

Muons in tissue-equivalent gas (Propane based)

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
0.55027	1.826×10^{-3}	59.5	0.09802	3.5159	1.5139	3.9916	9.3529	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	8.132				8.132	6.782×10^{-1}	
14.0 MeV	5.616×10^1	6.337				6.337	1.241×10^0	
20.0 MeV	6.802×10^1	4.943				4.944	2.326×10^0	
30.0 MeV	8.509×10^1	3.831				3.831	4.656×10^0	
40.0 MeV	1.003×10^2	3.269				3.269	7.500×10^0	
80.0 MeV	1.527×10^2	2.450				2.450	2.209×10^1	
100. MeV	1.764×10^2	2.303				2.303	3.053×10^1	
140. MeV	2.218×10^2	2.158				2.158	4.855×10^1	
200. MeV	2.868×10^2	2.084				2.084	7.695×10^1	
263. MeV	3.527×10^2	2.068			0.000	2.069	<i>Minimum ionization</i>	
300. MeV	3.917×10^2	2.071			0.000	2.072	1.252×10^2	
400. MeV	4.945×10^2	2.097			0.000	2.097	1.732×10^2	
800. MeV	8.995×10^2	2.232	0.000		0.000	2.232	3.580×10^2	
1.00 GeV	1.101×10^3	2.289	0.000		0.000	2.290	4.464×10^2	
1.40 GeV	1.502×10^3	2.383	0.000		0.001	2.384	6.175×10^2	
2.00 GeV	2.103×10^3	2.488	0.001	0.000	0.001	2.490	8.635×10^2	
3.00 GeV	3.104×10^3	2.613	0.001	0.001	0.001	2.616	1.255×10^3	
4.00 GeV	4.104×10^3	2.694	0.001	0.001	0.002	2.698	1.630×10^3	
8.00 GeV	8.105×10^3	2.863	0.003	0.003	0.004	2.873	3.061×10^3	
10.0 GeV	1.011×10^4	2.912	0.004	0.004	0.005	2.925	3.751×10^3	
14.0 GeV	1.411×10^4	2.981	0.006	0.007	0.007	3.001	5.100×10^3	
20.0 GeV	2.011×10^4	3.049	0.010	0.011	0.009	3.079	7.072×10^3	
30.0 GeV	3.011×10^4	3.119	0.016	0.020	0.014	3.168	1.027×10^4	
40.0 GeV	4.011×10^4	3.164	0.023	0.029	0.018	3.234	1.339×10^4	
80.0 GeV	8.011×10^4	3.263	0.052	0.071	0.034	3.421	2.540×10^4	
100. GeV	1.001×10^5	3.292	0.068	0.093	0.043	3.496	3.118×10^4	
140. GeV	1.401×10^5	3.334	0.101	0.140	0.059	3.634	4.239×10^4	
200. GeV	2.001×10^5	3.377	0.152	0.214	0.084	3.828	5.848×10^4	
300. GeV	3.001×10^5	3.425	0.239	0.341	0.126	4.131	8.361×10^4	
400. GeV	4.001×10^5	3.458	0.331	0.473	0.168	4.429	1.070×10^5	
800. GeV	8.001×10^5	3.537	0.711	1.023	0.340	5.610	1.870×10^5	
1.00 TeV	1.000×10^6	3.562	0.908	1.307	0.427	6.204	2.209×10^5	
1.34 TeV	1.335×10^6	3.596	1.239	1.781	0.576	7.192	<i>Muon critical energy</i>	
1.40 TeV	1.400×10^6	3.601	1.304	1.873	0.605	7.384	2.800×10^5	
2.00 TeV	2.000×10^6	3.643	1.913	2.742	0.876	9.175	3.527×10^5	
3.00 TeV	3.000×10^6	3.691	2.935	4.188	1.343	12.157	4.471×10^5	
4.00 TeV	4.000×10^6	3.726	3.975	5.654	1.818	15.173	5.206×10^5	
8.00 TeV	8.000×10^6	3.811	8.188	11.563	3.795	27.358	7.142×10^5	
10.0 TeV	1.000×10^7	3.839	10.320	14.540	4.814	33.514	7.802×10^5	
14.0 TeV	1.400×10^7	3.882	14.575	20.470	6.914	45.841	8.818×10^5	
20.0 TeV	2.000×10^7	3.928	21.013	29.416	10.141	64.498	9.916×10^5	
30.0 TeV	3.000×10^7	3.982	31.735	44.299	15.744	95.759	1.118×10^6	
40.0 TeV	4.000×10^7	4.020	42.516	59.231	21.495	127.263	1.208×10^6	
80.0 TeV	8.000×10^7	4.115	85.747	119.011	45.644	254.518	1.426×10^6	
100. TeV	1.000×10^8	4.146	107.420	148.937	58.166	318.670	1.497×10^6	