

**Table 322: Muons in Element 118**

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
118 ( )	[298.]	$1.200 \times 10^{-2}$	1242.0	-0.07004	3.0000	2.0237	-1.9983	13.8764	0.00
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	$4.704 \times 10^1$	3.407				3.407	$1.769 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	2.765				2.765	$3.082 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	2.234				2.234	$5.519 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	1.787				1.787	$1.058 \times 10^1$		
40.0 MeV	$1.003 \times 10^2$	1.554				1.554	$1.662 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.211				1.211	$4.661 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.151				1.152	$6.358 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.098				1.098	$9.931 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.079	0.000			1.079	$1.546 \times 10^2$		
206. MeV	$2.933 \times 10^2$	1.078	0.000			1.079	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.094	0.000		0.000	1.094	$2.469 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.122	0.000		0.000	1.123	$3.371 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.231	0.001		0.000	1.233	$6.762 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.274	0.002		0.000	1.277	$8.355 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.343	0.003		0.000	1.347	$1.140 \times 10^3$		
2.00 GeV	$2.103 \times 10^3$	1.420	0.006		0.001	1.427	$1.572 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.510	0.010	0.003	0.001	1.524	$2.249 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.575	0.014	0.006	0.001	1.598	$2.889 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.731	0.035	0.026	0.003	1.796	$5.237 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.781	0.047	0.037	0.004	1.870	$6.328 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.104	0.072	0.062	0.005	2.244	$8.258 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.139	0.112	0.104	0.007	2.363	$1.086 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	2.177	0.184	0.188	0.010	2.560	$1.493 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.203	0.260	0.280	0.014	2.757	$1.869 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.262	0.587	0.688	0.027	3.566	$3.142 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.281	0.761	0.909	0.033	3.986	$3.673 \times 10^4$		
129. GeV	$1.294 \times 10^5$	2.302	1.020	1.240	0.043	4.606	<i>Muon critical energy</i>		
140. GeV	$1.401 \times 10^5$	2.309	1.117	1.364	0.046	4.837	$4.583 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.338	1.673	2.087	0.066	6.166	$5.680 \times 10^4$		
300. GeV	$3.001 \times 10^5$	2.371	2.621	3.293	0.099	8.386	$7.066 \times 10^4$		
400. GeV	$4.001 \times 10^5$	2.394	3.600	4.544	0.132	10.673	$8.121 \times 10^4$		
800. GeV	$8.001 \times 10^5$	2.451	7.636	9.675	0.267	20.031	$1.081 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.469	9.707	12.301	0.335	24.814	$1.171 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.497	13.852	17.534	0.475	34.359	$1.307 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.527	20.185	25.521	0.687	48.923	$1.453 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.562	30.748	38.791	1.049	73.152	$1.619 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.587	41.442	52.202	1.417	97.650	$1.737 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.648	84.515	106.101	2.941	196.207	$2.020 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.668	106.201	133.191	3.722	245.785	$2.111 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.699	149.455	187.247	5.325	344.729	$2.248 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.732	214.680	268.676	7.780	493.871	$2.393 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.771	323.367	404.126	12.018	742.285	$2.557 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.799	432.431	539.888	16.353	991.473	$2.673 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	2.867	868.636	1083.323	34.437	1989.264	$2.952 \times 10^5$		
100. TeV	$1.000 \times 10^8$	2.889	1086.860	1355.290	43.770	2488.812	$3.042 \times 10^5$		