

Muons in baksan rock, std rock density

	$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
	0.49228	2.650	175.6	0.15614	3.0000	0.2073	3.0073	4.3821	0.00
T	p [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm ²]		
10.0 MeV	4.704×10^1	6.286				6.286	8.871×10^{-1}		
14.0 MeV	5.616×10^1	4.926				4.926	1.613×10^0		
20.0 MeV	6.802×10^1	3.864				3.864	3.004×10^0		
30.0 MeV	8.509×10^1	3.011				3.011	5.976×10^0		
40.0 MeV	1.003×10^2	2.579				2.579	9.587×10^0		
80.0 MeV	1.527×10^2	1.950				1.950	2.798×10^1		
100. MeV	1.764×10^2	1.837				1.837	3.857×10^1		
140. MeV	2.218×10^2	1.719				1.719	6.119×10^1		
200. MeV	2.868×10^2	1.655				1.655	9.690×10^1		
283. MeV	3.738×10^2	1.637			0.000	1.637	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.637			0.000	1.637	1.578×10^2		
400. MeV	4.945×10^2	1.650			0.000	1.650	2.187×10^2		
800. MeV	8.995×10^2	1.731	0.000		0.000	1.732	4.553×10^2		
1.00 GeV	1.101×10^3	1.765	0.000		0.000	1.766	5.696×10^2		
1.40 GeV	1.502×10^3	1.821	0.001	0.000	0.001	1.823	7.924×10^2		
2.00 GeV	2.103×10^3	1.882	0.001	0.000	0.001	1.884	1.116×10^3		
3.00 GeV	3.104×10^3	1.951	0.002	0.001	0.001	1.955	1.636×10^3		
4.00 GeV	4.104×10^3	1.998	0.002	0.002	0.002	2.004	2.141×10^3		
8.00 GeV	8.105×10^3	2.107	0.005	0.005	0.004	2.121	4.074×10^3		
10.0 GeV	1.011×10^4	2.139	0.007	0.007	0.005	2.158	5.009×10^3		
14.0 GeV	1.411×10^4	2.186	0.011	0.012	0.006	2.215	6.836×10^3		
20.0 GeV	2.011×10^4	2.232	0.017	0.020	0.009	2.278	9.505×10^3		
30.0 GeV	3.011×10^4	2.282	0.028	0.034	0.013	2.358	1.382×10^4		
40.0 GeV	4.011×10^4	2.315	0.040	0.050	0.017	2.423	1.800×10^4		
80.0 GeV	8.011×10^4	2.391	0.090	0.121	0.033	2.635	3.380×10^4		
100. GeV	1.001×10^5	2.414	0.116	0.160	0.041	2.731	4.126×10^4		
140. GeV	1.401×10^5	2.448	0.171	0.239	0.057	2.916	5.543×10^4		
200. GeV	2.001×10^5	2.484	0.257	0.365	0.080	3.188	7.510×10^4		
300. GeV	3.001×10^5	2.525	0.405	0.578	0.121	3.629	1.045×10^5		
400. GeV	4.001×10^5	2.554	0.557	0.800	0.161	4.072	1.305×10^5		
655. GeV	6.554×10^5	2.604	0.959	1.381	0.265	5.209	<i>Muon critical energy</i>		
800. GeV	8.001×10^5	2.625	1.191	1.717	0.325	5.858	2.120×10^5		
1.00 TeV	1.000×10^6	2.648	1.518	2.191	0.408	6.764	2.437×10^5		
1.40 TeV	1.400×10^6	2.682	2.175	3.131	0.579	8.567	2.961×10^5		
2.00 TeV	2.000×10^6	2.720	3.182	4.568	0.837	11.308	3.569×10^5		
3.00 TeV	3.000×10^6	2.763	4.868	6.961	1.282	15.875	4.312×10^5		
4.00 TeV	4.000×10^6	2.794	6.581	9.384	1.735	20.494	4.865×10^5		
8.00 TeV	8.000×10^6	2.870	13.504	19.135	3.616	39.127	6.254×10^5		
10.0 TeV	1.000×10^7	2.896	17.001	24.043	4.585	48.524	6.712×10^5		
14.0 TeV	1.400×10^7	2.934	23.981	33.825	6.577	67.318	7.409×10^5		
20.0 TeV	2.000×10^7	2.975	34.533	48.572	9.635	95.715	8.153×10^5		
30.0 TeV	3.000×10^7	3.023	52.077	73.118	14.937	143.155	9.002×10^5		
40.0 TeV	4.000×10^7	3.057	69.699	97.737	20.373	190.867	9.605×10^5		
80.0 TeV	8.000×10^7	3.142	140.364	196.287	43.149	382.944	1.106×10^6		
100. TeV	1.000×10^8	3.170	175.788	245.614	54.942	479.514	1.152×10^6		