

1 Which of the following physical properties is true of ionic compounds?

- Have high melting and boiling points
- Cannot conduct electricity in molten state
- Dissolve in organic solvents
- Exist as liquids at room temperature

2 A compound exists as a gas at room temperature. It dissolves in organic solvents. It cannot conduct electricity whether in solid or aqueous state. This compound could be

- sodium chloride, NaCl.
- magnesium oxide, MgO.
- zinc bromide, ZnBr₂.
- carbon dioxide, CO₂.

3 An ionic compound *X* has very high melting point and boiling point because

- the cations and anions are big.
- the electrostatic force between the cations and anions is very strong.
- the intermolecular force between molecules *X* is weak.
- the molecules in compound *X* cannot move freely.

4 An ionic compound *Y* cannot conduct electricity in solid state because

- the cations and anions cannot move freely in solid state.
- the compound only contains neutral molecules in solid state.
- the ionic bond in solid state is weak.
- there are no ions in solid state.

5 The table below shows the proton numbers of elements *P*, *Q*, *R* and *S*.

Element	Proton number
<i>P</i>	3
<i>Q</i>	6
<i>R</i>	8
<i>S</i>	1

Which two elements will form a compound with high melting point and boiling point?

- Q* and *R*
- S* and *Q*
- P* and *R*
- R* and *S*

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