

Muons in soft tissue (ICRP)

	$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
	0.55121	1.000	72.3	0.08926	3.5110	0.2211	2.7799	3.4354	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	7.947				7.947		6.952×10^{-1}	
14.0 MeV	5.616×10^1	6.198				6.198		1.271×10^0	
20.0 MeV	6.802×10^1	4.839				4.839		2.379×10^0	
30.0 MeV	8.509×10^1	3.754				3.754		4.759×10^0	
40.0 MeV	1.003×10^2	3.205				3.205		7.661×10^0	
80.0 MeV	1.527×10^2	2.406				2.406		2.253×10^1	
100. MeV	1.764×10^2	2.262				2.262		3.112×10^1	
140. MeV	2.218×10^2	2.106				2.107		4.953×10^1	
200. MeV	2.868×10^2	2.017				2.017		7.876×10^1	
300. MeV	3.917×10^2	1.982			0.000	1.983		1.289×10^2	
318. MeV	4.105×10^2	1.982			0.000	1.982			<i>Minimum ionization</i>
400. MeV	4.945×10^2	1.988			0.000	1.989		1.793×10^2	
800. MeV	8.995×10^2	2.063	0.000		0.000	2.063		3.769×10^2	
1.00 GeV	1.101×10^3	2.097	0.000		0.000	2.098		4.730×10^2	
1.40 GeV	1.502×10^3	2.152	0.000		0.001	2.153		6.611×10^2	
2.00 GeV	2.103×10^3	2.213	0.001	0.000	0.001	2.215		9.355×10^2	
3.00 GeV	3.104×10^3	2.283	0.001	0.001	0.001	2.286		1.379×10^3	
4.00 GeV	4.104×10^3	2.332	0.001	0.001	0.002	2.336		1.812×10^3	
8.00 GeV	8.105×10^3	2.442	0.003	0.003	0.004	2.453		3.478×10^3	
10.0 GeV	1.011×10^4	2.476	0.005	0.005	0.005	2.490		4.287×10^3	
14.0 GeV	1.411×10^4	2.525	0.007	0.008	0.007	2.546		5.874×10^3	
20.0 GeV	2.011×10^4	2.574	0.011	0.012	0.009	2.607		8.202×10^3	
30.0 GeV	3.011×10^4	2.627	0.018	0.022	0.014	2.681		1.198×10^4	
40.0 GeV	4.011×10^4	2.664	0.025	0.032	0.018	2.739		1.567×10^4	
80.0 GeV	8.011×10^4	2.747	0.058	0.078	0.034	2.917		2.980×10^4	
100. GeV	1.001×10^5	2.773	0.075	0.102	0.042	2.993		3.657×10^4	
140. GeV	1.401×10^5	2.811	0.110	0.154	0.059	3.135		4.962×10^4	
200. GeV	2.001×10^5	2.852	0.166	0.235	0.084	3.337		6.817×10^4	
300. GeV	3.001×10^5	2.898	0.262	0.374	0.125	3.659		9.677×10^4	
400. GeV	4.001×10^5	2.930	0.362	0.518	0.167	3.978		1.230×10^5	
800. GeV	8.001×10^5	3.009	0.778	1.119	0.338	5.244		2.103×10^5	
1.00 TeV	1.000×10^6	3.035	0.993	1.430	0.424	5.883		2.463×10^5	
1.06 TeV	1.064×10^6	3.042	1.061	1.528	0.453	6.084			<i>Muon critical energy</i>
1.40 TeV	1.400×10^6	3.074	1.426	2.049	0.602	7.150		3.078×10^5	
2.00 TeV	2.000×10^6	3.116	2.091	2.997	0.872	9.075		3.822×10^5	
3.00 TeV	3.000×10^6	3.164	3.206	4.575	1.336	12.281		4.766×10^5	
4.00 TeV	4.000×10^6	3.199	4.341	6.175	1.808	15.523		5.488×10^5	
8.00 TeV	8.000×10^6	3.284	8.937	12.621	3.774	28.616		7.358×10^5	
10.0 TeV	1.000×10^7	3.312	11.262	15.867	4.786	35.228		7.987×10^5	
14.0 TeV	1.400×10^7	3.355	15.901	22.336	6.873	48.466		8.951×10^5	
20.0 TeV	2.000×10^7	3.401	22.920	32.093	10.080	68.495		9.987×10^5	
30.0 TeV	3.000×10^7	3.455	34.608	48.327	15.646	102.037		1.118×10^6	
40.0 TeV	4.000×10^7	3.493	46.360	64.613	21.360	135.826		1.202×10^6	
80.0 TeV	8.000×10^7	3.588	93.491	129.814	45.342	272.236		1.406×10^6	
100. TeV	1.000×10^8	3.620	117.123	162.453	57.775	340.971		1.472×10^6	