

## Muons in m,n-dimethyl formamide (C<sub>3</sub>H<sub>6</sub>NOH)

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.54724	0.949	66.6	0.11470	3.3710	0.1977	2.6686	3.3311	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	$4.704 \times 10^1$	7.973				7.973	$6.924 \times 10^{-1}$	
14.0 MeV	$5.616 \times 10^1$	6.216				6.216	$1.267 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	4.852				4.852	$2.372 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	3.762				3.762	$4.746 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	3.211				3.211	$7.642 \times 10^0$	
80.0 MeV	$1.527 \times 10^2$	2.409				2.409	$2.248 \times 10^1$	
100. MeV	$1.764 \times 10^2$	2.261				2.261	$3.107 \times 10^1$	
140. MeV	$2.218 \times 10^2$	2.104				2.104	$4.950 \times 10^1$	
200. MeV	$2.868 \times 10^2$	2.013				2.014	$7.876 \times 10^1$	
300. MeV	$3.917 \times 10^2$	1.978			0.000	1.978	$1.290 \times 10^2$	
325. MeV	$4.171 \times 10^2$	1.977			0.000	1.977	<i>Minimum ionization</i>	
400. MeV	$4.945 \times 10^2$	1.983			0.000	1.983	$1.796 \times 10^2$	
800. MeV	$8.995 \times 10^2$	2.056	0.000		0.000	2.056	$3.777 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	2.089	0.000		0.000	2.090	$4.741 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	2.144	0.000		0.001	2.145	$6.629 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	2.205	0.001	0.000	0.001	2.206	$9.385 \times 10^2$	
3.00 GeV	$3.104 \times 10^3$	2.273	0.001	0.001	0.001	2.276	$1.384 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	2.321	0.001	0.001	0.002	2.325	$1.819 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	2.431	0.003	0.003	0.004	2.441	$3.493 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	2.464	0.004	0.004	0.005	2.477	$4.306 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	2.512	0.006	0.007	0.007	2.532	$5.902 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	2.561	0.010	0.011	0.009	2.592	$8.242 \times 10^3$	
30.0 GeV	$3.011 \times 10^4$	2.614	0.016	0.020	0.014	2.664	$1.205 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	2.650	0.023	0.029	0.018	2.720	$1.576 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.732	0.053	0.071	0.034	2.890	$3.000 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.758	0.068	0.093	0.043	2.963	$3.684 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.796	0.101	0.140	0.059	3.097	$5.004 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.836	0.152	0.215	0.084	3.288	$6.883 \times 10^4$	
300. GeV	$3.001 \times 10^5$	2.882	0.240	0.342	0.126	3.590	$9.792 \times 10^4$	
400. GeV	$4.001 \times 10^5$	2.914	0.332	0.474	0.168	3.888	$1.247 \times 10^5$	
800. GeV	$8.001 \times 10^5$	2.992	0.713	1.026	0.339	5.071	$2.145 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	3.018	0.911	1.312	0.426	5.667	$2.518 \times 10^5$	
1.14 TeV	$1.135 \times 10^6$	3.032	1.044	1.502	0.486	6.065	<i>Muon critical energy</i>	
1.40 TeV	$1.400 \times 10^6$	3.057	1.308	1.880	0.605	6.849	$3.159 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	3.098	1.919	2.751	0.876	8.644	$3.937 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	3.146	2.944	4.201	1.342	11.634	$4.931 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	3.181	3.987	5.673	1.816	14.657	$5.695 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	3.266	8.212	11.600	3.792	26.871	$7.681 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	3.293	10.350	14.586	4.810	33.040	$8.351 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	3.336	14.617	20.535	6.908	45.396	$9.380 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	3.382	21.073	29.508	10.132	64.096	$1.049 \times 10^6$	
30.0 TeV	$3.000 \times 10^7$	3.435	31.825	44.438	15.730	95.428	$1.176 \times 10^6$	
40.0 TeV	$4.000 \times 10^7$	3.473	42.636	59.417	21.476	127.002	$1.266 \times 10^6$	
80.0 TeV	$8.000 \times 10^7$	3.568	85.987	119.384	45.601	254.540	$1.485 \times 10^6$	
100. TeV	$1.000 \times 10^8$	3.599	107.721	149.404	58.111	318.835	$1.555 \times 10^6$	