

Chemistry Practical Class 11 Determination of Melting Point of an Organic Compound Viva Questions with Answers

Q1: Why benzoic acid or Naphthalene needs to be crushed?

Answer:

Because naphthalene and benzoic acid are crystalline in nature, they must be crushed to obtain a fine powder.

Q2: How is the melting point of the compound determined?

Answer:

The melting point of the substance is determined by the average temperature readings.

Q3: How is the determination of melting point useful?

Answer:

It allows us to identify unknown chemicals and determine whether or not a compound is pure.

Q4: What is a sharp melting point?

Answer:

If a solid melts completely within a 1°C range, it is said to have a sharp melting point.

Q5: Why do pure solids possess a sharp melting point?

Answer:

Because a pure solid has the same force of attraction between particles at different locations, it melts at the same temperature.

Q6: Can we heat the capillary tube directly for the determination of the melting point?

Answer:

No, because direct heating would result in uneven and fast heating.

Q7: Why do different solids have different melting points?

Answer:

The intermolecular forces that exist in the solid-state determine the melting point. Different substances have different melting points due to the strength of their intermolecular forces.

Q8: Why is the melting point of benzamide more than that of acetamide?

Answer:

Benzamide and acetamide both have the same functional group, however, benzamide has a higher molecular mass than acetamide. As a result, benzamide has a higher melting point due to its stronger intermolecular interactions.

Q9: Can any other liquid be used in place of liquid paraffin to determine the melting point?

Answer:

To evaluate the melting point, concentrated H_2SO_4 or silicone oils might be utilised.

Q10: What is the effect of impurities on the melting point of solids?

Answer:

Impurities lower the melting point of a solid.