Muons in titanium (Ti)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
22 (Ti)	47.867 (1)	4.540	233.0	0.15662	3.0302	0.0957	3.0386	4.4450	0.12

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	5.608				5.608	1.000×10^0
14.0 MeV	5.616×10^1	4.404				4.404	1.813×10^0
20.0 MeV	6.802×10^1	3.460				3.460	3.368×10^0
30.0 MeV	8.509×10^1	2.699				2.699	6.684×10^0
40.0 MeV	1.003×10^2	2.312				2.312	1.071×10^1
80.0 MeV	1.527×10^2	1.746				1.746	3.124×10^1
100. MeV	1.764×10^2	1.644				1.644	4.308×10^1
140. MeV	2.218×10^2	1.543				1.543	6.832×10^1
200. MeV	2.868×10^2	1.489				1.490	1.080×10^2
274. MeV	3.642×10^2	1.477			0.000	1.477	*Minimum ionization*
300. MeV	3.917×10^2	1.478			0.000	1.478	1.756×10^2
400. MeV	4.945×10^2	1.493	0.000		0.000	1.493	2.430×10^2
800. MeV	8.995×10^2	1.573	0.000		0.000	1.573	5.038×10^2
1.00 GeV	1.101×10^3	1.606	0.001		0.000	1.607	6.295×10^2
1.40 GeV	1.502×10^3	1.659	0.001	0.000	0.001	1.661	8.741×10^2
2.00 GeV	2.103×10^3	1.717	0.001	0.001	0.001	1.720	1.229×10^3
3.00 GeV	3.104×10^3	1.783	0.002	0.002	0.001	1.788	1.798×10^3
4.00 GeV	4.104×10^3	1.828	0.004	0.003	0.002	1.836	2.350×10^3
8.00 GeV	8.105×10^3	1.930	0.009	0.009	0.004	1.951	4.455×10^3
10.0 GeV	1.011×10^4	1.960	0.012	0.012	0.004	1.989	5.470×10^3
14.0 GeV	1.411×10^4	2.004	0.018	0.020	0.006	2.048	7.450×10^3
20.0 GeV	2.011×10^4	2.048	0.028	0.032	0.008	2.117	1.033×10^4
30.0 GeV	3.011×10^4	2.095	0.045	0.056	0.012	2.209	1.495×10^4
40.0 GeV	4.011×10^4	2.126	0.064	0.082	0.016	2.289	1.939×10^4
80.0 GeV	8.011×10^4	2.196	0.145	0.198	0.031	2.571	3.586×10^4
100. GeV	1.001×10^5	2.218	0.188	0.260	0.039	2.705	4.344×10^4
140. GeV	1.401×10^5	2.250	0.276	0.388	0.054	2.969	5.755×10^4
200. GeV	2.001×10^5	2.284	0.413	0.592	0.077	3.367	7.652×10^4
300. GeV	3.001×10^5	2.322	0.649	0.935	0.115	4.022	1.037×10^5
400. GeV	4.001×10^5	2.349	0.893	1.290	0.154	4.686	1.267×10^5
402. GeV	4.021×10^5	2.350	0.898	1.297	0.154	4.700	*Muon critical energy*
800. GeV	8.001×10^5	2.415	1.904	2.750	0.311	7.380	1.941×10^5
1.00 TeV	1.000×10^6	2.436	2.425	3.498	0.390	8.750	2.190×10^5
1.40 TeV	1.400×10^6	2.469	3.469	4.992	0.553	11.484	2.588×10^5
2.00 TeV	2.000×10^6	2.504	5.069	7.275	0.800	15.649	3.034×10^5
3.00 TeV	3.000×10^6	2.544	7.744	11.070	1.225	22.584	3.563×10^5
4.00 TeV	4.000×10^6	2.573	10.458	14.909	1.656	29.597	3.949×10^5
8.00 TeV	8.000×10^6	2.644	21.415	30.350	3.446	57.857	4.898×10^5
10.0 TeV	1.000×10^7	2.668	26.943	38.117	4.367	72.096	5.207×10^5
14.0 TeV	1.400×10^7	2.704	37.980	53.610	6.259	100.553	5.675×10^5
20.0 TeV	2.000×10^7	2.742	54.650	76.958	9.162	143.513	6.172×10^5
30.0 TeV	3.000×10^7	2.787	82.367	115.805	14.185	215.144	6.737×10^5
40.0 TeV	4.000×10^7	2.819	110.193	154.754	19.332	287.098	7.138×10^5
80.0 TeV	8.000×10^7	2.898	221.736	310.672	40.858	576.165	8.102×10^5
100. TeV	1.000×10^8	2.924	277.630	388.710	51.990	721.255	8.412×10^5