

GCSE Chemistry B (Twenty First Century Science) J258/01 Breadth in Chemistry (Foundation Tier)

Question Set 29

Diamond and graphite are allotropes of carbon. They are both giant structures.

Fig. 1.1 shows models of diamond and graphite:

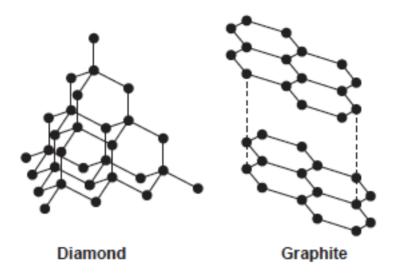


Fig 1.1

- (a) (i) What do the black dots in Fig. 1.1 represent?
 - (ii) Name the type of bond that is represented by the solid black lines in Fig. 1.1.
- **(b) Fig. 1.2** shows a model of sodium chloride, which has a giant ionic lattice structure.

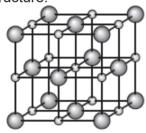


Fig 1.2

Describe **one** similarity and **one** difference between the properties of sodium chloride and graphite.

[2]

[1]

[1]

Total Marks for Question Set 29: 4



OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge