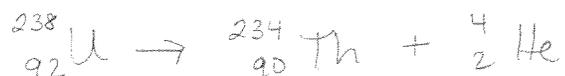


P # 30

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$$\begin{aligned} m_{\text{U}} &= 238.050784 \text{ u} \\ m_{\text{Th}} &= 234.043583 \text{ u} \\ m_{\text{He}} &= 4.002602 \text{ u} \end{aligned} \quad \left. \vphantom{\begin{aligned} m_{\text{U}} \\ m_{\text{Th}} \\ m_{\text{He}} \end{aligned}} \right\} \text{(from App. B)}$$

$$\begin{aligned} \Delta m &= (m_{\text{U}}) - (m_{\text{Th}} + m_{\text{He}}) \\ &= (238.050784) - (234.043583 + 4.002602 \text{ u}) \end{aligned}$$

$$\Delta m = .004599 \text{ u}$$

$$E = m \cdot c^2$$

$$= (.004599 \text{ u}) \cdot \frac{931 \text{ MeV}}{c^2} \cdot c^2$$

$$E = 4.28 \text{ MeV}$$