

**Table 280: Muons in Hevymet as in Rochester gamma stop**

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.40915	19.300	727.0	0.15509	2.8447	0.2167	3.4960	5.4059	0.14
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod [MeV cm <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]	
10.0 MeV	$4.704 \times 10^1$	4.142				4.142	$1.377 \times 10^0$	
14.0 MeV	$5.616 \times 10^1$	3.280				3.280	$2.472 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	2.598				2.598	$4.550 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	2.044				2.044	$8.946 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	1.761				1.761	$1.425 \times 10^1$	
80.0 MeV	$1.527 \times 10^2$	1.347				1.347	$4.101 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.273				1.273	$5.632 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.202				1.202	$8.880 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.168				1.169	$1.396 \times 10^2$	
242. MeV	$3.316 \times 10^2$	1.164	0.000			1.164	<i>Minimum ionization</i>	
300. MeV	$3.917 \times 10^2$	1.169	0.000		0.000	1.169	$2.254 \times 10^2$	
400. MeV	$4.945 \times 10^2$	1.187	0.000		0.000	1.188	$3.103 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.268	0.001		0.000	1.269	$6.356 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.300	0.001		0.000	1.302	$7.912 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.351	0.002		0.001	1.354	$1.092 \times 10^3$	
2.00 GeV	$2.103 \times 10^3$	1.407	0.004	0.001	0.001	1.413	$1.525 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	1.470	0.006	0.003	0.001	1.481	$2.216 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	1.514	0.009	0.006	0.002	1.531	$2.879 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	1.613	0.022	0.020	0.003	1.658	$5.380 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	1.642	0.029	0.028	0.004	1.705	$6.569 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	1.685	0.045	0.046	0.005	1.782	$8.862 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	1.728	0.069	0.076	0.007	1.882	$1.214 \times 10^4$	
30.0 GeV	$3.011 \times 10^4$	1.773	0.114	0.133	0.011	2.032	$1.725 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	1.803	0.161	0.196	0.014	2.175	$2.200 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	1.870	0.363	0.472	0.028	2.735	$3.836 \times 10^4$	
100. GeV	$1.001 \times 10^5$	1.890	0.471	0.621	0.035	3.018	$4.532 \times 10^4$	
140. GeV	$1.401 \times 10^5$	1.920	0.691	0.928	0.049	3.589	$5.746 \times 10^4$	
159. GeV	$1.590 \times 10^5$	1.931	0.798	1.078	0.055	3.863	<i>Muon critical energy</i>	
200. GeV	$2.001 \times 10^5$	1.951	1.036	1.414	0.070	4.470	$7.242 \times 10^4$	
300. GeV	$3.001 \times 10^5$	1.985	1.624	2.225	0.104	5.939	$9.178 \times 10^4$	
400. GeV	$4.001 \times 10^5$	2.009	2.231	3.066	0.139	7.447	$1.068 \times 10^5$	
800. GeV	$8.001 \times 10^5$	2.067	4.739	6.513	0.281	13.602	$1.460 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.086	6.027	8.276	0.354	16.745	$1.592 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.115	8.607	11.793	0.501	23.017	$1.795 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.146	12.552	17.159	0.724	32.583	$2.013 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	2.182	19.135	26.075	1.107	48.501	$2.263 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	2.208	25.805	35.085	1.496	64.595	$2.441 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	2.272	52.684	71.300	3.106	129.365	$2.870 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	2.292	66.226	89.503	3.933	161.956	$3.008 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	2.324	93.235	125.824	5.630	227.014	$3.216 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	2.359	133.978	180.536	8.229	325.102	$3.435 \times 10^5$	
30.0 TeV	$3.000 \times 10^7$	2.398	201.805	271.564	12.718	488.488	$3.685 \times 10^5$	
40.0 TeV	$4.000 \times 10^7$	2.427	269.867	362.805	17.312	652.413	$3.861 \times 10^5$	
80.0 TeV	$8.000 \times 10^7$	2.497	542.495	728.005	36.486	1309.486	$4.285 \times 10^5$	
100. TeV	$1.000 \times 10^8$	2.521	679.027	910.765	46.386	1638.700	$4.422 \times 10^5$	