Table 037: Muons in Rubidium

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
37 (Rb)	85.4678 (3)	1.532	363.0	0.07261	3.4177	0.5737	3.7995	6.4776	0.14

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	4.920				4.920	1.150×10^0
14.0 MeV	5.616×10^1	3.880				3.880	2.075×10^0
20.0 MeV	6.802×10^1	3.061				3.061	3.835×10^0
30.0 MeV	8.509×10^1	2.398				2.398	7.575×10^0
40.0 MeV	1.003×10^2	2.061				2.061	1.210×10^1
80.0 MeV	1.527×10^2	1.569				1.569	3.502×10^1
100. MeV	1.764×10^2	1.482				1.483	4.817×10^1
140. MeV	2.218×10^2	1.399				1.399	7.606×10^1
200. MeV	2.868×10^2	1.361				1.361	1.197×10^2
239. MeV	3.285×10^2	1.356				1.356	*Minimum ionization*
300. MeV	3.917×10^2	1.362	0.000		0.000	1.362	1.933×10^2
400. MeV	4.945×10^2	1.385	0.000		0.000	1.385	2.661×10^2
800. MeV	8.995×10^2	1.480	0.001		0.000	1.481	5.449×10^2
1.00 GeV	1.101×10^3	1.517	0.001		0.000	1.519	6.782×10^2
1.40 GeV	1.502×10^3	1.576	0.001	0.000	0.001	1.578	9.363×10^2
2.00 GeV	2.103×10^3	1.639	0.002	0.001	0.001	1.643	1.308×10^3
3.00 GeV	3.104×10^3	1.709	0.004	0.003	0.001	1.717	1.903×10^3
4.00 GeV	4.104×10^3	1.757	0.005	0.004	0.002	1.769	2.476×10^3
8.00 GeV	8.105×10^3	1.865	0.013	0.013	0.003	1.896	4.652×10^3
10.0 GeV	1.011×10^4	1.898	0.018	0.019	0.004	1.938	5.695×10^3
14.0 GeV	1.411×10^4	1.944	0.027	0.030	0.006	2.007	7.721×10^3
20.0 GeV	2.011×10^4	1.990	0.042	0.049	0.008	2.089	1.065×10^4
30.0 GeV	3.011×10^4	2.038	0.069	0.085	0.012	2.204	1.531×10^4
40.0 GeV	4.011×10^4	2.070	0.097	0.124	0.015	2.307	1.974×10^4
80.0 GeV	8.011×10^4	2.141	0.219	0.298	0.030	2.688	3.577×10^4
100. GeV	1.001×10^5	2.163	0.283	0.391	0.037	2.875	4.296×10^4
140. GeV	1.401×10^5	2.194	0.416	0.584	0.052	3.247	5.605×10^4
200. GeV	2.001×10^5	2.227	0.623	0.889	0.074	3.814	7.308×10^4
275. GeV	2.746×10^5	2.255	0.886	1.268	0.101	4.512	*Muon critical energy*
300. GeV	3.001×10^5	2.263	0.978	1.400	0.110	4.753	9.653×10^4
400. GeV	4.001×10^5	2.289	1.345	1.930	0.147	5.712	1.157×10^5
800. GeV	8.001×10^5	2.351	2.862	4.104	0.297	9.615	1.691×10^5
1.00 TeV	1.000×10^6	2.371	3.642	5.216	0.374	11.604	1.880×10^5
1.40 TeV	1.400×10^6	2.402	5.206	7.437	0.529	15.574	2.177×10^5
2.00 TeV	2.000×10^6	2.435	7.599	10.826	0.766	21.627	2.502×10^5
3.00 TeV	3.000×10^6	2.473	11.598	16.460	1.171	31.702	2.882×10^5
4.00 TeV	4.000×10^6	2.500	15.651	22.155	1.583	41.890	3.156×10^5
8.00 TeV	8.000×10^6	2.567	32.004	45.053	3.291	82.917	3.822×10^5
10.0 TeV	1.000×10^7	2.589	40.248	56.566	4.169	103.573	4.037×10^5
14.0 TeV	1.400×10^7	2.623	56.692	79.535	5.971	144.822	4.362×10^5
20.0 TeV	2.000×10^7	2.659	81.512	114.140	8.734	207.046	4.707×10^5
30.0 TeV	3.000×10^7	2.701	122.831	171.718	13.510	310.761	5.098×10^5
40.0 TeV	4.000×10^7	2.731	164.307	229.439	18.400	414.878	5.376×10^5
80.0 TeV	8.000×10^7	2.806	330.487	460.492	38.827	832.613	6.043×10^5
100. TeV	1.000×10^8	2.831	413.730	576.130	49.380	1042.072	6.257×10^5