

Muons in compact bone (ICRU)

	$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
	0.53010	1.850	91.9	0.05822	3.6419	0.0944	3.0201	3.3390	0.00
T	p [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm ²]		
10.0 MeV	4.704×10^1	7.406				7.406	7.477×10^{-1}		
14.0 MeV	5.616×10^1	5.783				5.783	1.365×10^0		
20.0 MeV	6.802×10^1	4.521				4.521	2.552×10^0		
30.0 MeV	8.509×10^1	3.511				3.511	5.097×10^0		
40.0 MeV	1.003×10^2	3.000				3.000	8.199×10^0		
80.0 MeV	1.527×10^2	2.247				2.247	2.408×10^1		
100. MeV	1.764×10^2	2.106				2.106	3.330×10^1		
140. MeV	2.218×10^2	1.962				1.962	5.307×10^1		
200. MeV	2.868×10^2	1.880				1.880	8.444×10^1		
300. MeV	3.917×10^2	1.849			0.000	1.850	1.382×10^2		
314. MeV	4.065×10^2	1.849			0.000	1.849	<i>Minimum ionization</i>		
400. MeV	4.945×10^2	1.856			0.000	1.857	1.922×10^2		
800. MeV	8.995×10^2	1.930	0.000		0.000	1.930	4.036×10^2		
1.00 GeV	1.101×10^3	1.963	0.000		0.000	1.964	5.063×10^2		
1.40 GeV	1.502×10^3	2.017	0.000	0.000	0.001	2.018	7.071×10^2		
2.00 GeV	2.103×10^3	2.076	0.001	0.000	0.001	2.078	9.998×10^2		
3.00 GeV	3.104×10^3	2.144	0.001	0.001	0.001	2.148	1.473×10^3		
4.00 GeV	4.104×10^3	2.191	0.002	0.001	0.002	2.196	1.933×10^3		
8.00 GeV	8.105×10^3	2.299	0.004	0.004	0.004	2.312	3.702×10^3		
10.0 GeV	1.011×10^4	2.332	0.006	0.006	0.005	2.349	4.560×10^3		
14.0 GeV	1.411×10^4	2.380	0.009	0.010	0.006	2.405	6.242×10^3		
20.0 GeV	2.011×10^4	2.428	0.014	0.016	0.009	2.467	8.704×10^3		
30.0 GeV	3.011×10^4	2.480	0.023	0.028	0.013	2.544	1.269×10^4		
40.0 GeV	4.011×10^4	2.515	0.032	0.041	0.017	2.605	1.658×10^4		
80.0 GeV	8.011×10^4	2.595	0.073	0.099	0.034	2.801	3.136×10^4		
100. GeV	1.001×10^5	2.620	0.095	0.130	0.042	2.887	3.839×10^4		
140. GeV	1.401×10^5	2.657	0.140	0.195	0.058	3.050	5.187×10^4		
200. GeV	2.001×10^5	2.696	0.210	0.298	0.083	3.286	7.081×10^4		
300. GeV	3.001×10^5	2.740	0.331	0.472	0.124	3.667	9.960×10^4		
400. GeV	4.001×10^5	2.771	0.456	0.654	0.165	4.046	1.256×10^5		
800. GeV	8.001×10^5	2.847	0.977	1.407	0.333	5.564	2.095×10^5		
837. GeV	8.367×10^5	2.852	1.026	1.477	0.349	5.704	<i>Muon critical energy</i>		
1.00 TeV	1.000×10^6	2.871	1.246	1.795	0.418	6.331	2.432×10^5		
1.40 TeV	1.400×10^6	2.909	1.787	2.568	0.593	7.857	2.998×10^5		
2.00 TeV	2.000×10^6	2.949	2.617	3.751	0.859	10.177	3.667×10^5		
3.00 TeV	3.000×10^6	2.996	4.007	5.720	1.316	14.040	4.501×10^5		
4.00 TeV	4.000×10^6	3.029	5.421	7.716	1.781	17.947	5.129×10^5		
8.00 TeV	8.000×10^6	3.112	11.138	15.749	3.716	33.714	6.729×10^5		
10.0 TeV	1.000×10^7	3.139	14.027	19.793	4.712	41.671	7.262×10^5		
14.0 TeV	1.400×10^7	3.180	19.794	27.854	6.764	57.592	8.075×10^5		
20.0 TeV	2.000×10^7	3.224	28.514	40.008	9.916	81.663	8.946×10^5		
30.0 TeV	3.000×10^7	3.276	43.026	60.233	15.385	121.920	9.941×10^5		
40.0 TeV	4.000×10^7	3.313	57.608	80.519	20.997	162.437	1.065×10^6		
80.0 TeV	8.000×10^7	3.404	116.078	161.730	44.538	325.750	1.235×10^6		
100. TeV	1.000×10^8	3.434	145.387	202.381	56.736	407.939	1.290×10^6		