

Muons in lanthanum fluoride (LaF₃)

	$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
	0.42879	5.900	336.3	0.18517	3.0000	0.2000	3.0000	4.9860	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	4.958				4.958		1.135×10^0	
14.0 MeV	5.616×10^1	3.903				3.903		2.053×10^0	
20.0 MeV	6.802×10^1	3.074				3.074		3.805×10^0	
30.0 MeV	8.509×10^1	2.405				2.406		7.532×10^0	
40.0 MeV	1.003×10^2	2.066				2.066		1.205×10^1	
80.0 MeV	1.527×10^2	1.572				1.572		3.493×10^1	
100. MeV	1.764×10^2	1.484				1.484		4.805×10^1	
140. MeV	2.218×10^2	1.398				1.398		7.594×10^1	
200. MeV	2.868×10^2	1.354				1.354		1.197×10^2	
257. MeV	3.471×10^2	1.346			0.000	1.346			<i>Minimum ionization</i>
300. MeV	3.917×10^2	1.349	0.000		0.000	1.349		1.939×10^2	
400. MeV	4.945×10^2	1.365	0.000		0.000	1.366		2.676×10^2	
800. MeV	8.995×10^2	1.445	0.001		0.000	1.446		5.520×10^2	
1.00 GeV	1.101×10^3	1.477	0.001		0.000	1.479		6.887×10^2	
1.40 GeV	1.502×10^3	1.529	0.001	0.000	0.001	1.531		9.543×10^2	
2.00 GeV	2.103×10^3	1.585	0.002	0.001	0.001	1.589		1.339×10^3	
3.00 GeV	3.104×10^3	1.647	0.004	0.002	0.001	1.655		1.954×10^3	
4.00 GeV	4.104×10^3	1.690	0.006	0.004	0.002	1.702		2.550×10^3	
8.00 GeV	8.105×10^3	1.787	0.014	0.014	0.003	1.819		4.815×10^3	
10.0 GeV	1.011×10^4	1.816	0.019	0.019	0.004	1.859		5.902×10^3	
14.0 GeV	1.411×10^4	1.857	0.029	0.032	0.006	1.924		8.016×10^3	
20.0 GeV	2.011×10^4	1.898	0.045	0.052	0.008	2.004		1.107×10^4	
30.0 GeV	3.011×10^4	1.942	0.074	0.090	0.012	2.118		1.592×10^4	
40.0 GeV	4.011×10^4	1.971	0.105	0.132	0.015	2.224		2.053×10^4	
80.0 GeV	8.011×10^4	2.036	0.238	0.317	0.030	2.622		3.706×10^4	
100. GeV	1.001×10^5	2.057	0.308	0.417	0.037	2.820		4.442×10^4	
140. GeV	1.401×10^5	2.087	0.452	0.623	0.052	3.214		5.770×10^4	
200. GeV	2.001×10^5	2.118	0.677	0.948	0.074	3.819		7.481×10^4	
246. GeV	2.457×10^5	2.136	0.851	1.194	0.091	4.273			<i>Muon critical energy</i>
300. GeV	3.001×10^5	2.154	1.063	1.493	0.111	4.822		9.807×10^4	
400. GeV	4.001×10^5	2.179	1.461	2.058	0.148	5.847		1.169×10^5	
800. GeV	8.001×10^5	2.240	3.108	4.377	0.298	10.024		1.685×10^5	
1.00 TeV	1.000×10^6	2.260	3.953	5.564	0.375	12.153		1.866×10^5	
1.40 TeV	1.400×10^6	2.291	5.649	7.930	0.531	16.403		2.149×10^5	
2.00 TeV	2.000×10^6	2.323	8.244	11.543	0.768	22.880		2.457×10^5	
3.00 TeV	3.000×10^6	2.361	12.577	17.547	1.176	33.662		2.815×10^5	
4.00 TeV	4.000×10^6	2.388	16.969	23.616	1.589	44.563		3.073×10^5	
8.00 TeV	8.000×10^6	2.454	34.679	48.015	3.305	88.455		3.698×10^5	
10.0 TeV	1.000×10^7	2.476	43.605	60.281	4.187	110.551		3.900×10^5	
14.0 TeV	1.400×10^7	2.510	61.409	84.753	5.999	154.673		4.204×10^5	
20.0 TeV	2.000×10^7	2.546	88.275	121.621	8.778	221.221		4.527×10^5	
30.0 TeV	3.000×10^7	2.587	133.002	182.964	13.583	332.137		4.893×10^5	
40.0 TeV	4.000×10^7	2.617	177.893	244.454	18.505	443.471		5.153×10^5	
80.0 TeV	8.000×10^7	2.691	357.737	490.589	39.079	890.098		5.777×10^5	
100. TeV	1.000×10^8	2.715	447.815	613.771	49.714	1114.017		5.977×10^5	