

Table 342: Muons in Ytterbium aluminum oxide (1) [YbAlO₃]

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
0.43139	5.500	416.8	0.20821	3.0000	0.2863	3.0000	5.4793	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	4.817				4.817	1.172×10^0	
14.0 MeV	5.616×10^1	3.797				3.797	2.117×10^0	
20.0 MeV	6.802×10^1	2.995				2.995	3.915×10^0	
30.0 MeV	8.509×10^1	2.348				2.348	7.736×10^0	
40.0 MeV	1.003×10^2	2.018				2.019	1.236×10^1	
80.0 MeV	1.527×10^2	1.539				1.539	3.574×10^1	
100. MeV	1.764×10^2	1.455				1.455	4.914×10^1	
140. MeV	2.218×10^2	1.375				1.376	7.753×10^1	
200. MeV	2.868×10^2	1.338				1.338	1.219×10^2	
242. MeV	3.316×10^2	1.333				1.333	<i>Minimum ionization</i>	
300. MeV	3.917×10^2	1.338	0.000		0.000	1.338	1.968×10^2	
400. MeV	4.945×10^2	1.358	0.000		0.000	1.358	2.710×10^2	
800. MeV	8.995×10^2	1.444	0.001		0.000	1.445	5.561×10^2	
1.00 GeV	1.101×10^3	1.479	0.001		0.000	1.480	6.928×10^2	
1.40 GeV	1.502×10^3	1.533	0.002	0.000	0.001	1.535	9.579×10^2	
2.00 GeV	2.103×10^3	1.591	0.003	0.001	0.001	1.595	1.341×10^3	
3.00 GeV	3.104×10^3	1.656	0.005	0.003	0.001	1.665	1.954×10^3	
4.00 GeV	4.104×10^3	1.700	0.007	0.005	0.002	1.714	2.545×10^3	
8.00 GeV	8.105×10^3	1.800	0.017	0.016	0.003	1.836	4.792×10^3	
10.0 GeV	1.011×10^4	1.829	0.022	0.022	0.004	1.878	5.869×10^3	
14.0 GeV	1.411×10^4	1.871	0.034	0.036	0.006	1.948	7.959×10^3	
20.0 GeV	2.011×10^4	1.913	0.053	0.059	0.008	2.034	1.097×10^4	
30.0 GeV	3.011×10^4	1.958	0.087	0.103	0.012	2.160	1.574×10^4	
40.0 GeV	4.011×10^4	1.987	0.123	0.151	0.015	2.277	2.025×10^4	
80.0 GeV	8.011×10^4	2.053	0.278	0.364	0.030	2.726	3.628×10^4	
100. GeV	1.001×10^5	2.073	0.360	0.479	0.037	2.950	4.333×10^4	
140. GeV	1.401×10^5	2.104	0.529	0.715	0.051	3.400	5.595×10^4	
200. GeV	2.001×10^5	2.135	0.793	1.090	0.073	4.092	7.202×10^4	
217. GeV	2.172×10^5	2.142	0.869	1.195	0.079	4.286	<i>Muon critical energy</i>	
300. GeV	3.001×10^5	2.171	1.243	1.716	0.109	5.241	9.357×10^4	
400. GeV	4.001×10^5	2.196	1.709	2.365	0.146	6.418	1.108×10^5	
800. GeV	8.001×10^5	2.258	3.633	5.030	0.295	11.216	1.574×10^5	
1.00 TeV	1.000×10^6	2.278	4.620	6.393	0.371	13.664	1.735×10^5	
1.40 TeV	1.400×10^6	2.309	6.601	9.112	0.525	18.548	1.985×10^5	
2.00 TeV	2.000×10^6	2.342	9.630	13.262	0.760	25.994	2.257×10^5	
3.00 TeV	3.000×10^6	2.379	14.685	20.158	1.162	38.387	2.572×10^5	
4.00 TeV	4.000×10^6	2.407	19.809	27.129	1.571	50.916	2.798×10^5	
8.00 TeV	8.000×10^6	2.474	40.463	55.149	3.267	101.354	3.344×10^5	
10.0 TeV	1.000×10^7	2.496	50.871	69.234	4.138	126.740	3.520×10^5	
14.0 TeV	1.400×10^7	2.529	71.631	97.337	5.928	177.426	3.785×10^5	
20.0 TeV	2.000×10^7	2.565	102.954	139.672	8.672	253.865	4.067×10^5	
30.0 TeV	3.000×10^7	2.607	155.095	210.110	13.418	381.231	4.386×10^5	
40.0 TeV	4.000×10^7	2.637	207.423	280.715	18.278	509.054	4.612×10^5	
80.0 TeV	8.000×10^7	2.712	417.041	563.338	38.591	1021.683	5.156×10^5	
100. TeV	1.000×10^8	2.736	522.025	704.782	49.089	1278.634	5.330×10^5	