

Muons in heavymet in ATLAS calorimeter

	$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
	0.40594	19.300	727.0	0.15509	2.8447	0.2167	3.4960	5.4059	0.14
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	4.109				4.109		1.387×10^0	
14.0 MeV	5.616×10^1	3.254				3.254		2.492×10^0	
20.0 MeV	6.802×10^1	2.577				2.577		4.586×10^0	
30.0 MeV	8.509×10^1	2.028				2.028		9.017×10^0	
40.0 MeV	1.003×10^2	1.747				1.747		1.436×10^1	
80.0 MeV	1.527×10^2	1.336				1.336		4.133×10^1	
100. MeV	1.764×10^2	1.263				1.263		5.676×10^1	
140. MeV	2.218×10^2	1.192				1.193		8.950×10^1	
200. MeV	2.868×10^2	1.159				1.159		1.407×10^2	
242. MeV	3.316×10^2	1.155	0.000			1.155			<i>Minimum ionization</i>
300. MeV	3.917×10^2	1.160	0.000		0.000	1.160		2.271×10^2	
400. MeV	4.945×10^2	1.178	0.000		0.000	1.178		3.127×10^2	
800. MeV	8.995×10^2	1.258	0.001		0.000	1.259		6.407×10^2	
1.00 GeV	1.101×10^3	1.290	0.001		0.000	1.292		7.974×10^2	
1.40 GeV	1.502×10^3	1.341	0.002		0.001	1.344		1.101×10^3	
2.00 GeV	2.103×10^3	1.396	0.004	0.001	0.001	1.402		1.537×10^3	
3.00 GeV	3.104×10^3	1.458	0.006	0.003	0.001	1.470		2.233×10^3	
4.00 GeV	4.104×10^3	1.502	0.009	0.006	0.002	1.519		2.902×10^3	
8.00 GeV	8.105×10^3	1.600	0.023	0.021	0.003	1.647		5.421×10^3	
10.0 GeV	1.011×10^4	1.630	0.030	0.029	0.004	1.693		6.618×10^3	
14.0 GeV	1.411×10^4	1.672	0.046	0.047	0.005	1.771		8.926×10^3	
20.0 GeV	2.011×10^4	1.715	0.071	0.078	0.007	1.872		1.222×10^4	
30.0 GeV	3.011×10^4	1.759	0.117	0.136	0.011	2.024		1.735×10^4	
40.0 GeV	4.011×10^4	1.789	0.165	0.201	0.014	2.170		2.212×10^4	
80.0 GeV	8.011×10^4	1.856	0.373	0.484	0.028	2.742		3.848×10^4	
100. GeV	1.001×10^5	1.876	0.483	0.637	0.035	3.032		4.541×10^4	
140. GeV	1.401×10^5	1.905	0.710	0.951	0.049	3.616		5.748×10^4	
154. GeV	1.544×10^5	1.913	0.792	1.067	0.054	3.828			<i>Muon critical energy</i>
200. GeV	2.001×10^5	1.935	1.064	1.450	0.069	4.519		7.230×10^4	
300. GeV	3.001×10^5	1.969	1.667	2.282	0.104	6.024		9.142×10^4	
400. GeV	4.001×10^5	1.993	2.291	3.145	0.139	7.569		1.062×10^5	
800. GeV	8.001×10^5	2.051	4.867	6.680	0.280	13.879		1.447×10^5	
1.00 TeV	1.000×10^6	2.070	6.189	8.488	0.352	17.100		1.576×10^5	
1.40 TeV	1.400×10^6	2.099	8.838	12.094	0.498	23.531		1.775×10^5	
2.00 TeV	2.000×10^6	2.130	12.888	17.596	0.721	33.336		1.988×10^5	
3.00 TeV	3.000×10^6	2.165	19.647	26.739	1.102	49.655		2.232×10^5	
4.00 TeV	4.000×10^6	2.191	26.495	35.978	1.488	66.154		2.406×10^5	
8.00 TeV	8.000×10^6	2.254	54.090	73.113	3.091	132.550		2.825×10^5	
10.0 TeV	1.000×10^7	2.274	67.991	91.778	3.914	165.959		2.960×10^5	
14.0 TeV	1.400×10^7	2.306	95.718	129.021	5.601	232.648		3.162×10^5	
20.0 TeV	2.000×10^7	2.340	137.544	185.120	8.187	333.193		3.377×10^5	
30.0 TeV	3.000×10^7	2.379	207.173	278.459	12.652	500.665		3.620×10^5	
40.0 TeV	4.000×10^7	2.408	277.042	372.014	17.221	668.687		3.792×10^5	
80.0 TeV	8.000×10^7	2.478	556.905	746.476	36.290	1342.151		4.206×10^5	
100. TeV	1.000×10^8	2.501	697.059	933.871	46.135	1679.567		4.339×10^5	