Muons in tissue-equivalent gas (Methane based)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.54993	1.064×10^{-3}	61.2	0.09946	3.4708	1.6442	4.1399	9.9500	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	8.098				8.098	6.812×10^{-1}
14.0 MeV	5.616×10^1	6.311				6.311	1.247×10^0
20.0 MeV	6.802×10^1	4.924				4.924	2.335×10^0
30.0 MeV	8.509×10^1	3.817				3.817	4.675×10^0
40.0 MeV	1.003×10^2	3.257				3.257	7.530×10^0
80.0 MeV	1.527×10^2	2.442				2.442	2.217×10^1
100. MeV	1.764×10^2	2.295				2.295	3.064×10^1
140. MeV	2.218×10^2	2.151				2.151	4.872×10^1
200. MeV	2.868×10^2	2.077				2.077	7.721×10^1
263. MeV	3.527×10^2	2.062			0.000	2.062	*Minimum ionization*
300. MeV	3.917×10^2	2.065			0.000	2.065	1.256×10^2
400. MeV	4.945×10^2	2.091			0.000	2.091	1.738×10^2
800. MeV	8.995×10^2	2.225	0.000		0.000	2.226	3.591×10^2
1.00 GeV	1.101×10^3	2.283	0.000		0.000	2.283	4.478×10^2
1.40 GeV	1.502×10^3	2.376	0.000		0.001	2.378	6.193×10^2
2.00 GeV	2.103×10^3	2.482	0.001	0.000	0.001	2.484	8.659×10^2
3.00 GeV	3.104×10^3	2.607	0.001	0.001	0.001	2.610	1.258×10^3
4.00 GeV	4.104×10^3	2.696	0.001	0.001	0.002	2.701	1.634×10^3
8.00 GeV	8.105×10^3	2.879	0.003	0.003	0.004	2.889	3.059×10^3
10.0 GeV	1.011×10^4	2.931	0.004	0.004	0.005	2.944	3.744×10^3
14.0 GeV	1.411×10^4	3.004	0.007	0.007	0.007	3.024	5.084×10^3
20.0 GeV	2.011×10^4	3.075	0.010	0.012	0.009	3.106	7.040×10^3
30.0 GeV	3.011×10^4	3.148	0.017	0.020	0.014	3.199	1.021×10^4
40.0 GeV	4.011×10^4	3.196	0.024	0.030	0.018	3.268	1.330×10^4
80.0 GeV	8.011×10^4	3.300	0.054	0.073	0.034	3.461	2.517×10^4
100. GeV	1.001×10^5	3.330	0.070	0.096	0.043	3.539	3.088×10^4
140. GeV	1.401×10^5	3.374	0.104	0.144	0.059	3.681	4.196×10^4
200. GeV	2.001×10^5	3.418	0.156	0.221	0.084	3.880	5.783×10^4
300. GeV	3.001×10^5	3.467	0.247	0.351	0.126	4.191	8.262×10^4
400. GeV	4.001×10^5	3.500	0.341	0.487	0.168	4.496	1.057×10^5
800. GeV	8.001×10^5	3.580	0.732	1.053	0.339	5.704	1.844×10^5
1.00 TeV	1.000×10^6	3.606	0.934	1.346	0.426	6.312	2.178×10^5
1.32 TeV	1.320×10^6	3.638	1.259	1.810	0.568	7.276	*Muon critical energy*
1.40 TeV	1.400×10^6	3.645	1.342	1.928	0.604	7.519	2.758×10^5
2.00 TeV	2.000×10^6	3.687	1.968	2.821	0.875	9.351	3.472×10^5
3.00 TeV	3.000×10^6	3.735	3.019	4.308	1.341	12.403	4.398×10^5
4.00 TeV	4.000×10^6	3.769	4.089	5.817	1.814	15.489	5.118×10^5
8.00 TeV	8.000×10^6	3.855	8.421	11.893	3.788	27.957	7.013×10^5
10.0 TeV	1.000×10^7	3.883	10.613	14.953	4.805	34.254	7.658×10^5
14.0 TeV	1.400×10^7	3.926	14.987	21.051	6.900	46.864	8.653×10^5
20.0 TeV	2.000×10^7	3.972	21.606	30.250	10.120	65.948	9.727×10^5
30.0 TeV	3.000×10^7	4.025	32.628	45.553	15.711	97.917	1.096×10^6
40.0 TeV	4.000×10^7	4.063	43.711	60.907	21.449	130.131	1.185×10^6
80.0 TeV	8.000×10^7	4.158	88.153	122.376	45.541	260.229	1.398×10^6
100. TeV	1.000×10^8	4.189	110.435	153.147	58.033	325.805	1.466×10^6