Table 105: Muons in Alanine ($C_3H_7NO_2$)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.53976	1.420	71.9	0.11484	3.3526	0.1354	2.6336	3.0965	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	7.787				7.787	7.094×10^{-1}
14.0 MeV	5.616×10^1	6.073				6.073	1.297×10^0
20.0 MeV	6.802×10^1	4.742				4.742	2.428×10^0
30.0 MeV	8.509×10^1	3.678				3.678	4.856×10^0
40.0 MeV	1.003×10^2	3.140				3.140	7.818×10^0
80.0 MeV	1.527×10^2	2.353				2.353	2.299×10^1
100. MeV	1.764×10^2	2.203				2.203	3.180×10^1
140. MeV	2.218×10^2	2.049				2.049	5.072×10^1
200. MeV	2.868×10^2	1.960				1.960	8.078×10^1
300. MeV	3.917×10^2	1.925			0.000	1.925	1.324×10^2
325. MeV	4.171×10^2	1.924			0.000	1.924	*Minimum ionization*
400. MeV	4.945×10^2	1.929			0.000	1.930	1.844×10^2
800. MeV	8.995×10^2	2.000	0.000		0.000	2.000	3.880×10^2
1.00 GeV	1.101×10^3	2.032	0.000		0.000	2.033	4.872×10^2
1.40 GeV	1.502×10^3	2.086	0.000		0.001	2.087	6.813×10^2
2.00 GeV	2.103×10^3	2.145	0.001	0.000	0.001	2.146	9.645×10^2
3.00 GeV	3.104×10^3	2.212	0.001	0.001	0.001	2.215	1.423×10^3
4.00 GeV	4.104×10^3	2.259	0.001	0.001	0.002	2.263	1.869×10^3
8.00 GeV	8.105×10^3	2.366	0.003	0.003	0.004	2.376	3.589×10^3
10.0 GeV	1.011×10^4	2.399	0.004	0.004	0.005	2.412	4.424×10^3
14.0 GeV	1.411×10^4	2.446	0.007	0.007	0.007	2.467	6.063×10^3
20.0 GeV	2.011×10^4	2.494	0.010	0.012	0.009	2.525	8.465×10^3
30.0 GeV	3.011×10^4	2.546	0.017	0.021	0.014	2.597	1.237×10^4
40.0 GeV	4.011×10^4	2.581	0.024	0.030	0.018	2.654	1.617×10^4
80.0 GeV	8.011×10^4	2.663	0.055	0.074	0.034	2.826	3.076×10^4
100. GeV	1.001×10^5	2.688	0.071	0.097	0.043	2.899	3.774×10^4
140. GeV	1.401×10^5	2.726	0.105	0.146	0.059	3.036	5.122×10^4
200. GeV	2.001×10^5	2.765	0.158	0.224	0.084	3.231	7.037×10^4
300. GeV	3.001×10^5	2.810	0.250	0.355	0.126	3.541	9.992×10^4
400. GeV	4.001×10^5	2.842	0.345	0.493	0.167	3.847	1.270×10^5
800. GeV	8.001×10^5	2.919	0.740	1.065	0.338	5.063	2.174×10^5
1.00 TeV	1.000×10^6	2.944	0.945	1.361	0.425	5.676	2.546×10^5
1.08 TeV	1.076×10^6	2.953	1.022	1.472	0.458	5.906	*Muon critical energy*
1.40 TeV	1.400×10^6	2.983	1.357	1.950	0.603	6.892	3.185×10^5
2.00 TeV	2.000×10^6	3.024	1.990	2.853	0.873	8.740	3.957×10^5
3.00 TeV	3.000×10^6	3.071	3.052	4.357	1.337	11.817	4.937×10^5
4.00 TeV	4.000×10^6	3.105	4.132	5.882	1.810	14.929	5.688×10^5
8.00 TeV	8.000×10^6	3.189	8.507	12.024	3.778	27.498	7.633×10^5
10.0 TeV	1.000×10^7	3.216	10.721	15.118	4.791	33.847	8.288×10^5
14.0 TeV	1.400×10^7	3.258	15.138	21.283	6.881	46.559	9.291×10^5
20.0 TeV	2.000×10^7	3.304	21.820	30.581	10.091	65.795	1.037×10^6
30.0 TeV	3.000×10^7	3.356	32.947	46.052	15.664	98.019	1.161×10^6
40.0 TeV	4.000×10^7	3.394	44.135	61.573	21.384	130.486	1.249×10^6
80.0 TeV	8.000×10^7	3.487	88.997	123.711	45.395	261.590	1.461×10^6
100. TeV	1.000×10^8	3.517	111.489	154.818	57.843	327.667	1.529×10^6