

Table 010: Muons in Neon gas

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)	8.385×10^{-4}	137.0	0.08064	3.5771	2.0735	4.6421	11.9041	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	8.508×10^{-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	1.902				1.902	3.721×10^1		
140. MeV	2.218×10^2	1.788				1.788	5.901×10^1		
200. MeV	2.868×10^2	1.732				1.732	9.322×10^1		
247. MeV	3.366×10^2	1.724			0.000	1.724	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.729			0.000	1.730	1.511×10^2		
400. MeV	4.945×10^2	1.756			0.000	1.756	2.086×10^2		
800. MeV	8.995×10^2	1.881	0.000		0.000	1.882	4.284×10^2		
1.00 GeV	1.101×10^3	1.933	0.000		0.000	1.934	5.332×10^2		
1.40 GeV	1.502×10^3	2.018	0.000	0.000	0.001	2.019	7.354×10^2		
2.00 GeV	2.103×10^3	2.114	0.001	0.000	0.001	2.116	1.025×10^3		
3.00 GeV	3.104×10^3	2.226	0.001	0.001	0.001	2.230	1.485×10^3		
4.00 GeV	4.104×10^3	2.307	0.002	0.001	0.002	2.312	1.925×10^3		
8.00 GeV	8.105×10^3	2.502	0.005	0.005	0.004	2.515	3.575×10^3		
10.0 GeV	1.011×10^4	2.565	0.006	0.006	0.005	2.582	4.360×10^3		
14.0 GeV	1.411×10^4	2.652	0.010	0.010	0.006	2.678	5.878×10^3		
20.0 GeV	2.011×10^4	2.729	0.015	0.017	0.009	2.770	8.079×10^3		
30.0 GeV	3.011×10^4	2.809	0.024	0.030	0.013	2.876	1.162×10^4		
40.0 GeV	4.011×10^4	2.860	0.034	0.043	0.017	2.955	1.505×10^4		
80.0 GeV	8.011×10^4	2.970	0.077	0.105	0.033	3.186	2.805×10^4		
100. GeV	1.001×10^5	3.002	0.100	0.138	0.041	3.282	3.424×10^4		
140. GeV	1.401×10^5	3.047	0.148	0.206	0.057	3.459	4.610×10^4		
200. GeV	2.001×10^5	3.092	0.222	0.315	0.081	3.712	6.284×10^4		
300. GeV	3.001×10^5	3.141	0.350	0.500	0.122	4.113	8.842×10^4		
400. GeV	4.001×10^5	3.174	0.482	0.692	0.162	4.510	1.116×10^5		
800. GeV	8.001×10^5	3.250	1.032	1.488	0.328	6.099	1.876×10^5		
907. GeV	9.071×10^5	3.263	1.183	1.707	0.373	6.527	<i>Muon critical energy</i>		
1.00 TeV	1.000×10^6	3.274	1.316	1.899	0.413	6.902	2.184×10^5		
1.40 TeV	1.400×10^6	3.310	1.886	2.715	0.585	8.497	2.706×10^5		
2.00 TeV	2.000×10^6	3.348	2.762	3.965	0.847	10.921	3.327×10^5		
3.00 TeV	3.000×10^6	3.391	4.227	6.044	1.297	14.960	4.107×10^5		
4.00 TeV	4.000×10^6	3.423	5.716	8.151	1.754	19.045	4.698×10^5		
8.00 TeV	8.000×10^6	3.500	11.738	16.631	3.659	35.528	6.211×10^5		
10.0 TeV	1.000×10^7	3.525	14.780	20.900	4.639	43.844	6.717×10^5		
14.0 TeV	1.400×10^7	3.563	20.849	29.408	6.656	60.477	7.491×10^5		
20.0 TeV	2.000×10^7	3.605	30.022	42.236	9.754	85.617	8.321×10^5		
30.0 TeV	3.000×10^7	3.653	45.295	63.586	15.126	127.660	9.271×10^5		
40.0 TeV	4.000×10^7	3.688	60.640	85.002	20.637	169.966	9.948×10^5		
80.0 TeV	8.000×10^7	3.773	122.163	170.729	43.730	340.396	1.158×10^6		
100. TeV	1.000×10^8	3.801	153.000	213.640	55.690	426.132	1.210×10^6		