$b(E) \times 10^6$ [cm^{2}g^{-1}] for
aluminum oxide (sapphire, $\mathrm{Al_2O_3}$)
$\langle Z/A \rangle = 0.49038$

E [GeV]	b_{brems}	b_{pair}	b_{nucl}	b_{tot}
2.	0.3928	0.1798	0.4489	1.0215
5.	0.5329	0.4395	0.4765	1.4489
10.	0.6474	0.6526	0.4636	1.7636
20.	0.7667	0.8818	0.4435	2.0919
50.	0.9265	1.2062	0.4214	2.5542
100.	1.0437	1.4334	0.4107	2.8878
200.	1.1549	1.6361	0.4052	3.1962
500.	1.2841	1.8475	0.4046	3.5362
1000.	1.3660	1.9712	0.4112	3.7484
2000.	1.4330	2.0580	0.4221	3.9131
5000.	1.4986	2.1331	0.4422	4.0739
10000.	1.5329	2.1685	0.4624	4.1638
20000.	1.5570	2.1908	0.4861	4.2340
50000.	1.5767	2.2088	0.5232	4.3086
100000.	1.5861	2.2161	0.5549	4.3572