

## Muons in lithium carbonate ( $\text{Li}_2\text{C-O}_3$ )

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.49720	2.110	87.9	0.09936	3.5417	0.0551	2.6598	3.2029	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
				[MeV cm <sup>2</sup> /g]					
10.0 MeV	$4.704 \times 10^1$	6.988				6.988			$7.921 \times 10^{-1}$
14.0 MeV	$5.616 \times 10^1$	5.455				5.455			$1.447 \times 10^0$
20.0 MeV	$6.802 \times 10^1$	4.263				4.263			$2.705 \times 10^0$
30.0 MeV	$8.509 \times 10^1$	3.310				3.310			$5.404 \times 10^0$
40.0 MeV	$1.003 \times 10^2$	2.828				2.828			$8.694 \times 10^0$
80.0 MeV	$1.527 \times 10^2$	2.116				2.116			$2.555 \times 10^1$
100. MeV	$1.764 \times 10^2$	1.984				1.984			$3.534 \times 10^1$
140. MeV	$2.218 \times 10^2$	1.850				1.850			$5.631 \times 10^1$
200. MeV	$2.868 \times 10^2$	1.773				1.773			$8.957 \times 10^1$
300. MeV	$3.917 \times 10^2$	1.745			0.000	1.745			$1.466 \times 10^2$
313. MeV	$4.055 \times 10^2$	1.744			0.000	1.745			<i>Minimum ionization</i>
400. MeV	$4.945 \times 10^2$	1.751			0.000	1.751			$2.038 \times 10^2$
800. MeV	$8.995 \times 10^2$	1.819	0.000		0.000	1.819			$4.280 \times 10^2$
1.00 GeV	$1.101 \times 10^3$	1.849	0.000		0.000	1.850			$5.370 \times 10^2$
1.40 GeV	$1.502 \times 10^3$	1.899	0.000		0.001	1.900			$7.502 \times 10^2$
2.00 GeV	$2.103 \times 10^3$	1.953	0.001	0.000	0.001	1.955			$1.061 \times 10^3$
3.00 GeV	$3.104 \times 10^3$	2.015	0.001	0.001	0.001	2.018			$1.564 \times 10^3$
4.00 GeV	$4.104 \times 10^3$	2.058	0.001	0.001	0.002	2.063			$2.054 \times 10^3$
8.00 GeV	$8.105 \times 10^3$	2.157	0.003	0.003	0.004	2.167			$3.940 \times 10^3$
10.0 GeV	$1.011 \times 10^4$	2.187	0.004	0.004	0.005	2.201			$4.855 \times 10^3$
14.0 GeV	$1.411 \times 10^4$	2.231	0.007	0.007	0.007	2.251			$6.651 \times 10^3$
20.0 GeV	$2.011 \times 10^4$	2.275	0.010	0.012	0.009	2.306			$9.283 \times 10^3$
30.0 GeV	$3.011 \times 10^4$	2.323	0.017	0.021	0.013	2.374			$1.355 \times 10^4$
40.0 GeV	$4.011 \times 10^4$	2.355	0.024	0.030	0.018	2.427			$1.772 \times 10^4$
80.0 GeV	$8.011 \times 10^4$	2.430	0.055	0.074	0.034	2.593			$3.363 \times 10^4$
100. GeV	$1.001 \times 10^5$	2.454	0.071	0.097	0.042	2.664			$4.124 \times 10^4$
140. GeV	$1.401 \times 10^5$	2.488	0.105	0.146	0.059	2.798			$5.589 \times 10^4$
200. GeV	$2.001 \times 10^5$	2.525	0.158	0.223	0.083	2.989			$7.663 \times 10^4$
300. GeV	$3.001 \times 10^5$	2.566	0.249	0.355	0.125	3.294			$1.085 \times 10^5$
400. GeV	$4.001 \times 10^5$	2.595	0.343	0.491	0.166	3.596			$1.375 \times 10^5$
800. GeV	$8.001 \times 10^5$	2.667	0.736	1.061	0.336	4.801			$2.335 \times 10^5$
990. GeV	$9.902 \times 10^5$	2.689	0.929	1.341	0.418	5.378			<i>Muon critical energy</i>
1.00 TeV	$1.000 \times 10^6$	2.690	0.939	1.356	0.422	5.408			$2.727 \times 10^5$
1.40 TeV	$1.400 \times 10^6$	2.725	1.348	1.942	0.599	6.615			$3.395 \times 10^5$
2.00 TeV	$2.000 \times 10^6$	2.763	1.977	2.841	0.867	8.447			$4.196 \times 10^5$
3.00 TeV	$3.000 \times 10^6$	2.806	3.030	4.336	1.329	11.501			$5.206 \times 10^5$
4.00 TeV	$4.000 \times 10^6$	2.838	4.100	5.853	1.798	14.589			$5.977 \times 10^5$
8.00 TeV	$8.000 \times 10^6$	2.915	8.435	11.961	3.753	27.064			$7.959 \times 10^5$
10.0 TeV	$1.000 \times 10^7$	2.940	10.626	15.038	4.760	33.365			$8.623 \times 10^5$
14.0 TeV	$1.400 \times 10^7$	2.979	14.999	21.168	6.834	45.980			$9.640 \times 10^5$
20.0 TeV	$2.000 \times 10^7$	3.021	21.612	30.415	10.020	65.068			$1.073 \times 10^6$
30.0 TeV	$3.000 \times 10^7$	3.069	32.621	45.800	15.551	97.041			$1.198 \times 10^6$
40.0 TeV	$4.000 \times 10^7$	3.103	43.688	61.235	21.227	129.254			$1.287 \times 10^6$
80.0 TeV	$8.000 \times 10^7$	3.189	88.060	123.027	45.043	259.320			$1.502 \times 10^6$
100. TeV	$1.000 \times 10^8$	3.217	110.304	153.960	57.386	324.868			$1.570 \times 10^6$