

Table 293: Muons in Solid carbon dioxide (dry ice; CO₂)

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
0.49989	1.563	85.0	0.43387	3.0000	0.2000	2.0000	3.4513	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	7.841×10^{-1}	
14.0 MeV	5.616×10^1	5.508				5.508	1.432×10^0	
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	2.017				2.017	3.493×10^1	
140. MeV	2.218×10^2	1.886				1.886	5.554×10^1	
200. MeV	2.868×10^2	1.812				1.812	8.811×10^1	
300. MeV	3.917×10^2	1.787			0.000	1.787	1.438×10^2	
303. MeV	3.950×10^2	1.787			0.000	1.787	<i>Minimum ionization</i>	
400. MeV	4.945×10^2	1.795			0.000	1.795	1.997×10^2	
800. MeV	8.995×10^2	1.866	0.000		0.000	1.866	4.182×10^2	
1.00 GeV	1.101×10^3	1.896	0.000		0.000	1.897	5.245×10^2	
1.40 GeV	1.502×10^3	1.946	0.000		0.001	1.947	7.325×10^2	
2.00 GeV	2.103×10^3	1.999	0.001	0.000	0.001	2.001	1.036×10^3	
3.00 GeV	3.104×10^3	2.060	0.001	0.001	0.001	2.063	1.528×10^3	
4.00 GeV	4.104×10^3	2.101	0.002	0.001	0.002	2.106	2.007×10^3	
8.00 GeV	8.105×10^3	2.196	0.004	0.003	0.004	2.207	3.857×10^3	
10.0 GeV	1.011×10^4	2.225	0.005	0.005	0.005	2.240	4.757×10^3	
14.0 GeV	1.411×10^4	2.268	0.007	0.008	0.007	2.290	6.522×10^3	
20.0 GeV	2.011×10^4	2.312	0.011	0.013	0.009	2.345	9.110×10^3	
30.0 GeV	3.011×10^4	2.359	0.019	0.023	0.013	2.415	1.331×10^4	
40.0 GeV	4.011×10^4	2.392	0.027	0.034	0.017	2.470	1.740×10^4	
80.0 GeV	8.011×10^4	2.468	0.061	0.081	0.034	2.644	3.303×10^4	
100. GeV	1.001×10^5	2.491	0.079	0.107	0.042	2.719	4.049×10^4	
140. GeV	1.401×10^5	2.526	0.116	0.161	0.058	2.862	5.482×10^4	
200. GeV	2.001×10^5	2.563	0.174	0.247	0.083	3.067	7.507×10^4	
300. GeV	3.001×10^5	2.604	0.275	0.392	0.124	3.395	1.060×10^5	
400. GeV	4.001×10^5	2.634	0.379	0.543	0.165	3.722	1.342×10^5	
800. GeV	8.001×10^5	2.705	0.813	1.172	0.334	5.025	2.263×10^5	
927. GeV	9.270×10^5	2.720	0.955	1.377	0.388	5.441	<i>Muon critical energy</i>	
1.00 TeV	1.000×10^6	2.728	1.037	1.497	0.420	5.683	2.637×10^5	
1.40 TeV	1.400×10^6	2.764	1.489	2.143	0.595	6.991	3.271×10^5	
2.00 TeV	2.000×10^6	2.802	2.181	3.133	0.862	8.978	4.026×10^5	
3.00 TeV	3.000×10^6	2.846	3.342	4.781	1.320	12.289	4.975×10^5	
4.00 TeV	4.000×10^6	2.877	4.523	6.451	1.786	15.638	5.695×10^5	
8.00 TeV	8.000×10^6	2.955	9.300	13.178	3.728	29.160	7.539×10^5	
10.0 TeV	1.000×10^7	2.980	11.714	16.565	4.728	35.988	8.155×10^5	
14.0 TeV	1.400×10^7	3.019	16.532	23.316	6.787	49.654	9.097×10^5	
20.0 TeV	2.000×10^7	3.061	23.817	33.496	9.949	70.324	1.011×10^6	
30.0 TeV	3.000×10^7	3.110	35.946	50.437	15.437	104.930	1.126×10^6	
40.0 TeV	4.000×10^7	3.144	48.136	67.432	21.069	139.781	1.209×10^6	
80.0 TeV	8.000×10^7	3.231	97.010	135.468	44.687	280.396	1.407×10^6	
100. TeV	1.000×10^8	3.259	121.509	169.526	56.926	351.220	1.471×10^6	