2023 Ch H1 Q9

Section: Chemical Changes and Structure

Topic: Structure and Bonding

Question Summary

Which of the following structures is never found in compounds?

A: Covalent molecular

B: Covalent network

C: Monatomic

D: Ionic

Worked Solution

- Covalent molecular structures (e.g. H₂O, CO₂) exist.
- Covalent network structures (e.g. diamond, silicon dioxide) exist.
- Ionic structures (e.g. NaCl, MgO) exist.
- Monatomic structures only describe the noble gases (He, Ne, Ar, etc.), which are elements, not compounds.

Final Answer

C — Monatomic

Revision Tips

- Compounds involve more than one type of atom.
- Noble gases are monatomic but they are elements, not compounds.
- Always test each option against real examples.