12. The following statement represents a nuclear fusion reaction.

$${}_{1}^{3}H + {}_{1}^{2}H \rightarrow {}_{2}^{4}He + {}_{0}^{1}n$$

The total mass of the particles before the reaction is 8.347×10^{-27} kg. The total mass of the particles after the reaction is 8.317×10^{-27} kg.

The energy released in this reaction is

A
$$3.0 \times 10^{-29} \text{ J}$$

B
$$9.0 \times 10^{-21} \text{ J}$$

C
$$1.4 \times 10^{-12} \text{ J}$$

D
$$2.7 \times 10^{-12} \text{ J}$$

E
$$7.5 \times 10^{-10} \text{ J.}$$