

Muons in photographic emulsion

	$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
	0.45453	3.815	331.0	0.12399	3.0094	0.1009	3.4866	5.3319	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	5.269				5.269		1.067×10^0	
14.0 MeV	5.616×10^1	4.147				4.147		1.932×10^0	
20.0 MeV	6.802×10^1	3.266				3.266		3.580×10^0	
30.0 MeV	8.509×10^1	2.556				2.556		7.088×10^0	
40.0 MeV	1.003×10^2	2.195				2.195		1.134×10^1	
80.0 MeV	1.527×10^2	1.667				1.667		3.288×10^1	
100. MeV	1.764×10^2	1.572				1.572		4.527×10^1	
140. MeV	2.218×10^2	1.478				1.479		7.162×10^1	
200. MeV	2.868×10^2	1.431				1.431		1.130×10^2	
257. MeV	3.471×10^2	1.422			0.000	1.422		<i>Minimum ionization</i>	
300. MeV	3.917×10^2	1.424	0.000		0.000	1.425		1.832×10^2	
400. MeV	4.945×10^2	1.441	0.000		0.000	1.442		2.531×10^2	
800. MeV	8.995×10^2	1.527	0.001		0.000	1.528		5.223×10^2	
1.00 GeV	1.101×10^3	1.562	0.001		0.000	1.563		6.517×10^2	
1.40 GeV	1.502×10^3	1.618	0.001	0.000	0.001	1.620		9.029×10^2	
2.00 GeV	2.103×10^3	1.678	0.002	0.001	0.001	1.682		1.266×10^3	
3.00 GeV	3.104×10^3	1.747	0.004	0.002	0.001	1.755		1.847×10^3	
4.00 GeV	4.104×10^3	1.795	0.005	0.004	0.002	1.806		2.408×10^3	
8.00 GeV	8.105×10^3	1.903	0.013	0.013	0.003	1.932		4.542×10^3	
10.0 GeV	1.011×10^4	1.935	0.017	0.018	0.004	1.975		5.565×10^3	
14.0 GeV	1.411×10^4	1.982	0.026	0.029	0.006	2.043		7.555×10^3	
20.0 GeV	2.011×10^4	2.028	0.041	0.047	0.008	2.125		1.043×10^4	
30.0 GeV	3.011×10^4	2.077	0.067	0.082	0.012	2.239		1.501×10^4	
40.0 GeV	4.011×10^4	2.110	0.095	0.121	0.016	2.342		1.938×10^4	
80.0 GeV	8.011×10^4	2.183	0.214	0.290	0.031	2.718		3.520×10^4	
100. GeV	1.001×10^5	2.205	0.277	0.381	0.038	2.902		4.232×10^4	
140. GeV	1.401×10^5	2.238	0.407	0.568	0.053	3.267		5.531×10^4	
200. GeV	2.001×10^5	2.272	0.610	0.866	0.075	3.823		7.227×10^4	
286. GeV	2.858×10^5	2.305	0.907	1.291	0.107	4.611		<i>Muon critical energy</i>	
300. GeV	3.001×10^5	2.309	0.958	1.363	0.112	4.744		9.572×10^4	
400. GeV	4.001×10^5	2.336	1.317	1.879	0.150	5.683		1.150×10^5	
800. GeV	8.001×10^5	2.401	2.803	3.996	0.302	9.504		1.688×10^5	
1.00 TeV	1.000×10^6	2.422	3.567	5.081	0.380	11.451		1.880×10^5	
1.40 TeV	1.400×10^6	2.455	5.099	7.244	0.538	15.336		2.181×10^5	
2.00 TeV	2.000×10^6	2.489	7.443	10.546	0.779	21.258		2.512×10^5	
3.00 TeV	3.000×10^6	2.529	11.359	16.035	1.192	31.115		2.898×10^5	
4.00 TeV	4.000×10^6	2.558	15.329	21.583	1.611	41.082		3.177×10^5	
8.00 TeV	8.000×10^6	2.628	31.345	43.894	3.351	81.219		3.856×10^5	
10.0 TeV	1.000×10^7	2.651	39.419	55.111	4.245	101.428		4.076×10^5	
14.0 TeV	1.400×10^7	2.687	55.525	77.490	6.083	141.786		4.408×10^5	
20.0 TeV	2.000×10^7	2.725	79.833	111.206	8.902	202.667		4.761×10^5	
30.0 TeV	3.000×10^7	2.769	120.301	167.305	13.778	304.154		5.161×10^5	
40.0 TeV	4.000×10^7	2.801	160.924	223.543	18.772	406.041		5.444×10^5	
80.0 TeV	8.000×10^7	2.879	323.680	448.657	39.652	814.869		6.126×10^5	
100. TeV	1.000×10^8	2.905	405.207	561.321	50.445	1019.879		6.345×10^5	