

**Table 185: Muons in Lithium fluoride (LiF)**

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.46262	2.635	94.0	0.07593	3.7478	0.0171	2.7049	3.1667	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod [MeV cm <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]	
10.0 MeV	$4.704 \times 10^1$	6.444				6.444	$8.595 \times 10^{-1}$	
14.0 MeV	$5.616 \times 10^1$	5.032				5.032	$1.569 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	3.934				3.934	$2.933 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	3.056				3.056	$5.858 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	2.611				2.611	$9.421 \times 10^0$	
80.0 MeV	$1.527 \times 10^2$	1.955				1.955	$2.768 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.834				1.834	$3.827 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.710				1.710	$6.097 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.640				1.640	$9.693 \times 10^1$	
300. MeV	$3.917 \times 10^2$	1.614			0.000	1.614	$1.586 \times 10^2$	
314. MeV	$4.065 \times 10^2$	1.614			0.000	1.614	<i>Minimum ionization</i>	
400. MeV	$4.945 \times 10^2$	1.620			0.000	1.620	$2.204 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.683	0.000		0.000	1.683	$4.627 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.711	0.000		0.000	1.712	$5.805 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.757	0.000		0.001	1.758	$8.109 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	1.807	0.001	0.000	0.001	1.809	$1.147 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	1.864	0.001	0.001	0.001	1.867	$1.691 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	1.904	0.001	0.001	0.002	1.908	$2.220 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	1.995	0.003	0.003	0.004	2.006	$4.258 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	2.023	0.004	0.004	0.005	2.037	$5.248 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	2.063	0.007	0.007	0.007	2.084	$7.188 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	2.104	0.011	0.012	0.009	2.137	$1.003 \times 10^4$	
30.0 GeV	$3.011 \times 10^4$	2.149	0.017	0.021	0.013	2.201	$1.464 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	2.179	0.025	0.031	0.017	2.253	$1.913 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.249	0.056	0.076	0.034	2.415	$3.625 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.271	0.073	0.100	0.042	2.485	$4.441 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.303	0.107	0.150	0.058	2.619	$6.008 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.337	0.161	0.229	0.083	2.811	$8.219 \times 10^4$	
300. GeV	$3.001 \times 10^5$	2.376	0.254	0.364	0.124	3.118	$1.160 \times 10^5$	
400. GeV	$4.001 \times 10^5$	2.403	0.351	0.504	0.165	3.423	$1.466 \times 10^5$	
800. GeV	$8.001 \times 10^5$	2.469	0.753	1.087	0.334	4.643	$2.465 \times 10^5$	
904. GeV	$9.039 \times 10^5$	2.481	0.860	1.243	0.378	4.962	<i>Muon critical energy</i>	
1.00 TeV	$1.000 \times 10^6$	2.491	0.960	1.388	0.419	5.259	$2.870 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.523	1.378	1.987	0.595	6.484	$3.554 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.558	2.019	2.905	0.862	8.345	$4.367 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	2.599	3.093	4.434	1.320	11.446	$5.387 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	2.628	4.186	5.983	1.786	14.584	$6.159 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	2.700	8.607	12.223	3.728	27.257	$8.134 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	2.724	10.841	15.365	4.728	33.658	$8.793 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	2.760	15.300	21.626	6.787	46.473	$9.800 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	2.798	22.041	31.070	9.950	65.860	$1.088 \times 10^6$	
30.0 TeV	$3.000 \times 10^7$	2.843	33.266	46.783	15.440	98.332	$1.211 \times 10^6$	
40.0 TeV	$4.000 \times 10^7$	2.876	44.547	62.546	21.073	131.042	$1.299 \times 10^6$	
80.0 TeV	$8.000 \times 10^7$	2.955	89.782	125.654	44.706	263.098	$1.510 \times 10^6$	
100. TeV	$1.000 \times 10^8$	2.982	112.459	157.246	56.954	329.641	$1.578 \times 10^6$	