

Table 153: Muons in Ethanol (C₂H₅OH)

	$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
	0.56437	0.789	62.9	0.09878	3.4834	0.2218	2.7052	3.3699	0.00
T	p [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm ²]		
10.0 MeV	4.704×10^1	8.282				8.282	6.662×10^{-1}		
14.0 MeV	5.616×10^1	6.455				6.455	1.219×10^0		
20.0 MeV	6.802×10^1	5.037				5.037	2.283×10^0		
30.0 MeV	8.509×10^1	3.905				3.905	4.570×10^0		
40.0 MeV	1.003×10^2	3.332				3.332	7.360×10^0		
80.0 MeV	1.527×10^2	2.499				2.499	2.167×10^1		
100. MeV	1.764×10^2	2.349				2.349	2.994×10^1		
140. MeV	2.218×10^2	2.186				2.186	4.768×10^1		
200. MeV	2.868×10^2	2.092				2.092	7.584×10^1		
300. MeV	3.917×10^2	2.055			0.000	2.055	1.242×10^2		
325. MeV	4.171×10^2	2.054			0.000	2.054	<i>Minimum ionization</i>		
400. MeV	4.945×10^2	2.060			0.000	2.060	1.729×10^2		
800. MeV	8.995×10^2	2.135	0.000		0.000	2.135	3.637×10^2		
1.00 GeV	1.101×10^3	2.169	0.000		0.000	2.170	4.566×10^2		
1.40 GeV	1.502×10^3	2.225	0.000		0.001	2.226	6.384×10^2		
2.00 GeV	2.103×10^3	2.287	0.001	0.000	0.001	2.289	9.040×10^2		
3.00 GeV	3.104×10^3	2.358	0.001	0.001	0.001	2.361	1.334×10^3		
4.00 GeV	4.104×10^3	2.407	0.001	0.001	0.002	2.412	1.752×10^3		
8.00 GeV	8.105×10^3	2.520	0.003	0.003	0.004	2.530	3.367×10^3		
10.0 GeV	1.011×10^4	2.554	0.004	0.004	0.005	2.568	4.151×10^3		
14.0 GeV	1.411×10^4	2.604	0.006	0.007	0.007	2.624	5.691×10^3		
20.0 GeV	2.011×10^4	2.654	0.010	0.011	0.009	2.685	7.950×10^3		
30.0 GeV	3.011×10^4	2.709	0.016	0.020	0.014	2.758	1.162×10^4		
40.0 GeV	4.011×10^4	2.746	0.023	0.029	0.018	2.816	1.521×10^4		
80.0 GeV	8.011×10^4	2.831	0.052	0.070	0.035	2.988	2.897×10^4		
100. GeV	1.001×10^5	2.857	0.068	0.093	0.043	3.061	3.559×10^4		
140. GeV	1.401×10^5	2.897	0.100	0.140	0.060	3.197	4.837×10^4		
200. GeV	2.001×10^5	2.938	0.151	0.214	0.084	3.388	6.659×10^4		
300. GeV	3.001×10^5	2.985	0.239	0.340	0.126	3.691	9.486×10^4		
400. GeV	4.001×10^5	3.018	0.330	0.472	0.168	3.989	1.209×10^5		
800. GeV	8.001×10^5	3.099	0.710	1.021	0.340	5.171	2.087×10^5		
1.00 TeV	1.000×10^6	3.126	0.907	1.305	0.428	5.766	2.453×10^5		
1.18 TeV	1.178×10^6	3.145	1.082	1.556	0.507	6.290	<i>Muon critical energy</i>		
1.40 TeV	1.400×10^6	3.165	1.303	1.871	0.607	6.946	3.085×10^5		
2.00 TeV	2.000×10^6	3.208	1.912	2.738	0.878	8.737	3.853×10^5		
3.00 TeV	3.000×10^6	3.258	2.934	4.183	1.346	11.721	4.838×10^5		
4.00 TeV	4.000×10^6	3.293	3.974	5.648	1.822	14.738	5.597×10^5		
8.00 TeV	8.000×10^6	3.381	8.188	11.551	3.805	26.926	7.576×10^5		
10.0 TeV	1.000×10^7	3.410	10.321	14.525	4.826	33.083	8.245×10^5		
14.0 TeV	1.400×10^7	3.454	14.578	20.449	6.932	45.414	9.273×10^5		
20.0 TeV	2.000×10^7	3.501	21.021	29.387	10.168	64.077	1.038×10^6		
30.0 TeV	3.000×10^7	3.556	31.750	44.256	15.787	95.349	1.165×10^6		
40.0 TeV	4.000×10^7	3.595	42.540	59.174	21.556	126.866	1.256×10^6		
80.0 TeV	8.000×10^7	3.693	85.811	118.898	45.780	254.182	1.474×10^6		
100. TeV	1.000×10^8	3.725	107.507	148.796	58.342	318.370	1.544×10^6		