

Muons in cadmium zinc telluride (CZT)

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.41747	5.760	532.6	0.23425	3.0000	0.4417	3.0000	5.9563	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	4.471				4.471	1.268×10^0	
14.0 MeV	5.616×10^1	3.532				3.532	2.284×10^0	
20.0 MeV	6.802×10^1	2.791				2.791	4.216×10^0	
30.0 MeV	8.509×10^1	2.192				2.192	8.312×10^0	
40.0 MeV	1.003×10^2	1.887				1.887	1.326×10^1	
80.0 MeV	1.527×10^2	1.443				1.443	3.823×10^1	
100. MeV	1.764×10^2	1.366				1.366	5.251×10^1	
140. MeV	2.218×10^2	1.293				1.293	8.275×10^1	
200. MeV	2.868×10^2	1.262				1.262	1.299×10^2	
227. MeV	3.154×10^2	1.260				1.260	<i>Minimum ionization</i>	
300. MeV	3.917×10^2	1.268	0.000		0.000	1.268	2.091×10^2	
400. MeV	4.945×10^2	1.291	0.000		0.000	1.291	2.873×10^2	
800. MeV	8.995×10^2	1.382	0.001		0.000	1.383	5.860×10^2	
1.00 GeV	1.101×10^3	1.417	0.001		0.000	1.418	7.288×10^2	
1.40 GeV	1.502×10^3	1.472	0.002	0.000	0.001	1.474	1.005×10^3	
2.00 GeV	2.103×10^3	1.530	0.003	0.001	0.001	1.535	1.403×10^3	
3.00 GeV	3.104×10^3	1.595	0.005	0.003	0.001	1.605	2.039×10^3	
4.00 GeV	4.104×10^3	1.640	0.007	0.005	0.002	1.654	2.653×10^3	
8.00 GeV	8.105×10^3	1.738	0.017	0.016	0.003	1.775	4.979×10^3	
10.0 GeV	1.011×10^4	1.768	0.022	0.023	0.004	1.817	6.092×10^3	
14.0 GeV	1.411×10^4	1.809	0.034	0.037	0.005	1.886	8.251×10^3	
20.0 GeV	2.011×10^4	1.850	0.053	0.060	0.008	1.971	1.136×10^4	
30.0 GeV	3.011×10^4	1.893	0.086	0.105	0.011	2.096	1.628×10^4	
40.0 GeV	4.011×10^4	1.922	0.121	0.154	0.015	2.213	2.092×10^4	
80.0 GeV	8.011×10^4	1.986	0.275	0.370	0.029	2.660	3.737×10^4	
100. GeV	1.001×10^5	2.006	0.356	0.486	0.036	2.884	4.459×10^4	
140. GeV	1.401×10^5	2.035	0.522	0.725	0.050	3.333	5.748×10^4	
200. GeV	2.001×10^5	2.065	0.783	1.104	0.072	4.024	7.385×10^4	
210. GeV	2.104×10^5	2.070	0.827	1.167	0.075	4.141	<i>Muon critical energy</i>	
300. GeV	3.001×10^5	2.100	1.228	1.737	0.107	5.173	9.572×10^4	
400. GeV	4.001×10^5	2.125	1.688	2.393	0.143	6.350	1.131×10^5	
800. GeV	8.001×10^5	2.184	3.588	5.084	0.290	11.146	1.601×10^5	
1.00 TeV	1.000×10^6	2.204	4.564	6.460	0.364	13.593	1.763×10^5	
1.40 TeV	1.400×10^6	2.233	6.521	9.206	0.515	18.477	2.015×10^5	
2.00 TeV	2.000×10^6	2.265	9.515	13.397	0.745	25.924	2.288×10^5	
3.00 TeV	3.000×10^6	2.302	14.514	20.362	1.140	38.318	2.603×10^5	
4.00 TeV	4.000×10^6	2.328	19.580	27.401	1.540	50.851	2.829×10^5	
8.00 TeV	8.000×10^6	2.393	40.008	55.698	3.201	101.301	3.376×10^5	
10.0 TeV	1.000×10^7	2.414	50.303	69.922	4.053	126.694	3.552×10^5	
14.0 TeV	1.400×10^7	2.447	70.838	98.304	5.803	177.393	3.817×10^5	
20.0 TeV	2.000×10^7	2.482	101.824	141.060	8.485	253.852	4.099×10^5	
30.0 TeV	3.000×10^7	2.522	153.408	212.198	13.118	381.248	4.418×10^5	
40.0 TeV	4.000×10^7	2.551	205.180	283.505	17.862	509.099	4.644×10^5	
80.0 TeV	8.000×10^7	2.623	412.582	568.937	37.668	1021.812	5.188×10^5	
100. TeV	1.000×10^8	2.647	516.461	711.787	47.898	1278.794	5.362×10^5	