

Muons in cellulose acetate butyrate [(C₁₅H₂₂O₈)_n]

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
0.53279	1.200	74.6	0.11444	3.3738	0.1794	2.6809	3.3497	0.00
T	p [MeV/c]	Ionization	Brems	Pair prod [MeV cm ² /g]	Photonucl	Total	CSDA range [g/cm ²]	
10.0 MeV	4.704×10^1	7.650				7.650	7.224×10^{-1}	
14.0 MeV	5.616×10^1	5.967				5.967	1.321×10^0	
20.0 MeV	6.802×10^1	4.660				4.660	2.472×10^0	
30.0 MeV	8.509×10^1	3.615				3.615	4.942×10^0	
40.0 MeV	1.003×10^2	3.087				3.087	7.955×10^0	
80.0 MeV	1.527×10^2	2.318				2.318	2.339×10^1	
100. MeV	1.764×10^2	2.174				2.174	3.232×10^1	
140. MeV	2.218×10^2	2.024				2.024	5.148×10^1	
200. MeV	2.868×10^2	1.938				1.938	8.189×10^1	
300. MeV	3.917×10^2	1.905			0.000	1.905	1.341×10^2	
318. MeV	4.105×10^2	1.904			0.000	1.905	<i>Minimum ionization</i>	
400. MeV	4.945×10^2	1.911			0.000	1.911	1.865×10^2	
800. MeV	8.995×10^2	1.983	0.000		0.000	1.983	3.921×10^2	
1.00 GeV	1.101×10^3	2.016	0.000		0.000	2.017	4.920×10^2	
1.40 GeV	1.502×10^3	2.069	0.000		0.001	2.071	6.877×10^2	
2.00 GeV	2.103×10^3	2.128	0.001	0.000	0.001	2.130	9.731×10^2	
3.00 GeV	3.104×10^3	2.196	0.001	0.001	0.001	2.199	1.435×10^3	
4.00 GeV	4.104×10^3	2.242	0.001	0.001	0.002	2.247	1.884×10^3	
8.00 GeV	8.105×10^3	2.349	0.003	0.003	0.004	2.360	3.616×10^3	
10.0 GeV	1.011×10^4	2.382	0.004	0.004	0.005	2.395	4.457×10^3	
14.0 GeV	1.411×10^4	2.429	0.007	0.007	0.007	2.449	6.108×10^3	
20.0 GeV	2.011×10^4	2.476	0.010	0.012	0.009	2.508	8.527×10^3	
30.0 GeV	3.011×10^4	2.528	0.017	0.020	0.014	2.579	1.246×10^4	
40.0 GeV	4.011×10^4	2.563	0.024	0.030	0.018	2.634	1.629×10^4	
80.0 GeV	8.011×10^4	2.643	0.054	0.073	0.034	2.805	3.098×10^4	
100. GeV	1.001×10^5	2.668	0.071	0.096	0.042	2.878	3.802×10^4	
140. GeV	1.401×10^5	2.705	0.104	0.145	0.059	3.013	5.160×10^4	
200. GeV	2.001×10^5	2.744	0.157	0.222	0.084	3.207	7.089×10^4	
300. GeV	3.001×10^5	2.789	0.248	0.352	0.126	3.514	1.007×10^5	
400. GeV	4.001×10^5	2.820	0.342	0.489	0.167	3.818	1.280×10^5	
800. GeV	8.001×10^5	2.896	0.734	1.057	0.338	5.025	2.190×10^5	
1.00 TeV	1.000×10^6	2.921	0.937	1.350	0.425	5.633	2.566×10^5	
1.07 TeV	1.075×10^6	2.929	1.013	1.459	0.458	5.859	<i>Muon critical energy</i>	
1.40 TeV	1.400×10^6	2.959	1.346	1.935	0.602	6.841	3.209×10^5	
2.00 TeV	2.000×10^6	2.999	1.973	2.831	0.872	8.676	3.986×10^5	
3.00 TeV	3.000×10^6	3.046	3.026	4.322	1.337	11.731	4.974×10^5	
4.00 TeV	4.000×10^6	3.080	4.097	5.835	1.809	14.821	5.731×10^5	
8.00 TeV	8.000×10^6	3.162	8.436	11.928	3.776	27.302	7.690×10^5	
10.0 TeV	1.000×10^7	3.189	10.630	14.997	4.790	33.607	8.349×10^5	
14.0 TeV	1.400×10^7	3.231	15.009	21.113	6.878	46.231	9.359×10^5	
20.0 TeV	2.000×10^7	3.276	21.634	30.337	10.086	65.334	1.045×10^6	
30.0 TeV	3.000×10^7	3.327	32.666	45.685	15.657	97.334	1.169×10^6	
40.0 TeV	4.000×10^7	3.364	43.757	61.082	21.374	129.578	1.258×10^6	
80.0 TeV	8.000×10^7	3.456	88.226	122.726	45.372	259.780	1.472×10^6	
100. TeV	1.000×10^8	3.487	110.517	153.585	57.813	325.402	1.540×10^6	