

**Table 167: Muons in Gallium arsenide (GaAs)**

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.44247	5.310	384.9	0.07152	3.3356	0.1764	3.6420	5.3299	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	$4.704 \times 10^1$	5.006				5.006	$1.126 \times 10^0$	
14.0 MeV	$5.616 \times 10^1$	3.944				3.944	$2.036 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	3.109				3.109	$3.768 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	2.436				2.436	$7.450 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	2.093				2.093	$1.191 \times 10^1$	
80.0 MeV	$1.527 \times 10^2$	1.595				1.595	$3.447 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.506				1.506	$4.740 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.419				1.419	$7.489 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.375				1.375	$1.180 \times 10^2$	
256. MeV	$3.462 \times 10^2$	1.368			0.000	1.368	<i>Minimum ionization</i>	
300. MeV	$3.917 \times 10^2$	1.371	0.000		0.000	1.371	$1.910 \times 10^2$	
400. MeV	$4.945 \times 10^2$	1.388	0.000		0.000	1.388	$2.635 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.472	0.001		0.000	1.473	$5.430 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.506	0.001		0.000	1.507	$6.772 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.560	0.001	0.000	0.001	1.562	$9.376 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	1.619	0.002	0.001	0.001	1.623	$1.314 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	1.685	0.003	0.002	0.001	1.692	$1.917 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	1.731	0.005	0.004	0.002	1.741	$2.499 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	1.834	0.012	0.012	0.003	1.862	$4.712 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	1.865	0.016	0.017	0.004	1.902	$5.774 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	1.910	0.024	0.027	0.006	1.967	$7.840 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	1.955	0.038	0.044	0.008	2.045	$1.083 \times 10^4$	
30.0 GeV	$3.011 \times 10^4$	2.002	0.061	0.076	0.012	2.152	$1.559 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	2.034	0.087	0.112	0.016	2.248	$2.014 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.105	0.196	0.268	0.030	2.599	$3.665 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.126	0.254	0.352	0.038	2.770	$4.411 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.158	0.373	0.525	0.052	3.109	$5.773 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.191	0.559	0.800	0.075	3.624	$7.559 \times 10^4$	
297. GeV	$2.974 \times 10^5$	2.227	0.869	1.247	0.111	4.454	<i>Muon critical energy</i>	
300. GeV	$3.001 \times 10^5$	2.227	0.877	1.260	0.112	4.477	$1.004 \times 10^5$	
400. GeV	$4.001 \times 10^5$	2.254	1.207	1.736	0.149	5.347	$1.208 \times 10^5$	
800. GeV	$8.001 \times 10^5$	2.317	2.569	3.695	0.301	8.882	$1.783 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.337	3.269	4.697	0.379	10.683	$1.988 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.369	4.674	6.698	0.536	14.279	$2.310 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.402	6.826	9.754	0.776	19.759	$2.666 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	2.441	10.420	14.832	1.187	28.881	$3.083 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	2.469	14.064	19.967	1.604	38.105	$3.383 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	2.538	28.769	40.614	3.337	75.259	$4.116 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	2.560	36.183	50.996	4.227	93.968	$4.353 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	2.595	50.974	71.708	6.055	131.333	$4.712 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	2.632	73.300	102.915	8.858	187.706	$5.092 \times 10^5$	
30.0 TeV	$3.000 \times 10^7$	2.675	110.466	154.840	13.706	281.687	$5.524 \times 10^5$	
40.0 TeV	$4.000 \times 10^7$	2.706	147.777	206.895	18.671	376.049	$5.830 \times 10^5$	
80.0 TeV	$8.000 \times 10^7$	2.782	297.278	415.267	39.417	754.746	$6.566 \times 10^5$	
100. TeV	$1.000 \times 10^8$	2.807	372.171	519.555	50.139	944.673	$6.802 \times 10^5$	