

## Muons in neon gas (Ne)

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
10 (Ne)	20.1797(6)	$8.385 \times 10^{-4}$	137.0	0.08064	3.5771	2.0735	4.6421	11.9041	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod [MeV cm <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	6.548				6.548	$8.508 \times 10^{-1}$		
14.0 MeV	$5.616 \times 10^1$	5.126				5.126	$1.548 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	4.016				4.017	$2.886 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	3.126				3.126	$5.747 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	2.675				2.675	$9.227 \times 10^0$		
80.0 MeV	$1.527 \times 10^2$	2.019				2.019	$2.698 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.902				1.902	$3.721 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.788				1.788	$5.901 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.732				1.732	$9.322 \times 10^1$		
247. MeV	$3.366 \times 10^2$	1.724			0.000	1.724	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.729			0.000	1.730	$1.511 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.756			0.000	1.756	$2.086 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.881	0.000		0.000	1.882	$4.284 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.933	0.000		0.000	1.934	$5.332 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	2.018	0.000	0.000	0.001	2.019	$7.354 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	2.114	0.001	0.000	0.001	2.116	$1.025 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	2.226	0.001	0.001	0.001	2.230	$1.485 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	2.307	0.002	0.001	0.002	2.312	$1.925 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	2.502	0.005	0.005	0.004	2.515	$3.575 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	2.565	0.006	0.006	0.005	2.582	$4.360 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.652	0.010	0.010	0.006	2.678	$5.878 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.729	0.015	0.017	0.009	2.770	$8.079 \times 10^3$		
30.0 GeV	$3.011 \times 10^4$	2.809	0.024	0.030	0.013	2.876	$1.162 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.860	0.034	0.043	0.017	2.955	$1.505 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.970	0.077	0.105	0.033	3.186	$2.805 \times 10^4$		
100. GeV	$1.001 \times 10^5$	3.002	0.100	0.138	0.041	3.282	$3.424 \times 10^4$		
140. GeV	$1.401 \times 10^5$	3.047	0.148	0.206	0.057	3.459	$4.610 \times 10^4$		
200. GeV	$2.001 \times 10^5$	3.092	0.222	0.315	0.081	3.712	$6.284 \times 10^4$		
300. GeV	$3.001 \times 10^5$	3.141	0.350	0.500	0.122	4.113	$8.842 \times 10^4$		
400. GeV	$4.001 \times 10^5$	3.174	0.482	0.692	0.162	4.510	$1.116 \times 10^5$		
800. GeV	$8.001 \times 10^5$	3.250	1.032	1.488	0.328	6.099	$1.876 \times 10^5$		
907. GeV	$9.071 \times 10^5$	3.263	1.183	1.707	0.373	6.527	<i>Muon critical energy</i>		
1.00 TeV	$1.000 \times 10^6$	3.274	1.316	1.899	0.413	6.902	$2.184 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	3.310	1.886	2.715	0.585	8.497	$2.706 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	3.348	2.762	3.965	0.847	10.921	$3.327 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	3.391	4.227	6.044	1.297	14.960	$4.107 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	3.423	5.716	8.151	1.754	19.045	$4.698 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	3.500	11.738	16.631	3.659	35.528	$6.211 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	3.525	14.780	20.900	4.639	43.844	$6.717 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	3.563	20.849	29.408	6.656	60.477	$7.491 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	3.605	30.022	42.236	9.754	85.617	$8.321 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	3.653	45.295	63.586	15.126	127.660	$9.271 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	3.688	60.640	85.002	20.637	169.966	$9.948 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	3.773	122.163	170.729	43.730	340.396	$1.158 \times 10^6$		
100. TeV	$1.000 \times 10^8$	3.801	153.000	213.640	55.690	426.132	$1.210 \times 10^6$		