Muons in berkelium (Bk)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
97 (Bk)	[247.07031(4)]	9.860	952.0	0.25556	3.0000	0.0509	2.5000	3.9886	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	3.662				3.662	1.604×10^0
14.0 MeV	5.616×10^1	2.938				2.938	2.834×10^0
20.0 MeV	6.802×10^1	2.351				2.351	5.140×10^0
30.0 MeV	8.509×10^1	1.866				1.866	9.973×10^0
40.0 MeV	1.003×10^2	1.616				1.616	1.576×10^1
80.0 MeV	1.527×10^2	1.248				1.249	4.473×10^1
100. MeV	1.764×10^2	1.182				1.182	6.123×10^1
140. MeV	2.218×10^2	1.119				1.119	9.616×10^1
200. MeV	2.868×10^2	1.088				1.089	1.507×10^2
242. MeV	3.316×10^2	1.085	0.000			1.085	*Minimum ionization*
300. MeV	3.917×10^2	1.088	0.000		0.000	1.089	2.428×10^2
400. MeV	4.945×10^2	1.105	0.000		0.000	1.105	3.340×10^2
800. MeV	8.995×10^2	1.175	0.001		0.000	1.176	6.843×10^2
1.00 GeV	1.101×10^3	1.203	0.002		0.000	1.205	8.522×10^2
1.40 GeV	1.502×10^3	1.246	0.003		0.000	1.250	1.178×10^3
2.00 GeV	2.103×10^3	1.293	0.005	0.001	0.001	1.299	1.648×10^3
3.00 GeV	3.104×10^3	1.345	0.008	0.003	0.001	1.358	2.400×10^3
4.00 GeV	4.104×10^3	1.381	0.012	0.006	0.002	1.401	3.124×10^3
8.00 GeV	8.105×10^3	1.462	0.029	0.024	0.003	1.518	5.857×10^3
10.0 GeV	1.011×10^4	1.486	0.038	0.034	0.004	1.563	7.155×10^3
14.0 GeV	1.411×10^4	1.521	0.059	0.056	0.005	1.642	9.650×10^3
20.0 GeV	2.011×10^4	1.556	0.091	0.092	0.007	1.748	1.319×10^4
30.0 GeV	3.011×10^4	1.594	0.150	0.164	0.011	1.919	1.865×10^4
40.0 GeV	4.011×10^4	1.620	0.212	0.242	0.014	2.089	2.364×10^4
80.0 GeV	8.011×10^4	1.679	0.479	0.591	0.027	2.777	4.020×10^4
100. GeV	1.001×10^5	1.698	0.620	0.779	0.034	3.132	4.698×10^4
116. GeV	1.164×10^5	1.710	0.737	0.934	0.039	3.422	*Muon critical energy*
140. GeV	1.401×10^5	1.725	0.911	1.166	0.047	3.850	5.848×10^4
200. GeV	2.001×10^5	1.754	1.364	1.780	0.067	4.967	7.218×10^4
300. GeV	3.001×10^5	1.786	2.138	2.805	0.101	6.832	8.929×10^4
400. GeV	4.001×10^5	1.810	2.938	3.867	0.134	8.750	1.022×10^5
800. GeV	8.001×10^5	1.866	6.235	8.222	0.271	16.596	1.349×10^5
1.00 TeV	1.000×10^6	1.884	7.927	10.449	0.341	20.603	1.457×10^5
1.40 TeV	1.400×10^6	1.912	11.316	14.891	0.483	28.603	1.621×10^5
2.00 TeV	2.000×10^6	1.942	16.495	21.668	0.698	40.805	1.795×10^5
3.00 TeV	3.000×10^6	1.976	25.134	32.928	1.067	61.107	1.994×10^5
4.00 TeV	4.000×10^6	2.001	33.883	44.307	1.441	81.633	2.136×10^5
8.00 TeV	8.000×10^6	2.062	69.129	90.039	2.991	164.222	2.474×10^5
10.0 TeV	1.000×10^7	2.082	86.879	113.023	3.786	205.772	2.583×10^5
14.0 TeV	1.400×10^7	2.112	122.282	158.887	5.417	288.699	2.746×10^5
20.0 TeV	2.000×10^7	2.145	175.674	227.972	7.914	413.707	2.919×10^5
30.0 TeV	3.000×10^7	2.183	264.646	342.902	12.227	621.960	3.115×10^5
40.0 TeV	4.000×10^7	2.211	353.935	458.095	16.639	830.882	3.253×10^5
80.0 TeV	8.000×10^7	2.278	711.071	919.187	35.048	1667.586	3.586×10^5
100. TeV	1.000×10^8	2.301	889.750	1149.940	44.550	2086.543	3.693×10^5