



- 5 The energy bands in a solid are illustrated in Fig. 5.1.

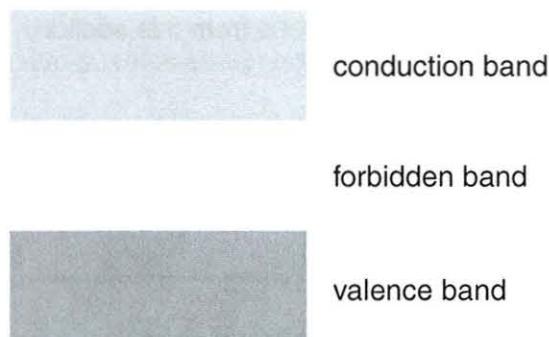


Fig. 5.1

- (a) The resistance of an intrinsic semiconductor decreases with increase of temperature.

Use band theory to account for this change.

[4]

. [4]

- (b) The resistance of a metal increases with increase of temperature.

Making reference to band theory, account for this change.

[3]

. [3]

