

**Table 191: Muons in M3 WAX**

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.55512	1.050	67.9	0.07864	3.6412	0.1523	2.7529	3.2540	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
				[MeV cm <sup>2</sup> /g]					
10.0 MeV	$4.704 \times 10^1$	8.068				8.068	$6.844 \times 10^{-1}$		
14.0 MeV	$5.616 \times 10^1$	6.290				6.290	$1.252 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	4.910				4.910	$2.344 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	3.808				3.808	$4.689 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	3.250				3.250	$7.550 \times 10^0$		
80.0 MeV	$1.527 \times 10^2$	2.437				2.437	$2.221 \times 10^1$		
100. MeV	$1.764 \times 10^2$	2.283				2.284	$3.071 \times 10^1$		
140. MeV	$2.218 \times 10^2$	2.126				2.126	$4.895 \times 10^1$		
200. MeV	$2.868 \times 10^2$	2.035				2.035	$7.791 \times 10^1$		
300. MeV	$3.917 \times 10^2$	2.000			0.000	2.000	$1.276 \times 10^2$		
318. MeV	$4.105 \times 10^2$	1.999			0.000	2.000	<i>Minimum ionization</i>		
400. MeV	$4.945 \times 10^2$	2.005			0.000	2.006	$1.776 \times 10^2$		
800. MeV	$8.995 \times 10^2$	2.079	0.000		0.000	2.080	$3.735 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	2.113	0.000		0.000	2.113	$4.689 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	2.168	0.000		0.001	2.169	$6.556 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	2.228	0.001	0.000	0.001	2.230	$9.282 \times 10^2$		
3.00 GeV	$3.104 \times 10^3$	2.298	0.001	0.001	0.001	2.301	$1.369 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	2.346	0.001	0.001	0.002	2.350	$1.799 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	2.456	0.003	0.003	0.004	2.467	$3.455 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	2.490	0.004	0.004	0.005	2.503	$4.260 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.539	0.007	0.007	0.007	2.559	$5.839 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.588	0.010	0.012	0.009	2.620	$8.155 \times 10^3$		
30.0 GeV	$3.011 \times 10^4$	2.641	0.017	0.021	0.014	2.693	$1.192 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.678	0.024	0.030	0.018	2.750	$1.559 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.762	0.055	0.074	0.034	2.925	$2.967 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.788	0.071	0.097	0.043	2.999	$3.642 \times 10^4$		
140. GeV	$1.401 \times 10^5$	2.827	0.105	0.146	0.059	3.137	$4.946 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.867	0.158	0.224	0.084	3.334	$6.800 \times 10^4$		
300. GeV	$3.001 \times 10^5$	2.913	0.250	0.356	0.126	3.646	$9.667 \times 10^4$		
400. GeV	$4.001 \times 10^5$	2.946	0.345	0.494	0.168	3.953	$1.230 \times 10^5$		
800. GeV	$8.001 \times 10^5$	3.026	0.742	1.067	0.339	5.174	$2.112 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	3.051	0.947	1.364	0.426	5.789	$2.477 \times 10^5$		
1.11 TeV	$1.111 \times 10^6$	3.064	1.061	1.527	0.476	6.128	<i>Muon critical energy</i>		
1.40 TeV	$1.400 \times 10^6$	3.091	1.360	1.954	0.605	7.010	$3.104 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	3.133	1.995	2.859	0.876	8.864	$3.864 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	3.182	3.061	4.366	1.342	11.951	$4.832 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	3.217	4.145	5.895	1.816	15.072	$5.576 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	3.303	8.536	12.052	3.792	27.683	$7.505 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	3.331	10.758	15.153	4.809	34.052	$8.155 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	3.374	15.193	21.332	6.907	46.806	$9.153 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	3.421	21.904	30.652	10.130	66.108	$1.023 \times 10^6$		
30.0 TeV	$3.000 \times 10^7$	3.475	33.076	46.160	15.727	98.438	$1.146 \times 10^6$		
40.0 TeV	$4.000 \times 10^7$	3.513	44.310	61.717	21.473	131.014	$1.234 \times 10^6$		
80.0 TeV	$8.000 \times 10^7$	3.609	89.352	124.002	45.596	262.559	$1.445 \times 10^6$		
100. TeV	$1.000 \times 10^8$	3.641	111.933	155.181	58.105	328.860	$1.513 \times 10^6$		