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Abstract

Absolute cross sections for inclusive electron scattering on H, D, Be, Al and Si have been measured in the kinematical region $0.08\ (\mathrm{GeV/c})^2 < Q^2 < 1.0\ (\mathrm{GeV/c})^2$ and $0.3\ \mathrm{GeV} < \nu < 6.5\ \mathrm{GeV}$. The measurements have been performed at incident energies of 3, 5, 6 and 7 GeV and at the fixed scattering angle of 10^0. A careful treatment of radiative corrections due to elastic electron nucleus scattering, quasielastic and inelastic scattering on the bound nucleons has been applied to the measured cross sections.

The comparison of the nuclear cross sections with the elementary ones leads to a value of $A_{eff} < A$ with a rapid onset of this effect at small values of the scaling variable x'.

1. Introduction

Photons, representing the electromagnetic field, turned out to be a valuable probe to investigate the structure of nuclear matter, because of the small electromagnetic coupling constant α. For high photon energies it was found that the energy and momentum transfer dependence of the cross section is similar to that of purely hadronic interactions, but reduced by a factor of α. This similarity can be described within the vector meson dominance model.

The physical photon contains a hadronic self energy contribution, i.e. an admixture of vector mesons (ρ, ω, ϕ, ...) with the quantum numbers of the photon ($J^{\pi} = 1^{-}$). The fluctuation length d for a photon with four-momentum $q = (\nu, \vec{q})$ (for metric and kinematics see appendix A) amounts to

$$d = \Delta t = 1/\Delta E = 2\nu/(m^2 + Q^2)$$

for a hadron with mass m. The mean free path of a particle in nuclear matter with density n is $\lambda \approx 1/n\sigma_N$, where σ_N is its total cross section on free nucleons. For small d the physical photon exists mostly as a bare photon (fig. 1a) with small cross section σ_N and a long mean free path compared to nuclear dimensions. So its cross section on a nucleus with mass number A is $\sigma_A \propto A\sigma_N$. With increasing energy ν and values of $Q^2 \lesssim m^2$, the fluctuation length d is also increasing and exceeds at energies above several GeV the mean free path of vector mesons in nuclear matter of about 2 fm (fig. 1b). In this energy region the hadronic component becomes manifest by reducing the nuclear cross section according to the hadronic cross section σ_N with its characteristic phenomena of shadowing. In the extreme case all reactions take place in the nuclear surface with the resulting mass number dependence $\sigma_A \propto A^{2/3} \cdot \sigma_N$. With the cross section ratio $\sigma_A/\sigma_N = A_{eff}$ we can expect in the energy region of interest here $A^{2/3} < A_{eff} < A$. It should be noted that the shadowing at a given energy decreases with increasing photon mass Q^2.

In the ρ-dominance model VDM /1/ it is assumed that the photon converts only into a ρ-meson. The passage of the hadron through the nucleus is described in the framework of the Glauber multiple-scattering theory /2/. In the generalized vector meson dominance model GVDM /3/ also fluctuations into other vector mesons and a vector meson continuum are taken into account. The more accurate "off-diagonal" model /4/ admits the possibility that a vector meson while traversing the nucleus can

be scattered into another vector meson state. A further approach to a more realistic description of shadowing is made, if a non-uniform nuclear density is used in the Glauber formalism. In this context the effect of correlations between the nucleons is calculated in terms of a correlation length /5/.

The shadowing effect is experimentally well established for real photons /6/ and is in agreeement with the refined models mentioned above. For virtual photons different electron scattering experiments /7/ show no or a rather small shadowing effect. These data points were taken in the kinematical region $Q^2 > 0.2$ (GeV/c)^2. To find the transition to the real photon data measurements in the very low Q^2 range are needed. The experimental cross sections for inclusive electron scattering in this region are dominated by bremsstrahlung effects of the electrons. The corrections due to these effects have to be handled very carefully to get reliable results. Only a few inclusive measurements exist in this region /8,9/. These experiments show a clear shadowing effect, which seems to be compatible with the predictions of the vector meson dominance model and with the results for real photons.

In this experiment cross sections for inclusive electron scattering were measured for $0.08\ (\mathrm{GeV/c})^2 < Q^2 < 1.0\ (\mathrm{GeV/c})^2$ and $0.3\ \mathrm{GeV} < \nu < 6.45\ \mathrm{GeV}$ according to the lines in the kinematical plane shown in fig. 2. As targets were chosen H_2 and D_2 to get the elementary cross sections and Be, Al and Si as nuclear targets with relatively small charge number Z to get not too large radiative tails. The choice of Al and Si provides the possibility to test the influence on the shadowing effect of different radiative corrections but similar A. The target Be together with Al and Si yields information on the mass number dependence of the shadowing effect. In the analysis of the data we considered all bremsstrahlung corrections originating from elastic, quasielastic and inelastic scattering carefully. These measurements extend former results of our group /9/ on ^{12}C and ^{27}Al.

2. Experimental Apparatus

2.1 Electron Beam

This experiment was performed at an external beam of the DESY-7GeV synchrotron. The electrons were accelerated to incident energies of 3, 5, 6 and 7 GeV with an energy spread of 0.25 % fwhm using the "flat-top" mode of operation. The beam (pulsed with 50 Hz, 3 ms pulse length, $0.5 - 2.5 \cdot 10^{10}$ electrons per pulse) was focussed onto the target with a spread of 15 mm fwhm horizontally and 5 mm fwhm vertically. The beam current was integrated using a Faraday-cup with an accuracy better than 1%. The beam position was additionally controlled by a secondary emission monitor (SEM).

2.2 Targets

For our measurements we used liquid hydrogen and deuterium targets and solid targets of Be, Al and Si. Their radiation lengths were about 0.3 %. The exact parameters are listed in table 1. The cell of the liquid target was a vertical cylinder of 30 mm diameter, the walls consisted of 0.05 mm capton-H-foil. For a consistency check of the external radiative corrections we used two more Be-targets of 1.4 % and 2.8 % radiation lengths.

2.3 Spectrometer

The scattered electrons were detected at a scattering angle of 9.96^0 in the left of the two arms of a magnetic spectrometer (fig. 3), which has been designed for electron-hadron coincidence measurements of the DESY group F22*. A detailed description of this apparatus is given in /10/. Each spectrometer arm consisted of three quadruple magnets and one vertical bending dipole magnet to focus and momentum-analyse the scattered electrons respectively. A system of multiwire proportional chambers (MWPC), one before and three behind the dipole

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* The F23-spectrometer which we used for our former measurements /9/ was no longer accessible.

magnet, enabled the reconstruction of each particle trajectory. Two of the four MWPCs were inclined by 10^0 in order to resolve ambiguities for events with multiple trajectories. Because of the small rotation angle we still speak of horizontal and vertical wires. The passage of a particle through the spectrometer was signalled by a coincidence of three of the following four scintillation counter arrangements:

- Hodoscope 1 and 4 consisting of 6 horizontal scintillator strips.
- Hodoscope 2 and 3 built of two vertical scintillators. By means

of a Čerenkov counter filled with ethylene at atmospheric pressure and a sandwich shower counter of about 7 radiation lengths it was possible to separate electrons from pions with an efficiency better than 98 %.

As we were not interested in a large angular acceptance, we slightly modified the spectrometer by attaching a collimator in front of the first quadrupole magnet resulting in a solid angle of 0.231 msr but a broad momentum range with 100 % acceptance (see table 2). The energy range of the scattered electrons $0.5 < E_3 < 4.5$ GeV could be covered with 6 different settings of the magnetic system where always the adjacent momentum windows overlapped in the 100 % acceptance range.

2.4 Data Acquisition

An event was defined by a coincident signal of the Čerenkov-counter and three of the four scintillation counters. For these events the information of each photomultiplier of the scintillation-, Čerenkov- and shower counters and of each wire in the proportional chambers was registered bitwise. In addition the pulse heights of the signals from the Čerenkov- and shower counters were digitized in analog to digital-converters. The whole event pattern was fed via a Camac-system into a PDP 8/I computer /11/, which also controlled the parameters of the experiment and the currents of the spectrometer magnets. The PDP 8 was connected to the DESY computing centre, where the data were stored on a magnetic disk, copied to tapes, preanalysed and sent back to the PDP 8. So during data taking the spectra of all relevant quantities could be displayed on line. In regular time intervals additional information was stored from independent monitor counters, from charge integrators and diverse coincidence combinations between the spectrometer scintillators and Čerenkov- and shower counters. This information was needed for efficiency and deadtime corrections and for the absolute normalization of the measured cross sections.

3. Data Analysis

The final analysis of all accumulated data was performed at the DESY computing centre with the program system "RECON" /12/. The momentum of each particle was reconstructed as follows:
The point where the particle trajectory intersects the plane of a proportional chamber is defined by a signal of a horizontal and a vertical wire. The intersection points in all three chambers behind the dipole magnet should lie on a straight line, which must also traverse the Čerenkov-, shower- and scintillation counters. Together with the point in the chamber before the magnet the momentum of the particle can be calculated with the assumption that the trajectory forms an arc whose radius is proportional to the momentum. In the analysis only those particles have been reconstructed, which have unambiguous tracks through all four chambers.

The differential cross section for inclusive electron scattering is defined as:

$$\frac{d^2\sigma}{d\Omega dE_3} = \frac{\Delta N}{\Delta\Omega \cdot \Delta E_3} \cdot \frac{1}{Qnd} \cdot \frac{1}{\varepsilon} \qquad (1)$$

ΔN:	counting rate per energy bin	ε:	total efficiency
ΔE_3:	scattering energy bin	d:	target thickness
$\Delta\Omega$:	solid angle	Q:	integrated number of incident electrons
n:	atoms/cm³		

The efficiency of all scintillation counters, the Čerenkov- and shower counter was found to be better than 99 %.

The total efficiency takes also into account cuts in the pulse height spectra of the Čerenkov- and shower counters and cuts in the momentum spectrum to reject events with a momentum outside the 100 % acceptance range of the spectrometer.

The counting rate per energy bin has to be corrected due to deadtime and due to the efficiencies of the MWPS's and the reconstruction algorithm. This correction factor is given by the ratio of the measured hardware coincidence rate of all four scintillation counters, the Čerenkov- and shower counter and the same rate for reconstructable events. It varies between 1.4 and 2.5.

For the evaluation of the final experimental cross section two further corrections have still to be applied. The effect of e^+e^--pairs,

which have been measured by reversing the polarity of the spectrometer magnets to be < 8 %. Scattering on non-target materials determined by measurements without a solid target or with an empty target cell contributes less than 20 %. Fig. 4 shows an example of the raw data and the various background contributions.

4. Radiative Corrections

As can be seen in fig. 4 the energy spectra of scattered electrons increase rapidly at low energies. This is caused by radiative tails of the following processes:

1) Elastic electron-nucleus scattering
2) Quasielastic electron-nucleon scattering
3) Inelastic electron-nucleon scattering
4) Inelastic electron-nucleus scattering, level excitation and other collective effects.

The last contribution was estimated to be negligible, whereas the other three effects were calculated as follows and subtracted from the spectra.

The elastic electron-nucleus bremsstrahlung tail is given by Mo and Tsai in the exact one photon exchange expression (formula III.1 of /13/). To compute it one needs elastic form factors for the different nuclei, which we obtained from experimental data of elastic electron scattering /14/.

Assuming impulse approximation the quasielastic electron-nucleon bremsstrahlung tail is treated in the same manner using a corrected dipole-fit /15/ for the form factors. The impulse approximation however does not take into account that

a) the phase space of the scattered nucleons is reduced because of the Pauli exclusion principle,
b) the nucleons are bound,
c) the nucleons are moving within the nucleus.

The quasielastic tail was corrected for the effect (a) by means of a suppression factor applied to the form factors. The suppression was computed within a simple Fermi-gas model. For the selfadjoint nuclei O, ^{4}He, ^{12}C there exist more realistic calculations of Bernabeu /16/. Fig. 5 shows the results of the different calculations for the suppression of the quasielastic tail in the case of ^{12}C at an incident electron energy of 5 GeV and at a scattering angle of 10^0. Except for the very low scattering energies the results of the simple Fermi-gas model (dotted line) agree with the more refined calculations of Bernabeu (dashed line). In the domain where they differ, i.e. for $E_3 < 0.9$ GeV the contribution of the elastic electron nucleus bremsstrahlung tail (solid line) dominates the whole spectrum and therefore it is justified to use the simpler calculation.

- The contributions due to effects (b) and (c) to the structure functions

for the quasielastic tail have been considered by describing the form factors of the bound and moving nucleons by folding incoherently superposed hadron structure functions. This method which is abbreviated in the following by "FISH" is outlined in appendix B and described in detail in /17/. With these structure functions the quasielastic tail was calculated in peaking approximation given by formula IV.1 of /13/ and compared to the corresponding one for free nucleons. With this ratio the exact nucleon elastic tail was corrected in order to get the so called exact quasielastic tail.

The method FISH also yields structure functions for the inelastic cross sections in the whole kinematical plane, and allows the calculation of the inelastic radiative tail. This was done in peaking approximation to avoid a further time consuming numerical integration.

The radiative tails according to these effects are shown in fig. 6 together with experimental data. It can be seen that the cross section at low scattering energies is dominated by the elastic nucleus bremsstrahlung tail.

The subtraction of the radiative tails from the measured cross sections σ_r result in the corrected cross sections σ, which is now free of radiative effects and can be directly compared to theoretical predictions.

The external radiation corrections have been checked by use of three different thicknesses of the Be-target for the measurements at 5 and 7 GeV. The measured values of the cross sections σ_r differ particularly at small scattered energies E_3 according to the different radiation lengths. After the application of the radiation correction however they agree /29/, thus providing confidence to this correction.

5. Results and Discussion

5.1 Cross sections for Inclusive Electron Scattering

The final cross sections which will be presented in this section are all corrected for bremsstrahlung if not otherwise mentioned. A complete listing of all cross sections is contained in table 4.

The cross sections for electron scattering on H and D for the lowest (E_1 = 3 GeV) and highest (E_1 = 7 GeV) incident energy are shown in fig. 7a and 7b. They are plotted with two error bars: the smaller one specifies the statistical error, whereas the other one includes the uncertainty due to non-zero momentum resolution. This error is important in the region where the measured non-radiatively corrected cross section has a steep slope.

From these data the electron scattering cross section on bound neutrons was extracted according to the ansatz

$$\tilde{\sigma}_n = \sigma_d - \tilde{\sigma}_p \qquad (2)$$

where $\tilde{\sigma}$ indicates that the cross sections for free nucleons were folded with the deuteron wave function /18/ to consider binding energy and Fermi-motion. Also a possible screening effect has been absorbed in $\tilde{\sigma}$. If these effects are equal for proton and neutron, σ_n is given by

$$\sigma_n = \frac{\sigma_p}{\tilde{\sigma}_p} \cdot \tilde{\sigma}_n \ . \qquad (3)$$

The cross section on free neutrons σ_n is plotted in fig. 7c. The solid lines in fig. 7a,b,c are calculated according to the parametrizations given in appendix B. These predictions agree very well with our experimental data. Fig. 8 shows the ratio σ_n/σ_p plotted versus the scaling variable x'. The solid line is the function (1-x'), which is known to be a good fit to the deep inelastic σ_n/σ_p-ratio /19/ in the non-shadowing region (W > 2 GeV). It shows up that this function describes our results for σ_n/σ_p too, except for very low x' where shadowing even for the deuteron may exist.

The cross sections for the targets ^{9}Be, ^{27}Al and ^{28}Si for all incident energies are listed in table 4b . Two typical cross sections are shown in fig. 9a,b. The solid lines are results of the method FISH. The impulse approximation assumed in this model provides a good overall description for our data, but an obvious deviation appears at low scattering energies.

5.2 Mass Number Dependence of the Electron Nucleus Cross Sections

The shadowing effect can be quantitatively described by the ratio

$$\frac{A_{eff}}{A} = \frac{\sigma_A}{Z \cdot \sigma_p + N\sigma_n} \ . \qquad (4)$$

σ_A is the inclusive electron nucleus cross section, Z and N are the number of protons and neutrons respectively. As shown in the previous section the scaling functions $f^p(\omega_w)$ and $f^n(\omega_w)$ (see (B.3) and (B.4) in appendix B) lead to a good description of our proton and neutron data for W > 2 GeV/c^2. These parametrizations of the elementary cross sections were used for the evaluation of the ratio given in (4) in order to become free of statistical fluctuations of our measurements of the nucleon cross sections.
The results of A_{eff}/A are included in table 4 for all targets and incident energies. One example is given in fig. 10 for ^{27}Al at E_1 = 5 GeV. Each point is plotted with three error bars. The two inner ones comprise as described in section 5.1 the statistical error and the uncertainty from the momentum resolution. The outer error bar contains the systematic error, which was estimated from the errors of the following contributions:

1) Calculation of the elastic electron-nucleus tail in one photon exchange approximation /20/: 1 %.
2) Elastic electron-nucleus form factors /14/: 4 %.
3) Calculation of the quasielastic electron-nucleon tail /17/: 8 %.
4) The error of the Pauli suppression factor to all quasielastic tails was estimated on ^{12}C by the deviation of the Fermigas- from the "Bernabeu"-suppression factor to be at most 25 % (fig. 5).
5) Calculation of the inelastic electron nucleon tail /17/: 12 %.
6) As the effect of shadowing was neglected in the calculation of the inelastic tail, a linearly increasing systematic error from zero for Q^2 > 0.2 (GeV/c)^2 up to 100 % for Q^2 = 0.0 (GeV/c)^2 was estimated for this tail.

At higher values of the energy E_3, A_{eff} is compatible with A. At low energies a decrease of A_{eff} is indicated which is not significant in the example if the total errors are considered. The same trend occurs however for all targets and energies as will be discussed later.

In the following we omit all data points where the contributions of the radiative tails of the various processes are greater than 80 % of the measured cross section σ_r, for in this case the total error bars become so large that the radiatively corrected cross section σ is compatible with zero. For clearness the above described systematic errors of the radiative tails are omitted in the figures.

For comparison with customary theoretical predictions our experimental results for ^{27}Al, E_1 = 7 GeV are shown in fig. 11 together with the following calculations: ρ-meson dominance model VDM, /1/ (curve a); generalized vector dominance model GVDM, /3/ (curve b); GVDM with "off-diagonal" terms /4/ (curve c); GVDM, considering correlations between the nucleons (curve d and e for a correlation length of ℓ_c = 0.44 fm /21/ and ℓ_c = 0.74 fm /5/ respectively).
It will be noticed that there is a substantial difference between the VDM and the GVDM calculations, whereas the considering of "off-diagonal" terms results only in a slight modification. If in addition correlations between the nucleons are taken into account the GVDM prediction rises almost to $A_{eff}/A = 1$.

It turns out that for higher scattering energies our data agree with the more realistic theoretical models represented by the curves (b)-(d) and are compatible with $A_{eff}/A = 1$ in this region. But at low scattering energies there is a strong deviation of our data from $A_{eff} = A$ and also from these model calculations.

There exists a qualitative model for shadowing /27/ which predicts a similar behaviour of A_{eff}/A due to interferences with the quark-sea contributions of the nucleus. Recent results of the muon-experiments however showed that these contributions are too small to be responsible for such a strong shadowing /28/.

In the following we investigate the variation of A_{eff}/A within the Q^2-ν plane (fig. 2). In fig. 12a we plotted A_{eff}/A for aluminum as a function of ν at constant values of Q^2. At very low Q^2 we find a strong ν-dependence of A_{eff}/A, which quickly disappears with increasing Q^2. Fig. 12b shows the same data plotted versus Q^2 with ν as parameter. Here a strong Q^2 dependence in the very low Q^2-range can be seen for all ν. For in our kinematical region it is well known that the single nucleon cross sections can be described as a function of the scaling variable

$x' = Q^2/(2M\nu + M^2)$, we plotted in fig. 12c these Al-data for constant values of the scaling variable x' versus Q^2. For the same x' the ratio A_{eff}/A does not depend on Q^2 within the experimental errors, i.e. it also shows scaling behaviour. In addition for decreasing x' the deviation of A_{eff} from A increases.

Because of this scaling behaviour it is justified to accumulate the data for A_{eff}/A at the same x' for all incident energies. These results are plotted as a function of x' for the targets D, Be, Al and Si in fig. 13. For all targets A_{eff}/A does not show a significant shadowing effect in the region $x' > 0.04$. But for very low x' a strong deviation from $A_{eff} = A$ occurs. This effect diminishes with decreasing mass number A, but even for deuterium a small effect seems to exist. As it is expected we get the same results for ^{27}Al and ^{28}Si, although different form factors had to be used for the radiative corrections. In fig. 13b and 13c we also include the data of A_{eff}/A from scattering of real photons on Be and Al /6/. As no systematic γ-energy dependence can be seen we plot the mean value of the measured points in the energy region 3-7 GeV for each experiment. The observed deviation from $A_{eff} = A$ for virtual photons seems to be inconsistent with the real photon points, if one would extrapolate the data smoothly to $Q^2 = 0$. In fig. 13b and c we also show the results of the recent Daresbury experiment /8/. For Be the data are in very good agreement, for Al the agreement is worse, but the same tendency for A_{eff}/A as in our data can be seen. In the Daresbury data the inelastic radiative tail is neglected and the extraction of the neutron cross section is different.

To compare our data with former measurements of our group /9/ we applied all radiative corrections mentioned in section 4 to these data. Fig. 14a and b shows A_{eff}/A for ^{12}C(E_1 = 6 GeV, $\vartheta = 13^0$) and ^{27}Al (E_1 = 7 GeV, $\vartheta = 9^0$) respectively. Additionally the results of real photon measurements and of the Daresbury experiment /8/ are included. For aluminum the agreement between the two measurements is very good and for carbon the behaviour of A_{eff}/A as a function of x' is very similar in the two cases.

To investigate the variation of A_{eff} with the mass number A we plot A_{eff} versus A for a fixed and in this example very low x' in a double logarithmic scale (fig. 15). The shadowing region from no-shadowing ($A_{eff} = A$) to complete shadowing ($A_{eff} = A^{2/3}$) are marked by straight lines. The predictions of the GVDM from E_1 = 3 to 7 GeV are displayed by the shaded area. Again it can be seen that A_{eff}/A decreases for increasing A and this effect is still stronger than the GVDM predicts for this x'. For comparison with other experiments we apply the usual analytical ansatz $A_{eff}/A = A^{\varepsilon}$ to fit our data with ε as a free parameter. This fit is shown in the same figure by a dashed line. Applying this procedure to each x'-bin we get results for ε as a function of x' which are shown in fig. 16 and listed in table 5. For $x' > 0.04$ ε is compatible with zero, i.e. $A_{eff} = A$ for all mass numbers A. For $x' < 0.04$ ε is less than zero and rapidly decreases with decreasing x'.

Our results for ε agree with data from SLAC /7/, which show nearly no shadowing in the higher x'-region. In contrast a shadowing effect is found in the results from inclusive muon scattering /22/ (fig. 16). In the very low x'-region ($Q^2 = 0.1$ $(GeV/c)^2$) only a small shadowing effect was found in an electron hadron coincidence experiment at Cornell /23/ (fig. 16). With this different experimental technique less problems with radiative corrections exist, but the determination of the total cross section is difficult. There are no results on ε from Daresbury /8/, because it is not possible to apply the ansatz $A_{eff}/A = A^{\varepsilon}$ to their data. A comparison with theoretical calculations is also not done in this ε-representation, because this ansatz does not reflect the more complex x'- and A-dependence of the theories.

In conclusion we can summarize the results of our measurements as follows. The effective mass number A_{eff} is compatible to A, i.e. with no shadowing, in the region $x' > 0.04$. For decreasing values of x' a slight decrease is followed by a rapid fall of A_{eff}/A. But in this region the contribution of the elastic electron-nucleus bremsstrahlung tail to the cross section σ_r rapidly increases. As the calculation of the radiative corrections is based on quantum electrodynamics and is applied by means of a well founded procedure, the observed deviation of A_{eff} from A may be an indication for a shadowing effect of virtual photons in the low x'-region.

We wish to thank DESY for the hospitality and the support during the various stages of the experiment. Particularly we acknowledge the assistance of the group F22 in the operation of the spectrometer.

Appendix A

In this paper natural units with $\hbar = c = 1$ are used and the metric $a \cdot b = a_o \cdot b_o - \vec{a} \cdot \vec{b}$ for four-vectors $a = (a_o, \vec{a})$ and $b = (b_o, \vec{b})$. The kinematical variables are defined in the laboratory system as follows (see fig. 17):

$p_1 = (E_1, \vec{p}_1)$	four-momentum of the incident electron e
$p_3 = (E_3, \vec{p}_3)$	four-momentum of the scattered electron e'
$q = (\nu, \vec{q})$	four-momentum of the virtual photon
$p = (E_h, \vec{p})$	four-momentum of the incident hadron h
$\vartheta = \sphericalangle(\vec{p}_1, \vec{p}_3)$	scattering angle of the electron

Neglecting the electron mass one gets:

$|\vec{p}_1| = E_1$

$|\vec{p}_3| = E_3$

$Q^2 = -q^2 = -(p_1 - p_3)^2$

$= 4E_1E_3 \sin^2(\vartheta/2)$	four-momentum transfer
$W^2 = (p + q)^2$	invariant mass of the hadronic system
M	nucleon mass
$\omega = 2M\nu/Q^2$	
$x' = 1/\omega' = Q^2/(2M\nu + M^2)$	scaling variable, see kinematical plane in fig. 2.

Appendix B Method "FISH" - Folding Incoherently Superposed Hadron Structure Functions

In this appendix we briefly describe the method, which provides structure functions W_1^A and W_2^A for bound nucleons within our whole kinematical region. In the laboratory system the differential cross section for inclusive electron scattering on nuclei with mass number A is given by:

$$\frac{d^2\sigma^A}{dE_3 d\Omega} = \sigma_{MOTT} \{ W_2^A + W_1^A \cdot 2\tan^2\vartheta/2 \} ; \sigma_{MOTT} = \frac{\alpha^2 \cdot \cos^2\vartheta/2}{4 E_1 \sin^4\vartheta/2} \quad (B.1)$$

Assuming impulse approximation the structure functions of the bound nucleons can be expressed as an incoherent superposition of the structure functions of the free but moving nucleons $W_1^{p,n}$ and $W_2^{p,n}$ /17, 24/.

$$W_1^A = \int d^3p \, |\phi(|\vec{p}|)|^2 \; \{ W_1^{p,n} + K \cdot W_2^{p,n} \}$$

$$W_2^A = \int d^3p \, |\phi(|\vec{p}|)|^2 \cdot F \cdot W_2^{p,n} \quad (B.2)$$

K, F are kinematical factors which together with the proper choice of $W_{1,2}^{n,p}$ - values within the Q^2,ν - plane are responsible for the correct folding with the momentum distribution $\phi(|\vec{p}|)$ of the bound nucleons with momentum $\vec{p}$. Although not indicated in B.2 the contributions of different shells to the nuclear structure functions $W_{1,2}^A$ were calculated separately and summed according to the number of nucleons in the shells. For the calculations we took different empirical parametrizations of the nucleon structure functions for the following regions.

1) Quasielastic scattering
   The elastic structure functions $W_{1,2}^{p,n}$ can be derived from the corrected dipole-fit /15/.
2) Resonance region ($W < 1.8$ GeV/c^2)
   In this region we used the parametrization of /17/ and /25/.

3) Inelastic region ($W > 2$ GeV/c^2)
   Here the influence of the Fermi-motion of the nucleons on the structure functions is negligible. The scaling behaviour of $W_{1,2}^{p,n}$ in the deep inelastic region can be continued into our region via the Rittenberg - Rubinstein scaling variable /26/:

$$\omega_W = \frac{2M\nu + M_W^2}{Q^2 + a^2}$$

M_W^2 and a^2 are obtained by fitting the following function to the world data /26/:

$$f^p(\omega_W) = \omega_W \sum_{n=3}^{7} b_n \{ 1 - \frac{1}{\omega_W} \}^n \quad (B.3)$$

for $2MW_1^p$ and $\omega\nu W_2^p$.

$$f^n(\omega_W) = f^p(\omega_W) \cdot (1 - x') \quad (B.4)$$

for $2MW_1^n$ and $\omega\nu W_2^n$.

The fit parameters are listed in table 3.

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Figure Captions

Fig. 1 The interaction of a physical photon with nuclear matter: (a) at low energies, (b) at high energies.

Fig. 2 The kinematical plane Q^2 versus ν covered by this experiment.

Fig. 3 The experimental setup.

Fig. 4 The contributions of the e^+e^--background (c) and the empty target (b) to the raw data (a) for the Al-target at E_1 = 5 GeV.

Fig. 5 The quasielastic tail for ^{12}C, E_1 = 5 GeV, according to the calculation of Bernabeu /16/ (dotted line) and to the Fermi-gas model (dashed line) compared to the electron-nucleus tail (solid line).

Fig. 6 The contributions of the electron-nucleus bremsstrahlung tail (dashed line), the quasielastic tail (solid line) and the inelastic tail (dotted line) to the non-radiatively corrected cross section values σ_r for Al, E_1 = 5 GeV.

Fig. 7 The cross sections at E_1 = 3 (left row) and 7 GeV (right row) for the targets H (a), D (b) and the extracted neutron cross section (c). The solid lines represent the calculations described in appendix B.

Fig. 8 The cross section ratio σ_n/σ_p as a function of the scaling variable x' at 3 GeV (left) and 7 GeV (right). The solid lines are the function f(x') = 1-x', drawn for W > 2 GeV.

Fig. 9 The cross sections for E_1 = 5 GeV and the targets Be (a) and Al (b), compared to the calculations of method FISH.

Fig. 10 The ratio A_{eff}/A for Al, E_1 = 5 GeV. For the triple error bars see text.

Fig. 11 The ratio A_{eff}/A for Al, E_1 = 7 GeV compared to theoretical predictions: VDM (a), GVDM (b), the "off-diagonal" model (c) and the GVDM with correlations between the nucleons with l_c = 0.44 fm (d) and l_c = 0.74 fm (e).

Fig. 12 The ratio of A_{eff}/A for Al. (a) as a function of ν for the parameters Q^2 = 0.22 $(GeV/c)^2$ (●); 0.26 (Δ); 0.36 (◊);
(b) as a function of Q^2 for the parameters ν = 2.0 GeV (●); 3.9 (Δ); 4.7 (◘); 5.7 (◊);
(c) as a function of Q^2 for the parameters x' = 0.020 (●); 0.026 (∇); 0.044 (◘).

Fig. 13 A_{eff}/A versus x' for D (a), Be (b), Al (c) and Si (d) together with results of Daresbury /8/ (▲) and measurements with real photons /6/: (◊) DESY 71; (▼) Daresbury 73; (◘) DESY 77; (●) Cornell 77.

Fig. 14 Comparison of earlier results (∇) of our group /9/:
(a) C at 6 GeV with that of Daresbury (▲) /8/;
(b) Al at 7 GeV with this experiment (o). Included are also results from measurements with real photons /6/. For symbols see fig. 13.

Fig. 15 A_{eff} versus A for x' = 0.02 and a fit $A_{eff} = A^{\varepsilon+1}$ (dashed line) compared to GVDM calculations (shaded area).

Fig. 16 The fit parameter ε versus x' compared to results of SLAC (◘) /7/ and Cornell (∇) /23/ and one data point for inclusive muon scattering (▲) /22/.

Fig. 17 The Feynmangraph for inclusive electron scattering.

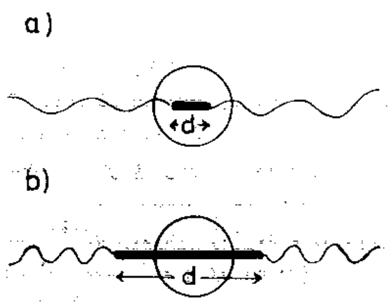

Fig. 1

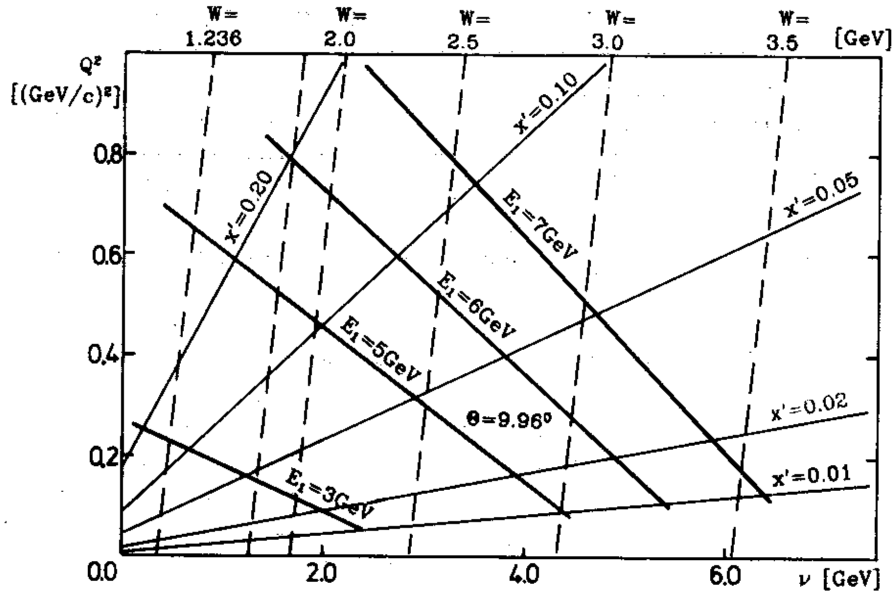

Fig. 2

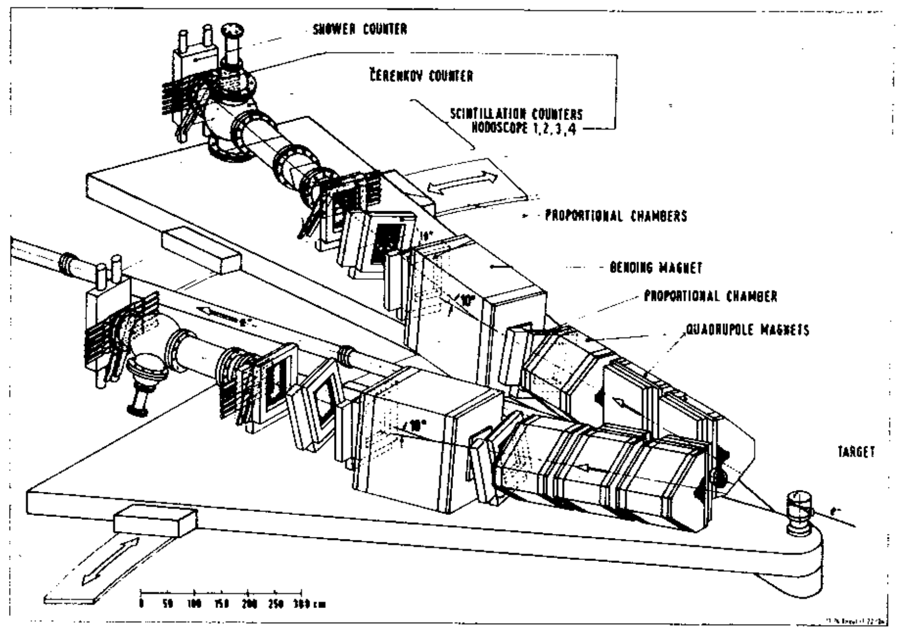

Fig. 3

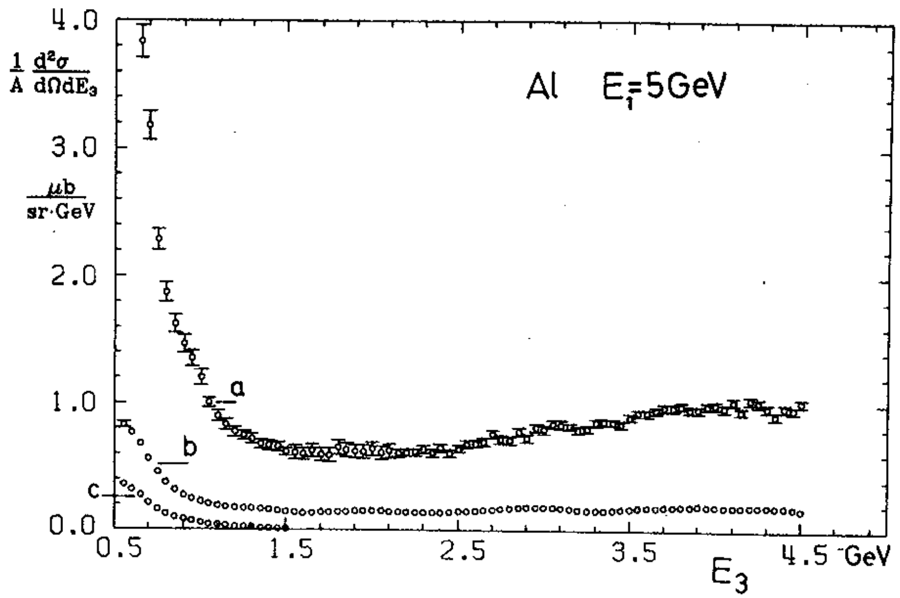

Fig. 4

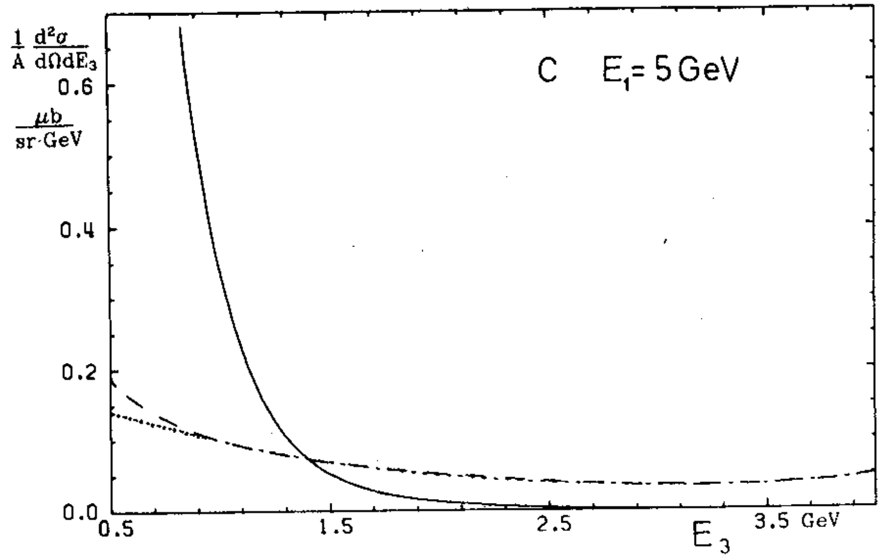

Fig. 5

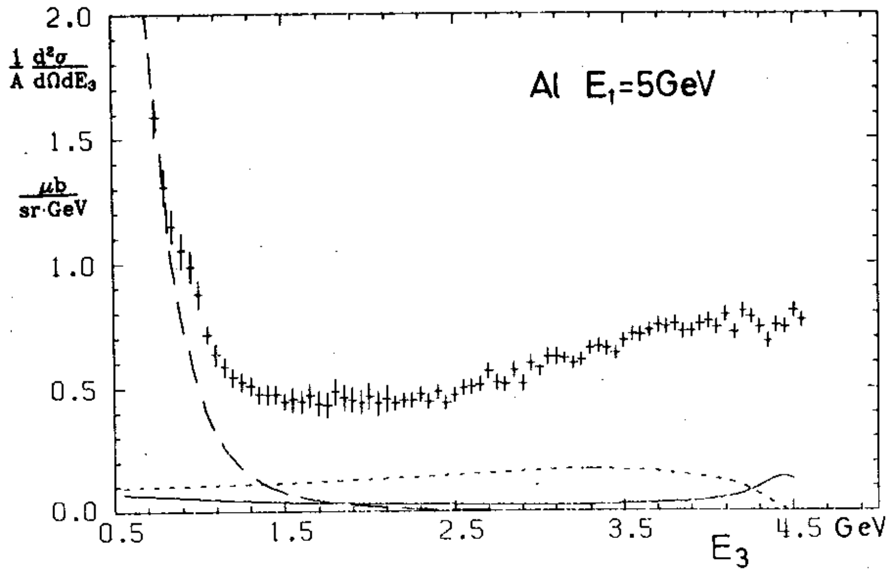

Fig. 6

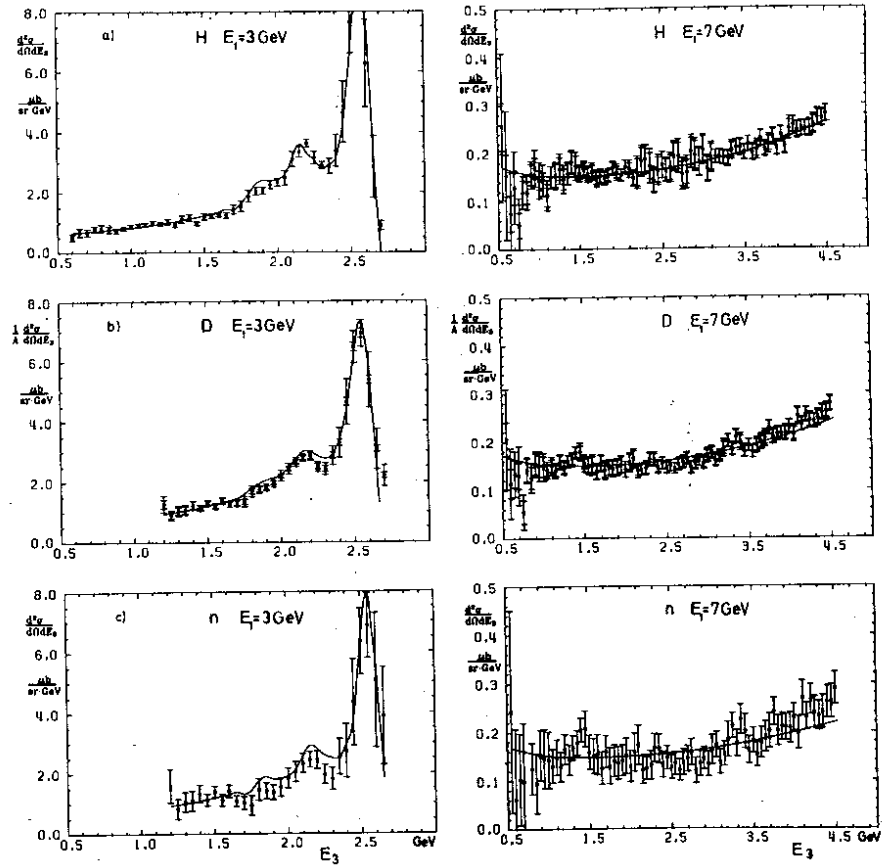

Fig. 7

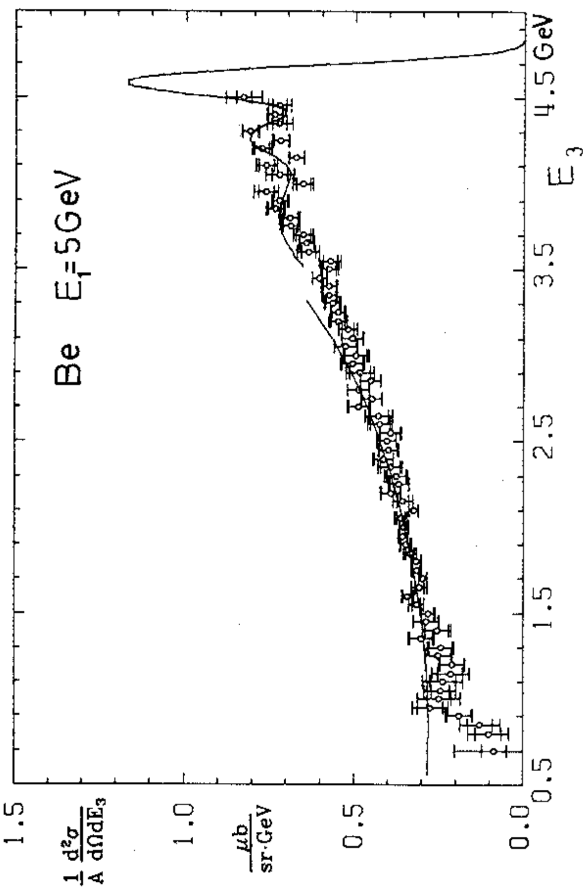

Fig. 9a

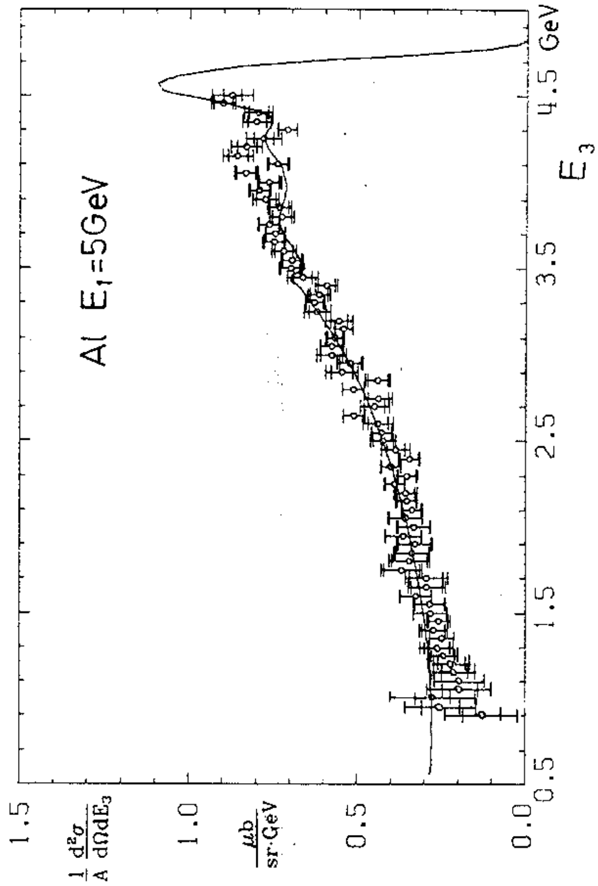

Fig. 9b

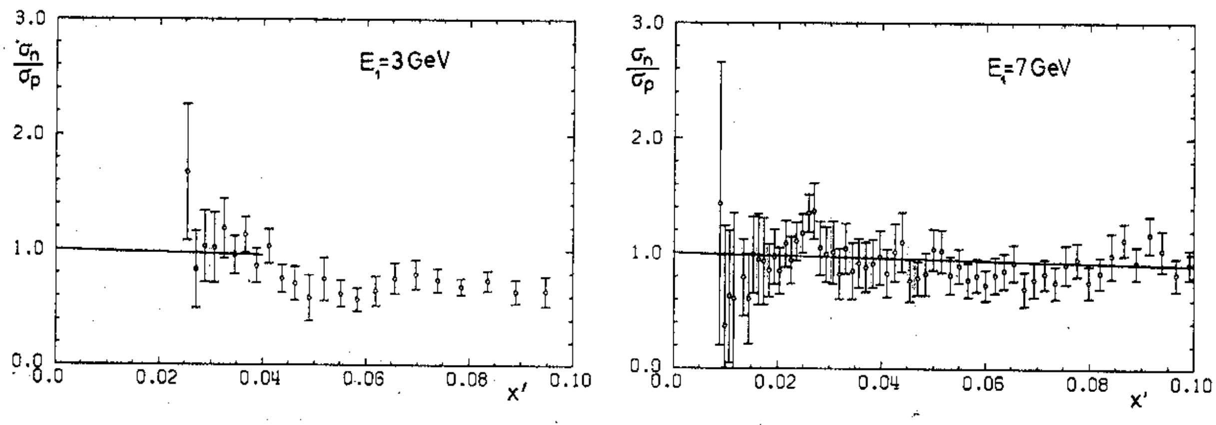

Fig. 8

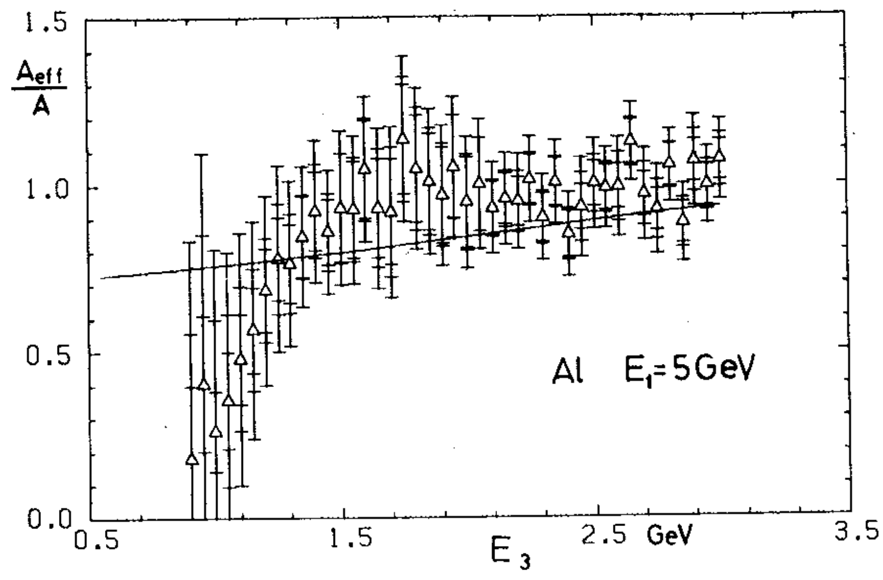

Fig. 10

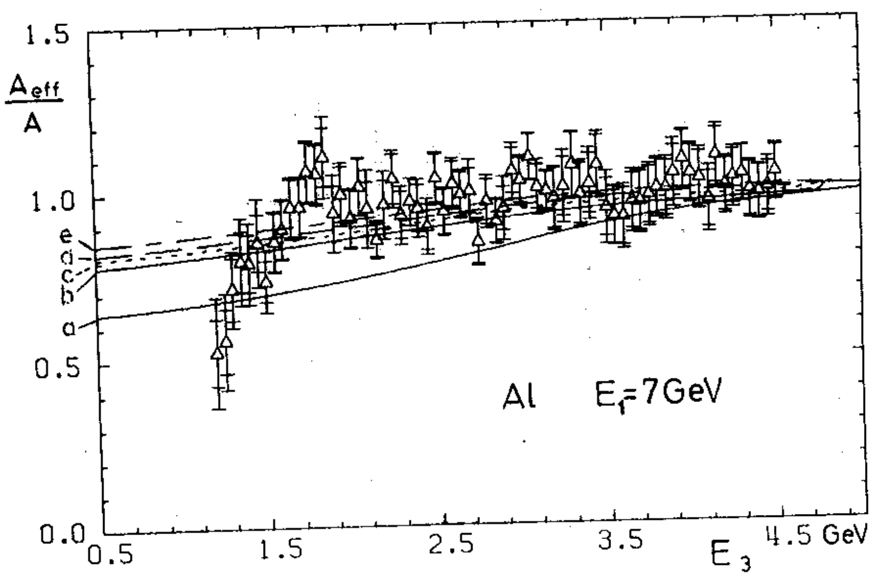

Fig. 11

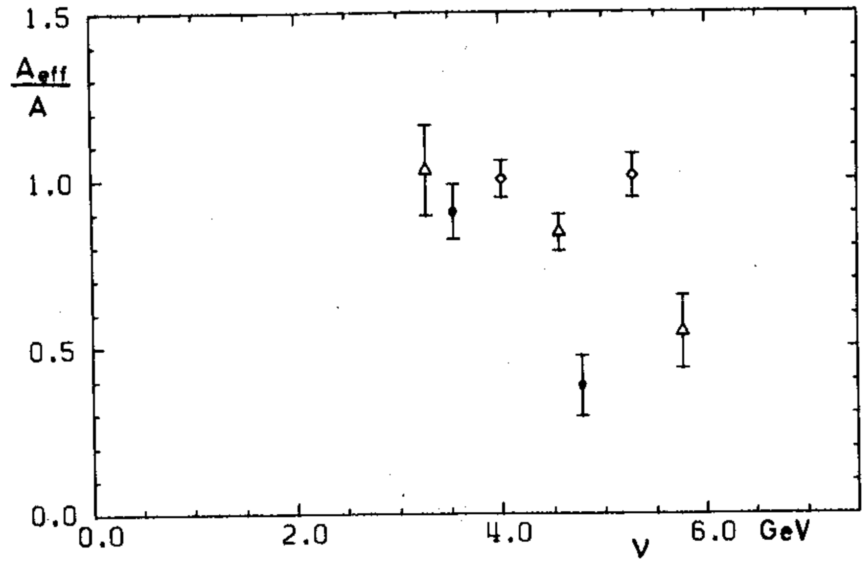

Fig. 12a

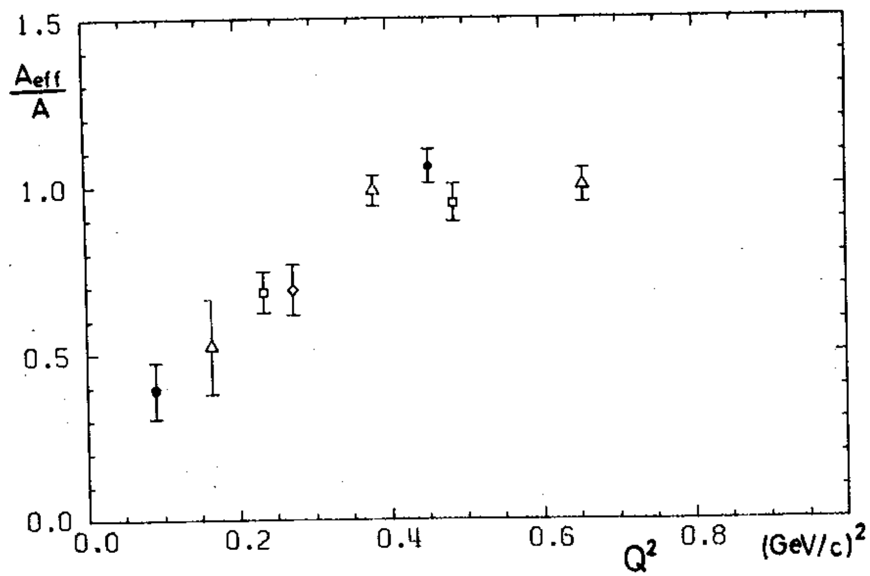

Fig. 12b

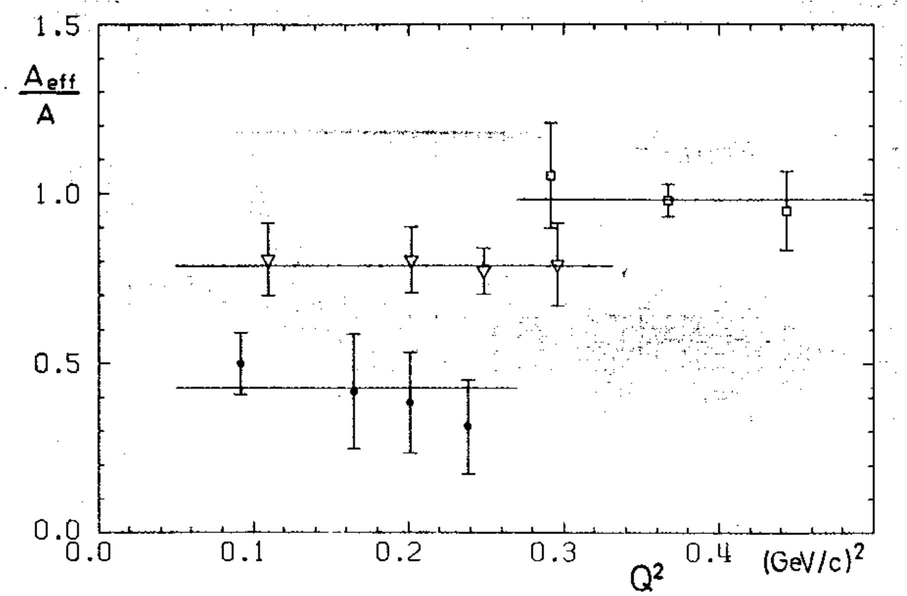

Fig. 12c

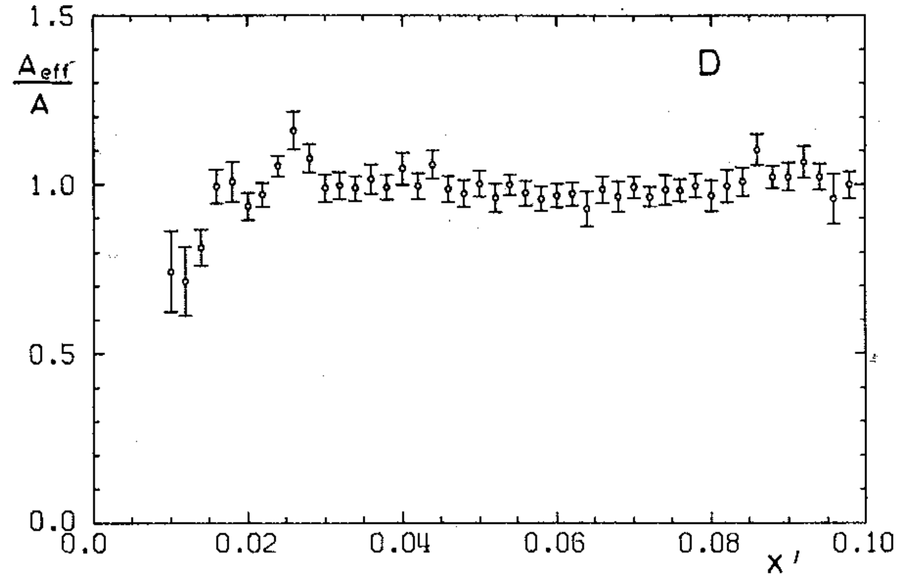

Fig. 13a

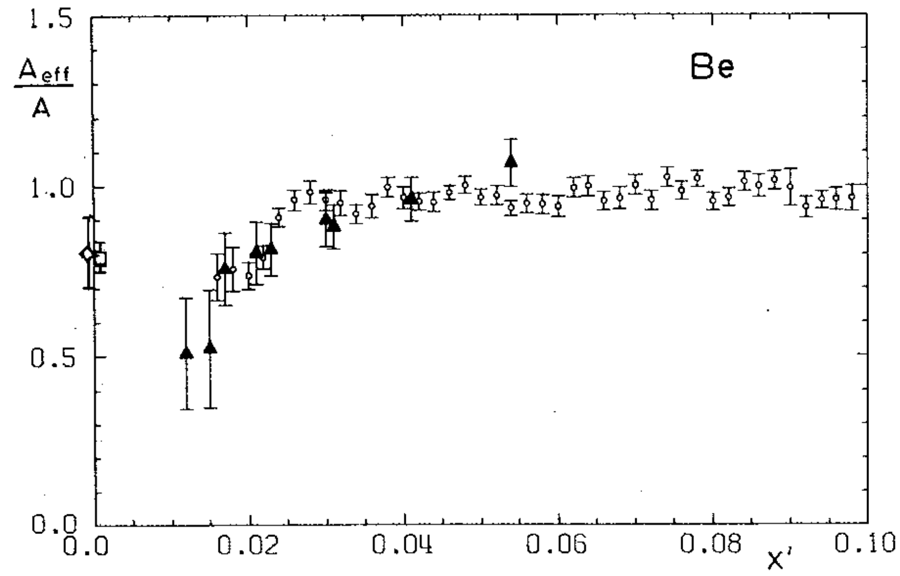

Fig. 13b

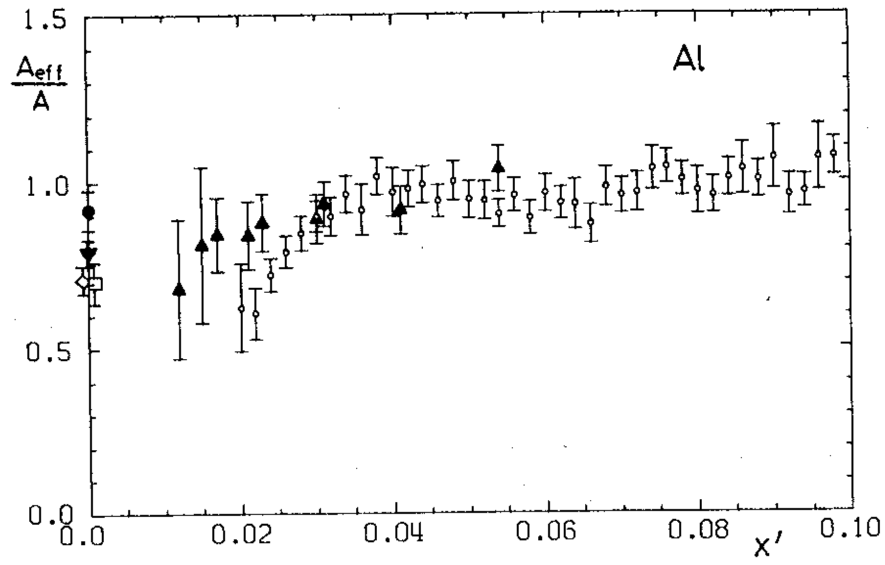

Fig. 13c

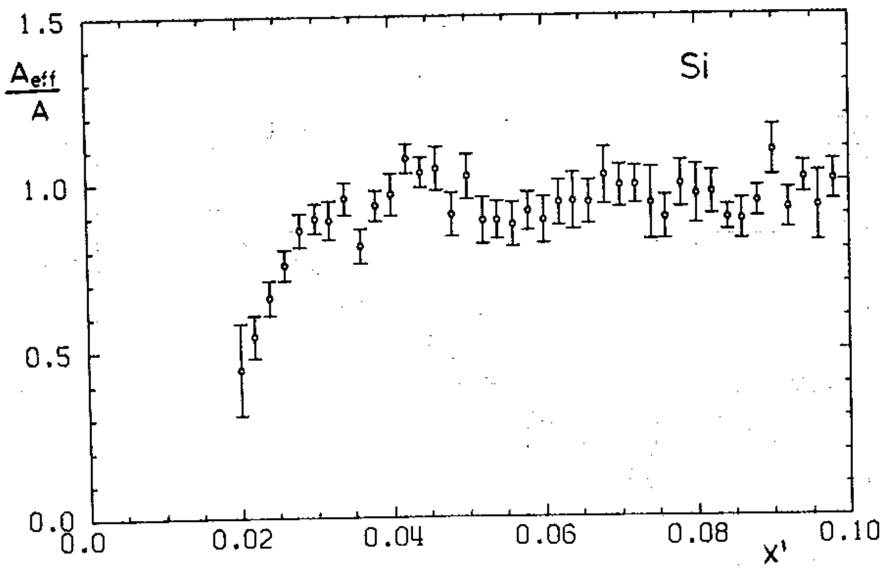

Fig. 13d

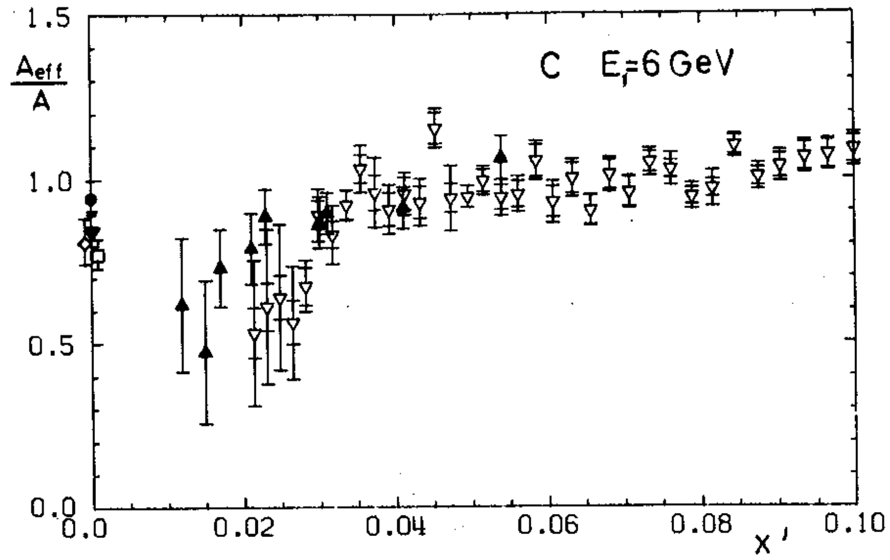

Fig. 14a

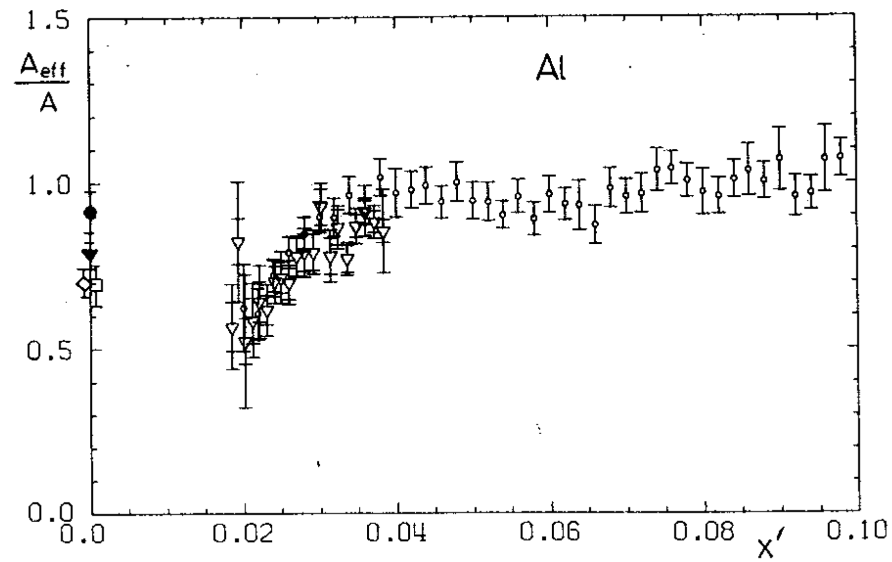

Fig. 14b

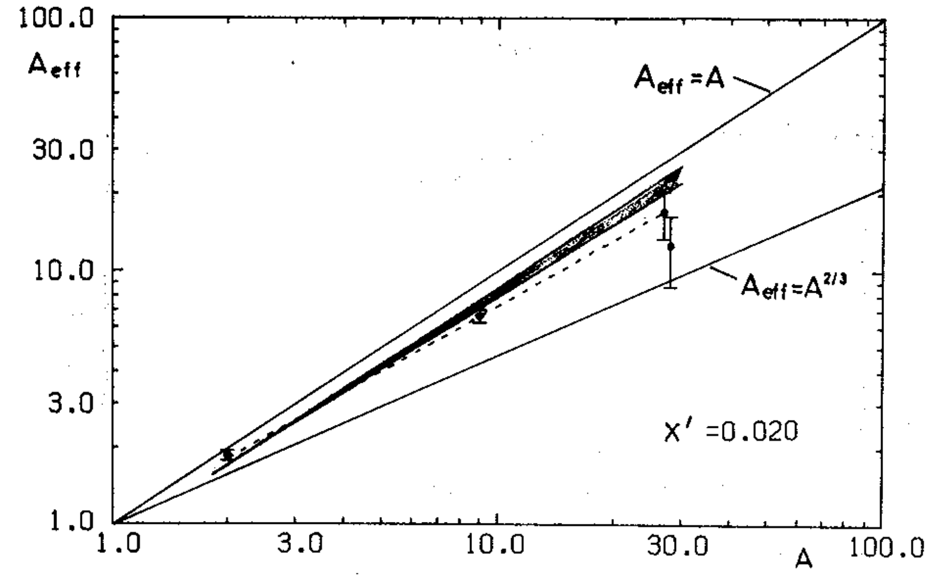

Fig. 15

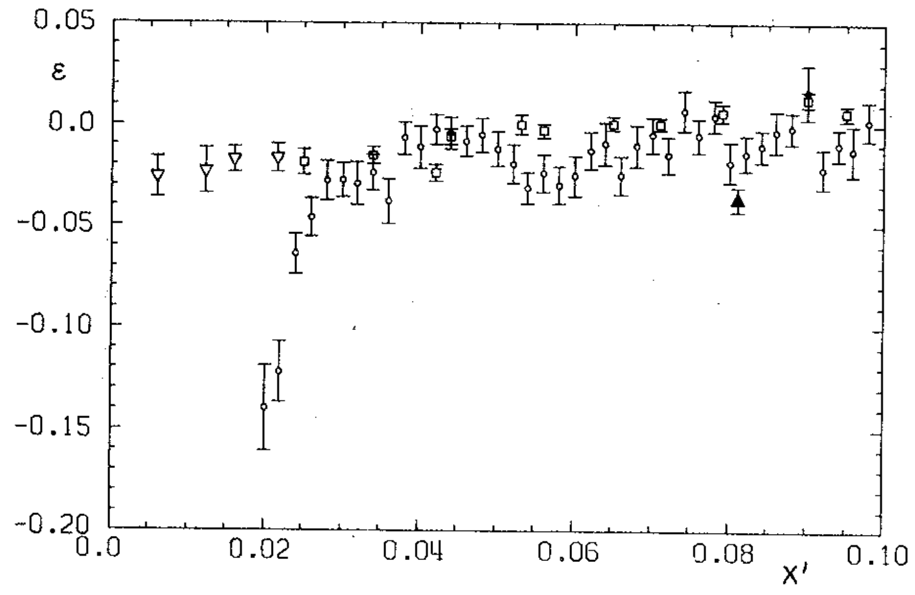

Fig. 16

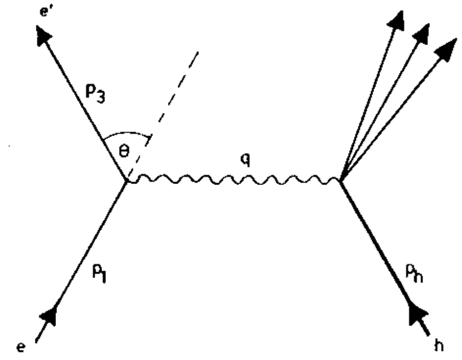

Fig. 17

Table 1 Target Parameters

Target	Z	N	Atomic Weight	Density (g/cm^3)	Thickness (mm)	Radiation length (%)
H	1	0	1.008	0.071	28.17	0.32
D	1	1	2.010	0.163	28.17	0.37
BeI	4	5	9.012	1.848	1.50	0.42
BeII	4	5	9.012	1.848	5.00	1.42
BeIII	4	5	9.012	1.848	10.00	2.83
Al	13	14	26.980	2.700	0.35	0.39
Si	14	14	28.090	2.420	0.35	0.38

Radiation length before the target:

liquid target	0.06
solid target	0.06

Radiation length behind the target:

liquid target	1.02
solid target	1.02

Table 2 Spectrometer Data

solid angle	0.231	msr
angular resolution	0.2	mrad
momentum resolution	1 %	fwhm
momentum range per current setting	±20 % of mean momentum	
momentum range with full acceptance	0.5-4.5 GeV	
maximal counting rate	50	per second
efficiency for electrons	> 98 %	

Table 3 Parameters for $f^p(\omega_W)$

	M_W^2 (GeV²)	a^2 (GeV²)	b_3	b_4	b_5	b_6	b_7
$2MW_1$	1.95	0.37	1.565	-8.995	30.74	-39.51	16.57
$\omega\nu W_2$	1.43	0.42	0.933	-1.494	9.021	-14.50	6.453

TABLE OF CROSS SECTIONS

Cross section per nucleon without radiation corrections:

$$\sigma_r \equiv d^2\sigma_r/d\Omega dE_3$$

with relative error $\Delta\sigma_r$.

Cross section per nucleon with radiation corrections:

$$\sigma \equiv d^2\sigma/d\Omega dE_3$$

with relative error $\Delta\sigma$.

Table IV.a Hydrogen $E_1 = 3.0$ (GeV) $\theta = 9.96°$

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.60	0.054	2.40	2.31	0.0120	0.0101	2.408	2.8	0.517	20.8	0.78
0.65	0.059	2.35	2.29	0.0133	0.0111	2.327	2.7	0.676	18.9	1.00
0.70	0.063	2.30	2.27	0.0147	0.0122	2.150	2.8	0.670	17.4	0.97
0.75	0.068	2.25	2.24	0.0161	0.0133	2.102	2.8	0.779	11.7	1.10
0.80	0.072	2.20	2.22	0.0175	0.0144	2.018	2.8	0.812	13.4	1.11
0.85	0.077	2.15	2.20	0.0191	0.0156	1.889	2.0	0.767	12.8	1.02
0.90	0.081	2.10	2.18	0.0207	0.0169	1.777	2.9	0.723	11.2	0.94
0.95	0.086	2.05	2.15	0.0223	0.0182	1.774	2.9	0.795	6.9	1.00
1.00	0.090	2.00	2.13	0.0241	0.0195	1.789	2.9	0.875	6.0	1.07
1.05	0.095	1.95	2.11	0.0259	0.0209	1.775	2.9	0.910	6.6	1.07
1.10	0.099	1.90	2.08	0.0279	0.0224	1.757	3.0	0.930	5.6	1.06
1.15	0.104	1.85	2.06	0.0300	0.0239	1.778	2.9	0.989	6.0	1.09
1.20	0.109	1.80	2.04	0.0321	0.0255	1.729	2.5	0.958	4.8	1.01
1.25	0.113	1.75	2.01	0.0344	0.0271	1.766	3.9	1.023	8.0	1.04
1.30	0.118	1.70	1.99	0.0369	0.0289	1.679	4.0	0.931	8.6	
1.35	0.122	1.65	1.96	0.0394	0.0307	1.315	3.9	1.108	10.3	
1.40	0.127	1.60	1.94	0.0422	0.0326	1.852	3.9	1.158	8.8	
1.45	0.131	1.55	1.91	0.0451	0.0346	1.694	2.8	0.962	5.6	
1.50	0.136	1.50	1.89	0.0482	0.0367	1.879	2.7	1.187	8.7	
1.55	0.140	1.45	1.86	0.0515	0.0389	1.908	2.6	1.214	5.7	
1.60	0.145	1.40	1.83	0.0551	0.0412	1.955	2.6	1.258	5.0	
1.65	0.149	1.35	1.81	0.0589	0.0437	1.955	2.6	1.243	7.7	
1.70	0.154	1.30	1.78	0.0630	0.0463	2.132	3.4	1.434	10.3	
1.75	0.158	1.25	1.75	0.0675	0.0491	2.253	3.4	1.543	11.6	
1.80	0.163	1.20	1.72	0.0723	0.0520	2.542	3.2	1.869	10.3	
1.85	0.167	1.15	1.69	0.0775	0.0551	2.692	3.2	2.038	6.3	
1.90	0.172	1.10	1.67	0.0832	0.0583	2.712	2.1	2.048	5.3	
1.95	0.176	1.05	1.64	0.0895	0.0619	2.892	2.1	2.246	5.9	
2.00	0.181	1.00	1.60	0.0964	0.0656	3.000	2.0	2.340	5.5	
2.05	0.185	0.95	1.57	0.1040	0.0696	3.160	2.0	2.481	9.4	
2.10	0.190	0.90	1.54	0.1124	0.0739	3.683	1.9	3.108	7.8	
2.15	0.194	0.85	1.51	0.1219	0.0785	3.859	1.8	3.337	5.2	
2.20	0.199	0.80	1.48	0.1325	0.0835	4.092	2.4	3.621	3.5	
2.25	0.203	0.75	1.44	0.1446	0.0889	3.745	2.4	3.144	6.6	
2.30	0.208	0.70	1.41	0.1583	0.0948	3.622	2.5	2.902	3.7	
2.35	0.213	0.65	1.37	0.1742	0.1012	3.683	2.5	2.866	8.5	
2.40	0.217	0.60	1.34	0.1927	0.1082	4.234	2.4	3.385	15.6	
2.45	0.222	0.55	1.30	0.2146	0.1158	5.395	2.1	4.663	21.6	
2.50	0.226	0.50	1.26	0.2409	0.1243	7.805	1.8	7.646	13.6	
2.55	0.231	0.45	1.22	0.2731	0.1337	8.989	1.7	9.414	5.6	
2.60	0.235	0.40	1.18	0.3132	0.1442	6.320	2.0	6.272	23.2	
2.65	0.240	0.35	1.14	0.3648	0.1559	3.685	2.7	2.846	36.2	
2.70	0.244	0.30	1.10	0.4337	0.1692	2.595	3.3	0.895	16.3	
2.75	0.249	0.25	1.05	0.5300	0.1843	3.446	2.9	0.944	235.0	
2.80	0.253	0.20	1.00	0.6745	0.2016	11.067	1.6	8.036	131.3	
2.85	0.258	0.15	0.95	0.9154	0.2218	44.932	1.1	26.360	4.1	
2.90	0.262	0.10	0.90	1.3971	0.2455	8.719	1.8	11.280	161.9	

Table IV.a Hydrogen $E_1 = 5.0$ (GeV) $\theta = 9.96°$

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.083	4.45	3.02	0.0099	0.0090	1.469	5.8	0.296	66.7	1.04
0.60	0.090	4.40	3.01	0.0110	0.0099	1.246	6.4	0.231	72.1	0.82
0.65	0.098	4.35	2.99	0.0120	0.0108	1.119	6.8	0.238	58.7	0.84
0.70	0.105	4.30	2.97	0.0131	0.0118	0.990	7.0	0.210	75.2	0.75
0.75	0.113	4.25	2.96	0.0142	0.0128	0.764	9.4	0.043	277.6	0.15
0.80	0.121	4.20	2.94	0.0153	0.0138	0.802	9.0	0.175	48.2	0.62
0.85	0.128	4.15	2.92	0.0164	0.0148	0.716	9.7	0.141	63.2	0.50
0.90	0.136	4.10	2.90	0.0176	0.0158	0.723	9.4	0.211	35.9	0.75
0.95	0.143	4.05	2.89	0.0188	0.0169	0.685	9.7	0.216	37.2	0.76
1.00	0.151	4.00	2.87	0.0201	0.0180	0.667	9.2	0.240	32.2	0.84
1.05	0.158	3.95	2.85	0.0213	0.0191	0.622	5.7	0.223	22.0	0.78
1.10	0.166	3.90	2.83	0.0227	0.0202	0.613	5.2	0.246	14.6	0.86
1.15	0.173	3.85	2.82	0.0240	0.0214	0.605	5.2	0.266	13.9	0.92
1.20	0.181	3.80	2.80	0.0254	0.0226	0.591	5.3	0.274	13.6	0.94
1.25	0.188	3.75	2.78	0.0268	0.0238	0.581	5.0	0.284	10.8	0.97
1.30	0.196	3.70	2.76	0.0282	0.0250	0.586	5.1	0.311	10.1	1.05
1.35	0.203	3.65	2.74	0.0297	0.0263	0.575	5.1	0.315	11.9	1.06
1.40	0.211	3.60	2.72	0.0312	0.0276	0.554	5.2	0.304	11.4	1.01
1.45	0.219	3.55	2.71	0.0328	0.0290	0.552	5.3	0.316	10.9	1.04
1.50	0.226	3.50	2.69	0.0344	0.0304	0.532	4.5	0.303	9.7	0.98
1.55	0.234	3.45	2.67	0.0361	0.0318	0.530	7.6	0.312	13.4	1.00
1.60	0.241	3.40	2.65	0.0378	0.0332	0.525	7.4	0.316	14.7	1.00
1.65	0.249	3.35	2.63	0.0396	0.0347	0.500	7.2	0.293	12.6	0.91
1.70	0.256	3.30	2.61	0.0414	0.0362	0.522	7.3	0.330	11.8	1.01
1.75	0.264	3.25	2.59	0.0432	0.0378	0.503	7.5	0.314	14.8	0.95
1.80	0.271	3.20	2.57	0.0452	0.0394	0.556	7.4	0.388	13.7	1.15
1.85	0.279	3.15	2.55	0.0472	0.0411	0.552	7.0	0.389	10.3	1.14
1.90	0.286	3.10	2.53	0.0492	0.0428	0.550	7.1	0.392	10.8	1.13
1.95	0.294	3.05	2.51	0.0513	0.0445	0.540	7.4	0.384	13.0	1.09
2.00	0.301	3.00	2.49	0.0535	0.0463	0.510	7.5	0.350	11.5	0.97
2.05	0.309	2.95	2.47	0.0558	0.0482	0.532	7.2	0.382	12.1	1.04
2.10	0.316	2.90	2.45	0.0582	0.0501	0.540	7.4	0.395	11.0	1.06
2.15	0.324	2.85	2.43	0.0606	0.0520	0.518	5.2	0.369	8.3	0.97
2.20	0.332	2.80	2.41	0.0631	0.0540	0.555	6.8	0.419	9.8	1.08
2.25	0.339	2.75	2.39	0.0657	0.0561	0.533	6.7	0.392	10.0	0.99
2.30	0.347	2.70	2.37	0.0684	0.0583	0.568	6.5	0.439	9.8	1.09
2.35	0.354	2.65	2.34	0.0712	0.0605	0.558	6.6	0.429	9.1	1.04
2.40	0.362	2.60	2.32	0.0741	0.0628	0.559	6.7	0.432	9.5	1.02
2.45	0.369	2.55	2.30	0.0772	0.0652	0.544	6.5	0.413	8.8	0.96
2.50	0.377	2.50	2.28	0.0803	0.0676	0.556	6.6	0.430	11.9	0.98
2.55	0.384	2.45	2.26	0.0836	0.0702	0.601	6.6	0.488	9.6	1.08
2.60	0.392	2.40	2.23	0.0870	0.0728	0.585	6.7	0.467	8.6	1.01
2.65	0.399	2.35	2.21	0.0906	0.0755	0.606	6.6	0.494	8.3	1.05
2.70	0.407	2.30	2.19	0.0943	0.0783	0.589	6.3	0.472	8.5	0.97
2.75	0.414	2.25	2.17	0.0982	0.0812	0.595	6.6	0.479	12.0	0.96
2.80	0.422	2.20	2.14	0.1022	0.0843	0.662	6.2	0.567	8.4	1.11
2.85	0.430	2.15	2.12	0.1065	0.0874	0.621	6.5	0.513	8.7	0.98
2.90	0.437	2.10	2.09	0.1109	0.0907	0.646	6.3	0.544	8.9	1.01

Table IV.a Hydrogen $E_1 = 5.0$ (GeV) $\Theta = 9.96°$

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x′	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.445	2.05	2.07	0.1156	0.0940	0.654	6.2	0.554	8.5	1.00
3.00	0.452	2.00	2.04	0.1205	0.0976	0.671	6.2	0.576	9.3	1.01
3.05	0.460	1.95	2.02	0.1256	0.1013	0.701	6.2	0.614	8.7	1.05
3.10	0.467	1.90	1.99	0.1310	0.1051	0.709	6.1	0.622	8.5	
3.15	0.475	1.85	1.97	0.1367	0.1091	0.740	4.2	0.663	6.4	
3.20	0.482	1.80	1.94	0.1428	0.1133	0.756	5.6	0.681	7.0	
3.25	0.490	1.75	1.92	0.1492	0.1176	0.762	5.8	0.689	8.0	
3.30	0.497	1.70	1.89	0.1559	0.1222	0.801	5.5	0.740	7.5	
3.35	0.505	1.65	1.86	0.1631	0.1270	0.809	5.7	0.751	6.7	
3.40	0.512	1.60	1.84	0.1707	0.1320	0.786	5.6	0.721	6.6	
3.45	0.520	1.55	1.81	0.1788	0.1372	0.795	5.7	0.739	8.3	
3.50	0.527	1.50	1.78	0.1874	0.1427	0.849	5.5	0.803	9.4	
3.55	0.535	1.45	1.75	0.1966	0.1486	0.911	5.1	0.876	7.9	
3.60	0.543	1.40	1.72	0.2065	0.1547	0.942	5.3	0.920	6.9	
3.65	0.550	1.35	1.69	0.2171	0.1611	0.966	5.2	0.958	5.9	
3.70	0.558	1.30	1.66	0.2286	0.1680	0.918	5.2	0.898	7.3	
3.75	0.565	1.25	1.63	0.2409	0.1752	0.896	5.5	0.872	5.9	
3.80	0.573	1.20	1.60	0.2543	0.1828	0.926	5.2	0.906	8.9	
3.85	0.580	1.15	1.57	0.2689	0.1910	1.026	4.9	1.034	9.3	
3.90	0.588	1.10	1.54	0.2847	0.1996	1.110	4.5	1.154	4.8	
3.95	0.595	1.05	1.50	0.3021	0.2088	1.045	5.1	1.090	10.7	
4.00	0.603	1.00	1.47	0.3212	0.2187	0.855	5.4	0.850	12.3	
4.05	0.610	0.95	1.43	0.3424	0.2292	0.808	5.4	0.788	6.2	
4.10	0.618	0.90	1.40	0.3659	0.2405	0.835	5.5	0.817	6.8	
4.15	0.625	0.85	1.36	0.3921	0.2527	0.848	5.8	0.820	12.5	
4.20	0.633	0.80	1.32	0.4216	0.2658	1.047	5.0	1.065	13.8	
4.25	0.641	0.75	1.28	0.4551	0.2800	1.231	4.5	1.291	9.3	
4.30	0.648	0.70	1.24	0.4933	0.2954	1.307	4.4	1.424	9.7	
4.35	0.656	0.65	1.20	0.5374	0.3122	0.906	5.5	0.954	25.6	
4.40	0.663	0.60	1.16	0.5889	0.3305	0.527	7.3	0.471	35.3	
4.45	0.671	0.55	1.11	0.6497	0.3507	0.395	9.0	0.234	21.5	
4.50	0.678	0.50	1.07	0.7227	0.3729	0.586	6.6	0.382	122.8	
4.55	0.686	0.45	1.02	0.8120	0.3976	2.117	3.4	2.216	31.5	
4.60	0.693	0.40	0.97	0.9235	0.4250	3.092	3.0			

Table IV.a Hydrogen $E_1 = 6.0$ (GeV) $\Theta = 9.96°$

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x′	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.099	5.45	3.32	0.0097	0.0090	1.222	4.2	0.268	65.2	1.25
0.60	0.109	5.40	3.30	0.0107	0.0099	0.975	4.5	0.140	94.5	0.66
0.65	0.118	5.35	3.29	0.0117	0.0108	0.871	4.7	0.147	60.5	0.70
0.70	0.127	5.30	3.27	0.0127	0.0117	0.783	4.8	0.148	55.3	0.71
0.75	0.136	5.25	3.26	0.0138	0.0126	0.695	4.3	0.131	52.4	0.63
0.80	0.145	5.20	3.24	0.0148	0.0136	0.629	4.4	0.123	43.4	0.60
0.85	0.154	5.15	3.22	0.0159	0.0146	0.591	4.4	0.137	29.1	0.67
0.90	0.163	5.10	3.21	0.0170	0.0156	0.573	4.3	0.167	16.2	0.82
0.95	0.172	5.05	3.19	0.0181	0.0166	0.600	4.1	0.244	11.2	1.20
1.00	0.181	5.00	3.18	0.0193	0.0176	0.584	4.1	0.263	17.6	1.30
1.05	0.190	4.95	3.16	0.0204	0.0187	0.511	2.8	0.206	21.7	1.02
1.10	0.199	4.90	3.14	0.0216	0.0197	0.463	3.7	0.175	19.3	0.87
1.15	0.208	4.85	3.13	0.0229	0.0208	0.444	3.7	0.176	15.5	0.87
1.20	0.217	4.80	3.11	0.0241	0.0219	0.419	3.8	0.168	12.9	0.83
1.25	0.226	4.75	3.09	0.0254	0.0231	0.420	3.7	0.189	12.7	0.93
1.30	0.235	4.70	3.08	0.0267	0.0242	0.453	3.6	0.247	7.3	1.21
1.35	0.244	4.65	3.06	0.0280	0.0254	0.413	3.7	0.213	12.9	1.04
1.40	0.253	4.60	3.04	0.0293	0.0266	0.404	3.7	0.216	7.8	1.05
1.45	0.262	4.55	3.03	0.0307	0.0278	0.406	3.7	0.230	11.0	1.12
1.50	0.271	4.50	3.01	0.0321	0.0291	0.363	2.9	0.187	11.8	0.90
1.55	0.280	4.45	2.99	0.0336	0.0304	0.360	4.2	0.193	10.5	0.92
1.60	0.289	4.40	2.97	0.0350	0.0317	0.342	4.3	0.180	8.8	0.86
1.65	0.298	4.35	2.96	0.0366	0.0330	0.355	4.2	0.206	8.3	0.97
1.70	0.307	4.30	2.94	0.0381	0.0344	0.334	4.4	0.187	12.5	0.88
1.75	0.316	4.25	2.92	0.0397	0.0357	0.320	4.5	0.175	10.9	0.82
1.80	0.326	4.20	2.90	0.0413	0.0372	0.354	4.3	0.226	11.0	1.04
1.85	0.335	4.15	2.89	0.0430	0.0386	0.359	4.2	0.238	7.3	1.09
1.90	0.344	4.10	2.87	0.0447	0.0401	0.363	4.2	0.249	7.3	1.13
1.95	0.353	4.05	2.85	0.0464	0.0416	0.347	4.4	0.234	7.9	1.05
2.00	0.362	4.00	2.83	0.0482	0.0431	0.349	4.4	0.241	6.8	1.07
2.05	0.371	3.95	2.81	0.0500	0.0447	0.342	4.4	0.236	7.8	1.04
2.10	0.380	3.90	2.80	0.0519	0.0463	0.335	4.4	0.231	7.1	1.01
2.15	0.389	3.85	2.78	0.0538	0.0480	0.349	3.1	0.252	6.6	1.09
2.20	0.398	3.80	2.76	0.0558	0.0497	0.357	4.5	0.267	6.8	1.14
2.25	0.407	3.75	2.74	0.0578	0.0514	0.340	4.6	0.247	8.2	1.05
2.30	0.416	3.70	2.72	0.0599	0.0532	0.339	4.6	0.248	8.1	1.04
2.35	0.425	3.65	2.70	0.0621	0.0550	0.322	4.7	0.229	10.0	0.95
2.40	0.434	3.60	2.68	0.0643	0.0568	0.308	4.8	0.214	7.9	0.87
2.45	0.443	3.55	2.66	0.0665	0.0587	0.314	4.8	0.223	7.1	0.90
2.50	0.452	3.50	2.65	0.0688	0.0607	0.311	4.8	0.222	9.8	0.89
2.55	0.461	3.45	2.63	0.0712	0.0627	0.340	4.7	0.262	7.2	1.03
2.60	0.470	3.40	2.61	0.0737	0.0648	0.324	4.8	0.242	7.3	0.94
2.65	0.479	3.35	2.59	0.0762	0.0669	0.349	4.6	0.277	8.3	1.06
2.70	0.488	3.30	2.57	0.0789	0.0690	0.351	4.6	0.280	6.9	1.06
2.75	0.497	3.25	2.55	0.0815	0.0713	0.337	4.7	0.263	6.6	0.98
2.80	0.506	3.20	2.53	0.0843	0.0735	0.356	4.6	0.290	8.0	1.06
2.85	0.515	3.15	2.51	0.0872	0.0759	0.364	4.6	0.302	5.7	1.09
2.90	0.524	3.10	2.48	0.0902	0.0783	0.358	4.6	0.295	6.2	1.05

Table IV.a Hydrogen E_1 = 6.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.534	3.05	2.46	0.0932	0.0808	0.357	4.6	0.294	7.0	1.03
3.00	0.543	3.00	2.44	0.0964	0.0833	0.374	4.6	0.318	7.5	1.09
3.05	0.552	2.95	2.42	0.0996	0.0860	0.385	4.5	0.332	5.7	1.12
3.10	0.561	2.90	2.40	0.1030	0.0887	0.368	4.6	0.310	7.4	1.03
3.15	0.570	2.85	2.38	0.1065	0.0915	0.361	3.4	0.301	4.5	0.98
3.20	0.579	2.80	2.36	0.1101	0.0943	0.373	4.7	0.318	6.7	1.02
3.25	0.588	2.75	2.34	0.1139	0.0973	0.375	4.8	0.320	5.6	1.01
3.30	0.597	2.70	2.31	0.1178	0.1004	0.374	4.8	0.319	6.7	0.99
3.35	0.606	2.65	2.29	0.1218	0.1035	0.389	4.7	0.340	5.7	1.03
3.40	0.615	2.60	2.27	0.1260	0.1068	0.371	4.8	0.316	7.1	0.94
3.45	0.624	2.55	2.25	0.1304	0.1101	0.370	4.7	0.314	6.7	0.92
3.50	0.633	2.50	2.22	0.1349	0.1136	0.357	4.9	0.296	6.5	0.85
3.55	0.642	2.45	2.20	0.1396	0.1172	0.363	4.8	0.303	7.5	0.85
3.60	0.651	2.40	2.18	0.1446	0.1209	0.378	4.8	0.324	7.7	0.89
3.65	0.660	2.35	2.15	0.1497	0.1248	0.390	4.6	0.339	6.8	0.92
3.70	0.669	2.30	2.13	0.1550	0.1288	0.399	4.6	0.352	6.5	0.93
3.75	0.678	2.25	2.10	0.1606	0.1329	0.408	4.6	0.363	7.9	0.94
3.80	0.687	2.20	2.08	0.1665	0.1372	0.438	4.5	0.404	7.3	1.02
3.85	0.696	2.15	2.05	0.1726	0.1417	0.448	4.4	0.418	5.9	1.03
3.90	0.705	2.10	2.03	0.1790	0.1463	0.457	4.4	0.430	4.7	1.04
3.95	0.714	2.05	2.00	0.1857	0.1511	0.450	4.4	0.420	5.8	1.00
4.00	0.723	2.00	1.98	0.1927	0.1561	0.474	4.4	0.452	6.3	
4.05	0.732	1.95	1.95	0.2002	0.1613	0.481	4.3	0.461	6.1	
4.10	0.741	1.90	1.92	0.2080	0.1668	0.503	4.1	0.491	4.7	
4.15	0.751	1.85	1.90	0.2162	0.1725	0.470	4.3	0.447	5.9	
4.20	0.760	1.80	1.87	0.2249	0.1784	0.528	4.1	0.528	4.7	
4.25	0.769	1.75	1.84	0.2341	0.1846	0.456	4.4	0.431	5.0	
4.30	0.778	1.70	1.81	0.2438	0.1910	0.523	4.2	0.526	7.0	
4.35	0.787	1.65	1.79	0.2541	0.1978	0.517	4.2	0.515	6.2	
4.40	0.796	1.60	1.76	0.2650	0.2049	0.565	3.9	0.575	7.1	
4.45	0.805	1.55	1.73	0.2767	0.2124	0.592	3.9	0.614	4.1	
4.50	0.814	1.50	1.70	0.2891	0.2202	0.573	4.0	0.593	6.6	
4.55	0.823	1.45	1.67	0.3024	0.2285	0.527	4.0	0.539	8.1	
4.60	0.832	1.40	1.64	0.3167	0.2372	0.483	4.1	0.483	8.7	

Table IV.a Hydrogen E_1 = 7.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.116	6.45	3.59	0.0096	0.0089	1.059	4.7	0.256	59.6	1.51
0.60	0.127	6.40	3.57	0.0105	0.0098	0.854	5.0	0.155	86.7	0.93
0.65	0.137	6.35	3.56	0.0115	0.0107	0.695	5.4	0.076	112.5	0.46
0.70	0.148	6.30	3.54	0.0125	0.0116	0.662	5.3	0.129	58.0	0.80
0.75	0.158	6.25	3.53	0.0135	0.0126	0.534	4.9	0.051	112.3	0.32
0.80	0.169	6.20	3.51	0.0145	0.0135	0.539	4.5	0.119	28.4	0.75
0.85	0.179	6.15	3.50	0.0155	0.0144	0.496	4.6	0.119	29.5	0.76
0.90	0.190	6.10	3.48	0.0166	0.0154	0.490	4.5	0.156	18.2	1.01
0.95	0.200	6.05	3.47	0.0177	0.0164	0.470	4.5	0.170	22.3	1.10
1.00	0.211	6.00	3.45	0.0187	0.0174	0.423	4.7	0.144	25.8	0.94
1.05	0.222	5.95	3.44	0.0198	0.0184	0.400	3.9	0.145	22.5	0.95
1.10	0.232	5.90	3.42	0.0210	0.0194	0.355	6.6	0.113	27.9	0.74
1.15	0.243	5.85	3.41	0.0221	0.0205	0.367	6.3	0.151	15.3	0.99
1.20	0.253	5.80	3.39	0.0233	0.0215	0.355	6.7	0.154	17.8	1.02
1.25	0.264	5.75	3.38	0.0244	0.0226	0.352	6.6	0.168	18.7	1.11
1.30	0.274	5.70	3.36	0.0256	0.0237	0.323	6.7	0.147	20.0	0.97
1.35	0.285	5.65	3.35	0.0269	0.0248	0.321	6.8	0.158	15.0	1.05
1.40	0.295	5.60	3.33	0.0281	0.0259	0.330	6.7	0.182	13.0	1.20
1.45	0.306	5.55	3.31	0.0294	0.0271	0.315	6.6	0.174	17.0	1.15
1.50	0.316	5.50	3.30	0.0307	0.0283	0.295	4.1	0.159	10.9	1.05
1.55	0.327	5.45	3.28	0.0320	0.0294	0.294	4.5	0.167	10.1	1.10
1.60	0.338	5.40	3.27	0.0333	0.0307	0.280	4.6	0.157	10.9	1.04
1.65	0.348	5.35	3.25	0.0347	0.0319	0.277	4.7	0.162	11.1	1.06
1.70	0.359	5.30	3.24	0.0361	0.0331	0.261	4.8	0.148	11.6	0.97
1.75	0.369	5.25	3.22	0.0375	0.0344	0.259	4.8	0.152	9.6	1.00
1.80	0.380	5.20	3.20	0.0389	0.0357	0.252	4.9	0.148	9.5	0.97
1.85	0.390	5.15	3.19	0.0404	0.0370	0.252	4.8	0.154	9.1	1.00
1.90	0.401	5.10	3.17	0.0419	0.0384	0.259	4.8	0.169	7.9	1.10
1.95	0.411	5.05	3.15	0.0434	0.0397	0.248	4.9	0.160	10.5	1.03
2.00	0.422	5.00	3.14	0.0450	0.0411	0.241	5.0	0.154	8.2	0.99
2.05	0.433	4.95	3.12	0.0466	0.0425	0.251	4.9	0.172	7.7	1.10
2.10	0.443	4.90	3.10	0.0482	0.0440	0.244	5.0	0.167	10.9	1.06
2.15	0.454	4.85	3.09	0.0498	0.0454	0.227	6.4	0.148	11.6	0.94
2.20	0.464	4.80	3.07	0.0515	0.0469	0.233	12.1	0.159	21.2	1.00
2.25	0.475	4.75	3.05	0.0533	0.0485	0.249	11.3	0.182	17.7	1.15
2.30	0.485	4.70	3.04	0.0550	0.0500	0.249	11.0	0.186	16.4	1.16
2.35	0.496	4.65	3.02	0.0568	0.0516	0.236	11.1	0.172	20.7	1.07
2.40	0.506	4.60	3.00	0.0587	0.0532	0.212	11.4	0.143	18.8	0.88
2.45	0.517	4.55	2.98	0.0605	0.0549	0.226	11.5	0.163	19.0	1.00
2.50	0.527	4.50	2.97	0.0625	0.0566	0.233	11.5	0.174	15.8	1.06
2.55	0.538	4.45	2.95	0.0644	0.0583	0.223	10.3	0.163	15.2	0.99
2.60	0.549	4.40	2.93	0.0664	0.0600	0.225	11.4	0.168	17.9	1.01
2.65	0.559	4.35	2.91	0.0685	0.0618	0.241	11.4	0.191	16.3	1.14
2.70	0.570	4.30	2.89	0.0706	0.0637	0.240	11.4	0.192	18.1	1.13
2.75	0.580	4.25	2.88	0.0728	0.0655	0.211	12.1	0.155	20.9	0.90
2.80	0.591	4.20	2.86	0.0750	0.0674	0.213	11.7	0.159	20.9	0.92
2.85	0.601	4.15	2.84	0.0772	0.0694	0.244	11.5	0.202	16.9	1.16
2.90	0.612	4.10	2.82	0.0795	0.0714	0.237	12.2	0.194	17.3	1.10

Table IV.a Hydrogen E_1 = 7.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.622	4.05	2.80	0.0819	0.0734	0.225	12.4	0.179	16.5	1.01
3.00	0.633	4.00	2.78	0.0843	0.0755	0.244	11.3	0.206	14.9	1.15
3.05	0.644	3.95	2.77	0.0868	0.0776	0.213	11.6	0.165	17.0	0.92
3.10	0.654	3.90	2.75	0.0894	0.0798	0.230	11.7	0.189	16.6	1.04
3.15	0.665	3.85	2.73	0.0920	0.0820	0.230	6.1	0.190	7.5	1.03
3.20	0.675	3.80	2.71	0.0947	0.0843	0.230	6.3	0.190	8.0	1.02
3.25	0.686	3.75	2.69	0.0974	0.0866	0.228	6.2	0.188	8.1	1.00
3.30	0.696	3.70	2.67	0.1003	0.0890	0.226	6.4	0.186	9.2	0.98
3.35	0.707	3.65	2.65	0.1032	0.0914	0.238	6.2	0.204	9.2	1.06
3.40	0.717	3.60	2.63	0.1062	0.0939	0.242	6.4	0.210	7.8	1.07
3.45	0.728	3.55	2.61	0.1093	0.0965	0.242	6.2	0.210	8.2	1.06
3.50	0.738	3.50	2.59	0.1124	0.0991	0.234	6.3	0.199	7.8	1.00
3.55	0.749	3.45	2.57	0.1157	0.1018	0.246	6.3	0.216	7.2	1.07
3.60	0.760	3.40	2.55	0.1191	0.1046	0.234	6.3	0.200	8.4	0.97
3.65	0.770	3.35	2.53	0.1225	0.1075	0.238	6.3	0.205	9.8	0.99
3.70	0.781	3.30	2.51	0.1261	0.1104	0.254	6.1	0.228	6.9	1.09
3.75	0.791	3.25	2.49	0.1297	0.1134	0.238	5.9	0.206	7.8	0.97
3.80	0.802	3.20	2.47	0.1335	0.1164	0.246	6.2	0.218	9.0	1.01
3.85	0.812	3.15	2.45	0.1374	0.1196	0.256	6.1	0.231	7.5	1.06
3.90	0.823	3.10	2.42	0.1415	0.1229	0.239	6.4	0.209	7.7	0.94
3.95	0.833	3.05	2.40	0.1456	0.1262	0.259	6.0	0.236	6.9	1.05
4.00	0.844	3.00	2.38	0.1499	0.1296	0.242	6.6	0.213	8.6	0.93
4.05	0.855	2.95	2.36	0.1544	0.1332	0.269	6.0	0.250	9.6	1.08
4.10	0.865	2.90	2.34	0.1590	0.1368	0.274	5.8	0.256	6.5	1.09
4.15	0.876	2.85	2.31	0.1637	0.1406	0.266	5.9	0.246	6.9	1.03
4.20	0.886	2.80	2.29	0.1687	0.1445	0.269	6.0	0.250	6.7	1.03
4.25	0.897	2.75	2.27	0.1738	0.1484	0.268	5.9	0.249	6.4	1.01
4.30	0.907	2.70	2.24	0.1791	0.1526	0.269	5.9	0.251	7.1	1.01
4.35	0.918	2.65	2.22	0.1846	0.1568	0.275	6.1	0.259	7.9	1.02
4.40	0.928	2.60	2.20	0.1903	0.1612	0.285	5.8	0.272	6.9	1.06
4.45	0.939	2.55	2.17	0.1962	0.1657	0.284	5.8	0.272	6.6	1.04
4.50	0.949	2.50	2.15	0.2024	0.1704	0.290	5.7	0.280	6.2	1.06
4.55	0.960	2.45	2.13	0.2088	0.1753	0.280	5.7	0.266	8.4	0.99
4.60	0.971	2.40	2.10	0.2155	0.1803	0.265	5.5	0.245	9.1	0.90

Table IV.a Deuterium E_1 = 3.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
1.20	0.109	1.80	2.04	0.0321	0.0255	1.678	7.6	1.265	22.0	1.35
1.25	0.113	1.75	2.01	0.0344	0.0271	1.377	8.4	0.901	18.2	0.93
1.30	0.118	1.70	1.99	0.0369	0.0289	1.488	8.2	1.040	15.2	
1.35	0.122	1.65	1.96	0.0394	0.0307	1.522	8.2	1.081	15.0	
1.40	0.127	1.60	1.94	0.0422	0.0326	1.640	7.9	1.223	11.8	
1.45	0.131	1.55	1.91	0.0451	0.0346	1.583	4.9	1.146	8.5	
1.50	0.136	1.50	1.89	0.0482	0.0367	1.722	4.6	1.310	7.3	
1.55	0.140	1.45	1.86	0.0515	0.0389	1.645	4.7	1.202	8.0	
1.60	0.145	1.40	1.83	0.0551	0.0412	1.800	4.6	1.380	7.3	
1.65	0.149	1.35	1.81	0.0589	0.0437	1.715	4.7	1.256	6.9	
1.70	0.154	1.30	1.78	0.0630	0.0463	1.777	4.6	1.308	8.5	
1.75	0.158	1.25	1.75	0.0675	0.0491	1.831	4.5	1.348	12.5	
1.80	0.163	1.20	1.72	0.0723	0.0520	2.124	4.3	1.691	10.6	
1.85	0.167	1.15	1.69	0.0775	0.0551	2.188	4.2	1.751	7.1	
1.90	0.172	1.10	1.67	0.0832	0.0583	2.257	2.7	1.816	6.4	
1.95	0.176	1.05	1.64	0.0895	0.0619	2.404	2.7	1.974	7.7	
2.00	0.181	1.00	1.60	0.0964	0.0656	2.609	2.5	2.199	7.7	
2.05	0.185	0.95	1.57	0.1040	0.0696	2.812	2.5	2.423	7.0	
2.10	0.190	0.90	1.54	0.1124	0.0739	3.011	2.4	2.652	5.7	
2.15	0.194	0.85	1.51	0.1219	0.0785	3.130	2.4	2.796	4.2	
2.20	0.199	0.80	1.48	0.1325	0.0835	3.183	3.0	2.856	5.1	
2.25	0.203	0.75	1.44	0.1446	0.0889	2.927	3.1	2.502	6.4	
2.30	0.208	0.70	1.41	0.1583	0.0948	2.909	3.1	2.421	7.9	
2.35	0.213	0.65	1.37	0.1742	0.1012	3.329	3.0	2.869	10.8	
2.40	0.217	0.60	1.34	0.1927	0.1082	3.741	2.8	3.286	14.9	
2.45	0.222	0.55	1.30	0.2146	0.1158	4.867	2.6	4.641	16.2	
2.50	0.226	0.50	1.26	0.2409	0.1243	6.246	2.3	6.459	8.2	
2.55	0.231	0.45	1.22	0.2731	0.1337	6.417	2.3	6.915	6.5	
2.60	0.235	0.40	1.18	0.3132	0.1442	5.040	2.5	5.370	17.0	
2.65	0.240	0.35	1.14	0.3648	0.1559	3.269	3.1	3.083	21.4	
2.70	0.244	0.30	1.10	0.4337	0.1692	2.814	3.4	2.200	16.0	
2.75	0.249	0.25	1.05	0.5300	0.1843	4.296	2.8	3.503	63.6	
2.80	0.253	0.20	1.00	0.6746	0.2016	11.246	1.9	10.900	29.4	
2.85	0.258	0.15	0.95	0.9154	0.2218	16.255	1.7	2.608	76.3	
2.90	0.262	0.10	0.90	1.3971	0.2455	4.391	2.7	5.537	109.2	

Table IV.a Deuterium E_1 = 6.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.099	5.45	3.32	0.0097	0.0090	0.714	4.0	0.196	39.3	0.92
0.60	0.109	5.40	3.30	0.0107	0.0099	0.617	4.2	0.167	37.8	0.79
0.65	0.118	5.35	3.29	0.0117	0.0108	0.565	4.3	0.172	27.9	0.82
0.70	0.127	5.30	3.27	0.0127	0.0117	0.521	4.3	0.174	33.8	0.84
0.75	0.136	5.25	3.26	0.0138	0.0126	0.420	3.8	0.097	40.6	0.47
0.80	0.145	5.20	3.24	0.0148	0.0136	0.426	3.6	0.142	14.1	0.69
0.85	0.154	5.15	3.22	0.0159	0.0146	0.402	3.6	0.144	11.8	0.71
0.90	0.163	5.10	3.21	0.0170	0.0156	0.417	3.5	0.189	8.4	0.94
0.95	0.172	5.05	3.19	0.0181	0.0166	0.407	3.5	0.199	8.1	0.99
1.00	0.181	5.00	3.18	0.0193	0.0176	0.409	3.4	0.222	10.4	1.11
1.05	0.190	4.95	3.16	0.0204	0.0187	0.370	2.3	0.190	11.3	0.95
1.10	0.199	4.90	3.14	0.0216	0.0197	0.357	2.9	0.189	9.5	0.95
1.15	0.208	4.85	3.13	0.0229	0.0208	0.340	2.9	0.180	8.6	0.90
1.20	0.217	4.80	3.11	0.0241	0.0219	0.335	2.9	0.186	6.1	0.93
1.25	0.226	4.75	3.09	0.0254	0.0231	0.345	2.9	0.210	5.0	1.05
1.30	0.235	4.70	3.08	0.0267	0.0242	0.337	2.9	0.208	5.8	1.03
1.35	0.244	4.65	3.06	0.0280	0.0254	0.354	2.8	0.238	4.9	1.18
1.40	0.253	4.60	3.04	0.0293	0.0266	0.343	2.9	0.231	7.0	1.14
1.45	0.262	4.55	3.03	0.0307	0.0278	0.329	2.9	0.220	7.0	1.08
1.50	0.271	4.50	3.01	0.0321	0.0291	0.320	2.2	0.214	5.5	1.04
1.55	0.280	4.45	2.99	0.0336	0.0304	0.310	3.2	0.207	5.0	1.01
1.60	0.289	4.40	2.97	0.0350	0.0317	0.318	3.3	0.222	5.2	1.07
1.65	0.298	4.35	2.96	0.0366	0.0330	0.305	3.3	0.210	7.2	1.01
1.70	0.307	4.30	2.94	0.0381	0.0344	0.298	3.3	0.205	5.7	0.98
1.75	0.316	4.25	2.92	0.0397	0.0357	0.312	3.2	0.227	4.6	1.08
1.80	0.326	4.20	2.90	0.0413	0.0372	0.299	3.4	0.214	4.9	1.01
1.85	0.335	4.15	2.89	0.0430	0.0386	0.311	3.3	0.231	6.7	1.08
1.90	0.344	4.10	2.87	0.0447	0.0401	0.321	3.3	0.248	5.2	1.15
1.95	0.353	4.05	2.85	0.0464	0.0416	0.300	3.4	0.223	5.5	1.03
2.00	0.362	4.00	2.83	0.0482	0.0431	0.313	3.3	0.243	6.2	1.11
2.05	0.371	3.95	2.81	0.0500	0.0447	0.319	3.3	0.252	4.5	1.14
2.10	0.380	3.90	2.80	0.0519	0.0463	0.311	3.3	0.243	6.9	1.09
2.15	0.389	3.85	2.78	0.0538	0.0480	0.294	2.4	0.223	5.9	0.99
2.20	0.398	3.80	2.76	0.0558	0.0497	0.286	3.4	0.215	5.7	0.94
2.25	0.407	3.75	2.74	0.0578	0.0514	0.283	3.4	0.212	8.1	[illegible]
2.30	0.416	3.70	2.72	0.0599	0.0532	0.316	3.3	0.257	6.5	1.10
2.35	0.425	3.65	2.70	0.0621	0.0550	0.308	3.3	0.248	4.9	[illegible]
2.40	0.434	3.60	2.68	0.0643	0.0568	0.308	3.3	0.249	5.9	1.05
2.45	0.443	3.55	2.66	0.0665	0.0587	0.291	3.4	0.227	5.6	0.94
2.50	0.452	3.50	2.65	0.0688	0.0607	0.296	3.4	0.235	5.2	0.97
2.55	0.461	3.45	2.63	0.0712	0.0627	0.281	3.5	0.217	5.7	0.88
2.60	0.470	3.40	2.61	0.0737	0.0648	0.286	3.4	0.224	7.2	0.90
2.65	0.479	3.35	2.59	0.0762	0.0669	0.307	3.4	0.252	7.9	1.00
2.70	0.488	3.30	2.57	0.0789	0.0690	0.325	3.3	0.276	3.9	1.08
2.75	0.497	3.25	2.55	0.0815	0.0713	0.306	3.4	0.252	4.2	0.97
2.80	0.506	3.20	2.53	0.0843	0.0735	0.326	3.3	0.279	4.3	1.06
2.85	0.515	3.15	2.51	0.0872	0.0759	0.312	3.4	0.260	4.2	0.97
2.90	0.524	3.10	2.48	0.0902	0.0783	0.328	3.3	0.282	5.1	1.04

Table IV.a Deuterium E_1 = 6.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.534	3.05	2.46	0.0932	0.0808	0.326	3.3	0.280	5.4	1.02
3.00	0.543	3.00	2.44	0.0964	0.0833	0.311	3.4	0.260	6.1	0.93
3.05	0.552	2.95	2.42	0.0996	0.0860	0.348	3.2	0.309	5.4	1.09
3.10	0.561	2.90	2.40	0.1030	0.0887	0.333	3.3	0.290	5.0	1.01
3.15	0.570	2.85	2.38	0.1065	0.0915	0.334	2.4	0.291	4.6	1.00
3.20	0.579	2.80	2.36	0.1101	0.0943	0.355	3.4	0.319	4.9	1.07
3.25	0.588	2.75	2.34	0.1139	0.0973	0.349	3.4	0.311	5.4	1.03
3.30	0.597	2.70	2.31	0.1178	0.1004	0.334	3.5	0.291	5.8	0.95
3.35	0.606	2.65	2.29	0.1218	0.1035	0.370	3.3	0.339	4.2	1.09
3.40	0.615	2.60	2.27	0.1260	0.1068	0.342	3.5	0.302	6.7	0.95
3.45	0.624	2.55	2.25	0.1304	0.1101	0.337	3.5	0.294	5.2	0.91
3.50	0.633	2.50	2.22	0.1349	0.1136	0.357	3.4	0.321	4.7	0.98
3.55	0.642	2.45	2.20	0.1396	0.1172	0.349	3.4	0.311	5.5	0.93
3.60	0.651	2.40	2.18	0.1446	0.1209	0.335	3.4	0.292	5.2	0.85
3.65	0.660	2.35	2.15	0.1497	0.1248	0.335	3.5	0.291	7.5	0.84
3.70	0.669	2.30	2.13	0.1550	0.1288	0.376	3.3	0.347	7.1	0.98
3.75	0.678	2.25	2.10	0.1606	0.1329	0.382	3.3	0.356	4.4	0.99
3.80	0.687	2.20	2.08	0.1665	0.1372	0.389	3.3	0.364	5.6	0.99
3.85	0.696	2.15	2.05	0.1726	0.1417	0.412	3.1	0.396	5.0	1.06
3.90	0.705	2.10	2.03	0.1790	0.1463	0.417	3.2	0.404	4.0	1.06
3.95	0.714	2.05	2.00	0.1857	0.1511	0.423	3.2	0.412	4.0	1.06
4.00	0.723	2.00	1.98	0.1927	0.1561	0.429	3.1	0.421	3.9	
4.05	0.732	1.95	1.95	0.2002	0.1613	0.434	3.1	0.428	3.5	
4.10	0.741	1.90	1.92	0.2080	0.1668	0.434	3.1	0.429	5.0	
4.15	0.751	1.85	1.90	0.2162	0.1725	0.404	3.3	0.388	5.3	
4.20	0.760	1.80	1.87	0.2249	0.1784	0.464	3.0	0.474	4.5	
4.25	0.769	1.75	1.84	0.2341	0.1846	0.433	3.2	0.435	3.7	
4.30	0.778	1.70	1.81	0.2438	0.1910	0.455	3.1	0.469	4.7	
4.35	0.787	1.65	1.79	0.2541	0.1978	0.466	3.0	0.485	4.0	
4.40	0.796	1.60	1.76	0.2650	0.2049	0.475	3.1	0.498	3.8	
4.45	0.805	1.55	1.73	0.2767	0.2124	0.449	3.1	0.463	4.1	
4.50	0.814	1.50	1.70	0.2891	0.2202	0.455	3.1	0.476	3.3	
4.55	0.823	1.45	1.67	0.3024	0.2285	0.455	3.0	0.480	4.9	
4.60	0.832	1.40	1.64	0.3167	0.2372	0.417	3.1	0.432	7.3	

Table IV.a Deuterium $E_1 = 5.0$ (GeV) $\Theta = 9.96°$

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.083	4.45	3.02	0.0099	0.0090	0.908	3.5	0.279	43.9	0.99
0.60	0.090	4.40	3.01	0.0110	0.0099	0.727	3.8	0.164	48.8	0.58
0.65	0.098	4.35	2.99	0.0120	0.0108	0.700	3.9	0.213	15.8	0.76
0.70	0.105	4.30	2.97	0.0131	0.0118	0.701	3.8	0.279	17.0	1.00
0.75	0.113	4.25	2.96	0.0142	0.0128	0.616	3.0	0.232	20.0	0.83
0.80	0.121	4.20	2.94	0.0153	0.0138	0.590	3.0	0.244	12.6	0.87
0.85	0.128	4.15	2.92	0.0164	0.0148	0.565	3.0	0.251	10.8	0.89
0.90	0.136	4.10	2.90	0.0176	0.0158	0.550	3.0	0.263	6.7	0.94
0.95	0.143	4.05	2.89	0.0188	0.0169	0.569	3.0	0.313	6.2	1.12
1.00	0.151	4.00	2.87	0.0201	0.0180	0.539	3.0	0.300	10.9	1.07
1.05	0.158	3.95	2.85	0.0213	0.0191	0.502	2.1	0.274	10.6	0.97
1.10	0.166	3.90	2.83	0.0227	0.0202	0.464	2.8	0.244	9.8	0.86
1.15	0.173	3.85	2.82	0.0240	0.0214	0.458	2.8	0.251	6.2	0.88
1.20	0.181	3.80	2.80	0.0254	0.0226	0.475	2.7	0.286	5.7	1.00
1.25	0.188	3.75	2.78	0.0268	0.0238	0.472	2.7	0.293	4.5	1.01
1.30	0.196	3.70	2.76	0.0282	0.0250	0.476	2.7	0.309	5.0	1.06
1.35	0.203	3.65	2.74	0.0297	0.0263	0.462	2.8	0.300	5.5	1.02
1.40	0.211	3.60	2.72	0.0312	0.0276	0.461	2.8	0.307	4.6	1.03
1.45	0.219	3.55	2.71	0.0328	0.0290	0.457	2.8	0.309	8.0	1.03
1.50	0.226	3.50	2.69	0.0344	0.0304	0.413	2.1	0.260	4.9	0.85
1.55	0.234	3.45	2.67	0.0361	0.0318	0.440	2.9	0.299	6.9	0.97
1.60	0.241	3.40	2.65	0.0378	0.0332	0.446	2.9	0.311	4.4	1.00
1.65	0.249	3.35	2.63	0.0396	0.0347	0.443	2.9	0.311	4.2	0.99
1.70	0.256	3.30	2.61	0.0414	0.0362	0.445	2.9	0.318	5.2	0.99
1.75	0.264	3.25	2.59	0.0432	0.0378	0.430	3.0	0.302	4.3	0.93
1.80	0.271	3.20	2.57	0.0452	0.0394	0.445	2.9	0.324	5.3	0.98
1.85	0.279	3.15	2.55	0.0472	0.0411	0.446	3.0	0.328	4.7	0.98
1.90	0.286	3.10	2.53	0.0492	0.0428	0.454	3.0	0.340	4.9	1.00
1.95	0.294	3.05	2.51	0.0513	0.0445	0.433	3.1	0.315	5.3	0.91
2.00	0.301	3.00	2.49	0.0535	0.0463	0.467	3.0	0.361	5.8	1.03
2.05	0.309	2.95	2.47	0.0558	0.0482	0.461	3.1	0.353	4.2	0.99
2.10	0.316	2.90	2.45	0.0582	0.0501	0.471	3.0	0.368	4.7	1.01
2.15	0.324	2.85	2.43	0.0606	0.0520	0.447	2.0	0.338	4.0	0.91
2.20	0.332	2.80	2.41	0.0631	0.0540	0.453	2.6	0.346	5.1	0.92
2.25	0.339	2.75	2.39	0.0657	0.0561	0.470	2.6	0.369	5.5	0.96
2.30	0.347	2.70	2.37	0.0684	0.0583	0.485	2.6	0.388	5.5	0.99
2.35	0.354	2.65	2.34	0.0712	0.0605	0.506	2.5	0.416	5.8	1.04
2.40	0.362	2.60	2.32	0.0741	0.0628	0.530	2.5	0.448	3.5	1.10
2.45	0.369	2.55	2.30	0.0772	0.0652	0.495	2.6	0.401	3.2	0.96
2.50	0.377	2.50	2.28	0.0803	0.0676	0.530	2.5	0.447	4.1	1.05
2.55	0.384	2.45	2.26	0.0836	0.0702	0.515	2.5	0.426	3.6	0.98
2.60	0.392	2.40	2.23	0.0870	0.0728	0.521	2.5	0.433	4.1	0.97
2.65	0.399	2.35	2.21	0.0906	0.0755	0.532	2.5	0.447	3.0	0.98
2.70	0.407	2.30	2.19	0.0943	0.0783	0.521	2.6	0.432	5.2	0.93
2.75	0.414	2.25	2.17	0.0982	0.0812	0.568	2.5	0.493	6.1	1.03
2.80	0.422	2.20	2.14	0.1022	0.0843	0.585	2.5	0.514	4.1	1.05
2.85	0.430	2.15	2.12	0.1065	0.0874	0.594	2.5	0.525	3.3	1.05
2.90	0.437	2.10	2.09	0.1109	0.0907	0.595	2.5	0.525	4.0	1.07

Table IV.a Deuterium $E_1 = 5.0$ (GeV) $\Theta = 9.96°$

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.445	2.05	2.07	0.1156	0.0940	0.569	2.5	0.489	3.0	0.93
3.00	0.452	2.00	2.04	0.1205	0.0976	0.595	2.5	0.523	5.5	0.97
3.05	0.460	1.95	2.02	0.1256	0.1013	0.624	2.5	0.560	4.5	1.01
3.10	0.467	1.90	1.99	0.1310	0.1051	0.635	2.4	0.573	4.0	
3.15	0.475	1.85	1.97	0.1367	0.1091	0.655	1.6	0.598	3.3	
3.20	0.482	1.80	1.94	0.1428	0.1133	0.674	2.0	0.623	3.6	
3.25	0.490	1.75	1.92	0.1492	0.1176	0.691	2.0	0.645	4.3	
3.30	0.497	1.70	1.89	0.1559	0.1222	0.729	2.0	0.695	3.0	
3.35	0.505	1.65	1.86	0.1631	0.1270	0.716	2.0	0.678	3.3	
3.40	0.512	1.60	1.84	0.1707	0.1320	0.696	2.0	0.652	4.2	
3.45	0.520	1.55	1.81	0.1788	0.1372	0.770	1.9	0.754	3.6	
3.50	0.527	1.50	1.78	0.1874	0.1427	0.746	2.0	0.721	2.5	
3.55	0.535	1.45	1.75	0.1966	0.1486	0.757	1.9	0.734	2.4	
3.60	0.543	1.40	1.72	0.2065	0.1547	0.757	2.0	0.735	2.2	
3.65	0.550	1.35	1.69	0.2171	0.1611	0.762	2.0	0.746	2.2	
3.70	0.558	1.30	1.66	0.2286	0.1680	0.750	2.0	0.733	2.4	
3.75	0.565	1.25	1.63	0.2409	0.1752	0.774	2.0	0.768	3.8	
3.80	0.573	1.20	1.60	0.2543	0.1828	0.806	1.9	0.812	2.1	
3.85	0.580	1.15	1.57	0.2689	0.1910	0.767	2.0	0.763	2.4	
3.90	0.588	1.10	1.54	0.2847	0.1996	0.792	1.9	0.804	2.6	
3.95	0.595	1.05	1.50	0.3021	0.2088	0.789	2.0	0.810	3.7	
4.00	0.603	1.00	1.47	0.3212	0.2187	0.734	2.0	0.745	6.4	
4.05	0.610	0.95	1.43	0.3424	0.2292	0.657	2.1	0.642	4.4	
4.10	0.618	0.90	1.40	0.3659	0.2405	0.677	2.1	0.665	6.3	
4.15	0.625	0.85	1.36	0.3921	0.2527	0.769	2.0	0.782	5.7	
4.20	0.633	0.80	1.32	0.4216	0.2658	0.795	2.0	0.809	8.6	
4.25	0.641	0.75	1.28	0.4551	0.2800	0.985	1.8	1.073	2.6	
4.30	0.648	0.70	1.24	0.4933	0.2954	0.835	1.9	0.897	11.4	
4.35	0.656	0.65	1.20	0.5374	0.3122	0.640	2.2	0.673	17.2	
4.40	0.663	0.60	1.16	0.5889	0.3305	0.428	2.6	0.404	11.5	
4.45	0.671	0.55	1.11	0.6497	0.3507	0.498	2.4	0.479	19.6	
4.50	0.678	0.50	1.07	0.7227	0.3729	0.756	2.0	0.763	26.5	
4.55	0.686	0.45	1.02	0.8120	0.3976	1.244	1.7	1.267	8.9	
4.60	0.693	0.40	0.97	0.9235	0.4250	1.124	1.7	0.352	22.6	

Table IV.a Deuterium E$_1$ = 7.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.116	6.45	3.59	0.0096	0.0089	0.635	5.5	0.206	50.4	1.22
0.60	0.127	6.40	3.57	0.0105	0.0098	0.498	6.1	0.114	63.6	0.69
0.65	0.137	6.35	3.56	0.0115	0.0107	0.465	6.1	0.134	35.2	0.82
0.70	0.148	6.30	3.54	0.0125	0.0116	0.423	6.3	0.130	46.7	0.81
0.75	0.158	6.25	3.53	0.0135	0.0126	0.329	7.3	0.055	66.4	0.35
0.80	0.169	6.20	3.51	0.0145	0.0135	0.373	6.5	0.142	18.7	0.90
0.85	0.179	6.15	3.50	0.0155	0.0144	0.338	6.7	0.126	24.2	0.81
0.90	0.190	6.10	3.48	0.0166	0.0154	0.342	6.5	0.154	16.9	1.00
0.95	0.200	6.05	3.47	0.0177	0.0164	0.322	6.7	0.150	20.3	0.98
1.00	0.211	6.00	3.45	0.0187	0.0174	0.307	6.7	0.148	19.5	0.97
1.05	0.222	5.95	3.44	0.0198	0.0184	0.290	4.2	0.141	12.3	0.93
1.10	0.232	5.90	3.42	0.0210	0.0194	0.287	4.5	0.150	12.0	1.00
1.15	0.243	5.85	3.41	0.0221	0.0205	0.270	4.7	0.140	10.9	0.93
1.20	0.253	5.80	3.39	0.0233	0.0215	0.276	4.7	0.158	9.7	1.05
1.25	0.264	5.75	3.38	0.0244	0.0226	0.260	4.8	0.147	10.5	0.98
1.30	0.274	5.70	3.36	0.0256	0.0237	0.263	4.6	0.159	7.9	1.07
1.35	0.285	5.65	3.35	0.0269	0.0248	0.262	4.6	0.165	7.8	1.10
1.40	0.295	5.60	3.33	0.0281	0.0259	0.267	4.5	0.178	6.9	1.19
1.45	0.306	5.55	3.31	0.0294	0.0271	0.263	4.4	0.179	10.2	1.20
1.50	0.316	5.50	3.30	0.0307	0.0283	0.240	4.2	0.155	11.4	1.04
1.55	0.327	5.45	3.28	0.0320	0.0294	0.233	6.8	0.151	12.0	1.01
1.60	0.338	5.40	3.27	0.0333	0.0307	0.230	7.2	0.153	13.5	1.02
1.65	0.348	5.35	3.25	0.0347	0.0319	0.216	7.3	0.139	12.1	0.93
1.70	0.359	5.30	3.24	0.0361	0.0331	0.227	6.9	0.156	10.7	1.04
1.75	0.369	5.25	3.22	0.0375	0.0344	0.213	7.3	0.141	13.2	0.94
1.80	0.380	5.20	3.20	0.0389	0.0357	0.215	7.4	0.147	11.1	0.98
1.85	0.390	5.15	3.19	0.0404	0.0370	0.211	7.5	0.145	11.6	0.96
1.90	0.401	5.10	3.17	0.0419	0.0384	0.211	7.4	0.147	10.9	0.98
1.95	0.411	5.05	3.15	0.0434	0.0397	0.213	7.6	0.152	11.9	1.01
2.00	0.422	5.00	3.14	0.0450	0.0411	0.203	7.9	0.142	11.4	0.93
2.05	0.433	4.95	3.12	0.0466	0.0425	0.212	7.6	0.157	12.5	1.03
2.10	0.443	4.90	3.10	0.0482	0.0440	0.217	7.5	0.164	12.3	1.07
2.15	0.454	4.85	3.09	0.0498	0.0454	0.196	4.7	0.139	10.3	0.90
2.20	0.464	4.80	3.07	0.0515	0.0469	0.196	5.6	0.141	8.2	0.91
2.25	0.475	4.75	3.05	0.0533	0.0485	0.198	5.7	0.145	10.1	0.93
2.30	0.485	4.70	3.04	0.0550	0.0500	0.210	5.6	0.163	8.9	1.05
2.35	0.496	4.65	3.02	0.0568	0.0516	0.209	5.5	0.163	9.2	1.04
2.40	0.506	4.60	3.00	0.0587	0.0532	0.196	5.7	0.147	9.0	0.93
2.45	0.517	4.55	2.98	0.0605	0.0549	0.200	5.7	0.155	7.9	0.97
2.50	0.527	4.50	2.97	0.0625	0.0566	0.193	5.6	0.146	8.4	0.91
2.55	0.538	4.45	2.95	0.0644	0.0583	0.195	5.6	0.150	7.8	0.93
2.60	0.549	4.40	2.93	0.0664	0.0600	0.190	5.8	0.144	7.7	0.89
2.65	0.559	4.35	2.91	0.0685	0.0618	0.195	5.8	0.153	8.7	0.94
2.70	0.570	4.30	2.89	0.0706	0.0637	0.198	5.7	0.157	8.4	0.96
2.75	0.580	4.25	2.88	0.0728	0.0655	0.203	5.5	0.164	8.2	0.99
2.80	0.591	4.20	2.86	0.0750	0.0674	0.189	5.8	0.146	8.9	0.88
2.85	0.601	4.15	2.84	0.0772	0.0694	0.194	5.6	0.154	8.6	0.92
2.90	0.612	4.10	2.82	0.0795	0.0714	0.198	5.8	0.160	7.2	0.95

Table IV.a Deuterium E$_1$ = 7.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.622	4.05	2.80	0.0819	0.0734	0.194	5.7	0.155	8.2	0.91
3.00	0.633	4.00	2.78	0.0843	0.0755	0.205	5.5	0.171	8.8	0.99
3.05	0.644	3.95	2.77	0.0868	0.0776	0.209	5.3	0.177	7.5	1.02
3.10	0.654	3.90	2.75	0.0894	0.0798	0.196	5.7	0.160	8.8	0.91
3.15	0.665	3.85	2.73	0.0920	0.0820	0.197	4.2	0.162	6.0	0.91
3.20	0.675	3.80	2.71	0.0947	0.0843	0.202	6.3	0.170	9.8	0.95
3.25	0.686	3.75	2.69	0.0974	0.0866	0.213	5.9	0.184	7.1	1.02
3.30	0.696	3.70	2.67	0.1003	0.0890	0.200	6.1	0.168	8.1	0.92
3.35	0.707	3.65	2.65	0.1032	0.0914	0.218	5.8	0.192	7.8	1.04
3.40	0.717	3.60	2.63	0.1062	0.0939	0.210	5.9	0.181	9.6	0.98
3.45	0.728	3.55	2.61	0.1093	0.0965	0.197	6.4	0.164	8.4	0.88
3.50	0.738	3.50	2.59	0.1124	0.0991	0.204	6.1	0.175	7.4	0.92
3.55	0.749	3.45	2.57	0.1157	0.1018	0.195	6.3	0.163	7.6	0.85
3.60	0.760	3.40	2.55	0.1191	0.1046	0.204	6.1	0.175	9.1	0.90
3.65	0.770	3.35	2.53	0.1225	0.1075	0.209	6.2	0.182	8.5	0.93
3.70	0.781	3.30	2.51	0.1261	0.1104	0.214	5.9	0.189	9.2	0.95
3.75	0.791	3.25	2.49	0.1297	0.1134	0.229	5.9	0.209	6.7	1.04
3.80	0.802	3.20	2.47	0.1335	0.1164	0.216	6.1	0.192	8.0	0.94
3.85	0.812	3.15	2.45	0.1374	0.1196	0.220	5.8	0.197	6.9	0.96
3.90	0.823	3.10	2.42	0.1415	0.1229	0.220	6.1	0.198	6.8	0.95
3.95	0.833	3.05	2.40	0.1456	0.1262	0.220	6.0	0.199	7.8	0.94
4.00	0.844	3.00	2.38	0.1499	0.1296	0.229	6.0	0.210	6.7	0.99
4.05	0.855	2.95	2.36	0.1544	0.1332	0.219	5.9	0.197	8.6	0.91
4.10	0.865	2.90	2.34	0.1590	0.1368	0.244	5.9	0.232	7.7	1.06
4.15	0.876	2.85	2.31	0.1637	0.1406	0.233	5.8	0.216	6.3	0.98
4.20	0.886	2.80	2.29	0.1687	0.1445	0.245	5.7	0.234	6.5	1.04
4.25	0.897	2.75	2.27	0.1738	0.1484	0.237	5.9	0.223	7.3	0.98
4.30	0.907	2.70	2.24	0.1791	0.1526	0.236	5.9	0.222	6.6	0.96
4.35	0.918	2.65	2.22	0.1846	0.1568	0.240	5.8	0.227	7.4	0.98
4.40	0.928	2.60	2.20	0.1903	0.1612	0.248	5.6	0.239	6.8	1.01
4.45	0.939	2.55	2.17	0.1962	0.1657	0.249	5.6	0.241	7.0	1.01
4.50	0.949	2.50	2.15	0.2024	0.1704	0.260	5.5	0.256	6.3	1.06
4.55	0.960	2.45	2.13	0.2088	0.1753	0.242	5.6	0.232	7.6	0.95
4.60	0.971	2.40	2.10	0.2155	0.1803	0.243	5.5	0.234	5.9	0.94

Table IV.b Beryllium E_1 = 3.0 (GeV) Θ = 9.96°

E_3 (GeV)	Q^2 (GeV²)	ν (GeV)	W (GeV)	x	x'	σ_r ($\frac{\mu b}{GeV\ sr}$)	$\Delta\sigma_r$ (%)	σ ($\frac{\mu b}{GeV\ sr}$)	$\Delta\sigma$ (%)	$\frac{A_{eff}}{A}$
0.60	0.054	2.40	2.31	0.0120	0.0101	1.859	2.8			
0.65	0.059	2.35	2.29	0.0133	0.0111	1.737	2.8			
0.70	0.063	2.30	2.27	0.0147	0.0122	1.582	2.9			
0.75	0.068	2.25	2.24	0.0161	0.0133	1.477	2.9	0.056	156.3	0.08
0.80	0.072	2.20	2.22	0.0175	0.0144	1.399	2.9	0.188	38.9	0.26
0.85	0.077	2.15	2.20	0.0191	0.0156	1.345	2.1	0.305	14.4	0.41
0.90	0.081	2.10	2.18	0.0207	0.0169	1.335	2.9	0.438	12.6	0.57
0.95	0.086	2.05	2.15	0.0223	0.0182	1.281	2.9	0.490	9.3	0.62
1.00	0.090	2.00	2.13	0.0241	0.0195	1.303	2.9	0.611	7.2	0.75
1.05	0.095	1.95	2.11	0.0259	0.0209	1.306	2.9	0.690	6.6	0.82
1.10	0.099	1.90	2.08	0.0279	0.0224	1.274	2.9	0.710	7.4	0.82
1.15	0.104	1.85	2.06	0.0300	0.0239	1.245	3.0	0.721	6.8	0.80
1.20	0.109	1.80	2.04	0.0321	0.0255	1.322	2.6	0.851	8.9	0.91
1.25	0.113	1.75	2.01	0.0344	0.0271	1.411	4.0	0.988	9.6	1.02
1.30	0.118	1.70	1.99	0.0369	0.0289	1.474	4.0	1.085	8.5	
1.35	0.122	1.65	1.96	0.0394	0.0307	1.546	4.0	1.186	6.7	
1.40	0.127	1.60	1.94	0.0422	0.0326	1.546	4.0	1.193	7.2	
1.45	0.131	1.55	1.91	0.0451	0.0346	1.446	3.5	1.070	5.4	
1.50	0.136	1.50	1.89	0.0482	0.0367	1.571	3.5	1.222	7.6	
1.55	0.140	1.45	1.86	0.0515	0.0389	1.595	3.6	1.244	6.6	
1.60	0.145	1.40	1.83	0.0551	0.0412	1.670	3.5	1.325	6.3	
1.65	0.149	1.35	1.81	0.0589	0.0437	1.694	3.6	1.338	7.0	
1.70	0.154	1.30	1.78	0.0630	0.0463	1.799	5.7	1.451	11.0	
1.75	0.158	1.25	1.75	0.0675	0.0491	1.921	5.7	1.583	9.8	
1.80	0.163	1.20	1.72	0.0723	0.0520	1.985	5.5	1.640	9.7	
1.85	0.167	1.15	1.69	0.0775	0.0551	2.116	5.3	1.781	8.0	
1.90	0.172	1.10	1.67	0.0832	0.0583	2.103	3.1	1.741	7.0	
1.95	0.176	1.05	1.64	0.0895	0.0619	2.348	3.0	2.027	8.2	
2.00	0.181	1.00	1.60	0.0964	0.0656	2.488	2.9	2.182	6.3	
2.05	0.185	0.95	1.57	0.1040	0.0696	2.611	2.9	2.315	5.3	
2.10	0.190	0.90	1.54	0.1124	0.0739	2.680	2.8	2.383	5.5	
2.15	0.194	0.85	1.51	0.1219	0.0785	2.835	2.8	2.561	6.9	
2.20	0.199	0.80	1.48	0.1325	0.0835	3.078	2.4	2.844	5.5	
2.25	0.203	0.75	1.44	0.1446	0.0889	3.164	2.4	2.914	4.0	
2.30	0.208	0.70	1.41	0.1583	0.0948	3.238	2.4	2.949	5.4	
2.35	0.213	0.65	1.37	0.1742	0.1012	3.488	2.3	3.205	8.9	
2.40	0.217	0.60	1.34	0.1927	0.1082	4.050	2.2	3.881	9.3	
2.45	0.222	0.55	1.30	0.2146	0.1158	4.583	2.1	4.578	8.3	
2.50	0.226	0.50	1.26	0.2409	0.1243	5.177	2.0	5.428	6.1	
2.55	0.231	0.45	1.22	0.2731	0.1337	5.482	2.0	5.936	2.4	
2.60	0.235	0.40	1.18	0.3132	0.1442	5.034	2.0	5.392	5.0	
2.65	0.240	0.35	1.14	0.3648	0.1559	4.816	2.1	4.966	4.7	
2.70	0.244	0.30	1.10	0.4337	0.1692	4.496	2.2	4.313	10.1	
2.75	0.249	0.25	1.05	0.5300	0.1843	6.159	1.9	6.450	20.2	
2.80	0.253	0.20	1.00	0.6745	0.2016	9.226	1.7	10.953	9.7	
2.85	0.258	0.15	0.95	0.9154	0.2218	9.782	1.6	12.409	8.1	
2.90	0.262	0.10	0.90	1.3971	0.2455	5.854	1.9	7.622	27.2	

Table IV.b Beryllium E_1 = 5.0 (GeV) Θ = 9.96°

E_3 (GeV)	Q^2 (GeV²)	ν (GeV)	W (GeV)	x	x'	σ_r ($\frac{\mu b}{GeV\ sr}$)	$\Delta\sigma_r$ (%)	σ ($\frac{\mu b}{GeV\ sr}$)	$\Delta\sigma$ (%)	$\frac{A_{eff}}{A}$
0.55	0.083	4.45	3.02	0.0099	0.0090	1.417	3.4			
0.60	0.090	4.40	3.01	0.0110	0.0099	1.177	3.7			
0.65	0.098	4.35	2.99	0.0120	0.0108	1.061	3.7			
0.70	0.105	4.30	2.97	0.0131	0.0118	0.972	3.8			
0.75	0.113	4.25	2.96	0.0142	0.0128	0.743	5.3			
0.80	0.121	4.20	2.94	0.0153	0.0138	0.730	5.4	0.103	58.3	0.37
0.85	0.128	4.15	2.92	0.0164	0.0148	0.660	5.7	0.128	47.4	0.46
0.90	0.136	4.10	2.90	0.0176	0.0158	0.637	5.7	0.190	20.9	0.68
0.95	0.143	4.05	2.89	0.0188	0.0169	0.647	5.7	0.275	18.9	0.98
1.00	0.151	4.00	2.87	0.0201	0.0180	0.577	6.1	0.248	25.5	0.88
1.05	0.158	3.95	2.85	0.0213	0.0191	0.536	4.9	0.245	19.0	0.87
1.10	0.166	3.90	2.83	0.0227	0.0202	0.497	7.8	0.237	25.1	0.83
1.15	0.173	3.85	2.82	0.0240	0.0214	0.453	8.3	0.215	25.6	0.75
1.20	0.181	3.80	2.80	0.0254	0.0226	0.427	8.2	0.210	18.0	0.73
1.25	0.188	3.75	2.78	0.0268	0.0238	0.442	8.7	0.251	15.8	0.87
1.30	0.196	3.70	2.76	0.0282	0.0250	0.421	8.4	0.244	15.9	0.84
1.35	0.203	3.65	2.74	0.0297	0.0263	0.455	7.5	0.302	12.3	1.03
1.40	0.211	3.60	2.72	0.0312	0.0276	0.408	8.8	0.255	17.1	0.86
1.45	0.219	3.55	2.71	0.0328	0.0290	0.425	8.7	0.287	13.4	0.96
1.50	0.226	3.50	2.69	0.0344	0.0304	0.414	4.5	0.282	7.5	0.93
1.55	0.234	3.45	2.67	0.0361	0.0318	0.435	2.9	0.316	6.9	1.03
1.60	0.241	3.40	2.65	0.0378	0.0332	0.450	2.9	0.341	4.9	1.10
1.65	0.249	3.35	2.63	0.0396	0.0347	0.419	3.0	0.307	7.4	0.97
1.70	0.256	3.30	2.61	0.0414	0.0362	0.409	3.0	0.298	4.2	0.93
1.75	0.264	3.25	2.59	0.0432	0.0378	0.420	3.0	0.316	4.8	0.97
1.80	0.271	3.20	2.57	0.0452	0.0394	0.419	3.0	0.317	4.8	0.96
1.85	0.279	3.15	2.55	0.0472	0.0411	0.431	3.0	0.335	5.4	1.00
1.90	0.286	3.10	2.53	0.0492	0.0428	0.439	3.0	0.347	4.8	1.02
1.95	0.294	3.05	2.51	0.0513	0.0445	0.445	3.0	0.357	3.8	1.03
2.00	0.301	3.00	2.49	0.0535	0.0463	0.442	3.0	0.353	3.9	1.01
2.05	0.309	2.95	2.47	0.0558	0.0482	0.448	3.0	0.362	5.2	1.02
2.10	0.316	2.90	2.45	0.0582	0.0501	0.419	3.0	0.325	4.3	0.90
2.15	0.324	2.85	2.43	0.0606	0.0520	0.442	3.6	0.356	8.1	0.96
2.20	0.332	2.80	2.41	0.0631	0.0540	0.470	5.7	0.392	7.4	1.04
2.25	0.339	2.75	2.39	0.0657	0.0561	0.451	6.1	0.368	8.3	0.96
2.30	0.347	2.70	2.37	0.0684	0.0583	0.458	6.2	0.377	8.8	0.96
2.35	0.354	2.65	2.34	0.0712	0.0605	0.471	5.9	0.394	9.0	0.99
2.40	0.362	2.60	2.32	0.0741	0.0628	0.488	5.8	0.415	7.2	1.02
2.45	0.369	2.55	2.30	0.0772	0.0652	0.476	5.9	0.400	7.5	0.96
2.50	0.377	2.50	2.28	0.0803	0.0676	0.480	5.9	0.405	7.2	0.96
2.55	0.384	2.45	2.26	0.0836	0.0702	0.473	6.1	0.394	8.5	0.91
2.60	0.392	2.40	2.23	0.0870	0.0728	0.498	6.0	0.425	8.6	0.96
2.65	0.399	2.35	2.21	0.0906	0.0755	0.501	5.8	0.429	9.6	0.95
2.70	0.407	2.30	2.19	0.0943	0.0783	0.546	5.4	0.488	6.9	1.05
2.75	0.414	2.25	2.17	0.0982	0.0812	0.518	5.9	0.450	6.9	0.95
2.80	0.422	2.20	2.14	0.1022	0.0843	0.549	5.8	0.489	6.7	1.01
2.85	0.430	2.15	2.12	0.1065	0.0874	0.522	5.9	0.452	6.9	0.91
2.90	0.437	2.10	2.09	0.1109	0.0907	0.548	5.5	0.485	8.5	0.95

Table IV.b Beryllium E_1 = 5.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.445	2.05	2.07	0.1156	0.0940	0.565	5.6	0.507	6.8	0.97
3.00	0.452	2.00	2.04	0.1205	0.0976	0.558	5.8	0.496	7.4	0.92
3.05	0.460	1.95	2.02	0.1256	0.1013	0.583	5.4	0.527	6.5	0.95
3.10	0.467	1.90	1.99	0.1310	0.1051	0.568	5.5	0.506	6.4	
3.15	0.475	1.85	1.97	0.1367	0.1091	0.580	3.2	0.520	5.2	
3.20	0.482	1.80	1.94	0.1428	0.1133	0.603	3.4	0.550	4.7	
3.25	0.490	1.75	1.92	0.1492	0.1176	0.603	3.3	0.550	4.2	
3.30	0.497	1.70	1.89	0.1559	0.1222	0.615	3.3	0.565	4.4	
3.35	0.505	1.65	1.86	0.1631	0.1270	0.622	3.3	0.575	3.8	
3.40	0.512	1.60	1.84	0.1707	0.1320	0.621	3.2	0.575	4.2	
3.45	0.520	1.55	1.81	0.1788	0.1372	0.639	3.3	0.604	3.6	
3.50	0.527	1.50	1.78	0.1874	0.1427	0.618	3.3	0.577	4.6	
3.55	0.535	1.45	1.75	0.1966	0.1486	0.615	3.3	0.573	5.5	
3.60	0.543	1.40	1.72	0.2065	0.1547	0.662	3.2	0.638	5.3	
3.65	0.550	1.35	1.69	0.2171	0.1611	0.665	3.2	0.644	3.6	
3.70	0.558	1.30	1.66	0.2286	0.1680	0.670	3.2	0.653	4.4	
3.75	0.565	1.25	1.63	0.2409	0.1752	0.695	3.1	0.690	4.0	
3.80	0.573	1.20	1.60	0.2543	0.1828	0.693	3.2	0.692	4.1	
3.85	0.580	1.15	1.57	0.2689	0.1910	0.721	3.1	0.735	3.6	
3.90	0.588	1.10	1.54	0.2847	0.1996	0.709	3.1	0.723	3.5	
3.95	0.595	1.05	1.50	0.3021	0.2088	0.736	3.1	0.763	4.8	
4.00	0.603	1.00	1.47	0.3212	0.2187	0.654	3.2	0.655	4.4	
4.05	0.610	0.95	1.43	0.3424	0.2292	0.704	3.2	0.724	5.8	
4.10	0.618	0.90	1.40	0.3659	0.2405	0.732	3.1	0.763	4.1	
4.15	0.625	0.85	1.36	0.3921	0.2527	0.667	3.2	0.674	3.4	
4.20	0.633	0.80	1.32	0.4216	0.2658	0.738	3.1	0.777	3.7	
4.25	0.641	0.75	1.28	0.4551	0.2800	0.690	3.2	0.721	3.4	
4.30	0.648	0.70	1.24	0.4933	0.2954	0.748	3.0	0.810	3.2	
4.35	0.656	0.65	1.20	0.5374	0.3122	0.677	3.1	0.724	5.1	
4.40	0.663	0.60	1.16	0.5889	0.3305	0.684	3.1	0.738	3.1	
4.45	0.671	0.55	1.11	0.6497	0.3507	0.671	3.1	0.725	4.8	
4.50	0.678	0.50	1.07	0.7227	0.3729	0.737	3.0	0.831	6.3	
4.55	0.686	0.45	1.02	0.8120	0.3976	0.791	2.9	0.940	4.8	
4.60	0.693	0.40	0.97	0.9235	0.4250	0.648	3.1	0.797	11.5	

Table IV.b Beryllium E_1 = 6.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.099	5.45	3.32	0.0097	0.0090	1.215	3.9			
0.60	0.109	5.40	3.30	0.0107	0.0099	0.972	4.3			
0.65	0.118	5.35	3.29	0.0117	0.0108	0.850	4.6			
0.70	0.127	5.30	3.27	0.0127	0.0117	0.800	4.7			
0.75	0.136	5.25	3.26	0.0138	0.0126	0.604	3.4			
0.80	0.145	5.20	3.24	0.0148	0.0136	0.547	3.5	0.028	173.8	0.14
0.85	0.154	5.15	3.22	0.0159	0.0146	0.487	3.5	0.046	75.9	0.23
0.90	0.163	5.10	3.21	0.0170	0.0156	0.477	3.5	0.108	19.4	0.54
0.95	0.172	5.05	3.19	0.0181	0.0166	0.470	3.5	0.161	14.0	0.80
1.00	0.181	5.00	3.18	0.0193	0.0176	0.452	3.6	0.190	20.0	0.95
1.05	0.190	4.95	3.16	0.0204	0.0187	0.383	2.5	0.143	22.7	0.72
1.10	0.199	4.90	3.14	0.0216	0.0197	0.361	3.4	0.149	17.9	0.75
1.15	0.208	4.85	3.13	0.0229	0.0208	0.324	3.5	0.131	16.0	0.66
1.20	0.217	4.80	3.11	0.0241	0.0219	0.322	3.5	0.152	9.2	0.76
1.25	0.226	4.75	3.09	0.0254	0.0231	0.313	3.5	0.160	6.9	0.80
1.30	0.235	4.70	3.08	0.0267	0.0242	0.322	3.5	0.187	6.1	0.93
1.35	0.244	4.65	3.06	0.0280	0.0254	0.312	3.5	0.188	7.5	0.93
1.40	0.253	4.60	3.04	0.0293	0.0266	0.310	3.5	0.196	6.1	0.97
1.45	0.262	4.55	3.03	0.0307	0.0278	0.317	3.4	0.215	7.3	1.06
1.50	0.271	4.50	3.01	0.0321	0.0291	0.290	2.6	0.189	7.0	0.93
1.55	0.280	4.45	2.99	0.0336	0.0304	0.294	3.8	0.201	8.7	0.98
1.60	0.289	4.40	2.97	0.0350	0.0317	0.266	4.0	0.170	11.9	0.82
1.65	0.298	4.35	2.96	0.0366	0.0330	0.256	4.1	0.163	8.6	0.78
1.70	0.307	4.30	2.94	0.0381	0.0344	0.251	4.1	0.161	8.3	0.77
1.75	0.316	4.25	2.92	0.0397	0.0357	0.268	4.0	0.187	9.8	0.89
1.80	0.326	4.20	2.90	0.0413	0.0372	0.281	3.9	0.207	7.6	0.98
1.85	0.335	4.15	2.89	0.0430	0.0386	0.287	3.9	0.218	5.3	1.02
1.90	0.344	4.10	2.87	0.0447	0.0401	0.283	3.9	0.215	6.0	1.00
1.95	0.353	4.05	2.85	0.0464	0.0416	0.280	4.0	0.214	5.7	0.99
2.00	0.362	4.00	2.83	0.0482	0.0431	0.279	4.0	0.214	6.3	0.95
2.05	0.371	3.95	2.81	0.0500	0.0447	0.271	4.0	0.206	5.6	0.93
2.10	0.380	3.90	2.80	0.0519	0.0463	0.281	4.0	0.220	5.1	0.99
2.15	0.389	3.85	2.78	0.0538	0.0480	0.272	3.0	0.210	7.7	0.93
2.20	0.398	3.80	2.76	0.0558	0.0497	0.249	4.5	0.181	6.2	0.80
2.25	0.407	3.75	2.74	0.0578	0.0514	0.271	4.4	0.212	5.9	0.92
2.30	0.416	3.70	2.72	0.0599	0.0532	0.252	4.5	0.187	8.0	0.81
2.35	0.425	3.65	2.70	0.0621	0.0550	0.257	4.5	0.195	9.2	0.83
2.40	0.434	3.60	2.68	0.0643	0.0568	0.278	4.3	0.223	7.7	0.94
2.45	0.443	3.55	2.66	0.0665	0.0587	0.237	4.7	0.170	10.6	0.71
2.50	0.452	3.50	2.65	0.0688	0.0607	0.250	4.6	0.188	12.8	0.77
2.55	0.461	3.45	2.63	0.0712	0.0627	0.287	4.3	0.238	8.4	0.97
2.60	0.470	3.40	2.61	0.0737	0.0648	0.281	4.4	0.230	5.5	0.93
2.65	0.479	3.35	2.59	0.0762	0.0669	0.285	4.3	0.236	6.6	0.94
2.70	0.488	3.30	2.57	0.0789	0.0690	0.293	4.3	0.248	5.4	0.97
2.75	0.497	3.25	2.55	0.0815	0.0713	0.282	4.4	0.232	7.7	0.90
2.80	0.506	3.20	2.53	0.0843	0.0735	0.316	4.2	0.278	6.5	1.06
2.85	0.515	3.15	2.51	0.0872	0.0759	0.301	4.3	0.258	6.4	0.97
2.90	0.524	3.10	2.48	0.0902	0.0783	0.331	4.1	0.298	4.9	1.11

Table IV.b Beryllium E_1 = 6.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.534	3.05	2.46	0.0932	0.0808	0.305	4.3	0.264	5.6	0.96
3.00	0.543	3.00	2.44	0.0964	0.0833	0.323	4.2	0.289	6.0	1.04
3.05	0.552	2.95	2.42	0.0996	0.0860	0.321	4.2	0.285	5.4	1.01
3.10	0.561	2.90	2.40	0.1030	0.0887	0.315	4.2	0.277	5.9	0.97
3.15	0.570	2.85	2.38	0.1065	0.0915	0.308	2.8	0.268	3.6	0.92
3.20	0.579	2.80	2.36	0.1101	0.0943	0.311	3.6	0.271	6.2	0.92
3.25	0.588	2.75	2.34	0.1139	0.0973	0.330	3.5	0.297	5.1	0.99
3.30	0.597	2.70	2.31	0.1178	0.1004	0.325	3.5	0.290	5.4	0.95
3.35	0.606	2.65	2.29	0.1218	0.1035	0.313	3.6	0.273	5.8	0.88
3.40	0.615	2.60	2.27	0.1260	0.1068	0.343	3.5	0.314	3.9	1.00
3.45	0.624	2.55	2.25	0.1304	0.1101	0.312	3.6	0.271	6.7	0.84
3.50	0.633	2.50	2.22	0.1349	0.1136	0.315	3.6	0.276	5.5	0.84
3.55	0.642	2.45	2.20	0.1396	0.1172	0.326	3.6	0.291	5.4	0.87
3.60	0.651	2.40	2.18	0.1446	0.1209	0.331	3.6	0.297	5.2	0.88
3.65	0.660	2.35	2.15	0.1497	0.1248	0.341	3.5	0.310	4.1	0.90
3.70	0.669	2.30	2.13	0.1550	0.1288	0.328	3.6	0.292	6.9	0.83
3.75	0.678	2.25	2.10	0.1606	0.1329	0.375	3.4	0.357	6.9	1.00
3.80	0.687	2.20	2.08	0.1665	0.1372	0.375	3.4	0.357	4.8	0.98
3.85	0.696	2.15	2.05	0.1726	0.1417	0.393	3.3	0.381	5.7	1.02
3.90	0.705	2.10	2.03	0.1790	0.1463	0.411	3.2	0.407	3.8	1.07
3.95	0.714	2.05	2.00	0.1857	0.1511	0.401	3.3	0.394	4.7	1.02
4.00	0.723	2.00	1.98	0.1927	0.1561	0.389	3.3	0.378	4.0	
4.05	0.732	1.95	1.95	0.2002	0.1613	0.410	3.3	0.407	6.7	
4.10	0.741	1.90	1.92	0.2080	0.1668	0.445	3.2	0.457	4.0	
4.15	0.751	1.85	1.90	0.2162	0.1725	0.393	3.3	0.386	4.1	
4.20	0.760	1.80	1.87	0.2249	0.1784	0.456	3.1	0.477	4.8	
4.25	0.769	1.75	1.84	0.2341	0.1846	0.428	3.2	0.440	4.6	
4.30	0.778	1.70	1.81	0.2438	0.1910	0.430	3.2	0.450	3.6	
4.35	0.787	1.65	1.79	0.2541	0.1978	0.437	3.2	0.462	3.5	
4.40	0.796	1.60	1.76	0.2650	0.2049	0.440	3.2	0.467	3.4	
4.45	0.805	1.55	1.73	0.2767	0.2124	0.430	3.2	0.456	3.3	
4.50	0.814	1.50	1.70	0.2891	0.2202	0.444	3.2	0.479	3.1	
4.55	0.823	1.45	1.67	0.3024	0.2285	0.433	3.2	0.467	5.5	
4.60	0.832	1.40	1.64	0.3167	0.2372	0.397	3.3	0.421	7.4	

Table IV.b Beryllium E_1 = 7.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.116	6.45	3.59	0.0096	0.0089	1.149	3.3	0.032	463.0	0.19
0.60	0.127	6.40	3.57	0.0105	0.0098	0.933	3.5	0.025	504.4	0.15
0.65	0.137	6.35	3.56	0.0115	0.0107	0.781	3.8	0.037	238.6	0.23
0.70	0.148	6.30	3.54	0.0125	0.0116	0.696	3.9	0.089	103.4	0.55
0.75	0.158	6.25	3.53	0.0135	0.0126	0.522	5.0	0.002	*****	0.01
0.80	0.169	6.20	3.51	0.0145	0.0135	0.470	5.3	0.035	143.5	0.22
0.85	0.179	6.15	3.50	0.0155	0.0144	0.420	5.5	0.052	75.9	0.34
0.90	0.190	6.10	3.48	0.0166	0.0154	0.403	5.5	0.095	38.7	0.62
0.95	0.200	6.05	3.47	0.0177	0.0164	0.362	5.6	0.096	33.3	0.63
1.00	0.211	6.00	3.45	0.0187	0.0174	0.355	5.4	0.132	24.9	0.87
1.05	0.222	5.95	3.44	0.0198	0.0184	0.307	3.7	0.106	28.8	0.70
1.10	0.232	5.90	3.42	0.0210	0.0194	0.279	4.4	0.100	21.1	0.66
1.15	0.243	5.85	3.41	0.0221	0.0205	0.272	4.3	0.116	11.7	0.77
1.20	0.253	5.80	3.39	0.0233	0.0215	0.272	4.3	0.135	12.4	0.90
1.25	0.264	5.75	3.38	0.0244	0.0226	0.252	4.3	0.126	13.3	0.84
1.30	0.274	5.70	3.36	0.0256	0.0237	0.248	4.4	0.136	9.1	0.91
1.35	0.285	5.65	3.35	0.0269	0.0248	0.246	4.4	0.145	10.8	0.97
1.40	0.295	5.60	3.33	0.0281	0.0259	0.229	4.6	0.132	10.3	0.89
1.45	0.306	5.55	3.31	0.0294	0.0271	0.233	4.4	0.147	7.9	0.99
1.50	0.316	5.50	3.30	0.0307	0.0283	0.223	3.1	0.142	7.4	0.95
1.55	0.327	5.45	3.28	0.0320	0.0294	0.219	4.2	0.142	7.4	0.96
1.60	0.338	5.40	3.27	0.0333	0.0307	0.217	4.2	0.146	6.7	0.98
1.65	0.348	5.35	3.25	0.0347	0.0319	0.221	4.2	0.156	10.2	1.04
1.70	0.359	5.30	3.24	0.0361	0.0331	0.191	4.5	0.120	11.6	0.81
1.75	0.369	5.25	3.22	0.0375	0.0344	0.200	4.4	0.135	8.7	0.90
1.80	0.380	5.20	3.20	0.0389	0.0357	0.203	4.3	0.144	7.9	0.96
1.85	0.390	5.15	3.19	0.0404	0.0370	0.210	4.4	0.156	6.2	1.03
1.90	0.401	5.10	3.17	0.0419	0.0384	0.202	4.4	0.147	7.2	0.98
1.95	0.411	5.05	3.15	0.0434	0.0397	0.203	4.4	0.151	7.0	1.00
2.00	0.422	5.00	3.14	0.0450	0.0411	0.195	4.4	0.143	8.6	0.94
2.05	0.433	4.95	3.12	0.0466	0.0425	0.188	4.5	0.137	7.4	0.90
2.10	0.443	4.90	3.10	0.0482	0.0440	0.201	4.4	0.155	6.2	1.02
2.15	0.454	4.85	3.09	0.0498	0.0454	0.191	3.3	0.144	4.7	0.94
2.20	0.464	4.80	3.07	0.0515	0.0469	0.200	4.7	0.157	7.3	1.02
2.25	0.475	4.75	3.05	0.0533	0.0485	0.200	4.7	0.158	6.5	1.02
2.30	0.485	4.70	3.04	0.0550	0.0500	0.204	4.6	0.165	6.0	1.06
2.35	0.496	4.65	3.02	0.0568	0.0516	0.201	4.7	0.164	8.3	1.05
2.40	0.506	4.60	3.00	0.0587	0.0532	0.188	4.9	0.146	7.9	0.93
2.45	0.517	4.55	2.98	0.0605	0.0549	0.192	4.8	0.153	6.7	0.97
2.50	0.527	4.50	2.97	0.0625	0.0566	0.192	4.8	0.154	6.2	0.97
2.55	0.538	4.45	2.95	0.0644	0.0583	0.194	4.7	0.158	5.9	0.98
2.60	0.549	4.40	2.93	0.0664	0.0600	0.192	4.8	0.157	7.1	0.97
2.65	0.559	4.35	2.91	0.0685	0.0618	0.201	4.8	0.170	6.6	1.05
2.70	0.570	4.30	2.89	0.0706	0.0637	0.199	4.7	0.167	7.0	1.02
2.75	0.580	4.25	2.88	0.0728	0.0655	0.192	4.8	0.159	6.6	0.97
2.80	0.591	4.20	2.86	0.0750	0.0674	0.193	4.8	0.162	8.6	0.97
2.85	0.601	4.15	2.84	0.0772	0.0694	0.211	4.7	0.186	5.6	1.11
2.90	0.612	4.10	2.82	0.0795	0.0714	0.192	4.9	0.161	6.8	0.95

Table IV.b Beryllium E_1 = 7.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x′	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.622	4.05	2.80	0.0819	0.0734	0.205	4.8	0.178	6.0	1.05
3.00	0.633	4.00	2.78	0.0843	0.0755	0.195	4.8	0.166	6.0	0.97
3.05	0.644	3.95	2.77	0.0868	0.0776	0.202	4.7	0.175	5.7	1.01
3.10	0.654	3.90	2.75	0.0894	0.0798	0.193	4.8	0.164	6.2	0.94
3.15	0.665	3.85	2.73	0.0920	0.0820	0.198	3.6	0.171	5.3	0.97
3.20	0.675	3.80	2.71	0.0947	0.0843	0.201	5.2	0.175	6.0	0.99
3.25	0.686	3.75	2.69	0.0974	0.0866	0.199	5.4	0.173	8.3	0.96
3.30	0.696	3.70	2.67	0.1003	0.0890	0.216	5.1	0.196	5.8	1.08
3.35	0.707	3.65	2.65	0.1032	0.0914	0.197	5.2	0.171	8.8	0.93
3.40	0.717	3.60	2.63	0.1062	0.0939	0.197	5.2	0.171	7.0	0.92
3.45	0.728	3.55	2.61	0.1093	0.0965	0.205	5.1	0.181	5.9	0.97
3.50	0.738	3.50	2.59	0.1124	0.0991	0.196	5.2	0.170	6.0	0.90
3.55	0.749	3.45	2.57	0.1157	0.1018	0.204	5.2	0.181	8.2	0.95
3.60	0.760	3.40	2.55	0.1191	0.1046	0.213	5.0	0.193	6.8	1.00
3.65	0.770	3.35	2.53	0.1225	0.1075	0.214	5.1	0.195	6.4	1.00
3.70	0.781	3.30	2.51	0.1261	0.1104	0.219	4.9	0.202	6.3	1.02
3.75	0.791	3.25	2.49	0.1297	0.1134	0.222	5.0	0.206	6.2	1.03
3.80	0.802	3.20	2.47	0.1335	0.1164	0.212	5.3	0.192	6.6	0.95
3.85	0.812	3.15	2.45	0.1374	0.1196	0.228	5.0	0.214	6.0	1.05
3.90	0.823	3.10	2.42	0.1415	0.1229	0.218	5.1	0.201	7.7	0.97
3.95	0.833	3.05	2.40	0.1456	0.1262	0.211	5.0	0.191	5.9	0.91
4.00	0.844	3.00	2.38	0.1499	0.1296	0.221	5.0	0.206	6.6	0.97
4.05	0.855	2.95	2.36	0.1544	0.1332	0.221	5.2	0.206	6.9	0.96
4.10	0.865	2.90	2.34	0.1590	0.1368	0.232	5.0	0.221	5.9	1.02
4.15	0.876	2.85	2.31	0.1637	0.1406	0.227	5.1	0.214	7.6	0.97
4.20	0.886	2.80	2.29	0.1687	0.1445	0.251	4.8	0.248	6.2	1.11
4.25	0.897	2.75	2.27	0.1738	0.1484	0.241	4.8	0.234	6.3	1.04
4.30	0.907	2.70	2.24	0.1791	0.1526	0.238	4.8	0.230	5.1	1.01
4.35	0.918	2.65	2.22	0.1846	0.1568	0.242	4.9	0.236	7.3	1.02
4.40	0.928	2.60	2.20	0.1903	0.1612	0.259	4.9	0.260	6.0	1.11
4.45	0.939	2.55	2.17	0.1962	0.1657	0.230	5.0	0.220	7.1	0.93
4.50	0.949	2.50	2.15	0.2024	0.1704	0.243	5.1	0.238	6.3	0.99
4.55	0.960	2.45	2.13	0.2088	0.1753	0.241	4.9	0.236	5.6	0.97
4.60	0.971	2.40	2.10	0.2155	0.1803	0.237	4.8	0.231	5.8	0.94

Table IV.b Beryllium II E_1 = 7.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x′	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.116	6.45	3.59	0.0096	0.0089	1.290	3.9			
0.60	0.127	6.40	3.57	0.0105	0.0098	1.033	4.3			
0.65	0.137	6.35	3.56	0.0115	0.0107	0.950	4.3	0.032	306.4	0.20
0.70	0.148	6.30	3.54	0.0125	0.0116	0.802	4.7	0.047	260.0	0.29
0.75	0.158	6.25	3.53	0.0135	0.0126	0.609	3.4			
0.80	0.169	6.20	3.51	0.0145	0.0135	0.564	3.4	0.035	134.2	0.22
0.85	0.179	6.15	3.50	0.0155	0.0144	0.499	3.5	0.054	79.9	0.35
0.90	0.190	6.10	3.48	0.0166	0.0154	0.462	3.6	0.089	42.2	0.58
0.95	0.200	6.05	3.47	0.0177	0.0164	0.416	3.8	0.096	42.5	0.63
1.00	0.211	6.00	3.45	0.0187	0.0174	0.361	4.0	0.080	35.5	0.53
1.05	0.222	5.95	3.44	0.0198	0.0184	0.360	3.0	0.124	13.1	0.82
1.10	0.232	5.90	3.42	0.0210	0.0194	0.339	4.5	0.134	24.0	0.89
1.15	0.243	5.85	3.41	0.0221	0.0205	0.293	4.8	0.102	27.7	0.68
1.20	0.253	5.80	3.39	0.0233	0.0215	0.283	4.9	0.115	14.0	0.77
1.25	0.264	5.75	3.38	0.0244	0.0226	0.284	4.8	0.137	11.1	0.91
1.30	0.274	5.70	3.36	0.0256	0.0237	0.276	4.7	0.145	9.1	0.97
1.35	0.285	5.65	3.35	0.0269	0.0248	0.283	4.6	0.170	7.8	1.14
1.40	0.295	5.60	3.33	0.0281	0.0259	0.276	4.6	0.172	8.1	1.15
1.45	0.306	5.55	3.31	0.0294	0.0271	0.279	4.5	0.187	12.3	1.25
1.50	0.316	5.50	3.30	0.0307	0.0283	0.235	5.0	0.136	15.6	0.91
1.55	0.327	5.45	3.28	0.0320	0.0294	0.241	8.2	0.152	14.1	1.02
1.60	0.338	5.40	3.27	0.0333	0.0307	0.228	8.9	0.141	15.8	0.94
1.65	0.348	5.35	3.25	0.0347	0.0319	0.233	8.7	0.155	13.9	1.04
1.70	0.359	5.30	3.24	0.0361	0.0331	0.223	8.7	0.145	16.5	0.97
1.75	0.369	5.25	3.22	0.0375	0.0344	0.215	9.0	0.139	15.5	0.93
1.80	0.380	5.20	3.20	0.0389	0.0357	0.232	8.4	0.167	12.1	1.11
1.85	0.390	5.15	3.19	0.0404	0.0370	0.218	9.0	0.151	16.4	1.01
1.90	0.401	5.10	3.17	0.0419	0.0384	0.211	8.9	0.146	14.8	0.96
1.95	0.411	5.05	3.15	0.0434	0.0397	0.206	8.6	0.142	13.6	0.94
2.00	0.422	5.00	3.14	0.0450	0.0411	0.205	9.1	0.143	13.5	0.94
2.05	0.433	4.95	3.12	0.0466	0.0425	0.204	9.5	0.144	14.6	0.95
2.10	0.443	4.90	3.10	0.0482	0.0440	0.198	9.3	0.138	13.8	0.91
2.15	0.454	4.85	3.09	0.0498	0.0454	0.201	5.0	0.145	8.6	0.95
2.20	0.464	4.80	3.07	0.0515	0.0469	0.208	4.2	0.157	7.3	1.02
2.25	0.475	4.75	3.05	0.0533	0.0485	0.212	4.2	0.165	6.2	1.07
2.30	0.485	4.70	3.04	0.0550	0.0500	0.203	4.3	0.154	6.1	0.99
2.35	0.496	4.65	3.02	0.0568	0.0516	0.209	4.2	0.165	6.6	1.05
2.40	0.506	4.60	3.00	0.0587	0.0532	0.195	4.4	0.146	7.6	0.93
2.45	0.517	4.55	2.98	0.0605	0.0549	0.199	4.4	0.154	5.9	0.97
2.50	0.527	4.50	2.97	0.0625	0.0566	0.194	4.5	0.148	5.9	0.93
2.55	0.538	4.45	2.95	0.0644	0.0583	0.199	4.4	0.157	5.6	0.98
2.60	0.549	4.40	2.93	0.0664	0.0600	0.194	4.4	0.150	5.8	0.93
2.65	0.559	4.35	2.91	0.0685	0.0618	0.201	4.3	0.161	7.1	0.99
2.70	0.570	4.30	2.89	0.0706	0.0637	0.205	4.3	0.169	5.3	1.03
2.75	0.580	4.25	2.88	0.0728	0.0655	0.201	4.3	0.164	5.9	1.00
2.80	0.591	4.20	2.86	0.0750	0.0674	0.209	4.2	0.176	5.5	1.06
2.85	0.601	4.15	2.84	0.0772	0.0694	0.198	4.5	0.162	7.6	0.97
2.90	0.612	4.10	2.82	0.0795	0.0714	0.195	4.3	0.158	5.7	0.94

Table IV.b Beryllium II E_1 = 7.0 (GeV) θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x′	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.622	4.05	2.80	0.0819	0.0734	0.201	4.3	0.166	5.8	0.98
3.00	0.633	4.00	2.78	0.0843	0.0755	0.200	4.4	0.166	5.3	0.97
3.05	0.644	3.95	2.77	0.0868	0.0776	0.200	4.3	0.167	5.3	0.97
3.10	0.654	3.90	2.75	0.0894	0.0798	0.199	4.4	0.166	5.3	0.95
3.15	0.665	3.85	2.73	0.0920	0.0820	0.201	3.3	0.169	5.8	0.96
3.20	0.675	3.80	2.71	0.0947	0.0843	0.211	4.9	0.185	5.7	1.04
3.25	0.686	3.75	2.69	0.0974	0.0866	0.200	4.9	0.169	7.0	0.94
3.30	0.696	3.70	2.67	0.1003	0.0890	0.203	5.3	0.174	6.4	0.96
3.35	0.707	3.65	2.65	0.1032	0.0914	0.198	5.0	0.167	6.2	0.91
3.40	0.717	3.60	2.63	0.1062	0.0939	0.205	4.9	0.177	6.8	0.96
3.45	0.728	3.55	2.61	0.1093	0.0965	0.206	4.9	0.179	6.1	0.96
3.50	0.738	3.50	2.59	0.1124	0.0991	0.208	4.9	0.183	6.4	0.97
3.55	0.749	3.45	2.57	0.1157	0.1018	0.200	5.1	0.171	6.0	0.89
3.60	0.760	3.40	2.55	0.1191	0.1046	0.209	4.8	0.184	7.5	0.95
3.65	0.770	3.35	2.53	0.1225	0.1075	0.215	4.9	0.194	5.7	0.99
3.70	0.781	3.30	2.51	0.1261	0.1104	0.207	5.1	0.182	7.6	0.92
3.75	0.791	3.25	2.49	0.1297	0.1134	0.202	5.0	0.174	8.0	0.87
3.80	0.802	3.20	2.47	0.1335	0.1164	0.223	4.7	0.206	8.3	1.02
3.85	0.812	3.15	2.45	0.1374	0.1196	0.229	4.7	0.215	5.1	1.05
3.90	0.823	3.10	2.42	0.1415	0.1229	0.224	4.7	0.208	6.9	1.01
3.95	0.833	3.05	2.40	0.1456	0.1262	0.243	4.4	0.237	4.6	1.13
4.00	0.844	3.00	2.38	0.1499	0.1296	0.223	4.8	0.207	5.5	0.98
4.05	0.855	2.95	2.36	0.1544	0.1332	0.246	4.8	0.241	6.5	1.13
4.10	0.865	2.90	2.34	0.1590	0.1368	0.239	4.7	0.231	7.5	1.06
4.15	0.876	2.85	2.31	0.1637	0.1406	0.222	4.8	0.206	5.7	0.94
4.20	0.886	2.80	2.29	0.1687	0.1445	0.234	4.8	0.225	6.0	1.01
4.25	0.897	2.75	2.27	0.1738	0.1484	0.230	4.7	0.219	6.8	0.97
4.30	0.907	2.70	2.24	0.1791	0.1526	0.250	4.8	0.249	5.8	1.09
4.35	0.918	2.65	2.22	0.1846	0.1568	0.239	4.6	0.233	5.5	1.01
4.40	0.928	2.60	2.20	0.1903	0.1612	0.243	4.7	0.239	5.4	1.02
4.45	0.939	2.55	2.17	0.1962	0.1657	0.246	4.7	0.244	5.2	1.03
4.50	0.949	2.50	2.15	0.2024	0.1704	0.247	4.7	0.247	7.7	1.03
4.55	0.960	2.45	2.13	0.2088	0.1753	0.216	4.9	0.202	7.3	0.83
4.60	0.971	2.40	2.10	0.2155	0.1803	0.230	4.8	0.223	8.1	0.91

Table IV.b Beryllium III E_1 = 5.0 (GeV) θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x′	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.083	4.45	3.02	0.0099	0.0090	2.005	2.8			
0.60	0.090	4.40	3.01	0.0110	0.0099	1.698	3.0			
0.65	0.098	4.35	2.99	0.0120	0.0108	1.494	3.2			
0.70	0.105	4.30	2.97	0.0131	0.0118	1.342	3.3			
0.75	0.113	4.25	2.96	0.0142	0.0128	1.013	4.1			
0.80	0.121	4.20	2.94	0.0153	0.0138	0.973	4.3			
0.85	0.128	4.15	2.92	0.0164	0.0148	0.883	4.4	0.054	148.7	0.19
0.90	0.136	4.10	2.90	0.0176	0.0158	0.811	4.5	0.114	57.5	0.41
0.95	0.143	4.05	2.89	0.0188	0.0169	0.766	4.9	0.180	33.8	0.64
1.00	0.151	4.00	2.87	0.0201	0.0180	0.719	5.1	0.221	32.3	0.78
1.05	0.158	3.95	2.85	0.0213	0.0191	0.627	3.2	0.176	29.9	0.62
1.10	0.166	3.90	2.83	0.0227	0.0202	0.588	3.5	0.191	20.3	0.67
1.15	0.173	3.85	2.82	0.0240	0.0214	0.553	3.6	0.198	16.7	0.69
1.20	0.181	3.80	2.80	0.0254	0.0226	0.535	3.6	0.220	9.7	0.77
1.25	0.188	3.75	2.78	0.0268	0.0238	0.545	3.4	0.272	8.1	0.94
1.30	0.196	3.70	2.76	0.0282	0.0250	0.522	3.6	0.271	11.3	0.93
1.35	0.203	3.65	2.74	0.0297	0.0263	0.498	3.7	0.263	9.3	0.90
1.40	0.211	3.60	2.72	0.0312	0.0276	0.498	3.7	0.284	7.3	0.96
1.45	0.219	3.55	2.71	0.0328	0.0290	0.507	3.7	0.315	8.6	1.05
1.50	0.226	3.50	2.69	0.0344	0.0304	0.465	2.8	0.268	7.3	0.88
1.55	0.234	3.45	2.67	0.0361	0.0318	0.482	4.0	0.305	6.8	0.99
1.60	0.241	3.40	2.65	0.0378	0.0332	0.459	4.0	0.282	8.3	0.91
1.65	0.249	3.35	2.63	0.0396	0.0347	0.461	4.0	0.293	7.8	0.93
1.70	0.256	3.30	2.61	0.0414	0.0362	0.440	4.1	0.270	7.0	0.84
1.75	0.264	3.25	2.59	0.0432	0.0378	0.465	4.0	0.312	7.3	0.96
1.80	0.271	3.20	2.57	0.0452	0.0394	0.457	4.1	0.305	6.5	0.93
1.85	0.279	3.15	2.55	0.0472	0.0411	0.469	3.9	0.328	6.9	0.98
1.90	0.286	3.10	2.53	0.0492	0.0428	0.473	4.0	0.337	5.7	0.99
1.95	0.294	3.05	2.51	0.0513	0.0445	0.471	4.1	0.337	6.2	0.98
2.00	0.301	3.00	2.49	0.0535	0.0463	0.480	4.0	0.353	6.2	1.01
2.05	0.309	2.95	2.47	0.0558	0.0482	0.481	4.0	0.357	5.7	1.00
2.10	0.316	2.90	2.45	0.0582	0.0501	0.484	4.0	0.363	6.6	1.00
2.15	0.324	2.85	2.43	0.0606	0.0520	0.463	3.5	0.333	4.9	0.90
2.20	0.332	2.80	2.41	0.0631	0.0540	0.483	5.5	0.364	9.9	0.97
2.25	0.339	2.75	2.39	0.0657	0.0561	0.500	5.4	0.391	8.2	1.02
2.30	0.347	2.70	2.37	0.0684	0.0583	0.503	5.6	0.396	7.3	1.01
2.35	0.354	2.65	2.34	0.0712	0.0605	0.504	5.2	0.399	7.7	1.00
2.40	0.362	2.60	2.32	0.0741	0.0628	0.486	5.5	0.372	7.9	0.91
2.45	0.369	2.55	2.30	0.0772	0.0652	0.494	5.4	0.384	7.6	0.93
2.50	0.377	2.50	2.28	0.0803	0.0676	0.498	5.4	0.389	9.8	0.92
2.55	0.384	2.45	2.26	0.0836	0.0702	0.540	5.5	0.453	9.0	1.05
2.60	0.392	2.40	2.23	0.0870	0.0728	0.541	5.5	0.453	8.3	1.02
2.65	0.399	2.35	2.21	0.0906	0.0755	0.572	5.3	0.501	6.4	1.11
2.70	0.407	2.30	2.19	0.0943	0.0783	0.548	5.4	0.463	7.2	1.00
2.75	0.414	2.25	2.17	0.0982	0.0812	0.556	5.6	0.474	6.6	1.00
2.80	0.422	2.20	2.14	0.1022	0.0843	0.549	5.4	0.462	9.2	0.95
2.85	0.430	2.15	2.12	0.1065	0.0874	0.607	5.1	0.550	7.7	1.10
2.90	0.437	2.10	2.09	0.1109	0.0907	0.595	5.2	0.531	6.8	1.04

Table IV.b Beryllium III E_1 = 5.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.445	2.05	2.07	0.1156	0.0940	0.587	5.4	0.517	6.2	0.99
3.00	0.452	2.00	2.04	0.1205	0.0976	0.593	5.1	0.525	7.1	0.98
3.05	0.460	1.95	2.02	0.1256	0.1013	0.616	5.2	0.559	6.7	1.01
3.10	0.467	1.90	1.99	0.1310	0.1051	0.615	5.2	0.556	7.0	
3.15	0.475	1.85	1.97	0.1367	0.1091	0.587	3.4	0.512	4.5	
3.20	0.482	1.80	1.94	0.1428	0.1133	0.603	4.2	0.536	5.3	
3.25	0.490	1.75	1.92	0.1492	0.1176	0.599	4.3	0.530	4.9	
3.30	0.497	1.70	1.89	0.1559	0.1222	0.601	4.4	0.533	6.1	
3.35	0.505	1.65	1.86	0.1631	0.1270	0.623	4.4	0.568	6.6	
3.40	0.512	1.60	1.84	0.1707	0.1320	0.641	4.1	0.599	5.3	
3.45	0.520	1.55	1.81	0.1788	0.1372	0.644	4.4	0.612	5.1	
3.50	0.527	1.50	1.78	0.1874	0.1427	0.628	4.4	0.588	4.8	
3.55	0.535	1.45	1.75	0.1966	0.1486	0.641	4.4	0.609	5.8	
3.60	0.543	1.40	1.72	0.2065	0.1547	0.656	4.4	0.636	6.3	
3.65	0.550	1.35	1.69	0.2171	0.1611	0.686	4.3	0.686	4.4	
3.70	0.558	1.30	1.66	0.2286	0.1680	0.659	4.3	0.648	5.5	
3.75	0.565	1.25	1.63	0.2409	0.1752	0.716	4.1	0.743	5.3	
3.80	0.573	1.20	1.60	0.2543	0.1828	0.700	4.3	0.726	4.2	
3.85	0.580	1.15	1.57	0.2689	0.1910	0.718	4.1	0.761	3.9	
3.90	0.588	1.10	1.54	0.2847	0.1996	0.702	4.2	0.743	4.3	
3.95	0.595	1.05	1.50	0.3021	0.2088	0.709	4.4	0.761	4.6	
4.00	0.603	1.00	1.47	0.3212	0.2187	0.686	4.2	0.730	4.4	
4.05	0.610	0.95	1.43	0.3424	0.2292	0.696	4.2	0.747	4.2	
4.10	0.618	0.90	1.40	0.3659	0.2405	0.694	4.4	0.746	4.7	
4.15	0.625	0.85	1.36	0.3921	0.2527	0.713	4.3	0.778	5.6	
4.20	0.633	0.80	1.32	0.4216	0.2658	0.748	4.3	0.842	4.2	
4.25	0.641	0.75	1.28	0.4551	0.2800	0.727	4.3	0.822	4.2	
4.30	0.648	0.70	1.24	0.4933	0.2954	0.734	4.2	0.852	5.3	
4.35	0.656	0.65	1.20	0.5374	0.3122	0.669	4.5	0.764	6.3	
4.40	0.663	0.60	1.16	0.5889	0.3305	0.664	4.4	0.765	3.9	
4.45	0.671	0.55	1.11	0.6497	0.3507	0.664	4.6	0.772	5.8	
4.50	0.678	0.50	1.07	0.7227	0.3729	0.720	4.3	0.886	4.6	
4.55	0.686	0.45	1.02	0.8120	0.3976	0.702	4.3	0.912	6.1	
4.60	0.693	0.40	0.97	0.9235	0.4250	0.617	4.7	0.852	8.4	

Table IV.b Beryllium III E_1 = 7.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.116	6.45	3.59	0.0096	0.0089	1.647	2.9			
0.60	0.127	6.40	3.57	0.0105	0.0098	1.291	3.2			
0.65	0.137	6.35	3.56	0.0115	0.0107	1.019	3.4			
0.70	0.148	6.30	3.54	0.0125	0.0116	0.905	3.6			
0.75	0.158	6.25	3.53	0.0135	0.0126	0.692	3.5			
0.80	0.169	6.20	3.51	0.0145	0.0135	0.634	3.5			
0.85	0.179	6.15	3.50	0.0155	0.0144	0.558	3.7			
0.90	0.190	6.10	3.48	0.0166	0.0154	0.530	3.6	0.056	66.1	0.36
0.95	0.200	6.05	3.47	0.0177	0.0164	0.487	3.7	0.088	43.1	0.58
1.00	0.211	6.00	3.45	0.0187	0.0174	0.451	3.8	0.115	39.4	0.76
1.05	0.222	5.95	3.44	0.0198	0.0184	0.376	2.7	0.068	47.2	0.45
1.10	0.232	5.90	3.42	0.0210	0.0194	0.363	3.3	0.100	22.2	0.66
1.15	0.243	5.85	3.41	0.0221	0.0205	0.335	3.4	0.100	22.5	0.67
1.20	0.253	5.80	3.39	0.0233	0.0215	0.319	3.4	0.111	16.7	0.74
1.25	0.264	5.75	3.38	0.0244	0.0226	0.304	3.5	0.119	14.9	0.79
1.30	0.274	5.70	3.36	0.0256	0.0237	0.290	3.5	0.122	13.7	0.82
1.35	0.285	5.65	3.35	0.0269	0.0248	0.278	3.6	0.125	8.7	0.84
1.40	0.295	5.60	3.33	0.0281	0.0259	0.287	3.5	0.154	7.1	1.04
1.45	0.306	5.55	3.31	0.0294	0.0271	0.275	3.5	0.150	13.2	1.01
1.50	0.316	5.50	3.30	0.0307	0.0283	0.247	2.6	0.121	7.7	0.81
1.55	0.327	5.45	3.28	0.0320	0.0294	0.263	3.4	0.156	6.0	1.04
1.60	0.338	5.40	3.27	0.0333	0.0307	0.245	3.4	0.138	9.9	0.92
1.65	0.348	5.35	3.25	0.0347	0.0319	0.242	3.5	0.141	8.5	0.95
1.70	0.359	5.30	3.24	0.0361	0.0331	0.231	3.6	0.131	8.4	0.88
1.75	0.369	5.25	3.22	0.0375	0.0344	0.231	3.6	0.138	6.7	0.92
1.80	0.380	5.20	3.20	0.0389	0.0357	0.227	3.6	0.137	7.5	0.91
1.85	0.390	5.15	3.19	0.0404	0.0370	0.240	3.6	0.161	5.4	1.07
1.90	0.401	5.10	3.17	0.0419	0.0384	0.227	3.6	0.147	8.3	0.98
1.95	0.411	5.05	3.15	0.0434	0.0397	0.224	3.7	0.146	8.2	0.96
2.00	0.422	5.00	3.14	0.0450	0.0411	0.212	3.8	0.133	8.0	0.87
2.05	0.433	4.95	3.12	0.0466	0.0425	0.213	3.8	0.138	7.5	0.90
2.10	0.443	4.90	3.10	0.0482	0.0440	0.203	3.8	0.126	7.3	0.82
2.15	0.454	4.85	3.09	0.0498	0.0454	0.207	2.5	0.135	6.7	0.88
2.20	0.464	4.80	3.07	0.0515	0.0469	0.218	3.3	0.155	5.6	1.01
2.25	0.475	4.75	3.05	0.0533	0.0485	0.213	3.3	0.151	4.9	0.97
2.30	0.485	4.70	3.04	0.0550	0.0500	0.220	3.3	0.163	5.3	1.05
2.35	0.496	4.65	3.02	0.0568	0.0516	0.207	3.3	0.147	6.9	0.94
2.40	0.506	4.60	3.00	0.0587	0.0532	0.207	3.3	0.149	4.8	0.95
2.45	0.517	4.55	2.98	0.0605	0.0549	0.206	3.4	0.150	6.3	0.95
2.50	0.527	4.50	2.97	0.0625	0.0566	0.197	3.5	0.138	6.1	0.86
2.55	0.538	4.45	2.95	0.0644	0.0583	0.213	3.2	0.164	5.4	1.02
2.60	0.549	4.40	2.93	0.0664	0.0600	0.205	3.3	0.154	4.5	0.95
2.65	0.559	4.35	2.91	0.0685	0.0618	0.212	3.3	0.166	5.1	1.02
2.70	0.570	4.30	2.89	0.0706	0.0637	0.211	3.3	0.166	5.6	1.02
2.75	0.580	4.25	2.88	0.0728	0.0655	0.203	3.4	0.156	6.3	0.95
2.80	0.591	4.20	2.86	0.0750	0.0674	0.199	3.4	0.151	5.4	0.91
2.85	0.601	4.15	2.84	0.0772	0.0694	0.209	3.4	0.168	5.1	1.00
2.90	0.612	4.10	2.82	0.0795	0.0714	0.205	3.3	0.163	4.3	0.96

Table IV.b Beryllium III E_1 = 7.0 (GeV) Θ = 9.96°

E_3	Q^2	ν	W	x	x'	σ_r	$\Delta\sigma_r$	σ	$\Delta\sigma$	A_{eff}/A
GeV	GeV²	GeV	GeV			$\frac{\mu b}{GeV\ sr}$	%	$\frac{\mu b}{GeV\ sr}$	%	
2.95	0.622	4.05	2.80	0.0819	0.0734	0.210	3.3	0.171	4.4	1.00
3.00	0.633	4.00	2.78	0.0843	0.0755	0.203	3.4	0.162	4.6	0.94
3.05	0.644	3.95	2.77	0.0868	0.0776	0.207	3.4	0.169	4.5	0.98
3.10	0.654	3.90	2.75	0.0894	0.0798	0.206	3.4	0.167	4.6	0.96
3.15	0.665	3.85	2.73	0.0920	0.0820	0.205	2.6	0.167	4.8	0.95
3.20	0.675	3.80	2.71	0.0947	0.0843	0.216	3.9	0.186	6.6	1.04
3.25	0.686	3.75	2.69	0.0974	0.0866	0.220	3.8	0.194	4.8	1.08
3.30	0.696	3.70	2.67	0.1003	0.0890	0.220	3.9	0.193	5.8	1.07
3.35	0.707	3.65	2.65	0.1032	0.0914	0.210	3.8	0.179	5.5	0.98
3.40	0.717	3.60	2.63	0.1062	0.0939	0.212	3.8	0.183	4.7	0.99
3.45	0.728	3.55	2.61	0.1093	0.0965	0.209	3.9	0.178	5.7	0.95
3.50	0.738	3.50	2.59	0.1124	0.0991	0.205	3.8	0.172	5.3	0.91
3.55	0.749	3.45	2.57	0.1157	0.1018	0.214	3.8	0.187	4.4	0.98
3.60	0.760	3.40	2.55	0.1191	0.1046	0.204	4.0	0.172	5.1	0.89
3.65	0.770	3.35	2.53	0.1225	0.1075	0.216	3.9	0.192	5.2	0.98
3.70	0.781	3.30	2.51	0.1261	0.1104	0.211	3.9	0.184	5.0	0.93
3.75	0.791	3.25	2.49	0.1297	0.1134	0.220	3.8	0.199	5.7	1.00
3.80	0.802	3.20	2.47	0.1335	0.1164	0.224	3.8	0.205	5.3	1.01
3.85	0.812	3.15	2.45	0.1374	0.1196	0.229	3.7	0.214	4.9	1.05
3.90	0.823	3.10	2.42	0.1415	0.1229	0.231	3.7	0.218	4.5	1.05
3.95	0.833	3.05	2.40	0.1456	0.1262	0.234	3.8	0.222	4.0	1.06
4.00	0.844	3.00	2.38	0.1499	0.1296	0.232	3.7	0.220	4.2	1.04
4.05	0.855	2.95	2.36	0.1544	0.1332	0.236	3.7	0.228	4.6	1.06
4.10	0.865	2.90	2.34	0.1590	0.1368	0.225	3.8	0.209	5.1	0.96
4.15	0.876	2.85	2.31	0.1637	0.1406	0.244	3.5	0.241	5.1	1.10
4.20	0.886	2.80	2.29	0.1687	0.1445	0.239	3.7	0.234	5.2	1.05
4.25	0.897	2.75	2.27	0.1738	0.1484	0.231	3.8	0.222	4.0	0.98
4.30	0.907	2.70	2.24	0.1791	0.1526	0.240	3.7	0.235	5.4	1.03
4.35	0.918	2.65	2.22	0.1846	0.1568	0.247	3.6	0.248	3.8	1.08
4.40	0.928	2.60	2.20	0.1903	0.1612	0.237	3.7	0.232	4.2	0.99
4.45	0.939	2.55	2.17	0.1962	0.1657	0.243	3.6	0.243	4.2	1.03
4.50	0.949	2.50	2.15	0.2024	0.1704	0.243	3.6	0.243	5.4	1.02
4.55	0.960	2.45	2.13	0.2088	0.1753	0.225	3.7	0.215	7.4	0.89
4.60	0.971	2.40	2.10	0.2155	0.1803	0.212	3.9	0.195	7.5	0.80

Table IV.b Aluminum E_1 = 3.0 (GeV) Θ = 9.96°

E_3	Q^2	ν	W	x	x'	σ_r	$\Delta\sigma_r$	σ	$\Delta\sigma$	A_{eff}/A
GeV	GeV²	GeV	GeV			$\frac{\mu b}{GeV\ sr}$	%	$\frac{\mu b}{GeV\ sr}$	%	
0.60	0.054	2.40	2.31	0.0120	0.0101	3.437	4.7			
0.65	0.059	2.35	2.29	0.0133	0.0111	2.999	4.9			
0.70	0.063	2.30	2.27	0.0147	0.0122	2.298	5.6			
0.75	0.068	2.25	2.24	0.0161	0.0133	1.991	5.8			
0.80	0.072	2.20	2.22	0.0175	0.0144	1.816	5.9			
0.85	0.077	2.15	2.20	0.0191	0.0156	1.720	4.0			
0.90	0.081	2.10	2.18	0.0207	0.0169	1.701	5.2			
0.95	0.086	2.05	2.15	0.0223	0.0182	1.574	5.4	0.137	100.8	0.17
1.00	0.090	2.00	2.13	0.0241	0.0195	1.488	5.5	0.303	33.2	0.37
1.05	0.095	1.95	2.11	0.0259	0.0209	1.498	5.5	0.524	21.2	0.62
1.10	0.099	1.90	2.08	0.0279	0.0224	1.372	5.7	0.532	21.0	0.61
1.15	0.104	1.85	2.06	0.0300	0.0239	1.363	5.8	0.644	12.5	0.72
1.20	0.109	1.80	2.04	0.0321	0.0255	1.376	5.3	0.753	13.1	0.81
1.25	0.113	1.75	2.01	0.0344	0.0271	1.464	8.0	0.932	16.6	0.96
1.30	0.118	1.70	1.99	0.0369	0.0289	1.526	8.1	1.059	14.4	
1.35	0.122	1.65	1.96	0.0394	0.0307	1.578	7.8	1.158	14.4	
1.40	0.127	1.60	1.94	0.0422	0.0326	1.701	8.0	1.334	10.5	
1.45	0.131	1.55	1.91	0.0451	0.0346	1.557	6.5	1.167	10.8	
1.50	0.136	1.50	1.89	0.0482	0.0367	1.603	6.4	1.230	10.4	
1.55	0.140	1.45	1.86	0.0515	0.0389	1.660	6.3	1.297	10.1	
1.60	0.145	1.40	1.83	0.0551	0.0412	1.708	6.2	1.349	9.4	
1.65	0.149	1.35	1.81	0.0589	0.0437	1.743	6.2	1.376	9.1	
1.70	0.154	1.30	1.78	0.0630	0.0463	1.775	9.4	1.400	15.6	
1.75	0.158	1.25	1.75	0.0675	0.0491	1.946	9.3	1.594	16.6	
1.80	0.163	1.20	1.72	0.0723	0.0520	2.107	8.3	1.775	13.6	
1.85	0.167	1.15	1.69	0.0775	0.0551	2.213	8.5	1.884	10.3	
1.90	0.172	1.10	1.67	0.0832	0.0583	2.089	5.3	1.704	10.0	
1.95	0.176	1.05	1.64	0.0895	0.0619	2.451	4.4	2.139	10.0	
2.00	0.181	1.00	1.60	0.0964	0.0656	2.512	4.5	2.193	8.4	
2.05	0.185	0.95	1.57	0.1040	0.0696	2.738	4.4	2.457	9.2	
2.10	0.190	0.90	1.54	0.1124	0.0739	2.931	4.2	2.681	6.4	
2.15	0.194	0.85	1.51	0.1219	0.0785	2.931	4.4	2.656	5.1	
2.20	0.199	0.80	1.48	0.1325	0.0835	2.898	4.3	2.584	5.2	
2.25	0.203	0.75	1.44	0.1446	0.0889	2.977	4.2	2.644	9.9	
2.30	0.208	0.70	1.41	0.1583	0.0948	3.443	4.0	3.182	10.5	
2.35	0.213	0.65	1.37	0.1742	0.1012	3.771	3.8	3.538	9.1	
2.40	0.217	0.60	1.34	0.1927	0.1082	4.156	3.6	3.990	10.7	
2.45	0.222	0.55	1.30	0.2146	0.1158	4.876	3.4	4.923	8.1	
2.50	0.226	0.50	1.26	0.2409	0.1243	5.084	3.4	5.257	7.1	
2.55	0.231	0.45	1.22	0.2731	0.1337	5.686	3.2	6.120	3.0	
2.60	0.235	0.40	1.18	0.3132	0.1442	5.080	3.4	5.352	5.6	
2.65	0.240	0.35	1.14	0.3648	0.1559	5.187	3.4	5.330	5.3	
2.70	0.244	0.30	1.10	0.4337	0.1692	5.504	3.4	5.516	12.5	
2.75	0.249	0.25	1.05	0.5300	0.1843	7.189	3.0	7.754	14.9	
2.80	0.253	0.20	1.00	0.6745	0.2016	9.258	2.6	10.927	6.8	
2.85	0.258	0.15	0.95	0.9154	0.2218	9.194	2.6	11.491	10.3	
2.90	0.262	0.10	0.90	1.3971	0.2455	5.453	2.9	7.088	28.7	

Table IV.b Aluminum E_1 = 5.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.083	4.45	3.02	0.0099	0.0090	4.471	3.5			
0.60	0.090	4.40	3.01	0.0110	0.0099	3.426	3.9			
0.65	0.098	4.35	2.99	0.0120	0.0108	2.746	4.4			
0.70	0.105	4.30	2.97	0.0131	0.0118	2.285	4.6			
0.75	0.113	4.25	2.96	0.0142	0.0128	1.587	4.9			
0.80	0.121	4.20	2.94	0.0153	0.0138	1.309	5.5			
0.85	0.128	4.15	2.92	0.0164	0.0148	1.149	5.8			
0.90	0.136	4.10	2.90	0.0176	0.0158	1.056	6.4	0.133	80.4	0.48
0.95	0.143	4.05	2.89	0.0188	0.0169	0.989	6.1	0.251	42.0	0.89
1.00	0.151	4.00	2.87	0.0201	0.0180	0.877	6.5	0.276	45.6	0.98
1.05	0.158	3.95	2.85	0.0213	0.0191	0.715	4.7	0.198	47.5	0.70
1.10	0.166	3.90	2.83	0.0227	0.0202	0.636	6.5	0.198	37.1	0.70
1.15	0.173	3.85	2.82	0.0240	0.0214	0.586	6.6	0.213	28.8	0.75
1.20	0.181	3.80	2.80	0.0254	0.0226	0.544	6.8	0.222	23.5	0.77
1.25	0.188	3.75	2.78	0.0268	0.0238	0.524	6.8	0.245	18.3	0.85
1.30	0.196	3.70	2.76	0.0282	0.0250	0.508	7.1	0.264	18.2	0.91
1.35	0.203	3.65	2.74	0.0297	0.0263	0.476	7.2	0.253	17.2	0.86
1.40	0.211	3.60	2.72	0.0312	0.0276	0.473	7.6	0.273	13.4	0.92
1.45	0.219	3.55	2.71	0.0328	0.0290	0.474	7.3	0.293	14.1	0.98
1.50	0.226	3.50	2.69	0.0344	0.0304	0.446	6.6	0.274	12.6	0.90
1.55	0.234	3.45	2.67	0.0361	0.0318	0.453	10.9	0.296	16.8	0.96
1.60	0.241	3.40	2.65	0.0378	0.0332	0.445	10.0	0.296	16.2	0.95
1.65	0.249	3.35	2.63	0.0396	0.0347	0.468	9.7	0.335	14.2	1.06
1.70	0.256	3.30	2.61	0.0414	0.0362	0.436	10.7	0.302	18.6	0.94
1.75	0.264	3.25	2.59	0.0432	0.0378	0.430	11.7	0.301	20.7	0.93
1.80	0.271	3.20	2.57	0.0452	0.0394	0.484	10.9	0.375	16.1	1.14
1.85	0.279	3.15	2.55	0.0472	0.0411	0.461	11.3	0.350	17.2	1.05
1.90	0.286	3.10	2.53	0.0492	0.0428	0.451	10.8	0.342	15.6	1.01
1.95	0.294	3.05	2.51	0.0513	0.0445	0.441	11.1	0.333	15.7	0.96
2.00	0.301	3.00	2.49	0.0535	0.0463	0.465	11.4	0.367	14.6	1.04
2.05	0.309	2.95	2.47	0.0558	0.0482	0.439	10.9	0.335	15.0	0.94
2.10	0.316	2.90	2.45	0.0582	0.0501	0.456	11.0	0.360	14.0	0.99
2.15	0.324	2.85	2.43	0.0606	0.0520	0.439	6.6	0.340	9.0	0.92
2.20	0.332	2.80	2.41	0.0631	0.0540	0.450	6.3	0.356	8.8	0.94
2.25	0.339	2.75	2.39	0.0657	0.0561	0.452	6.1	0.359	9.5	0.93
2.30	0.347	2.70	2.37	0.0684	0.0583	0.475	6.0	0.391	7.7	1.00
2.35	0.354	2.65	2.34	0.0712	0.0605	0.446	6.3	0.353	8.6	0.88
2.40	0.362	2.60	2.32	0.0741	0.0628	0.484	5.9	0.402	7.5	0.99
2.45	0.369	2.55	2.30	0.0772	0.0652	0.441	6.4	0.347	9.0	0.83
2.50	0.377	2.50	2.28	0.0803	0.0676	0.472	5.9	0.388	11.0	0.91
2.55	0.384	2.45	2.26	0.0836	0.0702	0.500	5.8	0.424	8.7	0.98
2.60	0.392	2.40	2.23	0.0870	0.0728	0.504	5.7	0.428	7.5	0.96
2.65	0.399	2.35	2.21	0.0906	0.0755	0.513	5.8	0.440	10.3	0.97
2.70	0.407	2.30	2.19	0.0943	0.0783	0.567	5.4	0.510	6.4	1.10
2.75	0.414	2.25	2.17	0.0982	0.0812	0.521	5.8	0.449	9.6	0.94
2.80	0.422	2.20	2.14	0.1022	0.0843	0.514	5.8	0.438	9.7	0.90
2.85	0.430	2.15	2.12	0.1065	0.0874	0.571	5.5	0.513	6.3	1.03
2.90	0.437	2.10	2.09	0.1109	0.0907	0.517	5.9	0.440	8.4	0.86

Table IV.b Aluminum E_1 = 5.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.445	2.05	2.07	0.1156	0.0940	0.598	5.3	0.546	8.8	1.04
3.00	0.452	2.00	2.04	0.1205	0.0976	0.581	5.6	0.522	7.4	0.97
3.05	0.460	1.95	2.02	0.1256	0.1013	0.623	5.2	0.577	7.5	1.04
3.10	0.467	1.90	1.99	0.1310	0.1051	0.624	5.3	0.577	5.9	
3.15	0.475	1.85	1.97	0.1367	0.1091	0.618	3.5	0.568	4.9	
3.20	0.482	1.80	1.94	0.1428	0.1133	0.599	4.2	0.542	4.9	
3.25	0.490	1.75	1.92	0.1492	0.1176	0.611	4.1	0.557	7.2	
3.30	0.497	1.70	1.89	0.1559	0.1222	0.659	3.9	0.621	6.3	
3.35	0.505	1.65	1.86	0.1631	0.1270	0.665	3.9	0.629	4.3	
3.40	0.512	1.60	1.84	0.1707	0.1320	0.655	3.9	0.618	5.3	
3.45	0.520	1.55	1.81	0.1788	0.1372	0.638	4.0	0.599	5.6	
3.50	0.527	1.50	1.78	0.1874	0.1427	0.687	3.9	0.665	6.8	
3.55	0.535	1.45	1.75	0.1966	0.1486	0.713	3.8	0.701	4.8	
3.60	0.543	1.40	1.72	0.2065	0.1547	0.710	3.9	0.698	4.5	
3.65	0.550	1.35	1.69	0.2171	0.1611	0.728	3.7	0.723	5.0	
3.70	0.558	1.30	1.66	0.2286	0.1680	0.747	3.8	0.752	4.3	
3.75	0.565	1.25	1.63	0.2409	0.1752	0.743	3.8	0.750	3.9	
3.80	0.573	1.20	1.60	0.2543	0.1828	0.754	3.7	0.769	4.3	
3.85	0.580	1.15	1.57	0.2689	0.1910	0.723	3.9	0.732	4.8	
3.90	0.588	1.10	1.54	0.2847	0.1996	0.725	3.8	0.738	4.7	
3.95	0.595	1.05	1.50	0.3021	0.2088	0.752	3.7	0.777	4.8	
4.00	0.603	1.00	1.47	0.3212	0.2187	0.764	3.8	0.796	4.0	
4.05	0.610	0.95	1.43	0.3424	0.2292	0.741	3.8	0.768	4.5	
4.10	0.618	0.90	1.40	0.3659	0.2405	0.789	3.7	0.835	4.1	
4.15	0.625	0.85	1.36	0.3921	0.2527	0.719	3.9	0.743	4.2	
4.20	0.633	0.80	1.32	0.4216	0.2658	0.804	3.7	0.863	5.2	
4.25	0.641	0.75	1.28	0.4551	0.2800	0.781	3.7	0.838	5.4	
4.30	0.648	0.70	1.24	0.4933	0.2954	0.740	3.8	0.787	6.7	
4.35	0.656	0.65	1.20	0.5374	0.3122	0.685	4.0	0.716	4.1	
4.40	0.663	0.60	1.16	0.5889	0.3305	0.748	3.8	0.808	5.2	
4.45	0.671	0.55	1.11	0.6497	0.3507	0.739	3.8	0.810	5.3	
4.50	0.678	0.50	1.07	0.7227	0.3729	0.806	3.6	0.925	3.9	
4.55	0.686	0.45	1.02	0.8120	0.3976	0.769	3.6	0.909	6.6	
4.60	0.693	0.40	0.97	0.9235	0.4250	0.678	3.7	0.826	8.5	

Table IV.b Aluminum E_1 = 6.0 (GeV) θ = 9.96°

E_3 GeV	Q^2 GeV^2	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.099	5.45	3.32	0.0097	0.0090	2.959	9.0			
0.60	0.109	5.40	3.30	0.0107	0.0099	2.163	10.5			
0.65	0.118	5.35	3.29	0.0117	0.0108	1.785	12.9			
0.70	0.127	5.30	3.27	0.0127	0.0117	1.534	13.3			
0.75	0.136	5.25	3.26	0.0138	0.0126	1.045	3.9			
0.80	0.145	5.20	3.24	0.0148	0.0136	0.908	3.9			
0.85	0.154	5.15	3.22	0.0159	0.0146	0.786	4.1			
0.90	0.163	5.10	3.21	0.0170	0.0156	0.708	4.2			
0.95	0.172	5.05	3.19	0.0181	0.0166	0.636	4.3			
1.00	0.181	5.00	3.18	0.0193	0.0176	0.605	4.3	0.085	72.1	0.42
1.05	0.190	4.95	3.16	0.0204	0.0187	0.496	3.0	0.052	106.3	0.26
1.10	0.199	4.90	3.14	0.0216	0.0197	0.443	3.9	0.068	58.4	0.34
1.15	0.208	4.85	3.13	0.0229	0.0208	0.405	4.0	0.084	51.9	0.42
1.20	0.217	4.80	3.11	0.0241	0.0219	0.333	4.4	0.046	61.6	0.23
1.25	0.226	4.75	3.09	0.0254	0.0231	0.350	4.2	0.108	21.0	0.54
1.30	0.235	4.70	3.08	0.0267	0.0242	0.365	4.1	0.159	11.9	0.79
1.35	0.244	4.65	3.06	0.0280	0.0254	0.335	4.3	0.147	15.2	0.73
1.40	0.253	4.60	3.04	0.0293	0.0266	0.333	4.2	0.166	9.6	0.82
1.45	0.262	4.55	3.03	0.0307	0.0278	0.327	4.2	0.176	8.7	0.86
1.50	0.271	4.50	3.01	0.0321	0.0291	0.327	2.9	0.190	7.3	0.93
1.55	0.280	4.45	2.99	0.0336	0.0304	0.311	4.3	0.181	9.5	0.88
1.60	0.289	4.40	2.97	0.0350	0.0317	0.311	4.2	0.192	10.7	0.93
1.65	0.298	4.35	2.96	0.0366	0.0330	0.281	4.5	0.162	12.2	0.78
1.70	0.307	4.30	2.94	0.0381	0.0344	0.282	4.5	0.171	8.9	0.82
1.75	0.316	4.25	2.92	0.0397	0.0357	0.271	4.6	0.163	8.5	0.77
1.80	0.326	4.20	2.90	0.0413	0.0372	0.288	4.5	0.191	10.8	0.90
1.85	0.335	4.15	2.89	0.0430	0.0386	0.302	4.3	0.215	7.4	1.01
1.90	0.344	4.10	2.87	0.0447	0.0401	0.277	4.6	0.186	7.9	0.86
1.95	0.353	4.05	2.85	0.0464	0.0416	0.294	4.4	0.213	8.8	0.98
2.00	0.362	4.00	2.83	0.0482	0.0431	0.299	4.4	0.224	7.0	1.02
2.05	0.371	3.95	2.81	0.0500	0.0447	0.284	4.5	0.208	6.8	0.94
2.10	0.380	3.90	2.80	0.0519	0.0463	0.294	4.4	0.224	6.1	1.00
2.15	0.389	3.85	2.78	0.0538	0.0480	0.287	4.7	0.218	6.6	0.97
2.20	0.398	3.80	2.76	0.0558	0.0497	0.290	7.8	0.224	11.5	0.98
2.25	0.407	3.75	2.74	0.0578	0.0514	0.275	8.7	0.207	14.6	0.90
2.30	0.416	3.70	2.72	0.0599	0.0532	0.265	8.5	0.195	11.9	0.84
2.35	0.425	3.65	2.70	0.0621	0.0550	0.273	8.4	0.207	11.3	0.88
2.40	0.434	3.60	2.68	0.0643	0.0568	0.262	8.7	0.195	12.6	0.82
2.45	0.443	3.55	2.66	0.0665	0.0587	0.265	8.6	0.200	12.6	0.83
2.50	0.452	3.50	2.65	0.0688	0.0607	0.271	8.7	0.210	14.2	0.87
2.55	0.461	3.45	2.63	0.0712	0.0627	0.291	8.3	0.237	10.3	0.96
2.60	0.470	3.40	2.61	0.0737	0.0648	0.273	8.7	0.215	13.4	0.86
2.65	0.479	3.35	2.59	0.0762	0.0669	0.270	8.6	0.212	13.9	0.84
2.70	0.488	3.30	2.57	0.0789	0.0690	0.298	8.1	0.250	12.3	0.98
2.75	0.497	3.25	2.55	0.0815	0.0713	0.297	8.2	0.249	11.0	0.96
2.80	0.506	3.20	2.53	0.0843	0.0735	0.310	7.6	0.267	9.5	1.02
2.85	0.515	3.15	2.51	0.0872	0.0759	0.304	8.4	0.259	10.7	0.97
2.90	0.524	3.10	2.48	0.0902	0.0783	0.302	8.1	0.256	9.8	0.95

Table IV.b Aluminum E_1 = 6.0 (GeV) θ = 9.96°

E_3 GeV	Q^2 GeV^2	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.534	3.05	2.46	0.0932	0.0808	0.302	8.7	0.257	11.8	0.94
3.00	0.543	3.00	2.44	0.0964	0.0833	0.318	8.0	0.279	12.0	1.00
3.05	0.552	2.95	2.42	0.0996	0.0860	0.335	7.8	0.301	10.2	1.07
3.10	0.561	2.90	2.40	0.1030	0.0887	0.336	7.7	0.304	10.3	1.06
3.15	0.570	2.85	2.38	0.1065	0.0915	0.313	4.4	0.272	7.7	0.93
3.20	0.579	2.80	2.36	0.1101	0.0943	0.307	4.0	0.264	8.2	0.89
3.25	0.588	2.75	2.34	0.1139	0.0973	0.350	3.7	0.322	7.5	1.07
3.30	0.597	2.70	2.31	0.1178	0.1004	0.352	3.7	0.325	6.0	1.06
3.35	0.606	2.65	2.29	0.1218	0.1035	0.325	3.8	0.288	4.6	0.92
3.40	0.615	2.60	2.27	0.1260	0.1068	0.349	3.7	0.320	5.2	1.01
3.45	0.624	2.55	2.25	0.1304	0.1101	0.340	3.8	0.308	5.8	0.96
3.50	0.633	2.50	2.22	0.1349	0.1136	0.369	3.6	0.347	3.9	1.06
3.55	0.642	2.45	2.20	0.1396	0.1172	0.339	3.8	0.307	7.0	0.92
3.60	0.651	2.40	2.18	0.1446	0.1209	0.335	3.9	0.300	5.4	0.88
3.65	0.660	2.35	2.15	0.1497	0.1248	0.326	3.9	0.288	4.7	0.83
3.70	0.669	2.30	2.13	0.1550	0.1288	0.338	3.9	0.305	6.9	0.86
3.75	0.678	2.25	2.10	0.1606	0.1329	0.357	3.8	0.331	9.3	0.92
3.80	0.687	2.20	2.08	0.1665	0.1372	0.408	3.5	0.400	5.3	1.09
3.85	0.696	2.15	2.05	0.1726	0.1417	0.384	3.7	0.367	4.5	0.98
3.90	0.705	2.10	2.03	0.1790	0.1463	0.399	3.6	0.388	6.6	1.02
3.95	0.714	2.05	2.00	0.1857	0.1511	0.428	3.5	0.429	3.7	1.10
4.00	0.723	2.00	1.98	0.1927	0.1561	0.395	3.6	0.383	3.9	
4.05	0.732	1.95	1.95	0.2002	0.1613	0.425	3.5	0.426	6.0	
4.10	0.741	1.90	1.92	0.2080	0.1668	0.438	3.5	0.444	3.9	
4.15	0.751	1.85	1.90	0.2162	0.1725	0.434	3.5	0.441	4.5	
4.20	0.760	1.80	1.87	0.2249	0.1784	0.456	3.4	0.473	3.9	
4.25	0.769	1.75	1.84	0.2341	0.1846	0.422	3.6	0.430	4.7	
4.30	0.778	1.70	1.81	0.2438	0.1910	0.435	3.5	0.454	3.5	
4.35	0.787	1.65	1.79	0.2541	0.1978	0.425	3.5	0.442	4.3	
4.40	0.796	1.60	1.76	0.2650	0.2049	0.450	3.4	0.478	4.0	
4.45	0.805	1.55	1.73	0.2767	0.2124	0.441	3.5	0.467	3.3	
4.50	0.814	1.50	1.70	0.2891	0.2202	0.452	3.4	0.485	3.5	
4.55	0.823	1.45	1.67	0.3024	0.2285	0.447	3.3	0.482	3.4	
4.60	0.832	1.40	1.64	0.3167	0.2372	0.458	3.2	0.501	4.0	

Table IV.b Aluminum E_1 = 7.0 (GeV) Θ = 9.96°

E_3	Q^2	ν	W	x	x'	σ_r	$\Delta\sigma_r$	σ	$\Delta\sigma$	$\frac{A_{eff}}{A}$
GeV	GeV²	GeV	GeV			$\frac{\mu b}{GeV\ sr}$	%	$\frac{\mu b}{GeV\ sr}$	%	
0.55	0.116	6.45	3.59	0.0096	0.0089	2.772	4.0			
0.60	0.127	6.40	3.57	0.0105	0.0098	2.076	4.4			
0.65	0.137	6.35	3.56	0.0115	0.0107	1.493	5.0			
0.70	0.148	6.30	3.54	0.0125	0.0116	1.255	5.2			
0.75	0.158	6.25	3.53	0.0135	0.0126	0.820	5.8			
0.80	0.169	6.20	3.51	0.0145	0.0135	0.767	5.6			
0.85	0.179	6.15	3.50	0.0155	0.0144	0.621	6.1			
0.90	0.190	6.10	3.48	0.0166	0.0154	0.611	5.8			
0.95	0.200	6.05	3.47	0.0177	0.0164	0.572	5.8	0.028	231.4	0.18
1.00	0.211	6.00	3.45	0.0187	0.0174	0.484	6.4	0.035	222.9	0.23
1.05	0.222	5.95	3.44	0.0198	0.0184	0.386	4.3	0.000	*****	0.00
1.10	0.232	5.90	3.42	0.0210	0.0194	0.363	4.4	0.042	73.1	0.28
1.15	0.243	5.85	3.41	0.0221	0.0205	0.327	4.7	0.052	53.5	0.35
1.20	0.253	5.80	3.39	0.0233	0.0215	0.313	4.8	0.079	31.0	0.53
1.25	0.264	5.75	3.38	0.0244	0.0226	0.289	4.9	0.084	25.4	0.56
1.30	0.274	5.70	3.36	0.0256	0.0237	0.285	4.9	0.107	15.9	0.72
1.35	0.285	5.65	3.35	0.0269	0.0248	0.277	4.8	0.119	16.3	0.80
1.40	0.295	5.60	3.33	0.0281	0.0259	0.261	5.0	0.118	15.4	0.79
1.45	0.306	5.55	3.31	0.0294	0.0271	0.256	4.9	0.127	15.5	0.85
1.50	0.316	5.50	3.30	0.0307	0.0283	0.233	4.0	0.110	12.6	0.74
1.55	0.327	5.45	3.28	0.0320	0.0294	0.238	5.5	0.128	10.7	0.86
1.60	0.338	5.40	3.27	0.0333	0.0307	0.235	5.6	0.133	10.2	0.89
1.65	0.348	5.35	3.25	0.0347	0.0319	0.236	5.5	0.143	9.8	0.96
1.70	0.359	5.30	3.24	0.0361	0.0331	0.231	5.7	0.143	9.5	0.96
1.75	0.369	5.25	3.22	0.0375	0.0344	0.238	5.6	0.160	8.7	1.06
1.80	0.380	5.20	3.20	0.0389	0.0357	0.233	5.7	0.159	8.8	1.06
1.85	0.390	5.15	3.19	0.0404	0.0370	0.235	5.6	0.167	11.0	1.11
1.90	0.401	5.10	3.17	0.0419	0.0384	0.212	5.9	0.142	12.3	0.94
1.95	0.411	5.05	3.15	0.0434	0.0397	0.216	5.8	0.151	9.5	0.99
2.00	0.422	5.00	3.14	0.0450	0.0411	0.205	6.3	0.140	9.6	0.92
2.05	0.433	4.95	3.12	0.0466	0.0425	0.214	6.0	0.155	8.4	1.02
2.10	0.443	4.90	3.10	0.0482	0.0440	0.204	6.0	0.145	12.3	0.95
2.15	0.454	4.85	3.09	0.0498	0.0454	0.191	4.2	0.132	6.5	0.86
2.20	0.464	4.80	3.07	0.0515	0.0469	0.202	5.6	0.148	10.6	0.96
2.25	0.475	4.75	3.05	0.0533	0.0485	0.209	5.6	0.161	8.2	1.04
2.30	0.485	4.70	3.04	0.0550	0.0500	0.195	5.6	0.145	9.4	0.93
2.35	0.496	4.65	3.02	0.0568	0.0516	0.199	5.6	0.152	7.4	0.97
2.40	0.506	4.60	3.00	0.0587	0.0532	0.196	5.6	0.150	9.1	0.95
2.45	0.517	4.55	2.98	0.0605	0.0549	0.188	5.8	0.142	9.4	0.89
2.50	0.527	4.50	2.97	0.0625	0.0566	0.205	5.6	0.166	7.6	1.04
2.55	0.538	4.45	2.95	0.0644	0.0583	0.192	5.6	0.151	7.6	0.94
2.60	0.549	4.40	2.93	0.0664	0.0600	0.202	5.4	0.165	7.5	1.02
2.65	0.559	4.35	2.91	0.0685	0.0618	0.198	5.5	0.161	7.2	0.99
2.70	0.570	4.30	2.89	0.0706	0.0637	0.199	5.5	0.164	9.4	1.00
2.75	0.580	4.25	2.88	0.0728	0.0655	0.180	6.0	0.140	8.4	0.84
2.80	0.591	4.20	2.86	0.0750	0.0674	0.195	5.7	0.161	8.1	0.96
2.85	0.601	4.15	2.84	0.0772	0.0694	0.188	5.7	0.152	7.4	[illegible]
2.90	0.612	4.10	2.82	0.0795	0.0714	0.193	5.7	0.160	10.0	0.94

Table IV.b Aluminum E_1 = 7.0 (GeV) Θ = 9.96°

E_3	Q^2	ν	W	x	x'	σ_r	$\Delta\sigma_r$	σ	$\Delta\sigma$	$\frac{A_{eff}}{A}$
GeV	GeV²	GeV	GeV			$\frac{\mu b}{GeV\ sr}$	%	$\frac{\mu b}{GeV\ sr}$	%	
2.95	0.622	4.05	2.80	0.0819	0.0734	0.208	5.5	0.180	8.0	1.05
3.00	0.633	4.00	2.78	0.0843	0.0755	0.205	5.5	0.176	7.4	1.03
3.05	0.644	3.95	2.77	0.0868	0.0776	0.214	5.5	0.190	6.4	1.10
3.10	0.654	3.90	2.75	0.0894	0.0798	0.203	5.6	0.176	8.1	1.01
3.15	0.665	3.85	2.73	0.0920	0.0820	0.203	4.9	0.176	6.1	0.99
3.20	0.675	3.80	2.71	0.0947	0.0843	0.201	7.9	0.173	9.7	0.97
3.25	0.686	3.75	2.69	0.0974	0.0866	0.206	7.7	0.181	10.8	1.00
3.30	0.696	3.70	2.67	0.1003	0.0890	0.216	8.2	0.194	9.2	1.07
3.35	0.707	3.65	2.65	0.1032	0.0914	0.205	8.1	0.181	10.0	0.98
3.40	0.717	3.60	2.63	0.1062	0.0939	0.211	7.8	0.188	10.6	1.01
3.45	0.728	3.55	2.61	0.1093	0.0965	0.219	7.6	0.200	9.3	1.07
3.50	0.738	3.50	2.59	0.1124	0.0991	0.203	7.9	0.178	11.6	0.94
3.55	0.749	3.45	2.57	0.1157	0.1018	0.201	8.1	0.176	9.4	0.92
3.60	0.760	3.40	2.55	0.1191	0.1046	0.202	8.1	0.177	10.4	0.91
3.65	0.770	3.35	2.53	0.1225	0.1075	0.210	7.7	0.188	9.8	0.96
3.70	0.781	3.30	2.51	0.1261	0.1104	0.211	8.3	0.190	9.9	0.96
3.75	0.791	3.25	2.49	0.1297	0.1134	0.215	7.8	0.196	9.7	0.98
3.80	0.802	3.20	2.47	0.1335	0.1164	0.220	7.5	0.202	8.9	1.00
3.85	0.812	3.15	2.45	0.1374	0.1196	0.221	7.7	0.204	9.5	0.99
3.90	0.823	3.10	2.42	0.1415	0.1229	0.229	7.4	0.216	9.7	1.04
3.95	0.833	3.05	2.40	0.1456	0.1262	0.238	7.4	0.227	8.2	1.08
4.00	0.844	3.00	2.38	0.1499	0.1296	0.233	7.5	0.221	8.4	1.04
4.05	0.855	2.95	2.36	0.1544	0.1332	0.233	7.5	0.220	8.9	1.02
4.10	0.865	2.90	2.34	0.1590	0.1368	0.225	8.0	0.210	10.3	0.96
4.15	0.876	2.85	2.31	0.1637	0.1406	0.247	7.3	0.241	8.6	1.09
4.20	0.886	2.80	2.29	0.1687	0.1445	0.235	7.5	0.224	8.6	1.00
4.25	0.897	2.75	2.27	0.1738	0.1484	0.240	7.5	0.232	8.8	1.03
4.30	0.907	2.70	2.24	0.1791	0.1526	0.244	7.6	0.237	8.1	1.04
4.35	0.918	2.65	2.22	0.1846	0.1568	0.238	7.8	0.229	8.7	0.99
4.40	0.928	2.60	2.20	0.1903	0.1612	0.239	7.6	0.230	8.4	0.98
4.45	0.939	2.55	2.17	0.1962	0.1657	0.243	7.4	0.237	9.0	0.99
4.50	0.949	2.50	2.15	0.2024	0.1704	0.252	7.5	0.250	8.1	1.04
4.55	0.960	2.45	2.13	0.2088	0.1753	0.249	7.4	0.245	8.2	1.01
4.60	0.971	2.40	2.10	0.2155	0.1803	0.246	7.2	0.242	7.9	0.98

Table IV.b Silicon E_1 = 3.0 (GeV) Θ = 9.96°

E_3	Q^2	ν	W	x	x'	σ_r	$\Delta\sigma_r$	σ	$\Delta\sigma$	$\frac{A_{eff}}{A}$
GeV	GeV^2	GeV	GeV			$\frac{\mu b}{GeV\ sr}$	%	$\frac{\mu b}{GeV\ sr}$	%	
0.60	0.054	2.40	2.31	0.0120	0.0101	3.878	3.9			
0.65	0.059	2.35	2.29	0.0133	0.0111	3.243	4.2			
0.70	0.063	2.30	2.27	0.0147	0.0122	2.491	4.8			
0.75	0.068	2.25	2.24	0.0161	0.0133	2.246	4.9			
0.80	0.072	2.20	2.22	0.0175	0.0144	1.840	5.4			
0.85	0.077	2.15	2.20	0.0191	0.0156	1.717	3.7			
0.90	0.081	2.10	2.18	0.0207	0.0169	1.531	5.2			
0.95	0.086	2.05	2.15	0.0223	0.0182	1.560	4.9	0.209	52.6	0.27
1.00	0.090	2.00	2.13	0.0241	0.0195	1.398	5.1	0.278	36.6	0.34
1.05	0.095	1.95	2.11	0.0259	0.0209	1.438	5.2	0.526	19.4	0.63
1.10	0.099	1.90	2.08	0.0279	0.0224	1.287	5.5	0.493	22.3	0.57
1.15	0.104	1.85	2.06	0.0300	0.0239	1.283	5.5	0.600	12.1	0.67
1.20	0.109	1.80	2.04	0.0321	0.0255	1.281	4.6	0.679	13.6	0.73
1.25	0.113	1.75	2.01	0.0344	0.0271	1.420	6.7	0.910	16.7	0.94
1.30	0.118	1.70	1.99	0.0369	0.0289	1.508	6.6	1.060	12.5	
1.35	0.122	1.65	1.96	0.0394	0.0307	1.550	6.5	1.140	9.0	
1.40	0.127	1.60	1.94	0.0422	0.0326	1.514	6.8	1.112	9.3	
1.45	0.131	1.55	1.91	0.0451	0.0346	1.550	5.1	1.165	9.5	
1.50	0.136	1.50	1.89	0.0482	0.0367	1.641	5.0	1.280	8.3	
1.55	0.140	1.45	1.86	0.0515	0.0389	1.646	5.2	1.281	9.5	
1.60	0.145	1.40	1.83	0.0551	0.0412	1.783	5.0	1.442	7.3	
1.65	0.149	1.35	1.81	0.0589	0.0437	1.708	5.3	1.331	8.4	
1.70	0.154	1.30	1.78	0.0630	0.0463	1.872	7.5	1.522	13.1	
1.75	0.158	1.25	1.75	0.0675	0.0491	1.942	7.4	1.590	16.7	
1.80	0.163	1.20	1.72	0.0723	0.0520	2.359	6.6	2.093	12.4	
1.85	0.167	1.15	1.69	0.0775	0.0551	2.353	6.7	2.064	11.1	
1.90	0.172	1.10	1.67	0.0832	0.0583	2.070	4.3	1.685	5.7	
1.95	0.176	1.05	1.64	0.0895	0.0619	2.380	3.9	2.056	9.9	
2.00	0.181	1.00	1.60	0.0964	0.0656	2.518	3.7	2.209	7.7	
2.05	0.185	0.95	1.57	0.1040	0.0696	2.684	3.5	2.399	5.4	
2.10	0.190	0.90	1.54	0.1124	0.0739	2.660	3.6	2.345	4.5	
2.15	0.194	0.85	1.51	0.1219	0.0785	2.718	3.6	2.390	4.9	
2.20	0.199	0.80	1.48	0.1325	0.0835	2.734	3.5	2.375	5.8	
2.25	0.203	0.75	1.44	0.1446	0.0889	2.888	3.4	2.524	6.3	
2.30	0.208	0.70	1.41	0.1583	0.0948	2.979	3.4	2.580	8.2	
2.35	0.213	0.65	1.37	0.1742	0.1012	3.332	3.2	2.975	10.8	
2.40	0.217	0.60	1.34	0.1927	0.1082	3.830	3.1	3.590	9.8	
2.45	0.222	0.55	1.30	0.2146	0.1158	4.264	2.9	4.173	8.7	
2.50	0.226	0.50	1.26	0.2409	0.1243	4.783	2.8	4.903	6.5	
2.55	0.231	0.45	1.22	0.2731	0.1337	5.000	2.8	5.236	2.6	
2.60	0.235	0.40	1.18	0.3132	0.1442	4.784	2.9	4.908	5.3	
2.65	0.240	0.35	1.14	0.3648	0.1559	4.515	3.0	4.358	3.2	
2.70	0.244	0.30	1.10	0.4337	0.1692	4.803	3.0	4.571	13.6	
2.75	0.249	0.25	1.05	0.5300	0.1843	6.425	2.6	6.897	16.0	
2.80	0.253	0.20	1.00	0.6745	0.2016	8.546	2.3	10.188	7.4	
2.85	0.258	0.15	0.95	0.9154	0.2218	8.647	2.2	10.892	8.6	
2.90	0.262	0.10	0.90	1.3971	0.2455	5.568	2.5	7.236	23.2	

Table IV.b Silicon E_1 = 5.0 (GeV) Θ = 9.96°

E_3	Q^2	ν	W	x	x'	σ_r	$\Delta\sigma_r$	σ	$\Delta\sigma$	$\frac{A_{eff}}{A}$
GeV	GeV^2	GeV	GeV			$\frac{\mu b}{GeV\ sr}$	%	$\frac{\mu b}{GeV\ sr}$	%	
0.55	0.083	4.45	3.02	0.0099	0.0090	3.822	3.6			
0.60	0.090	4.40	3.01	0.0110	0.0099	2.758	4.1			
0.65	0.098	4.35	2.99	0.0120	0.0108	2.307	4.4			
0.70	0.105	4.30	2.97	0.0131	0.0118	1.959	4.7			
0.75	0.113	4.25	2.96	0.0142	0.0128	1.407	6.0			
0.80	0.121	4.20	2.94	0.0153	0.0138	1.257	6.1			
0.85	0.128	4.15	2.92	0.0164	0.0148	1.054	6.4			
0.90	0.136	4.10	2.90	0.0176	0.0158	0.952	6.7	0.037	301.9	0.13
0.95	0.143	4.05	2.89	0.0188	0.0169	0.869	7.0	0.136	69.9	0.49
1.00	0.151	4.00	2.87	0.0201	0.0180	0.813	7.4	0.228	53.3	0.81
1.05	0.158	3.95	2.85	0.0213	0.0191	0.624	4.9	0.113	89.6	0.40
1.10	0.166	3.90	2.83	0.0227	0.0202	0.531	4.2	0.090	50.5	0.32
1.15	0.173	3.85	2.82	0.0240	0.0214	0.531	4.1	0.164	20.4	0.57
1.20	0.181	3.80	2.80	0.0254	0.0226	0.485	4.4	0.161	19.4	0.56
1.25	0.188	3.75	2.78	0.0268	0.0238	0.490	4.3	0.212	11.1	0.73
1.30	0.196	3.70	2.76	0.0282	0.0250	0.474	4.4	0.227	13.4	0.78
1.35	0.203	3.65	2.74	0.0297	0.0263	0.451	4.4	0.225	10.8	0.77
1.40	0.211	3.60	2.72	0.0312	0.0276	0.457	4.4	0.255	10.8	0.86
1.45	0.219	3.55	2.71	0.0328	0.0290	0.481	4.2	0.304	9.4	1.01
1.50	0.226	3.50	2.69	0.0344	0.0304	0.424	4.2	0.246	11.3	0.81
1.55	0.234	3.45	2.67	0.0361	0.0318	0.441	6.3	0.280	14.6	0.91
1.60	0.241	3.40	2.65	0.0378	0.0332	0.477	6.0	0.336	9.2	1.08
1.65	0.249	3.35	2.63	0.0396	0.0347	0.433	6.4	0.289	12.1	0.91
1.70	0.256	3.30	2.61	0.0414	0.0362	0.448	6.2	0.317	9.1	0.99
1.75	0.264	3.25	2.59	0.0432	0.0378	0.437	6.5	0.310	11.0	0.95
1.80	0.271	3.20	2.57	0.0452	0.0394	0.471	6.2	0.360	11.6	1.09
1.85	0.279	3.15	2.55	0.0472	0.0411	0.487	6.1	0.385	8.2	1.15
1.90	0.286	3.10	2.53	0.0492	0.0428	0.479	6.2	0.379	8.7	1.11
1.95	0.294	3.05	2.51	0.0513	0.0445	0.475	6.3	0.378	9.5	1.09
2.00	0.301	3.00	2.49	0.0535	0.0463	0.504	6.0	0.419	7.8	1.19
2.05	0.309	2.95	2.47	0.0558	0.0482	0.484	6.2	0.396	7.8	1.11
2.10	0.316	2.90	2.45	0.0582	0.0501	0.507	6.2	0.429	8.3	1.18
2.15	0.324	2.85	2.43	0.0606	0.0520	0.466	4.2	0.377	7.8	1.02
2.20	0.332	2.80	2.41	0.0631	0.0540	0.468	4.7	0.381	6.8	1.01
2.25	0.339	2.75	2.39	0.0657	0.0561	0.451	5.0	0.359	8.5	0.93
2.30	0.347	2.70	2.37	0.0684	0.0583	0.501	4.7	0.426	6.0	1.09
2.35	0.354	2.65	2.34	0.0712	0.0605	0.459	5.0	0.372	7.0	0.93
2.40	0.362	2.60	2.32	0.0741	0.0628	0.488	4.7	0.409	6.7	1.00
2.45	0.369	2.55	2.30	0.0772	0.0652	0.478	4.7	0.397	5.7	0.95
2.50	0.377	2.50	2.28	0.0803	0.0676	0.489	4.6	0.411	7.1	0.97
2.55	0.384	2.45	2.26	0.0836	0.0702	0.505	4.5	0.432	7.1	0.99
2.60	0.392	2.40	2.23	0.0870	0.0728	0.519	4.5	0.450	5.3	1.01
2.65	0.399	2.35	2.21	0.0906	0.0755	0.502	4.6	0.427	6.7	0.94
2.70	0.407	2.30	2.19	0.0943	0.0783	0.542	4.4	0.479	7.6	1.03
2.75	0.414	2.25	2.17	0.0982	0.0812	0.553	4.4	0.492	5.3	1.03
2.80	0.422	2.20	2.14	0.1022	0.0843	0.549	4.5	0.486	5.4	0.99
2.85	0.430	2.15	2.12	0.1065	0.0874	0.558	4.5	0.497	7.9	0.99
2.90	0.437	2.10	2.09	0.1109	0.0907	0.607	4.4	0.560	6.8	1.09

Table IV.b Silicon E_1 = 5.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.445	2.05	2.07	0.1156	0.0940	0.605	4.4	0.558	5.3	1.06
3.00	0.452	2.00	2.04	0.1205	0.0976	0.594	4.4	0.541	5.4	1.00
3.05	0.460	1.95	2.02	0.1256	0.1013	0.618	4.2	0.572	7.0	1.03
3.10	0.467	1.90	1.99	0.1310	0.1051	0.651	4.1	0.615	5.6	
3.15	0.475	1.85	1.97	0.1367	0.1091	0.649	2.9	0.610	5.6	
3.20	0.482	1.80	1.94	0.1428	0.1133	0.592	3.9	0.534	5.2	
3.25	0.490	1.75	1.92	0.1492	0.1176	0.667	3.6	0.633	6.5	
3.30	0.497	1.70	1.89	0.1559	0.1222	0.661	3.6	0.626	5.0	
3.35	0.505	1.65	1.86	0.1631	0.1270	0.697	3.5	0.674	4.3	
3.40	0.512	1.60	1.84	0.1707	0.1320	0.680	3.5	0.653	4.2	
3.45	0.520	1.55	1.81	0.1788	0.1372	0.711	3.5	0.701	7.0	
3.50	0.527	1.50	1.78	0.1874	0.1427	0.777	3.3	0.790	3.8	
3.55	0.535	1.45	1.75	0.1966	0.1486	0.697	3.6	0.683	5.9	
3.60	0.543	1.40	1.72	0.2065	0.1547	0.715	3.5	0.708	4.2	
3.65	0.550	1.35	1.69	0.2171	0.1611	0.715	3.5	0.711	5.6	
3.70	0.558	1.30	1.66	0.2286	0.1680	0.774	3.4	0.793	4.6	
3.75	0.565	1.25	1.63	0.2409	0.1752	0.756	3.5	0.772	4.7	
3.80	0.573	1.20	1.60	0.2543	0.1828	0.814	3.3	0.856	3.9	
3.85	0.580	1.15	1.57	0.2689	0.1910	0.782	3.4	0.815	3.3	
3.90	0.588	1.10	1.54	0.2847	0.1996	0.816	3.3	0.866	3.5	
3.95	0.595	1.05	1.50	0.3021	0.2088	0.794	3.4	0.838	4.6	
4.00	0.603	1.00	1.47	0.3212	0.2187	0.770	3.5	0.807	3.9	
4.05	0.610	0.95	1.43	0.3424	0.2292	0.777	3.4	0.819	4.0	
4.10	0.618	0.90	1.40	0.3659	0.2405	0.794	3.4	0.845	3.4	
4.15	0.625	0.85	1.36	0.3921	0.2527	0.783	3.4	0.834	3.5	
4.20	0.633	0.80	1.32	0.4216	0.2658	0.804	3.4	0.868	3.6	
4.25	0.641	0.75	1.28	0.4551	0.2800	0.800	3.4	0.868	3.6	
4.30	0.648	0.70	1.24	0.4933	0.2954	0.789	3.4	0.855	3.6	
4.35	0.656	0.65	1.20	0.5374	0.3122	0.816	3.3	0.895	3.5	
4.40	0.663	0.60	1.16	0.5889	0.3305	0.806	3.3	0.889	4.6	
4.45	0.671	0.55	1.11	0.6497	0.3507	0.758	3.5	0.843	4.2	
4.50	0.678	0.50	1.07	0.7227	0.3729	0.843	3.3	0.990	4.9	
4.55	0.686	0.45	1.02	0.8120	0.3976	0.842	3.2	1.026	4.4	
4.60	0.693	0.40	0.97	0.9235	0.4250	0.769	3.2	0.966	6.3	

Table IV.b Silicon E_1 = 6.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.099	5.45	3.32	0.0097	0.0090	2.878	3.3			
0.60	0.109	5.40	3.30	0.0107	0.0099	2.131	3.6			
0.65	0.118	5.35	3.29	0.0117	0.0108	1.671	4.0			
0.70	0.127	5.30	3.27	0.0127	0.0117	1.362	4.2			
0.75	0.136	5.25	3.26	0.0138	0.0126	1.063	3.5			
0.80	0.145	5.20	3.24	0.0148	0.0136	0.831	3.7			
0.85	0.154	5.15	3.22	0.0159	0.0146	0.713	3.9			
0.90	0.163	5.10	3.21	0.0170	0.0156	0.658	3.9			
0.95	0.172	5.05	3.19	0.0181	0.0166	0.633	3.8	0.008	574.2	0.04
1.00	0.181	5.00	3.18	0.0193	0.0176	0.569	3.9	0.062	94.6	0.31
1.05	0.190	4.95	3.16	0.0204	0.0187	0.487	3.4	0.061	81.4	0.31
1.10	0.199	4.90	3.14	0.0216	0.0197	0.435	5.6	0.074	74.3	0.37
1.15	0.208	4.85	3.13	0.0229	0.0208	0.367	6.2	0.049	84.6	0.25
1.20	0.217	4.80	3.11	0.0241	0.0219	0.359	6.3	0.087	30.5	0.44
1.25	0.226	4.75	3.09	0.0254	0.0231	0.350	5.9	0.114	20.2	0.57
1.30	0.235	4.70	3.08	0.0267	0.0242	0.350	6.2	0.143	16.9	0.71
1.35	0.244	4.65	3.06	0.0280	0.0254	0.340	6.3	0.154	16.8	0.76
1.40	0.253	4.60	3.04	0.0293	0.0266	0.332	6.0	0.165	12.8	0.81
1.45	0.262	4.55	3.03	0.0307	0.0278	0.335	6.2	0.185	13.6	0.91
1.50	0.271	4.50	3.01	0.0321	0.0291	0.315	4.1	0.173	12.0	0.85
1.55	0.280	4.45	2.99	0.0336	0.0304	0.303	5.4	0.170	12.6	0.83
1.60	0.289	4.40	2.97	0.0350	0.0317	0.294	5.2	0.169	13.3	0.81
1.65	0.298	4.35	2.96	0.0366	0.0330	0.274	5.7	0.152	10.8	0.73
1.70	0.307	4.30	2.94	0.0381	0.0344	0.290	5.4	0.181	11.0	0.86
1.75	0.316	4.25	2.92	0.0397	0.0357	0.257	5.8	0.145	12.5	0.69
1.80	0.326	4.20	2.90	0.0413	0.0372	0.277	5.6	0.177	11.9	0.83
1.85	0.335	4.15	2.89	0.0430	0.0386	0.280	5.5	0.186	10.3	0.87
1.90	0.344	4.10	2.87	0.0447	0.0401	0.262	5.9	0.168	12.3	0.78
1.95	0.353	4.05	2.85	0.0464	0.0416	0.301	5.3	0.223	9.8	1.02
2.00	0.362	4.00	2.83	0.0482	0.0431	0.286	5.6	0.208	8.2	0.95
2.05	0.371	3.95	2.81	0.0500	0.0447	0.305	5.4	0.236	7.8	1.07
2.10	0.380	3.90	2.80	0.0519	0.0463	0.294	5.5	0.225	12.3	1.01
2.15	0.389	3.85	2.78	0.0538	0.0480	0.258	4.0	0.181	8.4	0.80
2.20	0.398	3.80	2.76	0.0558	0.0497	0.274	5.1	0.204	7.8	0.90
2.25	0.407	3.75	2.74	0.0578	0.0514	0.251	5.4	0.176	7.8	0.77
2.30	0.416	3.70	2.72	0.0599	0.0532	0.273	5.2	0.207	8.0	0.89
2.35	0.425	3.65	2.70	0.0621	0.0550	0.261	5.4	0.193	9.6	0.82
2.40	0.434	3.60	2.68	0.0643	0.0568	0.255	5.5	0.187	8.7	0.79
2.45	0.443	3.55	2.66	0.0665	0.0587	0.251	5.5	0.183	7.7	0.76
2.50	0.452	3.50	2.65	0.0688	0.0607	0.257	5.4	0.192	7.5	0.79
2.55	0.461	3.45	2.63	0.0712	0.0627	0.254	5.5	0.189	8.1	0.77
2.60	0.470	3.40	2.61	0.0737	0.0648	0.262	5.4	0.201	9.2	0.81
2.65	0.479	3.35	2.59	0.0762	0.0669	0.271	5.4	0.214	10.4	0.85
2.70	0.488	3.30	2.57	0.0789	0.0690	0.293	5.2	0.244	6.3	0.95
2.75	0.497	3.25	2.55	0.0815	0.0713	0.270	5.4	0.213	8.5	0.82
2.80	0.506	3.20	2.53	0.0843	0.0735	0.279	5.3	0.226	7.9	0.86
2.85	0.515	3.15	2.51	0.0872	0.0759	0.282	5.2	0.231	10.2	0.87
2.90	0.524	3.10	2.48	0.0902	0.0783	0.314	5.0	0.274	6.8	1.01

Table IV.b Silicon E_1 = 6.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.534	3.05	2.46	0.0932	0.0808	0.295	5.2	0.248	9.3	0.90
3.00	0.543	3.00	2.44	0.0964	0.0833	0.282	5.3	0.232	6.8	0.83
3.05	0.552	2.95	2.42	0.0996	0.0860	0.298	5.1	0.253	9.0	0.89
3.10	0.561	2.90	2.40	0.1030	0.0887	0.312	5.0	0.271	7.1	0.94
3.15	0.570	2.85	2.38	0.1065	0.0915	0.313	4.2	0.273	6.0	0.93
3.20	0.579	2.80	2.36	0.1101	0.0943	0.325	6.7	0.289	9.5	0.97
3.25	0.588	2.75	2.34	0.1139	0.0973	0.335	6.3	0.303	10.7	1.00
3.30	0.597	2.70	2.31	0.1178	0.1004	0.370	5.9	0.349	6.3	1.14
3.35	0.606	2.65	2.29	0.1218	0.1035	0.336	6.1	0.304	7.6	0.97
3.40	0.615	2.60	2.27	0.1260	0.1068	0.360	6.1	0.336	8.5	1.06
3.45	0.624	2.55	2.25	0.1304	0.1101	0.362	6.1	0.338	8.4	1.05
3.50	0.633	2.50	2.22	0.1349	0.1136	0.335	6.5	0.302	8.7	0.92
3.55	0.642	2.45	2.20	0.1396	0.1172	0.344	6.1	0.313	7.7	0.94
3.60	0.651	2.40	2.18	0.1446	0.1209	0.347	6.4	0.317	7.1	0.93
3.65	0.660	2.35	2.15	0.1497	0.1248	0.346	6.0	0.316	8.4	0.91
3.70	0.669	2.30	2.13	0.1550	0.1288	0.370	6.3	0.348	8.4	0.98
3.75	0.678	2.25	2.10	0.1606	0.1329	0.370	5.9	0.348	6.8	0.97
3.80	0.687	2.20	2.08	0.1665	0.1372	0.363	5.9	0.339	8.2	0.92
3.85	0.696	2.15	2.05	0.1726	0.1417	0.396	6.0	0.385	8.0	1.03
3.90	0.705	2.10	2.03	0.1790	0.1463	0.391	6.1	0.378	7.6	0.99
3.95	0.714	2.05	2.00	0.1857	0.1511	0.416	5.6	0.413	7.3	1.06
4.00	0.723	2.00	1.98	0.1927	0.1561	0.419	5.8	0.417	6.4	
4.05	0.732	1.95	1.95	0.2002	0.1613	0.425	5.8	0.426	7.5	
4.10	0.741	1.90	1.92	0.2080	0.1668	0.448	5.5	0.459	6.2	
4.15	0.751	1.85	1.90	0.2162	0.1725	0.409	6.0	0.406	6.6	
4.20	0.760	1.80	1.87	0.2249	0.1784	0.457	5.4	0.476	6.4	
4.25	0.769	1.75	1.84	0.2341	0.1846	0.433	5.5	0.446	6.1	
4.30	0.778	1.70	1.81	0.2438	0.1910	0.445	5.5	0.469	5.2	
4.35	0.787	1.65	1.79	0.2541	0.1978	0.433	5.7	0.455	7.0	
4.40	0.796	1.60	1.76	0.2650	0.2049	0.472	5.5	0.511	5.3	
4.45	0.805	1.55	1.73	0.2767	0.2124	0.438	5.6	0.467	5.9	
4.50	0.814	1.50	1.70	0.2891	0.2202	0.460	5.5	0.500	6.9	
4.55	0.823	1.45	1.67	0.3024	0.2285	0.475	5.1	0.524	5.1	
4.60	0.832	1.40	1.64	0.3167	0.2372	0.470	5.0	0.520	5.0	

Table IV.b Silicon E_1 = 7.0 (GeV) Θ = 9.96°

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x'	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
0.55	0.116	6.45	3.59	0.0096	0.0089	2.923	4.6			
0.60	0.127	6.40	3.57	0.0105	0.0098	2.116	5.3			
0.65	0.137	6.35	3.56	0.0115	0.0107	1.547	6.2			
0.70	0.148	6.30	3.54	0.0125	0.0116	1.298	6.8			
0.75	0.158	6.25	3.53	0.0135	0.0126	0.838	5.2			
0.80	0.169	6.20	3.51	0.0145	0.0135	0.748	5.3			
0.85	0.179	6.15	3.50	0.0155	0.0144	0.626	5.5			
0.90	0.190	6.10	3.48	0.0166	0.0154	0.613	5.3			
0.95	0.200	6.05	3.47	0.0177	0.0164	0.546	5.3	0.014	463.4	0.09
1.00	0.211	6.00	3.45	0.0187	0.0174	0.479	5.6	0.046	127.6	0.30
1.05	0.222	5.95	3.44	0.0198	0.0184	0.421	4.2	0.059	74.2	0.39
1.10	0.232	5.90	3.42	0.0210	0.0194	0.373	6.2	0.067	72.3	0.44
1.15	0.243	5.85	3.41	0.0221	0.0205	0.320	6.8	0.053	82.1	0.35
1.20	0.253	5.80	3.39	0.0233	0.0215	0.288	7.2	0.053	59.5	0.35
1.25	0.264	5.75	3.38	0.0244	0.0226	0.276	7.1	0.072	32.5	0.48
1.30	0.274	5.70	3.36	0.0256	0.0237	0.272	7.2	0.093	25.5	0.62
1.35	0.285	5.65	3.35	0.0269	0.0248	0.260	7.8	0.098	26.3	0.66
1.40	0.295	5.60	3.33	0.0281	0.0259	0.250	7.6	0.103	21.2	0.69
1.45	0.306	5.55	3.31	0.0294	0.0271	0.248	7.2	0.116	18.5	0.78
1.50	0.316	5.50	3.30	0.0307	0.0283	0.235	4.7	0.112	11.8	0.75
1.55	0.327	5.45	3.28	0.0320	0.0294	0.257	5.1	0.150	10.6	1.01
1.60	0.338	5.40	3.27	0.0333	0.0307	0.247	5.3	0.147	9.3	0.98
1.65	0.348	5.35	3.25	0.0347	0.0319	0.253	5.1	0.165	11.2	1.10
1.70	0.359	5.30	3.24	0.0361	0.0331	0.224	5.4	0.134	12.9	0.90
1.75	0.369	5.25	3.22	0.0375	0.0344	0.233	5.3	0.152	12.3	1.01
1.80	0.380	5.20	3.20	0.0389	0.0357	0.199	5.8	0.114	11.3	0.76
1.85	0.390	5.15	3.19	0.0404	0.0370	0.227	5.3	0.157	10.3	1.04
1.90	0.401	5.10	3.17	0.0419	0.0384	0.215	5.6	0.145	9.8	0.96
1.95	0.411	5.05	3.15	0.0434	0.0397	0.219	5.6	0.155	9.3	1.02
2.00	0.422	5.00	3.14	0.0450	0.0411	0.224	5.5	0.165	8.9	1.09
2.05	0.433	4.95	3.12	0.0466	0.0425	0.209	5.7	0.150	10.1	0.98
2.10	0.443	4.90	3.10	0.0482	0.0440	0.211	5.8	0.156	9.3	1.02
2.15	0.454	4.85	3.09	0.0498	0.0454	0.200	6.4	0.144	9.1	0.94
2.20	0.464	4.80	3.07	0.0515	0.0469	0.209	12.2	0.160	19.0	1.03
2.25	0.475	4.75	3.05	0.0533	0.0485	0.181	12.5	0.125	20.0	0.80
2.30	0.485	4.70	3.04	0.0550	0.0500	0.201	11.9	0.153	16.8	0.98
2.35	0.496	4.65	3.02	0.0568	0.0516	0.188	13.6	0.138	20.2	0.88
2.40	0.506	4.60	3.00	0.0587	0.0532	0.191	13.6	0.145	20.1	0.92
2.45	0.517	4.55	2.98	0.0605	0.0549	0.176	14.0	0.126	20.3	0.79
2.50	0.527	4.50	2.97	0.0625	0.0566	0.188	12.4	0.144	18.1	0.90
2.55	0.538	4.45	2.95	0.0644	0.0583	0.187	11.8	0.143	16.2	0.89
2.60	0.549	4.40	2.93	0.0664	0.0600	0.192	13.2	0.152	19.7	0.94
2.65	0.559	4.35	2.91	0.0685	0.0618	0.205	12.1	0.171	17.0	1.05
2.70	0.570	4.30	2.89	0.0706	0.0637	0.209	11.5	0.177	14.1	1.08
2.75	0.580	4.25	2.88	0.0728	0.0655	0.201	13.5	0.168	16.2	1.01
2.80	0.591	4.20	2.86	0.0750	0.0674	0.208	12.6	0.178	14.7	1.07
2.85	0.601	4.15	2.84	0.0772	0.0694	0.202	12.6	0.171	16.2	1.02
2.90	0.612	4.10	2.82	0.0795	0.0714	0.217	11.3	0.192	12.8	1.14

Table IV.b Silicon $E_1 = 7.0$ (GeV) $\Theta = 9.96°$

E_3 GeV	Q^2 GeV²	ν GeV	W GeV	x	x′	σ_r $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma_r$ %	σ $\frac{\mu b}{GeV\ sr}$	$\Delta\sigma$ %	$\frac{A_{eff}}{A}$
2.95	0.622	4.05	2.80	0.0819	0.0734	0.202	13.2	0.173	20.1	1.01
3.00	0.633	4.00	2.78	0.0843	0.0755	0.185	13.8	0.151	18.4	0.87
3.05	0.644	3.95	2.77	0.0868	0.0776	0.194	13.5	0.163	19.2	0.94
3.10	0.654	3.90	2.75	0.0894	0.0798	0.205	12.7	0.179	15.0	1.02
3.15	0.665	3.85	2.73	0.0920	0.0820	0.191	8.0	0.159	12.9	0.90
3.20	0.675	3.80	2.71	0.0947	0.0843	0.184	7.7	0.151	9.6	0.85
3.25	0.686	3.75	2.69	0.0974	0.0866	0.189	7.8	0.159	10.3	0.88
3.30	0.696	3.70	2.67	0.1003	0.0890	0.191	7.9	0.161	10.2	0.88
3.35	0.707	3.65	2.65	0.1032	0.0914	0.195	7.6	0.166	11.5	0.90
3.40	0.717	3.60	2.63	0.1062	0.0939	0.208	7.3	0.185	8.9	0.99
3.45	0.728	3.55	2.61	0.1093	0.0965	0.200	7.7	0.174	11.1	0.92
3.50	0.738	3.50	2.59	0.1124	0.0991	0.192	7.6	0.164	9.3	0.86
3.55	0.749	3.45	2.57	0.1157	0.1018	0.197	7.7	0.171	10.2	0.89
3.60	0.760	3.40	2.55	0.1191	0.1046	0.201	7.3	0.177	8.5	0.91
3.65	0.770	3.35	2.53	0.1225	0.1075	0.196	7.8	0.170	11.1	0.87
3.70	0.781	3.30	2.51	0.1261	0.1104	0.215	7.2	0.196	8.1	0.99
3.75	0.791	3.25	2.49	0.1297	0.1134	0.195	7.7	0.168	10.0	0.84
3.80	0.802	3.20	2.47	0.1335	0.1164	0.223	7.4	0.206	9.4	1.01
3.85	0.812	3.15	2.45	0.1374	0.1196	0.207	7.5	0.185	10.4	0.90
3.90	0.823	3.10	2.42	0.1415	0.1229	0.208	7.6	0.186	12.4	0.89
3.95	0.833	3.05	2.40	0.1456	0.1262	0.236	7.1	0.226	9.0	1.07
4.00	0.844	3.00	2.38	0.1499	0.1296	0.221	7.4	0.205	8.1	0.96
4.05	0.855	2.95	2.36	0.1544	0.1332	0.237	7.1	0.227	8.4	1.05
4.10	0.865	2.90	2.34	0.1590	0.1368	0.230	7.3	0.218	9.0	1.00
4.15	0.876	2.85	2.31	0.1637	0.1406	0.226	7.3	0.212	8.7	0.96
4.20	0.886	2.80	2.29	0.1687	0.1445	0.223	7.3	0.208	8.3	0.93
4.25	0.897	2.75	2.27	0.1738	0.1484	0.230	6.9	0.218	10.0	0.96
4.30	0.907	2.70	2.24	0.1791	0.1526	0.247	6.7	0.242	7.5	1.05
4.35	0.918	2.65	2.22	0.1846	0.1568	0.224	7.4	0.210	10.1	0.90
4.40	0.928	2.60	2.20	0.1903	0.1612	0.229	7.6	0.217	9.5	0.92
4.45	0.939	2.55	2.17	0.1962	0.1657	0.237	7.3	0.229	7.7	0.96
4.50	0.949	2.50	2.15	0.2024	0.1704	0.227	6.9	0.216	7.6	0.89
4.55	0.960	2.45	2.13	0.2088	0.1753	0.234	7.1	0.226	9.8	0.92
4.60	0.971	2.40	2.10	0.2155	0.1803	0.250	6.3	0.248	9.5	1.00

Table 5 Fitparameter ε of $A_{eff}/A = A^{\varepsilon}$

x′	ε	$\Delta\varepsilon$	χ^2
0.020	-0.1399	0.0210	0.570
0.022	-0.1220	0.0148	2.063
0.024	-0.0639	0.0098	7.580
0.026	-0.0461	0.0095	7.788
0.028	-0.0280	0.0096	3.230
0.030	-0.0277	0.0085	0.216
0.032	-0.0293	0.0104	0.133
0.034	-0.0239	0.0088	0.722
0.036	-0.0381	0.0109	1.065
0.038	-0.0069	0.0082	0.558
0.040	-0.0114	0.0104	0.465
0.042	-0.0026	0.0074	2.117
0.044	-0.0044	0.0079	1.751
0.046	-0.0083	0.0074	0.558
0.048	-0.0053	0.0086	0.717
0.050	-0.0121	0.0083	0.325
0.052	-0.0197	0.0095	0.409
0.054	-0.0312	0.0076	0.141
0.056	-0.0240	0.0092	0.367
0.058	-0.0299	0.0090	0.222
0.060	-0.0254	0.0099	0.408
0.062	-0.0128	0.0090	0.422
0.064	-0.0093	0.0107	0.799
0.066	-0.0250	0.0093	0.303
0.068	-0.0103	0.0104	0.366
0.070	-0.0049	0.0088	0.150
0.072	-0.0147	0.0089	0.491
0.074	0.0072	0.0101	0.322
0.076	-0.0051	0.0084	1.137
0.078	0.0046	0.0080	0.114
0.080	-0.0184	0.0099	0.170
0.082	-0.0140	0.0088	0.029
0.084	-0.0104	0.0078	1.965
0.086	-0.0032	0.0103	2.829
0.088	-0.0015	0.0080	0.798
0.090	0.0165	0.0132	0.312
0.092	-0.0217	0.0098	1.285
0.094	-0.0097	0.0077	0.736
0.096	-0.0124	0.0125	0.601
0.098	0.0022	0.0097	0.885
0.100	-0.0150	0.0089	1.067
0.102	-0.0300	0.0130	0.230
0.104	-0.0247	0.0092	0.602
0.106	0.0026	0.0107	0.346
0.108	-0.0108	0.0125	0.411
0.110	-0.0165	0.0094	0.963
0.114	-0.0167	0.0092	2.209
0.116	0.0001	0.0132	0.065

Table 5 cont'd

x'	ε	$\Delta\varepsilon$	χ^2
0.118	-0.0361	0.0130	0.867
0.120	-0.0107	0.0087	1.097
0.122	0.0023	0.0135	0.446
0.124	-0.0509	0.0103	1.524
0.126	0.0182	0.0104	0.041
0.128	-0.0398	0.0142	1.303
0.130	-0.0001	0.0111	0.598
0.132	-0.0130	0.0143	0.127
0.134	0.0169	0.0120	0.096
0.136	0.0048	0.0128	1.371
0.138	0.0051	0.0113	1.228
0.140	0.0054	0.0121	0.693
0.142	0.0015	0.0106	0.557
0.144	0.0134	0.0116	0.221
0.146	0.0173	0.0111	1.030
0.148	0.0005	0.0121	0.400
0.152	0.0178	0.0107	0.157
0.156	0.0061	0.0119	0.925
0.162	0.0094	0.0112	1.427
0.166	-0.0027	0.0111	0.732
0.170	0.0002	0.0119	0.262