Chapter 49   Fission and Fusion (Examples) (SM14)

Example 1: Calculate Q for the following reaction: U 235 + n to Br 88 + La 145 + 3 (n).
    U 235 = 235.043922 u   n = 1.008665 u
    Br 88 = 87.924070 u   La 145 = 144.921640 u

Example 2: Calculate Q for the following reaction: U 235 + n to Sr 90 + Xe 142 + 4 (n).
    U 235 = 235.043922 u   n = 1.008665 u
    Sr 90 = 89.907738 u   Xe 142 = 141.929710 u

Example 3: Calculate Q for the following reaction: Li 7 + p to He 4 + He 4.
    Li 7 = 7.016004 u   p = 1.007825 u
    He 4 = 4.002603 u

Example 4: If 0.1 kg of deuterium undergoes fusion in 1×10^{-6} second, what is the power of the following reaction: H 2 + H 3 to He 4 + n?
    H 2 = 2.014102 u   H 3 = 3.016049 u
    He 4 = 4.002603 u   n = 1.008665 u