

- 12 The incomplete nuclear equation for one possible reaction that takes place in the core of a nuclear reactor is



- (a) (i) State the name given to this type of nuclear reaction.

..... [1]

- (ii) Complete the nuclear equation. [2]

- (b) The mass defect for the reaction is 0.223 u.

- (i) Calculate the energy, in J, equivalent to 0.223 u.

energy = ..... J [2]

- (ii) Suggest **two** forms of the energy released in this reaction.

1. ....

.....

2. ....

..... [2]

[Total: 7]

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