

- 2 (a) State what is meant by *specific latent heat*.

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[2]

- (b) A beaker of boiling water is placed on the pan of a balance, as illustrated in Fig. 2.1.

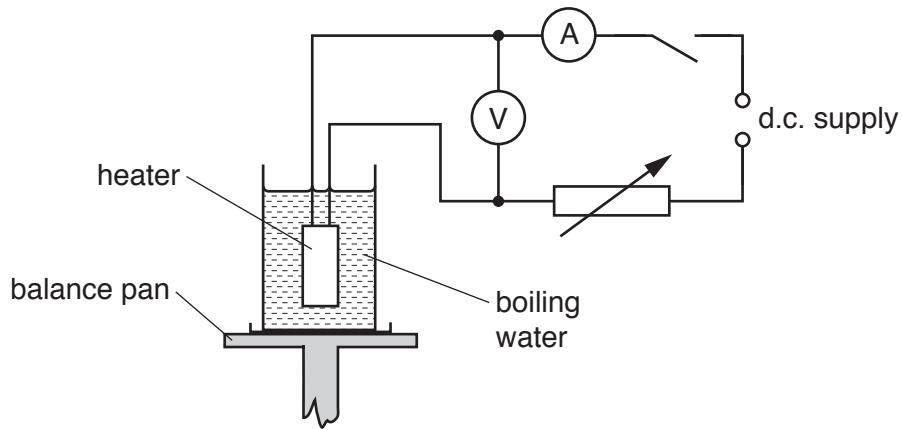


Fig. 2.1

The water is maintained at its boiling point by means of a heater.

The change M in the balance reading in 300 s is determined for two different input powers to the heater.

The results are shown in Fig. 2.2.

voltmeter reading / V	ammeter reading / A	M/g
11.5	5.2	5.0
14.2	6.4	9.1

Fig. 2.2

- (i) Energy is supplied continuously by the heater.
State where, in this experiment,

1. external work is done,

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.....
.....
.....

2. internal energy increases. Explain your answer.

[3]

- (ii) Use data in Fig. 2.2 to determine the specific latent heat of vaporisation of water.

specific latent heat = J g^{-1} [3]

[Total: 8]