

$b(E) \times 10^6$  [cm<sup>2</sup>g<sup>-1</sup>] for  
thorium (Th),  $Z = 90$ ,  $A = [232.0377(4)]$

E [GeV]	$b_{\text{brems}}$	$b_{\text{pair}}$	$b_{\text{nucl}}$	$b_{\text{tot}}$
2.	2.0665	0.3212	0.3589	2.7466
5.	2.8718	1.9386	0.3831	5.1934
10.	3.5299	3.1965	0.3757	7.1020
20.	4.2054	4.3520	0.3624	8.9197
50.	5.0885	6.1232	0.3476	11.5593
100.	5.7156	7.2895	0.3406	13.3457
200.	6.2866	8.3206	0.3374	14.9446
500.	6.9255	9.2624	0.3376	16.5255
1000.	7.3088	9.7599	0.3428	17.4114
2000.	7.6058	10.1177	0.3510	18.0745
5000.	7.8802	10.4164	0.3660	18.6626
10000.	8.0155	10.5539	0.3809	18.9503
20000.	8.1049	10.6437	0.3982	19.1467
50000.	8.1786	10.7101	0.4252	19.3139
100000.	8.2112	10.7378	0.4483	19.3972