Muons in ethylene (C_2H_4)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.57034	1.175×10^{-3}	50.7	0.10636	3.5387	1.5528	3.9327	9.4380	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	8.598				8.598	6.406×10^{-1}
14.0 MeV	5.616×10^1	6.695				6.695	1.173×10^0
20.0 MeV	6.802×10^1	5.219				5.220	2.200×10^0
30.0 MeV	8.509×10^1	4.042				4.042	4.408×10^0
40.0 MeV	1.003×10^2	3.447				3.447	7.105×10^0
80.0 MeV	1.527×10^2	2.581				2.581	2.095×10^1
100. MeV	1.764×10^2	2.425				2.425	2.896×10^1
140. MeV	2.218×10^2	2.271				2.272	4.608×10^1
200. MeV	2.868×10^2	2.192				2.192	7.307×10^1
266. MeV	3.567×10^2	2.174			0.000	2.175	*Minimum ionization*
300. MeV	3.917×10^2	2.177			0.000	2.177	1.190×10^2
400. MeV	4.945×10^2	2.203			0.000	2.203	1.647×10^2
800. MeV	8.995×10^2	2.341	0.000		0.000	2.342	3.407×10^2
1.00 GeV	1.101×10^3	2.401	0.000		0.000	2.401	4.250×10^2
1.40 GeV	1.502×10^3	2.498	0.000		0.001	2.499	5.881×10^2
2.00 GeV	2.103×10^3	2.607	0.000	0.000	0.001	2.609	8.228×10^2
3.00 GeV	3.104×10^3	2.736	0.001	0.000	0.001	2.739	1.196×10^3
4.00 GeV	4.104×10^3	2.825	0.001	0.001	0.002	2.829	1.555×10^3
8.00 GeV	8.105×10^3	3.003	0.003	0.003	0.004	3.012	2.919×10^3
10.0 GeV	1.011×10^4	3.054	0.004	0.004	0.005	3.066	3.577×10^3
14.0 GeV	1.411×10^4	3.127	0.006	0.006	0.007	3.145	4.864×10^3
20.0 GeV	2.011×10^4	3.197	0.009	0.010	0.009	3.225	6.746×10^3
30.0 GeV	3.011×10^4	3.270	0.015	0.018	0.014	3.316	9.801×10^3
40.0 GeV	4.011×10^4	3.317	0.021	0.026	0.018	3.382	1.279×10^4
80.0 GeV	8.011×10^4	3.419	0.047	0.063	0.035	3.564	2.429×10^4
100. GeV	1.001×10^5	3.449	0.061	0.084	0.043	3.637	2.984×10^4
140. GeV	1.401×10^5	3.492	0.091	0.126	0.060	3.769	4.064×10^4
200. GeV	2.001×10^5	3.537	0.137	0.193	0.085	3.951	5.618×10^4
300. GeV	3.001×10^5	3.585	0.216	0.307	0.127	4.236	8.061×10^4
400. GeV	4.001×10^5	3.619	0.299	0.427	0.170	4.515	1.035×10^5
800. GeV	8.001×10^5	3.701	0.644	0.925	0.343	5.613	1.828×10^5
1.00 TeV	1.000×10^6	3.728	0.822	1.183	0.430	6.164	2.168×10^5
1.40 TeV	1.400×10^6	3.768	1.182	1.697	0.611	7.258	2.765×10^5
1.51 TeV	1.508×10^6	3.777	1.281	1.837	0.659	7.554	*Muon critical energy*
2.00 TeV	2.000×10^6	3.811	1.736	2.485	0.884	8.917	3.510×10^5
3.00 TeV	3.000×10^6	3.861	2.665	3.799	1.355	11.681	4.487×10^5
4.00 TeV	4.000×10^6	3.897	3.612	5.132	1.834	14.476	5.254×10^5
8.00 TeV	8.000×10^6	3.986	7.450	10.502	3.831	25.770	7.298×10^5
10.0 TeV	1.000×10^7	4.015	9.393	13.208	4.860	31.477	7.999×10^5
14.0 TeV	1.400×10^7	4.059	13.272	18.599	6.982	42.912	9.083×10^5
20.0 TeV	2.000×10^7	4.107	19.144	26.732	10.243	60.227	1.026×10^6
30.0 TeV	3.000×10^7	4.163	28.924	40.262	15.907	89.256	1.161×10^6
40.0 TeV	4.000×10^7	4.202	38.762	53.838	21.722	118.524	1.258×10^6
80.0 TeV	8.000×10^7	4.301	78.203	108.188	46.153	236.845	1.493×10^6
100. TeV	1.000×10^8	4.333	97.977	135.397	58.825	296.533	1.568×10^6