

Table 336: Muons in Lutetium aluminum oxide (2) [Lu₃Al₅O₁₂]

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
0.43907	6.730	365.9	0.18578	3.0000	0.2000	3.0000	4.9994	0.00
T	p [MeV/c]	Ionization	Brems	Pair prod [MeV cm ² /g]	Photonucl	Total	CSDA range [g/cm ²]	
10.0 MeV	4.704×10^1	5.008				5.009	1.125×10^0	
14.0 MeV	5.616×10^1	3.944				3.944	2.034×10^0	
20.0 MeV	6.802×10^1	3.109				3.109	3.766×10^0	
30.0 MeV	8.509×10^1	2.434				2.434	7.450×10^0	
40.0 MeV	1.003×10^2	2.091				2.092	1.191×10^1	
80.0 MeV	1.527×10^2	1.593				1.593	3.450×10^1	
100. MeV	1.764×10^2	1.504				1.505	4.745×10^1	
140. MeV	2.218×10^2	1.417				1.418	7.496×10^1	
200. MeV	2.868×10^2	1.374				1.374	1.181×10^2	
256. MeV	3.462×10^2	1.366			0.000	1.367	<i>Minimum ionization</i>	
300. MeV	3.917×10^2	1.369	0.000		0.000	1.369	1.912×10^2	
400. MeV	4.945×10^2	1.386	0.000		0.000	1.387	2.638×10^2	
800. MeV	8.995×10^2	1.469	0.001		0.000	1.470	5.437×10^2	
1.00 GeV	1.101×10^3	1.502	0.001		0.000	1.503	6.782×10^2	
1.40 GeV	1.502×10^3	1.555	0.002	0.000	0.001	1.557	9.394×10^2	
2.00 GeV	2.103×10^3	1.612	0.003	0.001	0.001	1.616	1.317×10^3	
3.00 GeV	3.104×10^3	1.676	0.004	0.002	0.001	1.684	1.922×10^3	
4.00 GeV	4.104×10^3	1.720	0.006	0.004	0.002	1.733	2.507×10^3	
8.00 GeV	8.105×10^3	1.819	0.016	0.014	0.003	1.853	4.732×10^3	
10.0 GeV	1.011×10^4	1.849	0.021	0.020	0.004	1.894	5.799×10^3	
14.0 GeV	1.411×10^4	1.891	0.032	0.033	0.006	1.962	7.872×10^3	
20.0 GeV	2.011×10^4	1.933	0.049	0.054	0.008	2.046	1.086×10^4	
30.0 GeV	3.011×10^4	1.978	0.081	0.095	0.012	2.167	1.561×10^4	
40.0 GeV	4.011×10^4	2.008	0.114	0.140	0.015	2.278	2.011×10^4	
80.0 GeV	8.011×10^4	2.075	0.259	0.338	0.030	2.703	3.620×10^4	
100. GeV	1.001×10^5	2.096	0.335	0.445	0.037	2.914	4.333×10^4	
140. GeV	1.401×10^5	2.126	0.492	0.665	0.052	3.336	5.615×10^4	
200. GeV	2.001×10^5	2.158	0.738	1.013	0.074	3.985	7.259×10^4	
234. GeV	2.340×10^5	2.173	0.878	1.208	0.086	4.346	<i>Muon critical energy</i>	
300. GeV	3.001×10^5	2.195	1.157	1.597	0.111	5.061	9.482×10^4	
400. GeV	4.001×10^5	2.221	1.591	2.201	0.148	6.161	1.127×10^5	
800. GeV	8.001×10^5	2.284	3.382	4.682	0.299	10.647	1.615×10^5	
1.00 TeV	1.000×10^6	2.304	4.302	5.953	0.375	12.934	1.785×10^5	
1.40 TeV	1.400×10^6	2.335	6.146	8.485	0.532	17.499	2.050×10^5	
2.00 TeV	2.000×10^6	2.369	8.967	12.351	0.769	24.456	2.339×10^5	
3.00 TeV	3.000×10^6	2.407	13.676	18.775	1.177	36.036	2.674×10^5	
4.00 TeV	4.000×10^6	2.435	18.449	25.269	1.591	47.744	2.914×10^5	
8.00 TeV	8.000×10^6	2.503	37.691	51.375	3.309	94.879	3.497×10^5	
10.0 TeV	1.000×10^7	2.525	47.388	64.498	4.192	118.605	3.685×10^5	
14.0 TeV	1.400×10^7	2.559	66.730	90.681	6.006	165.978	3.969×10^5	
20.0 TeV	2.000×10^7	2.596	95.916	130.125	8.788	237.427	4.270×10^5	
30.0 TeV	3.000×10^7	2.639	144.499	195.754	13.602	356.495	4.611×10^5	
40.0 TeV	4.000×10^7	2.669	193.257	261.542	18.532	476.002	4.853×10^5	
80.0 TeV	8.000×10^7	2.745	388.581	524.877	39.147	955.352	5.435×10^5	
100. TeV	1.000×10^8	2.770	486.410	656.666	49.805	1195.651	5.621×10^5	