

- 30 A uranium-238 nucleus (mass 238.1249 u) decays into a thorium-234 nucleus (mass 234.1165 u) with the emission of an  $\alpha$ -particle (mass 4.0026 u).

How much energy is released in this decay?

- A  $2.9 \times 10^{-21} \text{ J}$     B  $4.8 \times 10^{-16} \text{ J}$     C  $8.7 \times 10^{-13} \text{ J}$     D  $6.0 \times 10^{-10} \text{ J}$

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