Muons in carbon dioxide gas (CO_2)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.49989	1.842×10^{-3}	85.0	0.11768	3.3227	1.6294	4.1825	10.1537	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	7.057				7.057	7.842×10^{-1}
14.0 MeV	5.616×10^1	5.508				5.508	1.433×10^0
20.0 MeV	6.802×10^1	4.304				4.304	2.679×10^0
30.0 MeV	8.509×10^1	3.341				3.341	5.353×10^0
40.0 MeV	1.003×10^2	2.854				2.854	8.612×10^0
80.0 MeV	1.527×10^2	2.145				2.145	2.529×10^1
100. MeV	1.764×10^2	2.018				2.018	3.493×10^1
140. MeV	2.218×10^2	1.894				1.894	5.549×10^1
200. MeV	2.868×10^2	1.831				1.831	8.783×10^1
257. MeV	3.471×10^2	1.819			0.000	1.820	*Minimum ionization*
300. MeV	3.917×10^2	1.823			0.000	1.823	1.427×10^2
400. MeV	4.945×10^2	1.848			0.000	1.848	1.972×10^2
800. MeV	8.995×10^2	1.972	0.000		0.000	1.972	4.066×10^2
1.00 GeV	1.101×10^3	2.024	0.000		0.000	2.025	5.066×10^2
1.40 GeV	1.502×10^3	2.109	0.000		0.001	2.111	6.999×10^2
2.00 GeV	2.103×10^3	2.206	0.001	0.000	0.001	2.208	9.776×10^2
3.00 GeV	3.104×10^3	2.319	0.001	0.001	0.001	2.322	1.418×10^3
4.00 GeV	4.104×10^3	2.401	0.002	0.001	0.002	2.405	1.841×10^3
8.00 GeV	8.105×10^3	2.567	0.004	0.003	0.004	2.578	3.439×10^3
10.0 GeV	1.011×10^4	2.615	0.005	0.005	0.005	2.630	4.207×10^3
14.0 GeV	1.411×10^4	2.683	0.007	0.008	0.007	2.705	5.705×10^3
20.0 GeV	2.011×10^4	2.749	0.011	0.013	0.009	2.783	7.890×10^3
30.0 GeV	3.011×10^4	2.818	0.019	0.023	0.013	2.874	1.142×10^4
40.0 GeV	4.011×10^4	2.863	0.027	0.034	0.017	2.941	1.486×10^4
80.0 GeV	8.011×10^4	2.960	0.061	0.081	0.034	3.136	2.800×10^4
100. GeV	1.001×10^5	2.989	0.079	0.107	0.042	3.217	3.430×10^4
140. GeV	1.401×10^5	3.029	0.116	0.161	0.058	3.365	4.645×10^4
200. GeV	2.001×10^5	3.071	0.174	0.247	0.083	3.575	6.374×10^4
300. GeV	3.001×10^5	3.115	0.275	0.392	0.124	3.907	9.049×10^4
400. GeV	4.001×10^5	3.146	0.379	0.543	0.165	4.234	1.151×10^5
800. GeV	8.001×10^5	3.219	0.813	1.172	0.334	5.539	1.974×10^5
1.00 TeV	1.000×10^6	3.243	1.037	1.497	0.420	6.197	2.315×10^5
1.09 TeV	1.095×10^6	3.252	1.143	1.648	0.461	6.505	*Muon critical energy*
1.40 TeV	1.400×10^6	3.278	1.489	2.143	0.595	7.505	2.901×10^5
2.00 TeV	2.000×10^6	3.316	2.181	3.133	0.862	9.493	3.611×10^5
3.00 TeV	3.000×10^6	3.360	3.342	4.781	1.320	12.804	4.515×10^5
4.00 TeV	4.000×10^6	3.392	4.523	6.451	1.786	16.152	5.208×10^5
8.00 TeV	8.000×10^6	3.469	9.300	13.178	3.728	29.675	7.008×10^5
10.0 TeV	1.000×10^7	3.495	11.714	16.565	4.728	36.502	7.615×10^5
14.0 TeV	1.400×10^7	3.534	16.532	23.316	6.787	50.168	8.546×10^5
20.0 TeV	2.000×10^7	3.575	23.817	33.496	9.949	70.838	9.548×10^5
30.0 TeV	3.000×10^7	3.624	35.946	50.437	15.437	105.444	1.070×10^6
40.0 TeV	4.000×10^7	3.659	48.136	67.432	21.069	140.295	1.152×10^6
80.0 TeV	8.000×10^7	3.745	97.010	135.468	44.687	280.911	1.349×10^6
100. TeV	1.000×10^8	3.773	121.509	169.526	56.926	351.734	1.413×10^6