

## Muons in uranium (U)

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
92 (U)	[238.02891 (3)]	18.950	890.0	0.19677	2.8171	0.2260	3.3721	5.8694	0.14
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod [MeV cm <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	3.665				3.665	$1.595 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	2.933				2.933	$2.826 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	2.342				2.342	$5.138 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	1.855				1.855	$9.995 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	1.604				1.604	$1.583 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.234				1.234	$4.509 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.169				1.169	$6.178 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.109				1.109	$9.707 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.083				1.083	$1.520 \times 10^2$		
227. MeV	$3.154 \times 10^2$	1.081	0.000			1.082	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.089	0.000		0.000	1.089	$2.443 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.109	0.000		0.000	1.109	$3.353 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.191	0.001		0.000	1.192	$6.824 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.223	0.002		0.000	1.225	$8.478 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.273	0.003		0.001	1.277	$1.167 \times 10^3$		
2.00 GeV	$2.103 \times 10^3$	1.328	0.004	0.001	0.001	1.334	$1.627 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.389	0.007	0.003	0.001	1.402	$2.357 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.431	0.011	0.006	0.002	1.451	$3.057 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.527	0.027	0.023	0.003	1.580	$5.688 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.555	0.036	0.032	0.004	1.628	$6.935 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	1.596	0.055	0.053	0.005	1.711	$9.330 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	1.637	0.086	0.088	0.007	1.819	$1.273 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	1.680	0.140	0.156	0.011	1.988	$1.798 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	1.708	0.198	0.230	0.014	2.152	$2.282 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	1.771	0.449	0.560	0.027	2.808	$3.904 \times 10^4$		
100. GeV	$1.001 \times 10^5$	1.790	0.581	0.738	0.034	3.145	$4.577 \times 10^4$		
128. GeV	$1.284 \times 10^5$	1.810	0.772	0.995	0.043	3.623	<i>Muon critical energy</i>		
140. GeV	$1.401 \times 10^5$	1.818	0.853	1.105	0.047	3.824	$5.729 \times 10^4$		
200. GeV	$2.001 \times 10^5$	1.846	1.278	1.686	0.067	4.879	$7.116 \times 10^4$		
300. GeV	$3.001 \times 10^5$	1.878	2.004	2.655	0.101	6.640	$8.867 \times 10^4$		
400. GeV	$4.001 \times 10^5$	1.901	2.753	3.660	0.135	8.451	$1.020 \times 10^5$		
800. GeV	$8.001 \times 10^5$	1.956	5.844	7.781	0.272	15.855	$1.360 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	1.974	7.430	9.888	0.342	19.637	$1.473 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.002	10.607	14.090	0.484	27.185	$1.646 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.031	15.463	20.503	0.700	38.699	$1.830 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.065	23.564	31.156	1.070	57.858	$2.040 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.089	31.769	41.921	1.446	77.228	$2.189 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.149	64.824	85.189	3.001	155.165	$2.547 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.169	81.471	106.935	3.799	194.376	$2.662 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.199	114.675	150.327	5.436	272.640	$2.835 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.232	164.754	215.690	7.944	390.622	$3.018 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.269	248.123	324.427	12.273	587.094	$3.225 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.296	331.768	433.413	16.702	784.182	$3.372 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	2.363	666.782	869.666	35.176	1573.988	$3.725 \times 10^5$		
100. TeV	$1.000 \times 10^8$	2.385	834.540	1087.990	44.710	1969.627	$3.838 \times 10^5$		