

Muons in liquid neon (Ne)

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
10 (Ne)	20.1797(6)	1.204	137.0	0.16916	3.0000	0.2000	3.0000	4.6345	0.00

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	6.548				6.548	8.507×10^{-1}
14.0 MeV	5.616×10^1	5.126				5.126	1.548×10^0
20.0 MeV	6.802×10^1	4.016				4.017	2.886×10^0
30.0 MeV	8.509×10^1	3.126				3.126	5.747×10^0
40.0 MeV	1.003×10^2	2.675				2.675	9.227×10^0
80.0 MeV	1.527×10^2	2.019				2.019	2.698×10^1
100. MeV	1.764×10^2	1.900				1.900	3.722×10^1
140. MeV	2.218×10^2	1.779				1.779	5.907×10^1
200. MeV	2.868×10^2	1.713				1.713	9.357×10^1
283. MeV	3.738×10^2	1.695			0.000	1.695	<i>Minimum ionization</i>
300. MeV	3.917×10^2	1.695			0.000	1.696	1.524×10^2
400. MeV	4.945×10^2	1.709			0.000	1.709	2.112×10^2
800. MeV	8.995×10^2	1.792	0.000		0.000	1.793	4.396×10^2
1.00 GeV	1.101×10^3	1.828	0.000		0.000	1.829	5.501×10^2
1.40 GeV	1.502×10^3	1.885	0.000	0.000	0.001	1.886	7.652×10^2
2.00 GeV	2.103×10^3	1.947	0.001	0.000	0.001	1.950	1.078×10^3
3.00 GeV	3.104×10^3	2.018	0.001	0.001	0.001	2.022	1.581×10^3
4.00 GeV	4.104×10^3	2.066	0.002	0.001	0.002	2.072	2.069×10^3
8.00 GeV	8.105×10^3	2.176	0.005	0.005	0.004	2.190	3.941×10^3
10.0 GeV	1.011×10^4	2.209	0.006	0.006	0.005	2.227	4.846×10^3
14.0 GeV	1.411×10^4	2.257	0.010	0.010	0.006	2.283	6.619×10^3
20.0 GeV	2.011×10^4	2.304	0.015	0.017	0.009	2.345	9.210×10^3
30.0 GeV	3.011×10^4	2.354	0.024	0.030	0.013	2.421	1.340×10^4
40.0 GeV	4.011×10^4	2.388	0.034	0.043	0.017	2.483	1.748×10^4
80.0 GeV	8.011×10^4	2.463	0.077	0.105	0.033	2.679	3.296×10^4
100. GeV	1.001×10^5	2.487	0.100	0.138	0.041	2.766	4.031×10^4
140. GeV	1.401×10^5	2.521	0.148	0.206	0.057	2.933	5.435×10^4
200. GeV	2.001×10^5	2.558	0.222	0.315	0.081	3.177	7.399×10^4
300. GeV	3.001×10^5	2.599	0.350	0.500	0.122	3.571	1.037×10^5
400. GeV	4.001×10^5	2.628	0.482	0.692	0.162	3.965	1.302×10^5
760. GeV	7.599×10^5	2.694	0.976	1.406	0.311	5.388	<i>Muon critical energy</i>
800. GeV	8.001×10^5	2.699	1.032	1.488	0.328	5.548	2.151×10^5
1.00 TeV	1.000×10^6	2.722	1.316	1.899	0.413	6.350	2.488×10^5
1.40 TeV	1.400×10^6	2.757	1.886	2.715	0.585	7.944	3.050×10^5
2.00 TeV	2.000×10^6	2.795	2.762	3.965	0.847	10.369	3.710×10^5
3.00 TeV	3.000×10^6	2.838	4.227	6.044	1.297	14.407	4.524×10^5
4.00 TeV	4.000×10^6	2.870	5.716	8.151	1.754	18.492	5.136×10^5
8.00 TeV	8.000×10^6	2.947	11.738	16.631	3.659	34.975	6.683×10^5
10.0 TeV	1.000×10^7	2.972	14.780	20.900	4.639	43.291	7.196×10^5
14.0 TeV	1.400×10^7	3.010	20.849	29.408	6.656	59.924	7.978×10^5
20.0 TeV	2.000×10^7	3.052	30.022	42.236	9.754	85.064	8.814×10^5
30.0 TeV	3.000×10^7	3.100	45.295	63.586	15.126	127.107	9.770×10^5
40.0 TeV	4.000×10^7	3.135	60.640	85.002	20.637	169.413	1.045×10^6
80.0 TeV	8.000×10^7	3.220	122.163	170.729	43.730	339.843	1.208×10^6
100. TeV	1.000×10^8	3.248	153.000	213.640	55.690	425.579	1.261×10^6