

$b(E) \times 10^6$  [cm<sup>2</sup>g<sup>-1</sup>] for  
liquid hydrogen (H<sub>2</sub>),  $Z = 1$ ,  $A = 1.00794(7)$

| E [GeV] | $b_{\text{brems}}$ | $b_{\text{pair}}$ | $b_{\text{nucl}}$ | $b_{\text{tot}}$ |
|---------|--------------------|-------------------|-------------------|------------------|
| 2.      | 0.1091             | 0.0349            | 0.5501            | 0.6940           |
| 5.      | 0.1526             | 0.1043            | 0.5796            | 0.8365           |
| 10.     | 0.1935             | 0.1903            | 0.5568            | 0.9405           |
| 20.     | 0.2407             | 0.2829            | 0.5255            | 1.0491           |
| 50.     | 0.3114             | 0.4120            | 0.4908            | 1.2142           |
| 100.    | 0.3678             | 0.5039            | 0.4736            | 1.3453           |
| 200.    | 0.4246             | 0.5912            | 0.4640            | 1.4798           |
| 500.    | 0.4951             | 0.6944            | 0.4622            | 1.6517           |
| 1000.   | 0.5441             | 0.7614            | 0.4676            | 1.7732           |
| 2000.   | 0.5876             | 0.8134            | 0.4804            | 1.8814           |
| 5000.   | 0.6356             | 0.8614            | 0.5051            | 2.0020           |
| 10000.  | 0.6642             | 0.8837            | 0.5308            | 2.0788           |
| 20000.  | 0.6867             | 0.8976            | 0.5618            | 2.1461           |
| 50000.  | 0.7080             | 0.9077            | 0.6103            | 2.2260           |
| 100000. | 0.7192             | 0.9117            | 0.6529            | 2.2838           |