

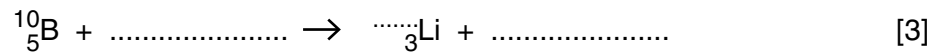
8 In some power stations, nuclear fission is used as a source of energy.

(a) State what is meant by *nuclear fission*.

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[2]

(b) The nuclear fission reaction produces neutrons. In the power station, the neutrons may be absorbed by rods made of boron-10. Complete the nuclear equation for the absorption of a single neutron by a boron-10 nucleus with the emission of an α -particle.



(c) Suggest why, when neutrons are absorbed in the boron rods, the rods become hot as a result of this nuclear reaction.

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[3]