

**Table 033: Muons in Arsenic**

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
33 (As)	74.92160 (2)	5.730	347.0	0.06633	3.4176	0.1767	3.5702	5.0510	0.08
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	$4.704 \times 10^1$	5.040				5.040	$1.122 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	3.973				3.973	$2.025 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	3.133				3.133	$3.744 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	2.453				2.453	$7.400 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	2.107				2.107	$1.183 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.600				1.600	$3.428 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.510				1.510	$4.717 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.422				1.422	$7.458 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.378				1.378	$1.176 \times 10^2$		
257. MeV	$3.471 \times 10^2$	1.370			0.000	1.370	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.373	0.000		0.000	1.373	$1.905 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.389	0.000		0.000	1.390	$2.629 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.472	0.001		0.000	1.472	$5.422 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.505	0.001		0.000	1.506	$6.765 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.558	0.001	0.000	0.001	1.560	$9.372 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	1.615	0.002	0.001	0.001	1.619	$1.314 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.680	0.003	0.002	0.001	1.687	$1.918 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.725	0.005	0.004	0.002	1.736	$2.502 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.826	0.012	0.012	0.003	1.854	$4.724 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.857	0.016	0.017	0.004	1.894	$5.790 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	1.900	0.025	0.028	0.006	1.959	$7.865 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	1.944	0.038	0.045	0.008	2.036	$1.087 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	1.990	0.063	0.078	0.012	2.144	$1.565 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.021	0.089	0.114	0.016	2.240	$2.021 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.091	0.200	0.274	0.030	2.596	$3.677 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.112	0.260	0.359	0.038	2.769	$4.423 \times 10^4$		
140. GeV	$1.401 \times 10^5$	2.143	0.381	0.537	0.052	3.114	$5.784 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.176	0.572	0.817	0.074	3.640	$7.565 \times 10^4$		
290. GeV	$2.898 \times 10^5$	2.209	0.863	1.238	0.108	4.420	<i>Muon critical energy</i>		
300. GeV	$3.001 \times 10^5$	2.213	0.897	1.288	0.111	4.510	$1.003 \times 10^5$		
400. GeV	$4.001 \times 10^5$	2.238	1.234	1.775	0.149	5.397	$1.205 \times 10^5$		
800. GeV	$8.001 \times 10^5$	2.301	2.627	3.776	0.300	9.005	$1.773 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.322	3.343	4.801	0.378	10.844	$1.975 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.353	4.779	6.845	0.535	14.514	$2.293 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.387	6.978	9.967	0.774	20.107	$2.643 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.425	10.652	15.156	1.184	29.418	$3.052 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.453	14.378	20.402	1.600	38.834	$3.347 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.521	29.408	41.497	3.327	76.755	$4.066 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.544	36.986	52.104	4.215	95.850	$4.298 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.578	52.103	73.265	6.038	133.985	$4.650 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.615	74.922	105.148	8.832	191.518	$5.022 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.658	112.909	158.197	13.665	287.430	$5.446 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.689	151.042	211.379	18.614	383.725	$5.746 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	2.765	303.838	424.259	39.294	770.156	$6.467 \times 10^5$		
100. TeV	$1.000 \times 10^8$	2.790	380.380	530.800	49.980	963.951	$6.699 \times 10^5$		