Table 034: Muons in Selenium

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
34 (Se)	78.96 (3)	4.500	348.0	0.06568	3.4317	0.2258	3.6264	5.3210	0.10

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	4.926				4.926	1.148×10^0
14.0 MeV	5.616×10^1	3.883				3.883	2.072×10^0
20.0 MeV	6.802×10^1	3.061				3.061	3.831×10^0
30.0 MeV	8.509×10^1	2.397				2.397	7.572×10^0
40.0 MeV	1.003×10^2	2.059				2.059	1.210×10^1
80.0 MeV	1.527×10^2	1.564				1.564	3.508×10^1
100. MeV	1.764×10^2	1.476				1.476	4.827×10^1
140. MeV	2.218×10^2	1.391				1.392	7.631×10^1
200. MeV	2.868×10^2	1.350				1.350	1.202×10^2
252. MeV	3.421×10^2	1.343			0.000	1.343	*Minimum ionization*
300. MeV	3.917×10^2	1.346	0.000		0.000	1.347	1.946×10^2
400. MeV	4.945×10^2	1.364	0.000		0.000	1.364	2.684×10^2
800. MeV	8.995×10^2	1.447	0.001		0.000	1.448	5.527×10^2
1.00 GeV	1.101×10^3	1.480	0.001		0.000	1.481	6.893×10^2
1.40 GeV	1.502×10^3	1.533	0.001	0.000	0.001	1.535	9.543×10^2
2.00 GeV	2.103×10^3	1.590	0.002	0.001	0.001	1.594	1.337×10^3
3.00 GeV	3.104×10^3	1.655	0.003	0.002	0.001	1.662	1.951×10^3
4.00 GeV	4.104×10^3	1.699	0.005	0.004	0.002	1.710	2.544×10^3
8.00 GeV	8.105×10^3	1.800	0.012	0.012	0.003	1.828	4.798×10^3
10.0 GeV	1.011×10^4	1.830	0.016	0.017	0.004	1.868	5.880×10^3
14.0 GeV	1.411×10^4	1.873	0.025	0.028	0.006	1.932	7.984×10^3
20.0 GeV	2.011×10^4	1.916	0.039	0.045	0.008	2.008	1.103×10^4
30.0 GeV	3.011×10^4	1.962	0.063	0.078	0.012	2.116	1.588×10^4
40.0 GeV	4.011×10^4	1.993	0.089	0.115	0.015	2.212	2.050×10^4
80.0 GeV	8.011×10^4	2.061	0.201	0.275	0.030	2.568	3.725×10^4
100. GeV	1.001×10^5	2.082	0.261	0.361	0.037	2.742	4.478×10^4
140. GeV	1.401×10^5	2.113	0.383	0.539	0.052	3.087	5.853×10^4
200. GeV	2.001×10^5	2.145	0.574	0.821	0.074	3.614	7.648×10^4
285. GeV	2.850×10^5	2.176	0.850	1.220	0.105	4.353	*Muon critical energy*
300. GeV	3.001×10^5	2.180	0.901	1.293	0.111	4.485	1.013×10^5
400. GeV	4.001×10^5	2.206	1.239	1.782	0.148	5.375	1.216×10^5
800. GeV	8.001×10^5	2.267	2.636	3.790	0.299	8.993	1.786×10^5
1.00 TeV	1.000×10^6	2.287	3.354	4.818	0.376	10.837	1.988×10^5
1.40 TeV	1.400×10^6	2.318	4.796	6.869	0.533	14.517	2.306×10^5
2.00 TeV	2.000×10^6	2.351	7.002	10.002	0.771	20.127	2.655×10^5
3.00 TeV	3.000×10^6	2.388	10.688	15.208	1.179	29.465	3.064×10^5
4.00 TeV	4.000×10^6	2.416	14.426	20.472	1.593	38.907	3.358×10^5
8.00 TeV	8.000×10^6	2.482	29.504	41.637	3.313	76.938	4.075×10^5
10.0 TeV	1.000×10^7	2.504	37.107	52.279	4.197	96.088	4.308×10^5
14.0 TeV	1.400×10^7	2.538	52.272	73.510	6.011	134.332	4.658×10^5
20.0 TeV	2.000×10^7	2.574	75.162	105.498	8.792	192.027	5.030×10^5
30.0 TeV	3.000×10^7	2.616	113.270	158.722	13.602	288.211	5.452×10^5
40.0 TeV	4.000×10^7	2.646	151.525	212.079	18.528	384.780	5.751×10^5
80.0 TeV	8.000×10^7	2.720	304.806	425.659	39.107	772.293	6.471×10^5
100. TeV	1.000×10^8	2.745	381.590	532.550	49.740	966.625	6.702×10^5