

Table 162: Muons in Freon-12B2 (CF₂Br₂)

	$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
	0.44901	1.800	284.9	0.05144	3.5565	0.3406	3.7956	5.7976	0.00
T	p [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm ²]		
				[MeV cm ² /g]					
10.0 MeV	4.704×10^1	5.330				5.330	1.053×10^0		
14.0 MeV	5.616×10^1	4.190				4.190	1.908×10^0		
20.0 MeV	6.802×10^1	3.297				3.297	3.540×10^0		
30.0 MeV	8.509×10^1	2.577				2.577	7.017×10^0		
40.0 MeV	1.003×10^2	2.212				2.212	1.123×10^1		
80.0 MeV	1.527×10^2	1.680				1.680	3.263×10^1		
100. MeV	1.764×10^2	1.586				1.586	4.491×10^1		
140. MeV	2.218×10^2	1.496				1.496	7.099×10^1		
200. MeV	2.868×10^2	1.452				1.452	1.118×10^2		
252. MeV	3.421×10^2	1.445			0.000	1.445	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.448			0.000	1.449	1.809×10^2		
400. MeV	4.945×10^2	1.467	0.000		0.000	1.468	2.496×10^2		
800. MeV	8.995×10^2	1.556	0.000		0.000	1.557	5.139×10^2		
1.00 GeV	1.101×10^3	1.592	0.001		0.000	1.593	6.409×10^2		
1.40 GeV	1.502×10^3	1.648	0.001	0.000	0.001	1.650	8.874×10^2		
2.00 GeV	2.103×10^3	1.709	0.002	0.001	0.001	1.713	1.244×10^3		
3.00 GeV	3.104×10^3	1.778	0.003	0.002	0.001	1.784	1.815×10^3		
4.00 GeV	4.104×10^3	1.825	0.004	0.003	0.002	1.835	2.367×10^3		
8.00 GeV	8.105×10^3	1.932	0.011	0.011	0.003	1.957	4.470×10^3		
10.0 GeV	1.011×10^4	1.964	0.014	0.015	0.004	1.998	5.481×10^3		
14.0 GeV	1.411×10^4	2.010	0.022	0.024	0.006	2.062	7.451×10^3		
20.0 GeV	2.011×10^4	2.056	0.034	0.039	0.008	2.137	1.031×10^4		
30.0 GeV	3.011×10^4	2.104	0.055	0.068	0.012	2.240	1.487×10^4		
40.0 GeV	4.011×10^4	2.137	0.078	0.100	0.016	2.330	1.925×10^4		
80.0 GeV	8.011×10^4	2.209	0.175	0.239	0.031	2.655	3.530×10^4		
100. GeV	1.001×10^5	2.231	0.227	0.314	0.038	2.811	4.262×10^4		
140. GeV	1.401×10^5	2.263	0.334	0.469	0.053	3.120	5.612×10^4		
200. GeV	2.001×10^5	2.297	0.501	0.715	0.076	3.589	7.404×10^4		
300. GeV	3.001×10^5	2.334	0.786	1.127	0.114	4.361	9.929×10^4		
342. GeV	3.425×10^5	2.346	0.910	1.306	0.130	4.693	<i>Muon critical energy</i>		
400. GeV	4.001×10^5	2.361	1.082	1.553	0.152	5.148	1.204×10^5		
800. GeV	8.001×10^5	2.425	2.303	3.307	0.307	8.343	1.808×10^5		
1.00 TeV	1.000×10^6	2.446	2.931	4.206	0.385	9.969	2.028×10^5		
1.40 TeV	1.400×10^6	2.478	4.192	5.999	0.546	13.215	2.375×10^5		
2.00 TeV	2.000×10^6	2.512	6.121	8.737	0.790	18.161	2.761×10^5		
3.00 TeV	3.000×10^6	2.551	9.346	13.288	1.209	26.395	3.215×10^5		
4.00 TeV	4.000×10^6	2.579	12.616	17.890	1.635	34.721	3.545×10^5		
8.00 TeV	8.000×10^6	2.649	25.812	36.397	3.402	68.262	4.351×10^5		
10.0 TeV	1.000×10^7	2.672	32.467	45.704	4.311	85.154	4.613×10^5		
14.0 TeV	1.400×10^7	2.707	45.741	64.269	6.178	118.896	5.008×10^5		
20.0 TeV	2.000×10^7	2.744	65.779	92.243	9.042	169.809	5.429×10^5		
30.0 TeV	3.000×10^7	2.788	99.138	138.788	13.998	254.713	5.906×10^5		
40.0 TeV	4.000×10^7	2.819	132.629	185.450	19.075	339.975	6.245×10^5		
80.0 TeV	8.000×10^7	2.897	266.826	372.245	40.306	682.275	7.059×10^5		
100. TeV	1.000×10^8	2.922	334.053	465.736	51.283	853.995	7.320×10^5		