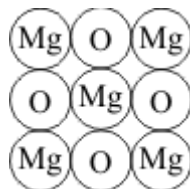


Ionic compounds

1. Magnesium oxide is a compound, made up of magnesium ions and oxide ions.



(a) What is the charge on each magnesium ion? (1)

(b) Explain how the magnesium ions get this charge.

(2)
(Total 3 marks)

2. The drawing shows a container of a compound called magnesium chloride.



(i) How many elements are joined together to form magnesium chloride?
 (1)

(ii) Magnesium chloride is an ionic compound. What are the names of its ions?
 ions and ions (1)

(iii) How many **negative** ions are there in the formula for magnesium chloride?
 (1)

(iv) Complete the sentence.
 Ions are atoms, or groups of atoms, which have lost or gained (1)

- (v) Suggest **three** properties which magnesium chloride has because it is an ionic compound.

Property 1

.....

Property 2

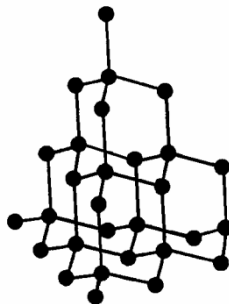
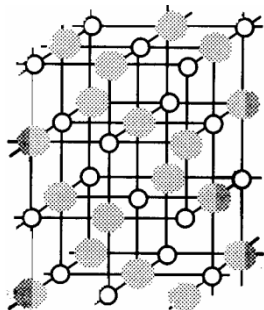
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Property 3

.....

(3)
(Total 7 marks)

3. The diagrams show the giant structures of sodium chloride and diamond.



sodium chloride (melting point 801°C)

diamond (melting point 4800°C)

- (a) The equation shows how sodium chloride could be formed.

Balance the equation.



(1)

- (b) By reference to the detailed structure of sodium chloride explain fully why:

- (i) sodium chloride has a quite high melting point,

.....

.....

(1)

- (ii) solid sodium chloride melts when it is heated strongly,

.....

.....

(2)

- (iii) molten sodium chloride will conduct electricity.

.....

.....

(1)