

- 29 A neutron collides with a $^{235}_{92}\text{U}$ nucleus. The fission reaction that occurs splits the nucleus into $^{141}_{56}\text{Ba}$, $^{92}_{36}\text{Kr}$ and three neutrons, and energy is released.

The equation for this reaction is shown.



The table shows the masses of the particles in the reaction.

nucleus	mass/u
$^{235}_{92}\text{U}$	235.04
${}_{56}^{141}\text{Ba}$	140.91
${}_{36}^{92}\text{Kr}$	91.91
${}_0^1\text{n}$	1.01

What is the energy released in this fission reaction?

- A $3.0 \times 10^{-11}\text{ J}$
- B $1.8 \times 10^{-10}\text{ J}$
- C $1.8 \times 10^{16}\text{ J}$
- D $1.1 \times 10^{17}\text{ J}$