

Muons in ferrous sulfate dosimeter solution

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
0.55329	1.024	76.4	0.08759	3.4923	0.2378	2.8254	3.5183	0.00

T	p [MeV/c]	Ionization	Brems	Pair prod [MeV cm ² /g]	Photonucl	Total	CSDA range [g/cm ²]
10.0 MeV	4.704×10^1	7.920				7.920	6.979×10^{-1}
14.0 MeV	5.616×10^1	6.179				6.179	1.276×10^0
20.0 MeV	6.802×10^1	4.826				4.826	2.387×10^0
30.0 MeV	8.509×10^1	3.744				3.744	4.773×10^0
40.0 MeV	1.003×10^2	3.197				3.197	7.682×10^0
80.0 MeV	1.527×10^2	2.401				2.401	2.258×10^1
100. MeV	1.764×10^2	2.258				2.258	3.119×10^1
140. MeV	2.218×10^2	2.105				2.105	4.962×10^1
200. MeV	2.868×10^2	2.016				2.016	7.885×10^1
300. MeV	3.917×10^2	1.982			0.000	1.982	1.290×10^2
317. MeV	4.096×10^2	1.982			0.000	1.982	<i>Minimum ionization</i>
400. MeV	4.945×10^2	1.989			0.000	1.989	1.794×10^2
800. MeV	8.995×10^2	2.064	0.000		0.000	2.065	3.769×10^2
1.00 GeV	1.101×10^3	2.099	0.000		0.000	2.100	4.729×10^2
1.40 GeV	1.502×10^3	2.155	0.000		0.001	2.156	6.608×10^2
2.00 GeV	2.103×10^3	2.217	0.001	0.000	0.001	2.219	9.348×10^2
3.00 GeV	3.104×10^3	2.287	0.001	0.001	0.001	2.291	1.378×10^3
4.00 GeV	4.104×10^3	2.336	0.002	0.001	0.002	2.341	1.809×10^3
8.00 GeV	8.105×10^3	2.448	0.004	0.003	0.004	2.460	3.471×10^3
10.0 GeV	1.011×10^4	2.482	0.005	0.005	0.005	2.497	4.278×10^3
14.0 GeV	1.411×10^4	2.532	0.007	0.008	0.007	2.554	5.861×10^3
20.0 GeV	2.011×10^4	2.581	0.012	0.013	0.009	2.616	8.181×10^3
30.0 GeV	3.011×10^4	2.635	0.019	0.023	0.013	2.691	1.195×10^4
40.0 GeV	4.011×10^4	2.671	0.027	0.034	0.018	2.750	1.562×10^4
80.0 GeV	8.011×10^4	2.755	0.061	0.082	0.034	2.933	2.968×10^4
100. GeV	1.001×10^5	2.781	0.079	0.109	0.042	3.012	3.641×10^4
140. GeV	1.401×10^5	2.820	0.117	0.163	0.059	3.159	4.938×10^4
200. GeV	2.001×10^5	2.860	0.176	0.250	0.083	3.370	6.776×10^4
300. GeV	3.001×10^5	2.906	0.278	0.396	0.125	3.706	9.604×10^4
400. GeV	4.001×10^5	2.939	0.384	0.549	0.167	4.039	1.219×10^5
800. GeV	8.001×10^5	3.018	0.825	1.186	0.337	5.366	2.075×10^5
1.00 TeV	1.000×10^6	3.044	1.052	1.515	0.423	6.035	2.426×10^5
1.02 TeV	1.017×10^6	3.046	1.072	1.543	0.431	6.092	<i>Muon critical energy</i>
1.40 TeV	1.400×10^6	3.083	1.510	2.170	0.600	7.364	3.025×10^5
2.00 TeV	2.000×10^6	3.125	2.215	3.173	0.869	9.382	3.746×10^5
3.00 TeV	3.000×10^6	3.173	3.395	4.843	1.331	12.743	4.657×10^5
4.00 TeV	4.000×10^6	3.208	4.596	6.536	1.801	16.142	5.353×10^5
8.00 TeV	8.000×10^6	3.294	9.457	13.354	3.760	29.866	7.147×10^5
10.0 TeV	1.000×10^7	3.322	11.916	16.788	4.768	36.795	7.749×10^5
14.0 TeV	1.400×10^7	3.365	16.823	23.631	6.847	50.666	8.672×10^5
20.0 TeV	2.000×10^7	3.412	24.246	33.950	10.040	71.649	9.663×10^5
30.0 TeV	3.000×10^7	3.466	36.606	51.121	15.583	106.776	1.080×10^6
40.0 TeV	4.000×10^7	3.504	49.032	68.347	21.272	142.156	1.161×10^6
80.0 TeV	8.000×10^7	3.600	98.877	137.309	45.146	284.931	1.356×10^6
100. TeV	1.000×10^8	3.631	123.872	171.829	57.521	356.854	1.418×10^6