

Muons in rutherfordium (Rf)

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
104 (Rf)	[267.12179(4)]	??	1047.0	0.26960	3.0000	0.6157	3.0000	6.4898	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	3.537				3.537	1.673×10^0
14.0 MeV	5.616×10^1	2.847				2.847	2.945×10^0
20.0 MeV	6.802×10^1	2.285				2.285	5.320×10^0
30.0 MeV	8.509×10^1	1.818				1.818	1.029×10^1
40.0 MeV	1.003×10^2	1.577				1.577	1.623×10^1
80.0 MeV	1.527×10^2	1.223				1.223	4.587×10^1
100. MeV	1.764×10^2	1.161				1.161	6.270×10^1
140. MeV	2.218×10^2	1.105				1.105	9.816×10^1
200. MeV	2.868×10^2	1.084				1.084	1.531×10^2
209. MeV	2.968×10^2	1.084	0.000			1.084	<i>Minimum ionization</i>
300. MeV	3.917×10^2	1.097	0.000		0.000	1.098	2.450×10^2
400. MeV	4.945×10^2	1.124	0.000		0.000	1.125	3.350×10^2
800. MeV	8.995×10^2	1.220	0.001		0.000	1.222	6.752×10^2
1.00 GeV	1.101×10^3	1.255	0.002		0.000	1.258	8.364×10^2
1.40 GeV	1.502×10^3	1.310	0.003		0.000	1.314	1.147×10^3
2.00 GeV	2.103×10^3	1.368	0.005	0.000	0.001	1.374	1.593×10^3
3.00 GeV	3.104×10^3	1.431	0.008	0.003	0.001	1.444	2.302×10^3
4.00 GeV	4.104×10^3	1.474	0.012	0.006	0.001	1.495	2.982×10^3
8.00 GeV	8.105×10^3	1.569	0.031	0.024	0.003	1.628	5.536×10^3
10.0 GeV	1.011×10^4	1.597	0.041	0.035	0.004	1.677	6.746×10^3
14.0 GeV	1.411×10^4	1.637	0.062	0.057	0.005	1.762	9.071×10^3
20.0 GeV	2.011×10^4	1.676	0.097	0.095	0.007	1.876	1.237×10^4
30.0 GeV	3.011×10^4	1.716	0.158	0.170	0.011	2.056	1.746×10^4
40.0 GeV	4.011×10^4	1.743	0.224	0.251	0.014	2.234	2.212×10^4
80.0 GeV	8.011×10^4	1.803	0.506	0.614	0.027	2.952	3.766×10^4
100. GeV	1.001×10^5	1.822	0.656	0.811	0.034	3.323	4.404×10^4
119. GeV	1.189×10^5	1.836	0.798	0.998	0.040	3.673	<i>Muon critical energy</i>
140. GeV	1.401×10^5	1.849	0.963	1.214	0.047	4.074	5.490×10^4
200. GeV	2.001×10^5	1.877	1.442	1.855	0.067	5.243	6.786×10^4
300. GeV	3.001×10^5	1.910	2.260	2.925	0.100	7.196	8.408×10^4
400. GeV	4.001×10^5	1.933	3.105	4.034	0.133	9.207	9.634×10^4
800. GeV	8.001×10^5	1.988	6.589	8.580	0.269	17.429	1.274×10^5
1.00 TeV	1.000×10^6	2.006	8.376	10.906	0.338	21.629	1.377×10^5
1.40 TeV	1.400×10^6	2.034	11.956	15.542	0.479	30.013	1.533×10^5
2.00 TeV	2.000×10^6	2.064	17.426	22.617	0.693	42.802	1.700×10^5
3.00 TeV	3.000×10^6	2.098	26.550	34.373	1.059	64.082	1.890×10^5
4.00 TeV	4.000×10^6	2.122	35.790	46.254	1.430	85.599	2.024×10^5
8.00 TeV	8.000×10^6	2.183	73.009	93.998	2.968	172.160	2.347×10^5
10.0 TeV	1.000×10^7	2.203	91.751	117.992	3.757	215.705	2.451×10^5
14.0 TeV	1.400×10^7	2.233	129.132	165.879	5.375	302.622	2.607×10^5
20.0 TeV	2.000×10^7	2.266	185.506	238.016	7.854	433.644	2.771×10^5
30.0 TeV	3.000×10^7	2.303	279.446	358.009	12.133	651.893	2.958×10^5
40.0 TeV	4.000×10^7	2.331	373.717	478.277	16.510	870.837	3.091×10^5
80.0 TeV	8.000×10^7	2.398	750.771	959.687	34.773	1747.631	3.408×10^5
100. TeV	1.000×10^8	2.420	939.410	1200.610	44.200	2186.642	3.510×10^5