

## Muons in xenon gas (Xe)

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
54 (Xe)	131.293(6)	$5.483 \times 10^{-3}$	482.0	0.23314	2.7414	1.5631	4.7372	12.7285	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	$4.704 \times 10^1$	4.447				4.447	$1.281 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	3.518				3.519	$2.302 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	2.783				2.784	$4.240 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	2.187				2.187	$8.346 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	1.883				1.883	$1.330 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.440				1.440	$3.834 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.362				1.362	$5.265 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.289				1.289	$8.298 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.257				1.257	$1.303 \times 10^2$		
226. MeV	$3.145 \times 10^2$	1.255				1.255	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.265	0.000		0.000	1.265	$2.097 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.291	0.000		0.000	1.291	$2.880 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.400	0.001		0.000	1.401	$5.848 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.444	0.001		0.000	1.446	$7.253 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.515	0.002	0.000	0.001	1.518	$9.950 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	1.595	0.003	0.001	0.001	1.600	$1.379 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.689	0.005	0.003	0.001	1.698	$1.985 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.756	0.007	0.005	0.002	1.771	$2.561 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.913	0.018	0.017	0.003	1.952	$4.701 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.960	0.024	0.024	0.004	2.012	$5.709 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.028	0.036	0.039	0.005	2.109	$7.649 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.095	0.056	0.064	0.008	2.224	$1.042 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	2.166	0.092	0.112	0.011	2.382	$1.476 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.214	0.130	0.164	0.015	2.522	$1.883 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.316	0.293	0.393	0.029	3.032	$3.326 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.347	0.380	0.516	0.036	3.279	$3.960 \times 10^4$		
140. GeV	$1.401 \times 10^5$	2.390	0.557	0.770	0.050	3.769	$5.097 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.434	0.836	1.173	0.071	4.514	$6.550 \times 10^4$		
232. GeV	$2.320 \times 10^5$	2.451	0.985	1.384	0.082	4.903	<i>Muon critical energy</i>		
300. GeV	$3.001 \times 10^5$	2.480	1.310	1.846	0.106	5.744	$8.510 \times 10^4$		
400. GeV	$4.001 \times 10^5$	2.511	1.801	2.543	0.142	6.999	$1.008 \times 10^5$		
800. GeV	$8.001 \times 10^5$	2.583	3.829	5.401	0.287	12.100	$1.438 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.605	4.870	6.863	0.361	14.699	$1.588 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.637	6.958	9.779	0.511	19.885	$1.821 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.670	10.151	14.229	0.739	27.790	$2.075 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.708	15.481	21.625	1.130	40.945	$2.370 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.734	20.883	29.099	1.526	54.244	$2.581 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.798	42.663	59.144	3.171	107.778	$3.094 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.819	53.639	74.247	4.016	134.722	$3.260 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.851	75.530	104.381	5.749	188.513	$3.510 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.885	108.560	149.776	8.404	269.627	$3.775 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.925	163.548	225.304	12.992	404.770	$4.075 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.954	218.733	301.010	17.689	540.387	$4.288 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	3.025	439.800	604.039	37.295	1084.161	$4.801 \times 10^5$		
100. TeV	$1.000 \times 10^8$	3.048	550.520	755.690	47.420	1356.679	$4.965 \times 10^5$		