Table 088: Muons in Radium

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
88 (Ra)	[226.0254]	5.000	826.0	0.08804	3.2454	0.5991	3.9428	7.0452	0.14

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	3.765				3.765	1.546×10^0
14.0 MeV	5.616×10^1	3.007				3.007	2.745×10^0
20.0 MeV	6.802×10^1	2.398				2.398	5.002×10^0
30.0 MeV	8.509×10^1	1.898				1.898	9.749×10^0
40.0 MeV	1.003×10^2	1.641				1.641	1.545×10^1
80.0 MeV	1.527×10^2	1.264				1.264	4.404×10^1
100. MeV	1.764×10^2	1.199				1.199	6.032×10^1
140. MeV	2.218×10^2	1.137				1.138	9.472×10^1
200. MeV	2.868×10^2	1.112				1.112	1.482×10^2
222. MeV	3.104×10^2	1.111	0.000			1.111	*Minimum ionization*
300. MeV	3.917×10^2	1.120	0.000		0.000	1.121	2.380×10^2
400. MeV	4.945×10^2	1.144	0.000		0.000	1.145	3.263×10^2
800. MeV	8.995×10^2	1.236	0.001		0.000	1.238	6.616×10^2
1.00 GeV	1.101×10^3	1.271	0.002		0.000	1.273	8.209×10^2
1.40 GeV	1.502×10^3	1.326	0.003		0.001	1.330	1.128×10^3
2.00 GeV	2.103×10^3	1.385	0.004	0.001	0.001	1.391	1.569×10^3
3.00 GeV	3.104×10^3	1.451	0.007	0.003	0.001	1.463	2.268×10^3
4.00 GeV	4.104×10^3	1.497	0.011	0.006	0.002	1.516	2.939×10^3
8.00 GeV	8.105×10^3	1.599	0.026	0.022	0.003	1.651	5.457×10^3
10.0 GeV	1.011×10^4	1.629	0.035	0.032	0.004	1.700	6.651×10^3
14.0 GeV	1.411×10^4	1.673	0.053	0.052	0.005	1.784	8.946×10^3
20.0 GeV	2.011×10^4	1.716	0.083	0.086	0.007	1.893	1.221×10^4
30.0 GeV	3.011×10^4	1.761	0.136	0.153	0.011	2.061	1.727×10^4
40.0 GeV	4.011×10^4	1.792	0.192	0.225	0.014	2.224	2.193×10^4
80.0 GeV	8.011×10^4	1.858	0.434	0.546	0.027	2.868	3.773×10^4
100. GeV	1.001×10^5	1.878	0.562	0.720	0.034	3.196	4.434×10^4
137. GeV	1.374×10^5	1.906	0.807	1.052	0.047	3.814	*Muon critical energy*
140. GeV	1.401×10^5	1.908	0.825	1.077	0.048	3.859	5.572×10^4
200. GeV	2.001×10^5	1.938	1.237	1.643	0.068	4.886	6.951×10^4
300. GeV	3.001×10^5	1.971	1.938	2.587	0.101	6.599	8.707×10^4
400. GeV	4.001×10^5	1.994	2.663	3.566	0.135	8.360	1.005×10^5
800. GeV	8.001×10^5	2.050	5.653	7.579	0.274	15.557	1.351×10^5
1.00 TeV	1.000×10^6	2.068	7.188	9.631	0.344	19.233	1.466×10^5
1.40 TeV	1.400×10^6	2.096	10.262	13.723	0.487	26.570	1.642×10^5
2.00 TeV	2.000×10^6	2.125	14.962	19.968	0.704	37.760	1.831×10^5
3.00 TeV	3.000×10^6	2.159	22.802	30.342	1.076	56.381	2.046×10^5
4.00 TeV	4.000×10^6	2.184	30.742	40.826	1.453	75.207	2.199×10^5
8.00 TeV	8.000×10^6	2.244	62.734	82.963	3.016	150.959	2.567×10^5
10.0 TeV	1.000×10^7	2.264	78.847	104.140	3.818	189.071	2.685×10^5
14.0 TeV	1.400×10^7	2.294	110.985	146.397	5.463	265.143	2.863×10^5
20.0 TeV	2.000×10^7	2.327	159.458	210.050	7.984	379.821	3.051×10^5
30.0 TeV	3.000×10^7	2.365	240.152	315.949	12.336	570.803	3.265×10^5
40.0 TeV	4.000×10^7	2.392	321.116	422.091	16.788	762.389	3.416×10^5
80.0 TeV	8.000×10^7	2.459	645.395	846.939	35.363	1530.158	3.779×10^5
100. TeV	1.000×10^8	2.481	807.780	1059.550	44.950	1914.763	3.895×10^5