Table 007: Muons in Nitrogen gas (N_2)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
7 (N)	14.0067 (2)	1.165×10^{-3}	82.0	0.15349	3.2125	1.7378	4.1323	10.5400	0.00

T	p [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm^2]
		[MeV cm^2/g]					
10.0 MeV	4.704×10^1	7.084				7.084	7.814×10^{-1}
14.0 MeV	5.616×10^1	5.530				5.530	1.427×10^0
20.0 MeV	6.802×10^1	4.321				4.321	2.669×10^0
30.0 MeV	8.509×10^1	3.354				3.354	5.333×10^0
40.0 MeV	1.003×10^2	2.865				2.865	8.580×10^0
80.0 MeV	1.527×10^2	2.152				2.152	2.520×10^1
100. MeV	1.764×10^2	2.025				2.025	3.481×10^1
140. MeV	2.218×10^2	1.900				1.900	5.529×10^1
200. MeV	2.868×10^2	1.837				1.837	8.753×10^1
257. MeV	3.471×10^2	1.825			0.000	1.825	*Minimum ionization*
300. MeV	3.917×10^2	1.829			0.000	1.829	1.422×10^2
400. MeV	4.945×10^2	1.853			0.000	1.853	1.966×10^2
800. MeV	8.995×10^2	1.977	0.000		0.000	1.977	4.054×10^2
1.00 GeV	1.101×10^3	2.029	0.000		0.000	2.030	5.052×10^2
1.40 GeV	1.502×10^3	2.114	0.000		0.001	2.116	6.980×10^2
2.00 GeV	2.103×10^3	2.211	0.001	0.000	0.001	2.212	9.750×10^2
3.00 GeV	3.104×10^3	2.324	0.001	0.001	0.001	2.327	1.415×10^3
4.00 GeV	4.104×10^3	2.405	0.001	0.001	0.002	2.410	1.837×10^3
8.00 GeV	8.105×10^3	2.586	0.003	0.003	0.004	2.597	3.426×10^3
10.0 GeV	1.011×10^4	2.636	0.005	0.005	0.005	2.650	4.188×10^3
14.0 GeV	1.411×10^4	2.706	0.007	0.007	0.007	2.727	5.675×10^3
20.0 GeV	2.011×10^4	2.775	0.011	0.012	0.009	2.808	7.841×10^3
30.0 GeV	3.011×10^4	2.846	0.018	0.022	0.013	2.899	1.134×10^4
40.0 GeV	4.011×10^4	2.892	0.025	0.032	0.018	2.967	1.475×10^4
80.0 GeV	8.011×10^4	2.992	0.057	0.077	0.034	3.161	2.778×10^4
100. GeV	1.001×10^5	3.021	0.074	0.102	0.042	3.240	3.403×10^4
140. GeV	1.401×10^5	3.063	0.110	0.153	0.059	3.384	4.611×10^4
200. GeV	2.001×10^5	3.104	0.165	0.234	0.083	3.587	6.332×10^4
300. GeV	3.001×10^5	3.150	0.261	0.372	0.124	3.907	9.002×10^4
400. GeV	4.001×10^5	3.181	0.360	0.515	0.166	4.222	1.146×10^5
800. GeV	8.001×10^5	3.254	0.772	1.113	0.335	5.474	1.976×10^5
1.00 TeV	1.000×10^6	3.277	0.985	1.422	0.421	6.105	2.322×10^5
1.15 TeV	1.154×10^6	3.292	1.149	1.655	0.488	6.585	*Muon critical energy*
1.40 TeV	1.400×10^6	3.313	1.414	2.036	0.597	7.359	2.918×10^5
2.00 TeV	2.000×10^6	3.351	2.073	2.977	0.864	9.265	3.643×10^5
3.00 TeV	3.000×10^6	3.394	3.176	4.543	1.324	12.439	4.572×10^5
4.00 TeV	4.000×10^6	3.426	4.299	6.132	1.792	15.649	5.287×10^5
8.00 TeV	8.000×10^6	3.503	8.841	12.530	3.740	28.615	7.150×10^5
10.0 TeV	1.000×10^7	3.529	11.138	15.752	4.743	35.162	7.779×10^5
14.0 TeV	1.400×10^7	3.568	15.720	22.172	6.809	48.270	8.746×10^5
20.0 TeV	2.000×10^7	3.610	22.650	31.856	9.982	68.098	9.788×10^5
30.0 TeV	3.000×10^7	3.658	34.187	47.969	15.491	101.305	1.098×10^6
40.0 TeV	4.000×10^7	3.693	45.784	64.133	21.144	134.754	1.184×10^6
80.0 TeV	8.000×10^7	3.779	92.292	128.845	44.860	269.777	1.390×10^6
100. TeV	1.000×10^8	3.808	115.610	161.240	57.150	337.808	1.456×10^6