

## Muons in nitrobenzene ( $C_6H_5NO_2$ )

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.51986	1.199	75.8	0.12727	3.3091	0.1777	2.6630	3.4073	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	7.449				7.449	$7.420 \times 10^{-1}$		
14.0 MeV	$5.616 \times 10^1$	5.811				5.811	$1.356 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	4.538				4.538	$2.538 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	3.521				3.521	$5.075 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	3.007				3.007	$8.168 \times 10^0$		
80.0 MeV	$1.527 \times 10^2$	2.258				2.258	$2.401 \times 10^1$		
100. MeV	$1.764 \times 10^2$	2.117				2.118	$3.318 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.972				1.972	$5.285 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.889				1.889	$8.405 \times 10^1$		
300. MeV	$3.917 \times 10^2$	1.857			0.000	1.857	$1.376 \times 10^2$		
317. MeV	$4.096 \times 10^2$	1.857			0.000	1.857	<i>Minimum ionization</i>		
400. MeV	$4.945 \times 10^2$	1.863			0.000	1.864	$1.914 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.935	0.000		0.000	1.935	$4.021 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.967	0.000		0.000	1.968	$5.046 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	2.020	0.000		0.001	2.021	$7.050 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	2.078	0.001	0.000	0.001	2.079	$9.975 \times 10^2$		
3.00 GeV	$3.104 \times 10^3$	2.144	0.001	0.001	0.001	2.147	$1.470 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	2.189	0.001	0.001	0.002	2.194	$1.931 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	2.294	0.003	0.003	0.004	2.304	$3.704 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	2.326	0.004	0.004	0.005	2.339	$4.566 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.372	0.007	0.007	0.007	2.392	$6.255 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.418	0.010	0.012	0.009	2.449	$8.733 \times 10^3$		
30.0 GeV	$3.011 \times 10^4$	2.468	0.017	0.020	0.013	2.519	$1.276 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.502	0.024	0.030	0.018	2.574	$1.668 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.581	0.054	0.072	0.034	2.742	$3.171 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.605	0.070	0.096	0.042	2.814	$3.891 \times 10^4$		
140. GeV	$1.401 \times 10^5$	2.642	0.103	0.144	0.059	2.948	$5.280 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.680	0.156	0.220	0.084	3.139	$7.251 \times 10^4$		
300. GeV	$3.001 \times 10^5$	2.723	0.246	0.350	0.125	3.444	$1.029 \times 10^5$		
400. GeV	$4.001 \times 10^5$	2.754	0.339	0.485	0.167	3.745	$1.307 \times 10^5$		
800. GeV	$8.001 \times 10^5$	2.828	0.728	1.048	0.337	4.942	$2.234 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.852	0.929	1.340	0.424	5.545	$2.616 \times 10^5$		
1.06 TeV	$1.058 \times 10^6$	2.858	0.987	1.422	0.449	5.717	<i>Muon critical energy</i>		
1.40 TeV	$1.400 \times 10^6$	2.889	1.334	1.919	0.601	6.744	$3.269 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.929	1.956	2.808	0.871	8.564	$4.057 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.974	3.000	4.287	1.334	11.596	$5.057 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	3.007	4.061	5.788	1.806	14.662	$5.822 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	3.088	8.360	11.832	3.770	27.050	$7.801 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	3.114	10.534	14.877	4.781	33.306	$8.466 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	3.155	14.872	20.943	6.865	45.835	$9.486 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	3.198	21.435	30.093	10.068	64.794	$1.058 \times 10^6$		
30.0 TeV	$3.000 \times 10^7$	3.249	32.362	45.317	15.626	96.554	$1.184 \times 10^6$		
40.0 TeV	$4.000 \times 10^7$	3.285	43.348	60.590	21.332	128.555	$1.273 \times 10^6$		
80.0 TeV	$8.000 \times 10^7$	3.375	87.387	121.738	45.278	257.777	$1.489 \times 10^6$		
100. TeV	$1.000 \times 10^8$	3.404	109.462	152.348	57.691	322.905	$1.558 \times 10^6$		