Properties of ionic, covalent, and metallic substances

Q1. (2019)

Table 2 shows the boiling points of fluorine, chlorine and bromine.

Table 2

Element	Boiling point in °C
Fluorine	–186
Chlorine	–34
Bromine	+59

A)

0 4 . 3 Explain why the boiling points in **Table 2** are low.

[2 marks]

B)

0 4 . 4 Explain the trend in the boiling points in **Table 2**.

[3 marks]

Q2. (2020)

0 1 . 4 A substance conducts electricity because of free moving, charged particles.

What are the free moving, charged particles in a:

- carbon electrode (made from graphite)
- molten mixture of aluminium oxide and cryolite
- metal wire?

[3 marks]

Carbon electrode (made from graphite) _____

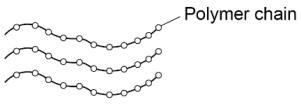
Molten mixture of aluminium oxide and cryolite _____

Metal wire _____

Q3. (2022)

0 5 . 4 **Figure 6** represents part of the structure of a polymer.

Figure 6



Compare the bonding within the chains with the forces between the chains in this polymer.

[3 marks]