Table 104: Muons in Air (dry, 1 atm)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.49919	1.205×10^{-3}	85.7	0.10914	3.3994	1.7418	4.2759	10.5961	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	7.039				7.039	7.862×10^{-1}
14.0 MeV	5.616×10^1	5.494				5.495	1.436×10^0
20.0 MeV	6.802×10^1	4.294				4.294	2.686×10^0
30.0 MeV	8.509×10^1	3.333				3.333	5.366×10^0
40.0 MeV	1.003×10^2	2.847				2.847	8.633×10^0
80.0 MeV	1.527×10^2	2.140				2.140	2.535×10^1
100. MeV	1.764×10^2	2.013				2.014	3.501×10^1
140. MeV	2.218×10^2	1.889				1.889	5.562×10^1
200. MeV	2.868×10^2	1.827				1.827	8.803×10^1
257. MeV	3.471×10^2	1.815			0.000	1.816	*Minimum ionization*
300. MeV	3.917×10^2	1.819			0.000	1.819	1.430×10^2
400. MeV	4.945×10^2	1.844			0.000	1.844	1.977×10^2
800. MeV	8.995×10^2	1.968	0.000		0.000	1.968	4.074×10^2
1.00 GeV	1.101×10^3	2.020	0.000		0.000	2.021	5.077×10^2
1.40 GeV	1.502×10^3	2.105	0.000		0.001	2.106	7.014×10^2
2.00 GeV	2.103×10^3	2.201	0.001	0.000	0.001	2.203	9.796×10^2
3.00 GeV	3.104×10^3	2.314	0.001	0.001	0.001	2.318	1.421×10^3
4.00 GeV	4.104×10^3	2.396	0.001	0.001	0.002	2.401	1.845×10^3
8.00 GeV	8.105×10^3	2.577	0.004	0.003	0.004	2.588	3.440×10^3
10.0 GeV	1.011×10^4	2.627	0.005	0.005	0.005	2.642	4.204×10^3
14.0 GeV	1.411×10^4	2.698	0.007	0.008	0.007	2.720	5.695×10^3
20.0 GeV	2.011×10^4	2.767	0.011	0.013	0.009	2.800	7.867×10^3
30.0 GeV	3.011×10^4	2.838	0.019	0.023	0.013	2.893	1.138×10^4
40.0 GeV	4.011×10^4	2.885	0.026	0.033	0.017	2.962	1.479×10^4
80.0 GeV	8.011×10^4	2.984	0.060	0.080	0.034	3.159	2.784×10^4
100. GeV	1.001×10^5	3.014	0.078	0.106	0.042	3.239	3.409×10^4
140. GeV	1.401×10^5	3.055	0.114	0.159	0.058	3.388	4.616×10^4
200. GeV	2.001×10^5	3.097	0.172	0.244	0.083	3.596	6.335×10^4
300. GeV	3.001×10^5	3.143	0.272	0.387	0.124	3.926	8.995×10^4
400. GeV	4.001×10^5	3.174	0.375	0.536	0.165	4.250	1.144×10^5
800. GeV	8.001×10^5	3.247	0.803	1.158	0.334	5.543	1.966×10^5
1.00 TeV	1.000×10^6	3.271	1.025	1.479	0.420	6.195	2.307×10^5
1.11 TeV	1.115×10^6	3.282	1.152	1.661	0.470	6.565	*Muon critical energy*
1.40 TeV	1.400×10^6	3.306	1.471	2.117	0.595	7.490	2.893×10^5
2.00 TeV	2.000×10^6	3.344	2.155	3.095	0.862	9.457	3.605×10^5
3.00 TeV	3.000×10^6	3.388	3.302	4.723	1.321	12.735	4.513×10^5
4.00 TeV	4.000×10^6	3.420	4.469	6.374	1.787	16.050	5.211×10^5
8.00 TeV	8.000×10^6	3.497	9.189	13.021	3.730	29.437	7.024×10^5
10.0 TeV	1.000×10^7	3.522	11.574	16.369	4.730	36.197	7.636×10^5
14.0 TeV	1.400×10^7	3.561	16.335	23.040	6.790	49.727	8.575×10^5
20.0 TeV	2.000×10^7	3.603	23.534	33.100	9.955	70.192	9.586×10^5
30.0 TeV	3.000×10^7	3.652	35.519	49.841	15.447	104.458	1.075×10^6
40.0 TeV	4.000×10^7	3.686	47.564	66.634	21.083	138.968	1.157×10^6
80.0 TeV	8.000×10^7	3.773	95.872	133.867	44.722	278.233	1.357×10^6
100. TeV	1.000×10^8	3.801	120.091	167.522	56.971	348.385	1.421×10^6