

$b(E) \times 10^6$  [cm<sup>2</sup>g<sup>-1</sup>] for  
francium (Fr),  $Z = 87$ ,  $A = [223.01974(2)]$

E [GeV]	$b_{\text{brems}}$	$b_{\text{pair}}$	$b_{\text{nucl}}$	$b_{\text{tot}}$
2.	2.0176	0.3561	0.3603	2.7340
5.	2.8024	1.9319	0.3846	5.1189
10.	3.4435	3.1568	0.3771	6.9775
20.	4.1015	4.2859	0.3638	8.7512
50.	4.9620	6.0132	0.3489	11.3242
100.	5.5732	7.1516	0.3419	13.0667
200.	6.1301	8.1588	0.3386	14.6275
500.	6.7535	9.0795	0.3388	16.1718
1000.	7.1279	9.5661	0.3441	17.0381
2000.	7.4183	9.9163	0.3523	17.6869
5000.	7.6868	10.2087	0.3673	18.2629
10000.	7.8193	10.3435	0.3823	18.5451
20000.	7.9068	10.4314	0.3997	18.7379
50000.	7.9791	10.4967	0.4268	18.9027
100000.	8.0111	10.5239	0.4501	18.9850