

Muons in bismuth silicate (BSO) $[(\text{Bi}_2\text{O}_3)_2(\text{SiO}_2)_3]$

	$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
	0.42260	7.120	519.2	0.21867	3.0000	0.4077	3.0557	5.9374	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	4.546				4.546			1.246×10^0
14.0 MeV	5.616×10^1	3.590				3.590			2.246×10^0
20.0 MeV	6.802×10^1	2.837				2.837			4.147×10^0
30.0 MeV	8.509×10^1	2.228				2.228			8.177×10^0
40.0 MeV	1.003×10^2	1.917				1.917			1.305×10^1
80.0 MeV	1.527×10^2	1.466				1.466			3.763×10^1
100. MeV	1.764×10^2	1.387				1.387			5.169×10^1
140. MeV	2.218×10^2	1.313				1.313			8.147×10^1
200. MeV	2.868×10^2	1.281				1.281			1.279×10^2
229. MeV	3.179×10^2	1.279				1.279			<i>Minimum ionization</i>
300. MeV	3.917×10^2	1.286	0.000		0.000	1.287			2.060×10^2
400. MeV	4.945×10^2	1.308	0.000		0.000	1.309			2.830×10^2
800. MeV	8.995×10^2	1.399	0.001		0.000	1.401			5.779×10^2
1.00 GeV	1.101×10^3	1.435	0.001		0.000	1.436			7.189×10^2
1.40 GeV	1.502×10^3	1.490	0.002		0.001	1.493			9.918×10^2
2.00 GeV	2.103×10^3	1.549	0.003	0.001	0.001	1.554			1.385×10^3
3.00 GeV	3.104×10^3	1.615	0.006	0.003	0.001	1.625			2.013×10^3
4.00 GeV	4.104×10^3	1.660	0.008	0.005	0.002	1.675			2.619×10^3
8.00 GeV	8.105×10^3	1.760	0.020	0.018	0.003	1.802			4.912×10^3
10.0 GeV	1.011×10^4	1.790	0.027	0.025	0.004	1.847			6.009×10^3
14.0 GeV	1.411×10^4	1.832	0.041	0.041	0.006	1.921			8.131×10^3
20.0 GeV	2.011×10^4	1.874	0.064	0.068	0.008	2.014			1.118×10^4
30.0 GeV	3.011×10^4	1.918	0.105	0.120	0.011	2.155			1.598×10^4
40.0 GeV	4.011×10^4	1.947	0.148	0.176	0.015	2.287			2.048×10^4
80.0 GeV	8.011×10^4	2.012	0.335	0.427	0.029	2.804			3.624×10^4
100. GeV	1.001×10^5	2.032	0.434	0.562	0.036	3.066			4.306×10^4
140. GeV	1.401×10^5	2.062	0.636	0.841	0.050	3.591			5.511×10^4
183. GeV	1.833×10^5	2.085	0.864	1.156	0.066	4.172			<i>Muon critical energy</i>
200. GeV	2.001×10^5	2.093	0.954	1.282	0.071	4.402			7.018×10^4
300. GeV	3.001×10^5	2.128	1.496	2.020	0.107	5.753			9.001×10^4
400. GeV	4.001×10^5	2.153	2.056	2.785	0.143	7.138			1.056×10^5
800. GeV	8.001×10^5	2.213	4.366	5.922	0.289	12.792			1.469×10^5
1.00 TeV	1.000×10^6	2.233	5.553	7.527	0.363	15.677			1.610×10^5
1.40 TeV	1.400×10^6	2.263	7.930	10.728	0.514	21.436			1.827×10^5
2.00 TeV	2.000×10^6	2.295	11.564	15.612	0.744	30.217			2.062×10^5
3.00 TeV	3.000×10^6	2.332	17.630	23.729	1.137	44.830			2.332×10^5
4.00 TeV	4.000×10^6	2.359	23.774	31.932	1.537	59.604			2.525×10^5
8.00 TeV	8.000×10^6	2.424	48.539	64.905	3.196	119.066			2.991×10^5
10.0 TeV	1.000×10^7	2.446	61.015	81.478	4.048	148.989			3.140×10^5
14.0 TeV	1.400×10^7	2.479	85.900	114.546	5.797	208.724			3.366×10^5
20.0 TeV	2.000×10^7	2.514	123.439	164.360	8.478	298.793			3.605×10^5
30.0 TeV	3.000×10^7	2.555	185.930	247.239	13.114	448.840			3.876×10^5
40.0 TeV	4.000×10^7	2.585	248.637	330.313	17.861	599.397			4.069×10^5
80.0 TeV	8.000×10^7	2.658	499.816	662.835	37.691	1203.001			4.530×10^5
100. TeV	1.000×10^8	2.682	625.606	829.246	47.937	1505.472			4.679×10^5