

## Muons in uranium monocarbide (UC)

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.39194	13.630	862.0	0.22972	2.6169	-0.2524	3.4941	6.1210	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
				[MeV cm <sup>2</sup> /g]					
10.0 MeV	$4.704 \times 10^1$	3.848				3.848		$1.488 \times 10^0$	
14.0 MeV	$5.616 \times 10^1$	3.053				3.053		$2.666 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	2.428				2.428		$4.893 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	1.918				1.918		$9.586 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	1.656				1.656		$1.523 \times 10^1$	
80.0 MeV	$1.527 \times 10^2$	1.271				1.271		$4.362 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.202				1.202		$5.984 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.137				1.137		$9.419 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.107				1.108		$1.478 \times 10^2$	
236. MeV	$3.250 \times 10^2$	1.105	0.000			1.105		<i>Minimum ionization</i>	
300. MeV	$3.917 \times 10^2$	1.110	0.000		0.000	1.111		$2.382 \times 10^2$	
400. MeV	$4.945 \times 10^2$	1.129	0.000		0.000	1.130		$3.275 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.211	0.001		0.000	1.212		$6.688 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.243	0.002		0.000	1.245		$8.315 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.294	0.002		0.001	1.297		$1.146 \times 10^3$	
2.00 GeV	$2.103 \times 10^3$	1.350	0.004	0.001	0.001	1.356		$1.598 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	1.413	0.007	0.003	0.001	1.425		$2.316 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	1.456	0.011	0.006	0.002	1.475		$3.006 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	1.556	0.026	0.022	0.003	1.607		$5.593 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	1.585	0.034	0.031	0.004	1.655		$6.819 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	1.628	0.053	0.051	0.005	1.738		$9.175 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	1.671	0.082	0.084	0.007	1.846		$1.252 \times 10^4$	
30.0 GeV	$3.011 \times 10^4$	1.716	0.134	0.149	0.011	2.012		$1.771 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	1.746	0.190	0.221	0.014	2.172		$2.249 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	1.813	0.429	0.536	0.028	2.808		$3.864 \times 10^4$	
100. GeV	$1.001 \times 10^5$	1.832	0.556	0.707	0.034	3.132		$4.539 \times 10^4$	
136. GeV	$1.361 \times 10^5$	1.859	0.790	1.022	0.047	3.719		<i>Muon critical energy</i>	
140. GeV	$1.401 \times 10^5$	1.861	0.817	1.058	0.048	3.785		$5.699 \times 10^4$	
200. GeV	$2.001 \times 10^5$	1.891	1.224	1.615	0.068	4.799		$7.105 \times 10^4$	
300. GeV	$3.001 \times 10^5$	1.924	1.919	2.543	0.102	6.489		$8.891 \times 10^4$	
400. GeV	$4.001 \times 10^5$	1.947	2.636	3.506	0.136	8.227		$1.026 \times 10^5$	
800. GeV	$8.001 \times 10^5$	2.003	5.596	7.454	0.275	15.330		$1.377 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.021	7.115	9.474	0.346	18.957		$1.494 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.049	10.157	13.500	0.490	26.198		$1.672 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.079	14.808	19.644	0.709	37.242		$1.864 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	2.113	22.567	29.852	1.083	55.617		$2.082 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	2.138	30.425	40.168	1.463	74.196		$2.237 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	2.199	62.086	81.629	3.038	148.954		$2.610 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	2.219	78.031	102.468	3.846	186.566		$2.730 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	2.249	109.835	144.049	5.505	261.640		$2.910 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	2.282	157.803	206.684	8.046	374.817		$3.101 \times 10^5$	
30.0 TeV	$3.000 \times 10^7$	2.320	237.658	310.883	12.435	563.298		$3.317 \times 10^5$	
40.0 TeV	$4.000 \times 10^7$	2.347	317.779	415.322	16.925	752.376		$3.470 \times 10^5$	
80.0 TeV	$8.000 \times 10^7$	2.415	638.678	833.372	35.663	1510.130		$3.838 \times 10^5$	
100. TeV	$1.000 \times 10^8$	2.437	799.369	1042.588	45.336	1889.731		$3.956 \times 10^5$	