Muons in sodium carbonate (Na_2CO_3)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.49062	2.532	125.0	0.08715	3.5638	0.1287	2.8591	3.7178	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	6.575				6.575	8.449×10^{-1}
14.0 MeV	5.616×10^1	5.142				5.142	1.540×10^0
20.0 MeV	6.802×10^1	4.026				4.026	2.874×10^0
30.0 MeV	8.509×10^1	3.131				3.131	5.729×10^0
40.0 MeV	1.003×10^2	2.679				2.679	9.204×10^0
80.0 MeV	1.527×10^2	2.017				2.017	2.695×10^1
100. MeV	1.764×10^2	1.895				1.895	3.721×10^1
140. MeV	2.218×10^2	1.771				1.772	5.914×10^1
200. MeV	2.868×10^2	1.703				1.703	9.381×10^1
298. MeV	3.894×10^2	1.681			0.000	1.681	*Minimum ionization*
300. MeV	3.917×10^2	1.681			0.000	1.681	1.531×10^2
400. MeV	4.945×10^2	1.690			0.000	1.691	2.125×10^2
800. MeV	8.995×10^2	1.764	0.000		0.000	1.764	4.440×10^2
1.00 GeV	1.101×10^3	1.796	0.000		0.000	1.797	5.563×10^2
1.40 GeV	1.502×10^3	1.847	0.000	0.000	0.001	1.848	7.757×10^2
2.00 GeV	2.103×10^3	1.903	0.001	0.000	0.001	1.905	1.095×10^3
3.00 GeV	3.104×10^3	1.967	0.001	0.001	0.001	1.971	1.611×10^3
4.00 GeV	4.104×10^3	2.011	0.002	0.001	0.002	2.016	2.112×10^3
8.00 GeV	8.105×10^3	2.111	0.004	0.004	0.004	2.124	4.039×10^3
10.0 GeV	1.011×10^4	2.142	0.006	0.006	0.005	2.158	4.973×10^3
14.0 GeV	1.411×10^4	2.185	0.009	0.009	0.006	2.210	6.804×10^3
20.0 GeV	2.011×10^4	2.230	0.013	0.015	0.009	2.268	9.482×10^3
30.0 GeV	3.011×10^4	2.277	0.022	0.027	0.013	2.339	1.382×10^4
40.0 GeV	4.011×10^4	2.310	0.031	0.039	0.017	2.397	1.804×10^4
80.0 GeV	8.011×10^4	2.384	0.070	0.095	0.033	2.582	3.409×10^4
100. GeV	1.001×10^5	2.407	0.091	0.125	0.041	2.664	4.172×10^4
140. GeV	1.401×10^5	2.441	0.134	0.187	0.058	2.820	5.631×10^4
200. GeV	2.001×10^5	2.477	0.201	0.286	0.082	3.046	7.677×10^4
300. GeV	3.001×10^5	2.518	0.317	0.453	0.123	3.411	1.078×10^5
400. GeV	4.001×10^5	2.547	0.438	0.627	0.163	3.775	1.356×10^5
800. GeV	7.999×10^5	2.617	0.936	1.350	0.330	5.234	*Muon critical energy*
800. GeV	8.001×10^5	2.617	0.937	1.351	0.330	5.235	2.252×10^5
1.00 TeV	1.000×10^6	2.640	1.194	1.724	0.415	5.974	2.610×10^5
1.40 TeV	1.400×10^6	2.675	1.713	2.467	0.588	7.442	3.208×10^5
2.00 TeV	2.000×10^6	2.712	2.508	3.603	0.852	9.675	3.914×10^5
3.00 TeV	3.000×10^6	2.755	3.840	5.494	1.305	13.395	4.789×10^5
4.00 TeV	4.000×10^6	2.786	5.194	7.411	1.765	17.157	5.447×10^5
8.00 TeV	8.000×10^6	2.862	10.671	15.127	3.682	32.342	7.117×10^5
10.0 TeV	1.000×10^7	2.887	13.438	19.011	4.669	40.006	7.672×10^5
14.0 TeV	1.400×10^7	2.925	18.961	26.753	6.700	55.340	8.519×10^5
20.0 TeV	2.000×10^7	2.966	27.311	38.427	9.820	78.525	9.425×10^5
30.0 TeV	3.000×10^7	3.014	41.204	57.855	15.231	117.305	1.046×10^6
40.0 TeV	4.000×10^7	3.048	55.163	77.343	20.783	156.337	1.120×10^6
80.0 TeV	8.000×10^7	3.133	111.138	155.356	44.055	313.681	1.297×10^6
100. TeV	1.000×10^8	3.161	139.197	194.406	56.109	392.873	1.354×10^6