

**Table 113: Muons in Barium fluoride (BaF<sub>2</sub>)**

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.42207	4.893	375.9	0.15991	2.8867	-0.0099	3.3870	5.4116	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]	
10.0 MeV	$4.704 \times 10^1$	4.793				4.793	$1.176 \times 10^0$	
14.0 MeV	$5.616 \times 10^1$	3.776				3.776	$2.125 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	2.976				2.976	$3.935 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	2.331				2.331	$7.782 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	2.003				2.003	$1.244 \times 10^1$	
80.0 MeV	$1.527 \times 10^2$	1.523				1.523	$3.604 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.437				1.437	$4.959 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.352				1.352	$7.841 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.310				1.310	$1.236 \times 10^2$	
256. MeV	$3.462 \times 10^2$	1.303			0.000	1.303	<i>Minimum ionization</i>	
300. MeV	$3.917 \times 10^2$	1.305	0.000		0.000	1.306	$2.003 \times 10^2$	
400. MeV	$4.945 \times 10^2$	1.322	0.000		0.000	1.323	$2.764 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.403	0.001		0.000	1.404	$5.697 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.436	0.001		0.000	1.437	$7.105 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.488	0.001	0.000	0.001	1.491	$9.835 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	1.545	0.002	0.001	0.001	1.550	$1.378 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	1.609	0.004	0.003	0.001	1.618	$2.009 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	1.654	0.006	0.005	0.002	1.667	$2.617 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	1.755	0.015	0.015	0.003	1.788	$4.925 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	1.785	0.020	0.021	0.004	1.830	$6.030 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	1.829	0.031	0.033	0.006	1.899	$8.174 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	1.872	0.048	0.054	0.008	1.983	$1.126 \times 10^4$	
30.0 GeV	$3.011 \times 10^4$	1.918	0.078	0.095	0.012	2.103	$1.616 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	1.948	0.111	0.139	0.015	2.214	$2.079 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.016	0.250	0.334	0.030	2.631	$3.733 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.037	0.324	0.439	0.037	2.838	$4.465 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.067	0.475	0.656	0.051	3.250	$5.781 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.098	0.713	0.999	0.073	3.884	$7.469 \times 10^4$	
233. GeV	$2.327 \times 10^5$	2.111	0.843	1.183	0.085	4.223	<i>Muon critical energy</i>	
300. GeV	$3.001 \times 10^5$	2.133	1.118	1.572	0.110	4.934	$9.749 \times 10^4$	
400. GeV	$4.001 \times 10^5$	2.158	1.537	2.167	0.146	6.009	$1.158 \times 10^5$	
800. GeV	$8.001 \times 10^5$	2.218	3.268	4.606	0.295	10.389	$1.659 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.238	4.157	5.855	0.371	12.622	$1.833 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.268	5.940	8.344	0.526	17.079	$2.105 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.300	8.668	12.145	0.761	23.874	$2.400 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	2.337	13.223	18.460	1.163	35.184	$2.743 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	2.364	17.839	24.844	1.572	46.620	$2.990 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	2.429	36.453	50.507	3.270	92.659	$3.587 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	2.451	45.834	63.408	4.141	115.835	$3.779 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	2.484	64.546	89.147	5.932	162.110	$4.070 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	2.519	92.781	127.924	8.678	231.904	$4.378 \times 10^5$	
30.0 TeV	$3.000 \times 10^7$	2.560	139.787	192.439	13.426	348.213	$4.727 \times 10^5$	
40.0 TeV	$4.000 \times 10^7$	2.589	186.965	257.109	18.288	464.952	$4.975 \times 10^5$	
80.0 TeV	$8.000 \times 10^7$	2.662	375.962	515.980	38.604	933.210	$5.570 \times 10^5$	
100. TeV	$1.000 \times 10^8$	2.686	470.624	645.539	49.102	1167.952	$5.761 \times 10^5$	