

Table 084: Muons in Polonium

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
84 (Po)	[209.9829]	9.320	830.0	0.09282	3.1830	0.4267	3.8293	6.4003	0.14
T	p [MeV/c]	Ionization	Brems	Pair prod [MeV cm ² /g]	Photonucl	Total	CSDA range [g/cm ²]		
10.0 MeV	4.704×10^1	3.858				3.858	1.510×10^0		
14.0 MeV	5.616×10^1	3.083				3.083	2.680×10^0		
20.0 MeV	6.802×10^1	2.459				2.459	4.881×10^0		
30.0 MeV	8.509×10^1	1.946				1.946	9.510×10^0		
40.0 MeV	1.003×10^2	1.683				1.683	1.507×10^1		
80.0 MeV	1.527×10^2	1.296				1.296	4.295×10^1		
100. MeV	1.764×10^2	1.228				1.228	5.884×10^1		
140. MeV	2.218×10^2	1.164				1.164	9.243×10^1		
200. MeV	2.868×10^2	1.137				1.137	1.448×10^2		
222. MeV	3.104×10^2	1.135	0.000			1.136	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.144	0.000		0.000	1.145	2.326×10^2		
400. MeV	4.945×10^2	1.167	0.000		0.000	1.167	3.191×10^2		
800. MeV	8.995×10^2	1.255	0.001		0.000	1.256	6.488×10^2		
1.00 GeV	1.101×10^3	1.289	0.002		0.000	1.291	8.058×10^2		
1.40 GeV	1.502×10^3	1.343	0.002		0.001	1.346	1.109×10^3		
2.00 GeV	2.103×10^3	1.400	0.004	0.001	0.001	1.407	1.545×10^3		
3.00 GeV	3.104×10^3	1.465	0.007	0.003	0.001	1.478	2.237×10^3		
4.00 GeV	4.104×10^3	1.510	0.011	0.007	0.002	1.529	2.902×10^3		
8.00 GeV	8.105×10^3	1.611	0.026	0.023	0.003	1.663	5.400×10^3		
10.0 GeV	1.011×10^4	1.641	0.035	0.032	0.004	1.713	6.584×10^3		
14.0 GeV	1.411×10^4	1.685	0.053	0.052	0.005	1.796	8.863×10^3		
20.0 GeV	2.011×10^4	1.728	0.082	0.087	0.007	1.905	1.210×10^4		
30.0 GeV	3.011×10^4	1.774	0.135	0.153	0.011	2.072	1.713×10^4		
40.0 GeV	4.011×10^4	1.804	0.190	0.225	0.014	2.234	2.178×10^4		
80.0 GeV	8.011×10^4	1.871	0.430	0.545	0.028	2.875	3.752×10^4		
100. GeV	1.001×10^5	1.891	0.557	0.718	0.034	3.202	4.411×10^4		
139. GeV	1.389×10^5	1.920	0.810	1.063	0.048	3.842	<i>Muon critical energy</i>		
140. GeV	1.401×10^5	1.921	0.817	1.074	0.048	3.861	5.548×10^4		
200. GeV	2.001×10^5	1.951	1.225	1.637	0.068	4.883	6.927×10^4		
300. GeV	3.001×10^5	1.985	1.920	2.578	0.102	6.587	8.685×10^4		
400. GeV	4.001×10^5	2.009	2.638	3.553	0.136	8.338	1.003×10^5		
800. GeV	8.001×10^5	2.066	5.601	7.550	0.276	15.494	1.350×10^5		
1.00 TeV	1.000×10^6	2.085	7.121	9.595	0.346	19.148	1.466×10^5		
1.40 TeV	1.400×10^6	2.113	10.167	13.671	0.490	26.443	1.643×10^5		
2.00 TeV	2.000×10^6	2.143	14.823	19.891	0.709	37.568	1.832×10^5		
3.00 TeV	3.000×10^6	2.178	22.592	30.225	1.084	56.081	2.049×10^5		
4.00 TeV	4.000×10^6	2.204	30.460	40.669	1.464	74.798	2.203×10^5		
8.00 TeV	8.000×10^6	2.266	62.164	82.641	3.039	150.112	2.573×10^5		
10.0 TeV	1.000×10^7	2.286	78.133	103.736	3.847	188.004	2.692×10^5		
14.0 TeV	1.400×10^7	2.317	109.983	145.829	5.505	263.636	2.870×10^5		
20.0 TeV	2.000×10^7	2.351	158.022	209.234	8.044	377.653	3.060×10^5		
30.0 TeV	3.000×10^7	2.390	237.997	314.721	12.430	567.539	3.274×10^5		
40.0 TeV	4.000×10^7	2.418	318.241	420.450	16.917	758.027	3.426×10^5		
80.0 TeV	8.000×10^7	2.487	639.637	843.657	35.637	1521.420	3.791×10^5		
100. TeV	1.000×10^8	2.509	800.580	1055.450	45.300	1903.841	3.908×10^5		