1.000 0.007894
1.835	1.484	0.251	191.44	4.4	332.43	3.2	149.32	9.1 1.019 0.999 0.007929
1.845	1.477	0.253	184.96	4.2	324.97	3.2	143.90	9.0 1.015 0.996 0.007964
1.855	1.470	0.254	177.82	4.3	319.38	3.1	141.31	8.9 1.009 0.994 0.007997
1.865	1.463	0.256	169.90	4.4	315.88	3.2	140.88	9.0 1.001 0.993 0.008028
1.875	1.456	0.257	163.93	4.5	312.22	3.2	140.85	8.9 0.994 0.993 0.008058
1.885	1.449	0.258	158.65	4.6	307.29	3.2	139.49	8.8 0.988 0.990 0.008087
1.895	1.442	0.260	153.20	4.7	300.85	3.2	136.34	8.9 0.980 0.986 0.008114
1.905	1.435	0.261	148.43	4.5	293.79	3.3	132.70	8.8 0.973 0.981 0.008138

TABLE 9 (CONTINUED)

 $E^{\gamma} = 2.673$ GEV, THETA=13 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	%	RAD.-KORR. H D	GAMMAT 1/GEV

1.915	1.428	0.262	144.95	4.8	287.82	3.4	129.51	9.3 0.967 0.976 0.008161
1.925	1.421	0.264	143.24	4.8	284.64	3.3	128.94	9.1 0.962 0.973 0.008182
1.935	1.414	0.265	141.08	4.6	285.46	3.3	131.57	8.7 0.958 0.973 0.008201
1.945	1.407	0.266	138.62	4.6	287.21	3.3	134.72	8.4 0.951 0.974 0.008217
1.955	1.400	0.268	138.87	4.9	289.77	3.3	138.14	8.6 0.949 0.976 0.008231
1.965	1.393	0.269	139.05	4.9	292.05	3.3	140.75	8.4 0.947 0.977 0.008242
1.975	1.385	0.271	140.60	4.8	295.63	3.2	143.88	8.1 0.948 0.979 0.008250
1.985	1.378	0.272	141.60	4.8	300.29	3.2	147.54	8.0 0.947 0.983 0.008255
1.995	1.371	0.273	144.23	4.7	302.50	3.2	148.47	7.9 0.948 0.982 0.008258
2.005	1.363	0.275	148.24	4.6	303.39	3.2	147.15	8.0 0.953 0.980 0.008257
2.015	1.356	0.276	150.02	4.9	304.77	3.2	145.66	8.4 0.950 0.977 0.008252
2.025	1.349	0.277	150.53	4.6	308.34	3.2	145.68	8.3 0.946 0.977 0.008244
2.035	1.341	0.279	151.48	4.5	315.59	3.1	148.56	8.0 0.941 0.979 0.008232
2.045	1.334	0.280	156.52	4.7	327.89	3.1	154.94	8.1 0.944 0.985 0.008216
2.055	1.326	0.282	164.60	4.5	345.30	3.1	165.08	7.9 0.950 0.993 0.008196
2.065	1.318	0.283	176.11	4.6	365.19	3.0	175.86	7.8 0.961 1.003 0.008171
2.075	1.311	0.284	187.67	4.4	384.68	3.0	185.22	7.7 0.970 1.012 0.008142
2.085	1.303	0.286	200.18	6.5	404.80	4.0	192.41	10.8 0.979 1.021 0.008108
2.095	1.295	0.287	216.52	6.4	431.56	4.0	204.50	10.7 0.993 1.033 0.008068
2.105	1.288	0.288	238.67	6.0	466.86	3.9	222.34	10.4 1.012 1.049 0.008024
2.115	1.280	0.290	266.75	5.9	506.92	3.9	242.55	10.4 1.035 1.066 0.007974
2.125	1.272	0.291	298.70	5.5	547.51	3.8	261.69	10.1 1.059 1.083 0.007918
2.135	1.264	0.293	334.15	5.4	587.47	3.8	277.89	10.3 1.083 1.099 0.007856
2.145	1.256	0.294	372.14	5.2	627.81	3.8	293.29	10.4 1.107 1.115 0.007787
2.155	1.248	0.295	408.42	5.1	667.09	3.8	307.81	10.6 1.128 1.131 0.007713
2.165	1.240	0.297	440.57	5.1	703.18	3.8	320.01	11.0 1.148 1.147 0.007631
2.175	1.232	0.298	469.08	5.1	733.85	3.8	329.60	11.2 1.167 1.161 0.007542
2.185	1.223	0.299	495.27	5.1	757.67	3.9	336.13	11.6 1.187 1.176 0.007446
2.195	1.215	0.301	511.92	5.2	771.08	4.0	337.87	12.0 1.203 1.189 0.007343
2.205	1.207	0.302	513.30	5.3	772.71	4.1	333.95	12.5 1.217 1.201 0.007232

TABLE 9 (CONTINUED)

E0=2.673 GEV, THETA=13 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

2.205	1.207	0.302	513.30	5.3	772.71	4.1	333.95 12.5 1.217 1.201 0.007232
2.215	1.198	0.303	496.74	5.5	761.21	4.2	324.22 12.9 1.228 1.212 0.007112
2.225	1.190	0.305	463.01	5.8	733.46	4.3	307.53 13.5 1.236 1.222 0.006985
2.235	1.182	0.306	415.12	6.2	690.80	4.5	281.66 14.3 1.242 1.230 0.006849
2.245	1.173	0.308	361.29	6.7	639.64	4.7	255.23 15.1 1.245 1.239 0.006704
2.255	1.164	0.309	310.40	7.3	585.83	5.0	231.92 16.0 1.248 1.247 0.006550
2.265	1.156	0.310	265.72	8.2	527.99	5.3	205.44 17.3 1.251 1.255 0.006386
2.275	1.147	0.312	227.72	9.3	465.25	5.8	176.22 19.5 1.254 1.264 0.006214
2.285	1.138	0.313	195.14	10.6	400.07	6.4	142.42 23.2 1.260 1.273 0.006032
2.295	1.129	0.314	166.25	12.2	339.76	7.2	110.97 28.7 1.266 1.284 0.005839
2.305	1.120	0.316	140.60	14.2	286.13	8.4	82.66 37.9 1.274 1.298 0.005637
2.315	1.111	0.317	119.39	17.4	231.15	10.6	51.50 62.4 1.286 1.310 0.005425
2.325	1.102	0.319	102.07	21.4	167.13	14.5	9.80 332.6 1.306 1.319 0.005202

TABLE 10

E0=2.190 GEV, THETA=13 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KGRR. H D	GAMMAT 1/GEV

0.945	1.764	0.106	154.70	7.3	331.05	4.7	168.43 0.820 0.895 0.006198
0.955	1.758	0.107	157.35	6.7	334.53	4.5	171.74 0.825 0.897 0.006253
0.965	1.752	0.108	155.88	6.7	338.39	4.5	175.14 0.821 0.899 0.006309
0.975	1.747	0.109	155.43	6.7	347.33	4.4	183.17 0.818 0.906 0.006366
0.985	1.741	0.111	159.90	6.5	357.48	4.3	191.98 0.826 0.914 0.006423
0.995	1.735	0.112	164.34	6.3	363.56	4.3	196.75 0.833 0.920 0.006480
1.005	1.730	0.113	168.68	6.2	364.90	4.2	196.06 0.840 0.921 0.006539
1.015	1.724	0.114	172.73	6.0	365.72	4.1	194.76 0.846 0.923 0.006598
1.025	1.718	0.115	179.49	5.9	368.00	4.1	194.81 0.857 0.925 0.006658
1.035	1.712	0.116	184.87	5.7	370.64	4.0	194.70 0.866 0.928 0.006718
1.045	1.706	0.117	189.11	6.0	371.87	4.1	193.53 0.873 0.929 0.006779
1.055	1.701	0.118	192.08	5.9	371.29	4.1	190.32 0.879 0.929 0.006841
1.065	1.695	0.120	192.66	5.4	369.09	4.1	185.85 0.881 0.926 0.006904
1.075	1.689	0.121	194.35	5.7	369.76	4.1	184.16 10.1 0.884 0.927 0.006967
1.085	1.683	0.122	198.42	5.3	373.66	4.0	186.05 0.881 0.932 0.007030
1.095	1.677	0.123	201.41	5.5	377.17	4.0	188.30 0.898 0.935 0.007095
1.105	1.671	0.124	203.21	5.5	378.63	3.9	188.41 0.903 0.935 0.007160
1.115	1.665	0.125	200.39	5.5	380.58	3.9	189.60 0.900 0.937 0.007226
1.125	1.659	0.126	194.18	5.2	384.52	3.8	193.08 0.892 0.942 0.007292
1.135	1.653	0.127	187.79	5.3	386.18	3.9	194.45 0.884 0.943 0.007359
1.145	1.647	0.129	186.75	5.6	384.28	3.9	192.41 0.882 0.943 0.007427
1.155	1.641	0.130	189.06	5.5	379.18	3.9	186.92 0.886 0.940 0.007495
1.165	1.635	0.131	192.36	5.4	376.12	3.9	183.63 0.892 0.938 0.007564
1.175	1.629	0.132	194.67	5.3	376.76	3.9	133.93 0.897 0.938 0.007634
1.185	1.623	0.133	195.75	5.3	379.96	3.8	186.54 0.900 0.939 0.007704
1.195	1.617	0.134	194.88	5.3	385.77	3.8	192.05 0.900 0.943 0.007774
1.205	1.610	0.135	194.90	5.2	390.43	3.8	196.04 0.901 0.947 0.007845
1.215	1.604	0.136	193.76	5.2	390.18	3.8	195.28 0.900 0.947 0.007917
1.225	1.598	0.138	192.51	5.2	387.41	3.8	191.89 0.902 0.945 0.007989
1.235	1.592	0.139	192.14	5.2	387.39	3.7	191.15 0.902 0.945 0.008052

TABLE 10 (CONTINUED)

E0=2.190 GEV, THETA=13 DEGREES

E3 GEV	H GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H	GAMMAT 1/GEV

1.245	1.586	0.140	191.65	5.1	393.25	3.7	196.32
1.255	1.579	0.141	190.91	5.1	400.82	3.6	202.85
1.265	1.573	0.142	190.05	5.1	408.35	3.5	209.01
1.275	1.567	0.143	192.07	5.0	413.82	3.5	212.77
1.285	1.560	0.144	198.68	4.9	418.64	3.6	215.05
1.295	1.554	0.145	207.39	5.0	423.14	3.5	216.33
1.305	1.547	0.146	214.91	4.8	427.01	3.5	216.89
1.315	1.541	0.148	221.59	4.7	430.00	3.5	216.04
1.325	1.535	0.149	228.49	4.1	432.59	3.2	214.75
1.335	1.528	0.150	237.33	4.0	436.27	3.2	214.73
1.345	1.522	0.151	244.43	3.9	440.00	3.2	215.05
1.355	1.515	0.152	249.07	4.1	443.55	3.1	216.14
1.365	1.508	0.153	249.43	3.8	445.28	3.1	216.11
1.375	1.502	0.154	248.04	4.0	447.54	3.1	217.73
1.385	1.495	0.155	245.91	4.0	450.65	3.0	221.52
1.395	1.488	0.157	239.29	3.9	453.51	3.1	226.11
1.405	1.482	0.158	228.50	4.0	453.13	3.1	229.03
1.415	1.475	0.159	216.32	4.1	446.72	3.1	225.44
1.425	1.468	0.160	209.35	4.1	437.07	3.1	219.80
1.435	1.462	0.161	205.99	4.1	427.07	3.0	213.85
1.445	1.455	0.162	202.81	4.4	419.65	3.0	210.29
1.455	1.448	0.163	198.66	4.5	413.82	3.0	208.15
1.465	1.441	0.164	193.56	4.2	407.62	3.1	205.75
1.475	1.434	0.166	187.75	4.3	403.79	3.0	205.76
1.485	1.427	0.167	182.65	4.4	403.61	3.1	205.03
1.495	1.420	0.168	178.15	4.4	402.90	3.1	211.69
1.505	1.413	0.169	174.44	4.7	399.17	3.1	210.86
1.515	1.406	0.170	171.40	4.8	391.80	3.1	205.72
1.525	1.399	0.171	171.49	4.7	385.48	3.1	201.07
1.535	1.392	0.172	173.09	4.7	382.27	3.2	198.53
						7.4	0.919
							0.974
							0.010197

TABLE 10 (CONTINUED)

E0=2.190 GEV, THETA=13 DEGREES

E3 GEV	N GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D %	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

1.545	1.385	0.173	174.71	4.6	380.35	3.2	196.96
1.555	1.377	0.175	174.62	4.6	379.24	3.2	195.49
1.565	1.370	0.176	174.58	4.9	380.09	3.3	195.45
1.575	1.363	0.177	174.80	5.1	385.67	3.3	199.42
1.585	1.356	0.178	174.68	4.8	394.59	3.2	205.92
1.595	1.348	0.179	175.11	4.8	405.59	3.2	213.58
1.605	1.341	0.180	178.46	4.9	420.68	3.1	224.14
1.615	1.333	0.181	186.23	4.8	440.98	3.1	237.86
1.625	1.326	0.182	197.36	4.8	466.41	3.0	253.99
1.635	1.318	0.184	211.57	4.8	495.74	3.0	272.64
1.645	1.311	0.185	225.56	4.4	528.26	3.0	292.03
1.655	1.303	0.186	241.92	6.4	561.49	3.6	309.57
1.665	1.296	0.187	261.99	6.4	594.74	3.5	323.60
1.675	1.288	0.188	287.81	6.0	627.82	3.5	335.48
1.685	1.280	0.189	321.99	5.7	667.14	3.4	349.88
1.695	1.272	0.190	362.11	5.6	719.11	3.4	375.08
1.705	1.265	0.191	402.12	5.2	779.85	3.3	404.97
1.715	1.257	0.193	443.86	5.0	848.83	3.3	439.57
1.725	1.249	0.194	490.72	4.9	918.65	3.3	473.78
1.735	1.241	0.195	543.97	4.8	981.52	3.3	501.83
1.745	1.233	0.196	595.68	4.8	1028.46	3.4	516.46
1.755	1.225	0.197	636.72	4.7	1057.63	3.4	516.81
1.765	1.216	0.198	660.54	4.7	1069.74	3.5	505.45
1.775	1.208	0.199	683.31	4.9	1068.41	3.5	490.97
1.785	1.200	0.200	645.25	5.0	1052.30	3.6	473.28
1.795	1.192	0.202	605.44	5.3	1020.91	3.8	452.03
1.805	1.183	0.203	552.04	5.6	969.96	3.9	422.36
1.815	1.175	0.204	489.33	5.9	903.25	4.0	389.47
1.825	1.166	0.205	426.21	6.5	825.40	4.2	351.79
1.835	1.158	0.206	363.46	7.4	744.45	4.5	317.84

TABLE 10 (CONTINUED)

E0=2.190 GEV, THETA=13 DEGREES

E0 GEV	α GEV	$-Q^{**2}$ GEV **2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

1.835	1.158	0.206	363.46	7.4	744.45	4.5	317.84 13.4 1.229 1.224 0.00918
1.845	1.149	0.207	305.26	8.0	666.50	4.7	286.12 13.9 1.230 1.233 0.00893
1.855	1.140	0.208	257.32	9.2	592.96	5.1	254.35 15.1 1.233 1.244 0.00877
1.865	1.132	0.209	221.07	10.8	519.78	5.6	221.31 17.0 1.238 1.255 0.00854
1.875	1.123	0.210	191.76	12.3	441.52	6.4	177.40 20.7 1.246 1.268 0.00829
1.885	1.114	0.212	164.72	14.2	355.60	7.5	125.84 28.3 1.257 1.282 0.00802
1.895	1.105	0.213	140.28	17.4	266.87	9.6	67.82 52.1 1.272 1.296 0.00774

TABLE 11

E0=1.950 GEV, THETA=13 DEGREES

E3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORR. H D	GAMMAT 1/GEV

0.835	1.700	0.083	212.73	6.8	0.0	0.0	0.0
0.845	1.694	0.084	216.16	6.6	0.0	0.0	0.0
0.855	1.688	0.085	219.77	6.5	0.0	0.0	0.0
0.865	1.682	0.086	223.15	6.4	0.0	0.0	0.0
0.875	1.676	0.087	230.29	6.2	0.0	0.0	0.0
0.885	1.670	0.088	233.84	6.1	0.0	0.0	0.0
0.895	1.665	0.089	233.77	6.0	0.0	0.0	0.0
0.905	1.659	0.090	230.05	6.1	0.0	0.0	0.0
0.915	1.653	0.091	226.24	6.1	0.0	0.0	0.0
0.925	1.647	0.092	223.92	6.1	0.0	0.0	0.0
0.935	1.641	0.093	225.00	6.0	0.0	0.0	0.0
0.945	1.635	0.094	227.70	5.9	0.0	0.0	0.0
0.955	1.628	0.095	228.54	5.8	0.0	0.0	0.0
0.965	1.622	0.096	227.82	5.8	0.0	0.0	0.0
0.975	1.616	0.097	223.59	5.8	0.0	0.0	0.0
0.985	1.610	0.098	220.78	5.8	0.0	0.0	0.0
0.995	1.604	0.099	217.76	5.8	0.0	0.0	0.0
1.005	1.598	0.100	219.24	5.8	0.0	0.0	0.0
1.015	1.592	0.101	222.22	5.7	0.0	0.0	0.0
1.025	1.585	0.102	226.54	5.5	0.0	0.0	0.0
1.035	1.579	0.103	232.26	5.4	0.0	0.0	0.0
1.045	1.573	0.104	236.34	5.3	0.0	0.0	0.0
1.055	1.567	0.105	240.19	5.2	0.0	0.0	0.0
1.065	1.560	0.106	243.94	5.5	0.0	0.0	0.0
1.075	1.554	0.107	247.70	5.0	0.0	0.0	0.0
1.085	1.548	0.108	255.47	5.2	0.0	0.0	0.0
1.095	1.541	0.109	263.39	5.1	0.0	0.0	0.0
1.105	1.535	0.110	268.51	5.0	0.0	0.0	0.0
1.115	1.528	0.111	273.73	4.9	0.0	0.0	0.0
1.125	1.522	0.112	280.52	4.8	0.0	0.0	0.0

TABLE 11 (CONTINUED)

E0=1.950 GEV, THETA=13 DEGREES

F3 GEV	W GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KORK. H D	GAMMAT 1/GEV

1.135	1.515	0.113	285.89	4.7	0.0	0.0	0.0
1.145	1.509	0.114	287.59	4.6	0.0	0.0	0.0
1.155	1.502	0.115	286.65	4.6	0.0	0.0	0.0
1.165	1.496	0.116	279.17	4.7	0.0	0.0	0.0
1.175	1.489	0.117	270.10	4.7	0.0	0.0	0.0
1.185	1.482	0.118	258.49	4.8	0.0	0.0	0.0
1.195	1.476	0.119	246.71	4.9	0.0	0.0	0.0
1.205	1.469	0.120	237.52	5.0	0.0	0.0	0.0
1.215	1.462	0.121	233.38	4.4	0.0	0.0	0.0
1.225	1.455	0.122	235.60	4.3	0.0	0.0	0.0
1.235	1.449	0.123	237.68	4.6	0.0	0.0	0.0
1.245	1.442	0.124	235.94	4.6	0.0	0.0	0.0
1.255	1.435	0.125	229.46	4.3	0.0	0.0	0.0
1.265	1.428	0.126	220.32	4.7	0.0	0.0	0.0
1.275	1.421	0.127	215.79	4.8	0.0	0.0	0.0
1.285	1.414	0.128	216.10	4.7	0.0	0.0	0.0
1.295	1.407	0.129	216.61	4.7	0.0	0.0	0.0
1.305	1.400	0.130	218.50	4.6	0.0	0.0	0.0
1.315	1.393	0.131	217.26	4.6	0.0	0.0	0.0
1.325	1.386	0.132	214.49	4.6	0.0	0.0	0.0
1.335	1.379	0.133	213.99	4.9	0.0	0.0	0.0
1.345	1.372	0.134	214.24	4.6	0.0	0.0	0.0
1.355	1.364	0.135	215.41	4.8	0.0	0.0	0.0
1.365	1.357	0.136	220.82	4.7	0.0	0.0	0.0
1.375	1.350	0.137	228.27	4.6	0.0	0.0	0.0
1.385	1.342	0.138	235.10	4.5	0.0	0.0	0.0
1.395	1.335	0.139	239.49	4.9	0.0	0.0	0.0
1.405	1.328	0.140	243.33	4.8	0.0	0.0	0.0
1.415	1.320	0.141	254.33	4.7	0.0	0.0	0.0
1.425	1.313	0.142	273.98	4.4	0.0	0.0	0.0

TABLE 11 (CONTINUED)

E0=1.950 GEV, THETA=13 DEGREES

E3 GEV	N GEV	-Q**2 GEV**2	SIGMA-H MIKROBARN	SIGMA-D MIKROBARN	SIGMA-N MIKROBARN	RAD.-KERR. H D	GAMMAT 1/GEV

1.435	1.305	0.143	301.96	4.3	0.0	0.0	0.0 0.943 0.0 0.012081
1.445	1.298	0.144	334.52	4.0	0.0	0.0	0.0 0.964 0.0 0.012122
1.455	1.290	0.145	365.91	5.8	0.0	0.0	0.0 0.981 0.0 0.012156
1.465	1.282	0.146	399.17	5.6	0.0	0.0	0.0 0.998 0.0 0.012183
1.475	1.274	0.147	433.64	5.4	0.0	0.0	0.0 1.014 0.0 0.012201
1.485	1.267	0.148	472.52	5.3	0.0	0.0	0.0 1.031 0.0 0.012211
1.495	1.259	0.149	518.03	5.0	0.0	0.0	0.0 1.051 0.0 0.012212
1.505	1.251	0.150	565.89	5.0	0.0	0.0	0.0 1.071 0.0 0.012202
1.515	1.243	0.151	611.89	4.8	0.0	0.0	0.0 1.090 0.0 0.012182
1.525	1.235	0.152	652.84	4.8	0.0	0.0	0.0 1.108 0.0 0.012150
1.535	1.227	0.153	689.85	4.7	0.0	0.0	0.0 1.125 0.0 0.012106
1.545	1.219	0.154	723.18	4.8	0.0	0.0	0.0 1.143 0.0 0.012048
1.555	1.211	0.155	745.02	4.9	0.0	0.0	0.0 1.159 0.0 0.011977
1.565	1.203	0.156	740.58	4.9	0.0	0.0	0.0 1.172 0.0 0.011891
1.575	1.194	0.157	706.35	5.1	0.0	0.0	0.0 1.180 0.0 0.011789
1.585	1.186	0.158	650.90	5.3	0.0	0.0	0.0 1.185 0.0 0.011670
1.595	1.178	0.159	586.36	5.5	0.0	0.0	0.0 1.188 0.0 0.011534
1.605	1.169	0.160	525.34	5.9	0.0	0.0	0.0 1.191 0.0 0.011379
1.615	1.161	0.161	470.05	6.6	0.0	0.0	0.0 1.193 0.0 0.011205
1.625	1.152	0.162	418.31	6.9	0.0	0.0	0.0 1.195 0.0 0.011011
1.635	1.144	0.163	372.56	7.3	0.0	0.0	0.0 1.198 0.0 0.010795
1.645	1.135	0.164	335.20	8.1	0.0	0.0	0.0 1.203 0.0 0.010558
1.655	1.126	0.165	304.45	9.1	0.0	0.0	0.0 1.210 0.0 0.010297
1.665	1.117	0.166	279.53	9.8	0.0	0.0	0.0 1.221 0.0 0.010013
1.675	1.109	0.167	259.67	10.6	0.0	0.0	0.0 1.238 0.0 0.009708
1.685	1.100	0.168	246.83	12.2	0.0	0.0	0.0 1.266 0.0 0.009371

