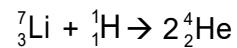


**30** Consider the following nuclear reaction:



The masses of the nuclei are as follow:  ${}^7_3\text{Li}$ : 7.018u,  ${}^1_1\text{H}$ : 1.008u,  ${}^4_2\text{He}$ : 4.004u.

How much energy is released when 1.0 g of  ${}^1_1\text{H}$  is fused with a sufficient amount of  ${}^7_3\text{Li}$ ?

- A**  $2.7 \times 10^{-12} \text{ J}$       **B**  $6.1 \times 10^{-10} \text{ J}$       **C**  $1.6 \times 10^{12} \text{ J}$       **D**  $3.6 \times 10^{14} \text{ J}$