Muons in Kolar Gold Fields rock, std rock density

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.48605	2.650	183.4	0.16068	3.0000	0.2284	3.0284	4.5791	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	6.167				6.168	9.047×10^{-1}
14.0 MeV	5.616×10^1	4.834				4.834	1.645×10^0
20.0 MeV	6.802×10^1	3.793				3.793	3.062×10^0
30.0 MeV	8.509×10^1	2.957				2.957	6.089×10^0
40.0 MeV	1.003×10^2	2.533				2.533	9.766×10^0
80.0 MeV	1.527×10^2	1.916				1.916	2.849×10^1
100. MeV	1.764×10^2	1.806				1.806	3.927×10^1
140. MeV	2.218×10^2	1.692				1.692	6.225×10^1
200. MeV	2.868×10^2	1.631				1.631	9.851×10^1
280. MeV	3.708×10^2	1.614			0.000	1.615	*Minimum ionization*
300. MeV	3.917×10^2	1.615			0.000	1.615	1.603×10^2
400. MeV	4.945×10^2	1.629			0.000	1.629	2.220×10^2
800. MeV	8.995×10^2	1.711	0.000		0.000	1.712	4.615×10^2
1.00 GeV	1.101×10^3	1.746	0.000		0.000	1.747	5.771×10^2
1.40 GeV	1.502×10^3	1.801	0.001	0.000	0.001	1.803	8.023×10^2
2.00 GeV	2.103×10^3	1.862	0.001	0.000	0.001	1.865	1.129×10^3
3.00 GeV	3.104×10^3	1.931	0.002	0.001	0.001	1.935	1.655×10^3
4.00 GeV	4.104×10^3	1.979	0.002	0.002	0.002	1.985	2.165×10^3
8.00 GeV	8.105×10^3	2.087	0.006	0.006	0.004	2.102	4.116×10^3
10.0 GeV	1.011×10^4	2.119	0.008	0.008	0.005	2.139	5.059×10^3
14.0 GeV	1.411×10^4	2.166	0.011	0.013	0.006	2.196	6.903×10^3
20.0 GeV	2.011×10^4	2.212	0.018	0.021	0.009	2.259	9.595×10^3
30.0 GeV	3.011×10^4	2.261	0.029	0.036	0.013	2.339	1.394×10^4
40.0 GeV	4.011×10^4	2.294	0.041	0.053	0.017	2.405	1.816×10^4
80.0 GeV	8.011×10^4	2.369	0.093	0.126	0.033	2.621	3.406×10^4
100. GeV	1.001×10^5	2.391	0.121	0.166	0.041	2.720	4.155×10^4
140. GeV	1.401×10^5	2.425	0.178	0.249	0.056	2.909	5.576×10^4
200. GeV	2.001×10^5	2.461	0.267	0.379	0.080	3.188	7.546×10^4
300. GeV	3.001×10^5	2.501	0.421	0.601	0.120	3.643	1.048×10^5
400. GeV	4.001×10^5	2.530	0.579	0.831	0.160	4.101	1.306×10^5
628. GeV	6.283×10^5	2.575	0.952	1.371	0.252	5.151	*Muon critical energy*
800. GeV	8.001×10^5	2.600	1.238	1.785	0.323	5.946	2.112×10^5
1.00 TeV	1.000×10^6	2.622	1.577	2.276	0.406	6.883	2.424×10^5
1.40 TeV	1.400×10^6	2.657	2.260	3.253	0.576	8.746	2.939×10^5
2.00 TeV	2.000×10^6	2.694	3.306	4.748	0.834	11.582	3.533×10^5
3.00 TeV	3.000×10^6	2.736	5.057	7.233	1.277	16.304	4.258×10^5
4.00 TeV	4.000×10^6	2.767	6.836	9.750	1.727	21.080	4.796×10^5
8.00 TeV	8.000×10^6	2.842	14.024	19.878	3.599	40.343	6.144×10^5
10.0 TeV	1.000×10^7	2.867	17.653	24.974	4.562	50.057	6.588×10^5
14.0 TeV	1.400×10^7	2.905	24.900	35.134	6.544	69.484	7.264×10^5
20.0 TeV	2.000×10^7	2.946	35.852	50.449	9.587	98.834	7.984×10^5
30.0 TeV	3.000×10^7	2.993	54.064	75.941	14.860	147.859	8.806×10^5
40.0 TeV	4.000×10^7	3.027	72.355	101.509	20.267	197.158	9.390×10^5
80.0 TeV	8.000×10^7	3.111	145.699	203.858	42.914	395.583	1.079×10^6
100. TeV	1.000×10^8	3.138	182.463	255.089	54.637	495.327	1.124×10^6