

$b(E) \times 10^6$  [cm<sup>2</sup>g<sup>-1</sup>] for  
 toluene (C<sub>6</sub>H<sub>5</sub>CH<sub>3</sub>)  
 $\langle Z/A \rangle = 0.54265$

| E [GeV] | $b_{\text{brems}}$ | $b_{\text{pair}}$ | $b_{\text{nucl}}$ | $b_{\text{tot}}$ |
|---------|--------------------|-------------------|-------------------|------------------|
| 2.      | 0.2306             | 0.0988            | 0.4773            | 0.8067           |
| 5.      | 0.3128             | 0.2459            | 0.5043            | 1.0631           |
| 10.     | 0.3814             | 0.3756            | 0.4887            | 1.2457           |
| 20.     | 0.4541             | 0.5175            | 0.4657            | 1.4374           |
| 50.     | 0.5539             | 0.7166            | 0.4407            | 1.7113           |
| 100.    | 0.6297             | 0.8582            | 0.4284            | 1.9163           |
| 200.    | 0.7004             | 0.9893            | 0.4222            | 2.1120           |
| 500.    | 0.7855             | 1.1262            | 0.4211            | 2.3329           |
| 1000.   | 0.8405             | 1.2108            | 0.4280            | 2.4793           |
| 2000.   | 0.8863             | 1.2709            | 0.4396            | 2.5968           |
| 5000.   | 0.9325             | 1.3243            | 0.4612            | 2.7181           |
| 10000.  | 0.9574             | 1.3495            | 0.4831            | 2.7900           |
| 20000.  | 0.9750             | 1.3654            | 0.5089            | 2.8493           |
| 50000.  | 0.9902             | 1.3779            | 0.5493            | 2.9173           |
| 100000. | 0.9969             | 1.3830            | 0.5840            | 2.9639           |