

## Muons in ag halides in phot emulsion

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.43663	6.470	487.1	0.24593	2.6814	0.0353	3.2117	5.6166	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	$4.704 \times 10^1$	4.749				4.749		$1.192 \times 10^0$	
14.0 MeV	$5.616 \times 10^1$	3.748				3.748		$2.149 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	2.960				2.960		$3.970 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	2.323				2.323		$7.834 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	1.999				1.999		$1.250 \times 10^1$	
80.0 MeV	$1.527 \times 10^2$	1.525				1.525		$3.610 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.441				1.441		$4.963 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.359				1.359		$7.834 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.319				1.319		$1.233 \times 10^2$	
247. MeV	$3.366 \times 10^2$	1.313				1.313			<i>Minimum ionization</i>
300. MeV	$3.917 \times 10^2$	1.317	0.000		0.000	1.318		$1.994 \times 10^2$	
400. MeV	$4.945 \times 10^2$	1.336	0.000		0.000	1.337		$2.747 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.423	0.001		0.000	1.424		$5.643 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.458	0.001		0.000	1.459		$7.030 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.513	0.001	0.000	0.001	1.516		$9.718 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	1.573	0.002	0.001	0.001	1.578		$1.359 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	1.641	0.004	0.003	0.001	1.650		$1.978 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	1.688	0.006	0.005	0.002	1.701		$2.575 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	1.794	0.015	0.015	0.003	1.828		$4.835 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	1.826	0.020	0.021	0.004	1.871		$5.916 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	1.871	0.031	0.034	0.006	1.941		$8.013 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	1.916	0.047	0.055	0.008	2.027		$1.104 \times 10^4$	
30.0 GeV	$3.011 \times 10^4$	1.964	0.078	0.095	0.012	2.149		$1.582 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	1.996	0.109	0.140	0.015	2.261		$2.036 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.066	0.247	0.335	0.030	2.678		$3.658 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.087	0.320	0.440	0.037	2.885		$4.378 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.117	0.470	0.657	0.051	3.297		$5.674 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.149	0.705	1.000	0.073	3.928		$7.340 \times 10^4$	
239. GeV	$2.389 \times 10^5$	2.165	0.859	1.220	0.087	4.332			<i>Muon critical energy</i>
300. GeV	$3.001 \times 10^5$	2.186	1.106	1.574	0.109	4.976		$9.598 \times 10^4$	
400. GeV	$4.001 \times 10^5$	2.211	1.521	2.169	0.146	6.048		$1.142 \times 10^5$	
800. GeV	$8.001 \times 10^5$	2.274	3.234	4.609	0.295	10.413		$1.640 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.294	4.115	5.858	0.370	12.639		$1.814 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.325	5.881	8.350	0.525	17.082		$2.085 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.358	8.583	12.154	0.759	23.856		$2.381 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	2.397	13.096	18.476	1.161	35.130		$2.725 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	2.424	17.670	24.866	1.569	46.530		$2.971 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	2.492	36.119	50.556	3.262	92.430		$3.570 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	2.514	45.419	63.472	4.131	115.537		$3.763 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	2.548	63.968	89.240	5.916	161.674		$4.054 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	2.585	91.961	128.061	8.653	231.261		$4.363 \times 10^5$	
30.0 TeV	$3.000 \times 10^7$	2.627	138.562	192.654	13.383	347.227		$4.713 \times 10^5$	
40.0 TeV	$4.000 \times 10^7$	2.658	185.338	257.403	18.226	463.626		$4.962 \times 10^5$	
80.0 TeV	$8.000 \times 10^7$	2.733	372.739	516.588	38.450	930.510		$5.559 \times 10^5$	
100. TeV	$1.000 \times 10^8$	2.758	466.607	646.302	48.897	1164.564		$5.750 \times 10^5$	