Muons in calcium fluoride (CaF_2)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.49670	3.180	166.0	0.06942	3.5263	0.0676	3.1683	4.0653	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	6.395				6.395	8.715×10^{-1}
14.0 MeV	5.616×10^1	5.009				5.009	1.586×10^0
20.0 MeV	6.802×10^1	3.928				3.928	2.953×10^0
30.0 MeV	8.509×10^1	3.060				3.060	5.877×10^0
40.0 MeV	1.003×10^2	2.620				2.620	9.431×10^0
80.0 MeV	1.527×10^2	1.975				1.975	2.756×10^1
100. MeV	1.764×10^2	1.857				1.857	3.803×10^1
140. MeV	2.218×10^2	1.738				1.738	6.039×10^1
200. MeV	2.868×10^2	1.673				1.674	9.570×10^1
288. MeV	3.788×10^2	1.655			0.000	1.655	*Minimum ionization*
300. MeV	3.917×10^2	1.655			0.000	1.656	1.559×10^2
400. MeV	4.945×10^2	1.667			0.000	1.668	2.162×10^2
800. MeV	8.995×10^2	1.747	0.000		0.000	1.748	4.504×10^2
1.00 GeV	1.101×10^3	1.781	0.000		0.000	1.782	5.637×10^2
1.40 GeV	1.502×10^3	1.835	0.001	0.000	0.001	1.837	7.847×10^2
2.00 GeV	2.103×10^3	1.895	0.001	0.001	0.001	1.897	1.106×10^3
3.00 GeV	3.104×10^3	1.962	0.002	0.001	0.001	1.966	1.623×10^3
4.00 GeV	4.104×10^3	2.008	0.003	0.002	0.002	2.015	2.125×10^3
8.00 GeV	8.105×10^3	2.114	0.007	0.006	0.004	2.131	4.049×10^3
10.0 GeV	1.011×10^4	2.146	0.009	0.009	0.005	2.168	4.979×10^3
14.0 GeV	1.411×10^4	2.192	0.013	0.014	0.006	2.226	6.799×10^3
20.0 GeV	2.011×10^4	2.238	0.020	0.024	0.009	2.291	9.454×10^3
30.0 GeV	3.011×10^4	2.287	0.034	0.041	0.013	2.375	1.374×10^4
40.0 GeV	4.011×10^4	2.321	0.047	0.060	0.017	2.446	1.788×10^4
80.0 GeV	8.011×10^4	2.396	0.107	0.145	0.033	2.682	3.348×10^4
100. GeV	1.001×10^5	2.420	0.139	0.191	0.040	2.791	4.079×10^4
140. GeV	1.401×10^5	2.455	0.204	0.286	0.056	3.002	5.460×10^4
200. GeV	2.001×10^5	2.491	0.307	0.437	0.080	3.315	7.361×10^4
300. GeV	3.001×10^5	2.532	0.482	0.691	0.119	3.825	1.017×10^5
400. GeV	4.001×10^5	2.562	0.664	0.955	0.159	4.339	1.262×10^5
565. GeV	5.653×10^5	2.597	0.971	1.400	0.225	5.194	*Muon critical energy*
800. GeV	8.001×10^5	2.633	1.417	2.042	0.322	6.414	2.016×10^5
1.00 TeV	1.000×10^6	2.656	1.805	2.602	0.404	7.467	2.304×10^5
1.40 TeV	1.400×10^6	2.691	2.585	3.716	0.573	9.565	2.777×10^5
2.00 TeV	2.000×10^6	2.729	3.780	5.420	0.829	12.759	3.318×10^5
3.00 TeV	3.000×10^6	2.772	5.779	8.254	1.270	18.076	3.973×10^5
4.00 TeV	4.000×10^6	2.804	7.809	11.123	1.718	23.454	4.458×10^5
8.00 TeV	8.000×10^6	2.881	16.010	22.666	3.580	45.137	5.666×10^5
10.0 TeV	1.000×10^7	2.906	20.150	28.474	4.538	56.068	6.063×10^5
14.0 TeV	1.400×10^7	2.945	28.413	40.055	6.509	77.922	6.665×10^5
20.0 TeV	2.000×10^7	2.986	40.898	57.512	9.534	110.931	7.307×10^5
30.0 TeV	3.000×10^7	3.034	61.665	86.559	14.777	166.036	8.039×10^5
40.0 TeV	4.000×10^7	3.069	82.521	115.688	20.152	221.431	8.559×10^5
80.0 TeV	8.000×10^7	3.155	166.132	232.299	42.665	444.251	9.810×10^5
100. TeV	1.000×10^8	3.183	208.035	290.668	54.318	556.204	1.021×10^6