Table 266: Muons in Toluene ($C_6H_5CH_3$)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.54265	0.867	62.5	0.13284	3.3558	0.1722	2.5728	3.3026	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	7.970				7.970	6.923×10^{-1}
14.0 MeV	5.616×10^1	6.212				6.212	1.267×10^0
20.0 MeV	6.802×10^1	4.847				4.847	2.373×10^0
30.0 MeV	8.509×10^1	3.757				3.757	4.749×10^0
40.0 MeV	1.003×10^2	3.206				3.206	7.649×10^0
80.0 MeV	1.527×10^2	2.404				2.404	2.252×10^1
100. MeV	1.764×10^2	2.253				2.254	3.113×10^1
140. MeV	2.218×10^2	2.098				2.098	4.962×10^1
200. MeV	2.868×10^2	2.008				2.008	7.896×10^1
300. MeV	3.917×10^2	1.973			0.000	1.973	1.294×10^2
318. MeV	4.105×10^2	1.972			0.000	1.972	*Minimum ionization*
400. MeV	4.945×10^2	1.978			0.000	1.978	1.800×10^2
800. MeV	8.995×10^2	2.050	0.000		0.000	2.051	3.787×10^2
1.00 GeV	1.101×10^3	2.083	0.000		0.000	2.084	4.754×10^2
1.40 GeV	1.502×10^3	2.137	0.000		0.001	2.138	6.648×10^2
2.00 GeV	2.103×10^3	2.197	0.000	0.000	0.001	2.199	9.413×10^2
3.00 GeV	3.104×10^3	2.265	0.001	0.001	0.001	2.268	1.389×10^3
4.00 GeV	4.104×10^3	2.312	0.001	0.001	0.002	2.316	1.825×10^3
8.00 GeV	8.105×10^3	2.420	0.003	0.003	0.004	2.429	3.506×10^3
10.0 GeV	1.011×10^4	2.452	0.004	0.004	0.005	2.465	4.323×10^3
14.0 GeV	1.411×10^4	2.500	0.006	0.006	0.007	2.519	5.928×10^3
20.0 GeV	2.011×10^4	2.548	0.009	0.010	0.009	2.577	8.281×10^3
30.0 GeV	3.011×10^4	2.600	0.015	0.018	0.014	2.647	1.211×10^4
40.0 GeV	4.011×10^4	2.636	0.021	0.027	0.018	2.702	1.585×10^4
80.0 GeV	8.011×10^4	2.717	0.048	0.065	0.035	2.866	3.020×10^4
100. GeV	1.001×10^5	2.743	0.063	0.086	0.043	2.935	3.709×10^4
140. GeV	1.401×10^5	2.781	0.093	0.129	0.060	3.063	5.043×10^4
200. GeV	2.001×10^5	2.821	0.140	0.198	0.084	3.243	6.946×10^4
300. GeV	3.001×10^5	2.866	0.221	0.315	0.127	3.529	9.900×10^4
400. GeV	4.001×10^5	2.898	0.306	0.437	0.169	3.810	1.263×10^5
800. GeV	8.001×10^5	2.975	0.658	0.947	0.341	4.921	2.184×10^5
1.00 TeV	1.000×10^6	3.001	0.840	1.211	0.428	5.480	2.569×10^5
1.20 TeV	1.204×10^6	3.022	1.026	1.477	0.519	6.044	*Muon critical energy*
1.40 TeV	1.400×10^6	3.039	1.208	1.736	0.607	6.590	3.234×10^5
2.00 TeV	2.000×10^6	3.080	1.773	2.542	0.879	8.274	4.044×10^5
3.00 TeV	3.000×10^6	3.128	2.720	3.884	1.348	11.080	5.085×10^5
4.00 TeV	4.000×10^6	3.162	3.685	5.245	1.824	13.917	5.889×10^5
8.00 TeV	8.000×10^6	3.246	7.595	10.731	3.808	25.381	7.987×10^5
10.0 TeV	1.000×10^7	3.274	9.574	13.495	4.831	31.174	8.697×10^5
14.0 TeV	1.400×10^7	3.316	13.523	19.001	6.938	42.779	9.788×10^5
20.0 TeV	2.000×10^7	3.362	19.499	27.309	10.178	60.347	1.096×10^6
30.0 TeV	3.000×10^7	3.414	29.451	41.129	15.802	89.797	1.231×10^6
40.0 TeV	4.000×10^7	3.452	39.461	54.995	21.577	119.485	1.328×10^6
80.0 TeV	8.000×10^7	3.546	79.579	110.509	45.826	239.459	1.559×10^6
100. TeV	1.000×10^8	3.577	99.687	138.300	58.401	299.965	1.634×10^6