

$b(E) \times 10^6$  [cm<sup>2</sup>g<sup>-1</sup>] for  
butane (C<sub>4</sub>H<sub>10</sub>)  
 $\langle Z/A \rangle = 0.59497$

E [GeV]	$b_{\text{brems}}$	$b_{\text{pair}}$	$b_{\text{nucl}}$	$b_{\text{tot}}$
2.	0.2191	0.0928	0.4841	0.7961
5.	0.2977	0.2326	0.5114	1.0417
10.	0.3637	0.3582	0.4951	1.2170
20.	0.4340	0.4954	0.4714	1.4008
50.	0.5311	0.6879	0.4454	1.6645
100.	0.6050	0.8249	0.4327	1.8626
200.	0.6745	0.9518	0.4261	2.0525
500.	0.7581	1.0855	0.4250	2.2688
1000.	0.8126	1.1685	0.4317	2.4128
2000.	0.8582	1.2279	0.4435	2.5294
5000.	0.9046	1.2807	0.4653	2.6507
10000.	0.9298	1.3057	0.4876	2.7230
20000.	0.9478	1.3214	0.5139	2.7831
50000.	0.9637	1.3336	0.5550	2.8522
100000.	0.9707	1.3386	0.5905	2.8999