Muons in blood (ICRP)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.54995	1.060	75.2	0.08492	3.5406	0.2239	2.8017	3.4581	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	7.888				7.888	7.006×10^{-1}
14.0 MeV	5.616×10^1	6.153				6.153	1.281×10^0
20.0 MeV	6.802×10^1	4.806				4.806	2.397×10^0
30.0 MeV	8.509×10^1	3.728				3.728	4.793×10^0
40.0 MeV	1.003×10^2	3.184				3.184	7.714×10^0
80.0 MeV	1.527×10^2	2.390				2.390	2.268×10^1
100. MeV	1.764×10^2	2.248				2.248	3.133×10^1
140. MeV	2.218×10^2	2.094				2.094	4.985×10^1
200. MeV	2.868×10^2	2.005				2.006	7.924×10^1
300. MeV	3.917×10^2	1.972			0.000	1.972	1.297×10^2
318. MeV	4.105×10^2	1.971			0.000	1.971	*Minimum ionization*
400. MeV	4.945×10^2	1.978			0.000	1.978	1.804×10^2
800. MeV	8.995×10^2	2.053	0.000		0.000	2.053	3.789×10^2
1.00 GeV	1.101×10^3	2.087	0.000		0.000	2.087	4.755×10^2
1.40 GeV	1.502×10^3	2.142	0.000		0.001	2.143	6.645×10^2
2.00 GeV	2.103×10^3	2.203	0.001	0.000	0.001	2.205	9.402×10^2
3.00 GeV	3.104×10^3	2.273	0.001	0.001	0.001	2.276	1.386×10^3
4.00 GeV	4.104×10^3	2.321	0.001	0.001	0.002	2.326	1.820×10^3
8.00 GeV	8.105×10^3	2.432	0.004	0.003	0.004	2.443	3.493×10^3
10.0 GeV	1.011×10^4	2.466	0.005	0.005	0.005	2.480	4.306×10^3
14.0 GeV	1.411×10^4	2.514	0.007	0.008	0.007	2.536	5.900×10^3
20.0 GeV	2.011×10^4	2.564	0.011	0.013	0.009	2.597	8.236×10^3
30.0 GeV	3.011×10^4	2.617	0.018	0.023	0.013	2.671	1.203×10^4
40.0 GeV	4.011×10^4	2.653	0.026	0.033	0.018	2.730	1.573×10^4
80.0 GeV	8.011×10^4	2.736	0.060	0.080	0.034	2.910	2.990×10^4
100. GeV	1.001×10^5	2.762	0.077	0.106	0.042	2.987	3.668×10^4
140. GeV	1.401×10^5	2.800	0.114	0.159	0.059	3.132	4.975×10^4
200. GeV	2.001×10^5	2.841	0.172	0.243	0.084	3.339	6.830×10^4
300. GeV	3.001×10^5	2.886	0.271	0.386	0.125	3.669	9.685×10^4
400. GeV	4.001×10^5	2.919	0.374	0.535	0.167	3.995	1.230×10^5
800. GeV	8.001×10^5	2.997	0.803	1.156	0.337	5.294	2.096×10^5
1.00 TeV	1.000×10^6	3.023	1.025	1.477	0.424	5.949	2.453×10^5
1.03 TeV	1.032×10^6	3.027	1.061	1.528	0.438	6.054	*Muon critical energy*
1.40 TeV	1.400×10^6	3.062	1.472	2.115	0.601	7.250	3.061×10^5
2.00 TeV	2.000×10^6	3.104	2.158	3.093	0.870	9.225	3.793×10^5
3.00 TeV	3.000×10^6	3.152	3.309	4.721	1.333	12.515	4.720×10^5
4.00 TeV	4.000×10^6	3.187	4.479	6.372	1.803	15.841	5.429×10^5
8.00 TeV	8.000×10^6	3.272	9.219	13.021	3.764	29.276	7.258×10^5
10.0 TeV	1.000×10^7	3.300	11.616	16.369	4.774	36.060	7.873×10^5
14.0 TeV	1.400×10^7	3.343	16.401	23.042	6.856	49.641	8.815×10^5
20.0 TeV	2.000×10^7	3.389	23.638	33.105	10.053	70.186	9.826×10^5
30.0 TeV	3.000×10^7	3.442	35.689	49.850	15.604	104.585	1.099×10^6
40.0 TeV	4.000×10^7	3.481	47.805	66.648	21.301	139.234	1.181×10^6
80.0 TeV	8.000×10^7	3.575	96.402	133.898	45.210	279.085	1.380×10^6
100. TeV	1.000×10^8	3.607	120.770	167.562	57.604	349.543	1.444×10^6