Muons in photographic emulsion

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	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	*Minimum ionization*
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	*Muon critical energy*
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