Muons in gadolinium silicate (Gd_2SiO_5)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.43069	6.710	405.4	0.19614	3.0000	0.2039	3.0000	5.2267	0.00

T	p [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm^2]
		[MeV cm^2/g]					
10.0 MeV	4.704×10^1	4.831				4.831	1.168×10^0
14.0 MeV	5.616×10^1	3.808				3.808	2.110×10^0
20.0 MeV	6.802×10^1	3.003				3.003	3.904×10^0
30.0 MeV	8.509×10^1	2.353				2.353	7.716×10^0
40.0 MeV	1.003×10^2	2.023				2.023	1.233×10^1
80.0 MeV	1.527×10^2	1.542				1.542	3.567×10^1
100. MeV	1.764×10^2	1.458				1.458	4.904×10^1
140. MeV	2.218×10^2	1.376				1.376	7.740×10^1
200. MeV	2.868×10^2	1.336				1.336	1.218×10^2
247. MeV	3.366×10^2	1.330				1.331	*Minimum ionization*
300. MeV	3.917×10^2	1.334	0.000		0.000	1.334	1.969×10^2
400. MeV	4.945×10^2	1.352	0.000		0.000	1.353	2.713×10^2
800. MeV	8.995×10^2	1.436	0.001		0.000	1.437	5.579×10^2
1.00 GeV	1.101×10^3	1.469	0.001		0.000	1.471	6.954×10^2
1.40 GeV	1.502×10^3	1.522	0.002	0.000	0.001	1.525	9.623×10^2
2.00 GeV	2.103×10^3	1.579	0.003	0.001	0.001	1.584	1.348×10^3
3.00 GeV	3.104×10^3	1.643	0.005	0.003	0.001	1.652	1.965×10^3
4.00 GeV	4.104×10^3	1.687	0.007	0.005	0.002	1.700	2.562×10^3
8.00 GeV	8.105×10^3	1.785	0.016	0.016	0.003	1.821	4.827×10^3
10.0 GeV	1.011×10^4	1.814	0.022	0.022	0.004	1.862	5.913×10^3
14.0 GeV	1.411×10^4	1.856	0.033	0.035	0.006	1.931	8.021×10^3
20.0 GeV	2.011×10^4	1.897	0.052	0.058	0.008	2.016	1.106×10^4
30.0 GeV	3.011×10^4	1.941	0.085	0.102	0.012	2.140	1.587×10^4
40.0 GeV	4.011×10^4	1.971	0.120	0.149	0.015	2.256	2.042×10^4
80.0 GeV	8.011×10^4	2.037	0.271	0.359	0.030	2.697	3.661×10^4
100. GeV	1.001×10^5	2.057	0.352	0.472	0.037	2.918	4.373×10^4
140. GeV	1.401×10^5	2.087	0.516	0.704	0.051	3.360	5.650×10^4
200. GeV	2.001×10^5	2.119	0.774	1.073	0.073	4.040	7.277×10^4
219. GeV	2.194×10^5	2.127	0.857	1.190	0.080	4.255	*Muon critical energy*
300. GeV	3.001×10^5	2.154	1.214	1.690	0.109	5.169	9.461×10^4
400. GeV	4.001×10^5	2.180	1.669	2.329	0.146	6.324	1.121×10^5
800. GeV	8.001×10^5	2.241	3.548	4.950	0.295	11.035	1.594×10^5
1.00 TeV	1.000×10^6	2.262	4.513	6.292	0.370	13.438	1.758×10^5
1.40 TeV	1.400×10^6	2.292	6.447	8.967	0.525	18.232	2.012×10^5
2.00 TeV	2.000×10^6	2.325	9.406	13.051	0.759	25.542	2.289×10^5
3.00 TeV	3.000×10^6	2.363	14.347	19.837	1.161	37.708	2.610×10^5
4.00 TeV	4.000×10^6	2.390	19.353	26.696	1.569	50.009	2.839×10^5
8.00 TeV	8.000×10^6	2.457	39.537	54.269	3.262	99.526	3.395×10^5
10.0 TeV	1.000×10^7	2.478	49.708	68.130	4.132	124.450	3.575×10^5
14.0 TeV	1.400×10^7	2.512	69.997	95.784	5.920	174.214	3.845×10^5
20.0 TeV	2.000×10^7	2.548	100.610	137.444	8.660	249.264	4.131×10^5
30.0 TeV	3.000×10^7	2.590	151.569	206.760	13.399	374.319	4.457×10^5
40.0 TeV	4.000×10^7	2.620	202.712	276.241	18.251	499.826	4.687×10^5
80.0 TeV	8.000×10^7	2.694	407.594	554.358	38.525	1003.172	5.241×10^5
100. TeV	1.000×10^8	2.719	510.209	693.544	49.002	1255.474	5.419×10^5