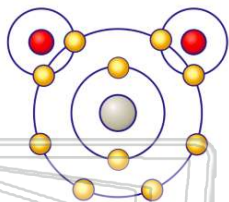




Name _____ Class _____ Date _____

1 Which of these substances has the **strongest** intermolecular forces?

- A H₂O
- B H₂S
- C H₂Se
- D H₂Te



2 Which substance contains **metallic bonds**?

- A Hg(l)
- B H₂O(l)
- C NaCl(s)
- D C₆H₁₂O₆(s)



3 A **hydrate** is a compound that includes water molecules within its crystal structure. During an experiment to determine the percent by mass of water in a hydrated crystal, a student found the mass of the hydrated crystal to be **4.10 grams**. After heating to constant mass, the mass was **3.70 grams**. What is the percent by mass of **water** in this crystal?

4 In **saturated hydrocarbons**, carbon atoms are **bonded** to each other by

- A single covalent bonds, only
- B double covalent bonds, only
- C alternating single and double covalent bonds

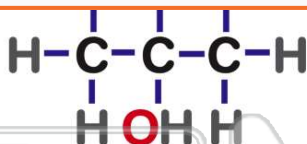


PREVIEW

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7

- B alcohol
- C ether
- D ester



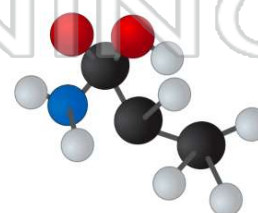
- B Fe₃P₂
- C FePO₄
- D Fe₃(PO₄)₂

9 Which two substances are **covalent compounds**?

- A C₆H₁₂O₆(s) and KI(s)
- B C₆H₁₂O₆(s) and HCl(g)
- C KI(s) and NaCl(s)
- D NaCl(s) and HCl(g)

10 Which type of **change** must occur to form a **compound**?

- A chemical
- B physical
- C nuclear
- D phase

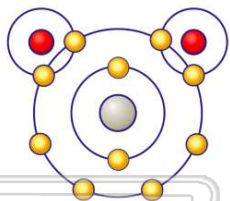




ANSWER KEY

Which of these substances has the **strongest** intermolecular forces?

- A H₂O
- B H₂S
- C H₂Se
- D H₂Te



(a)

Which substance contains **metallic bonds**?

- A Hg(l)
- B H₂O(l)
- C NaCl(s)
- D C₆H₁₂O₆(s)



(a)

A **hydrate** is a compound that includes water molecules within its crystal structure. During an experiment to determine the percent by mass of water in a hydrated crystal, a student found the mass of the hydrated crystal to be **4.10 grams**. After heating to constant mass, the mass was **3.70 grams**. What is the percent by mass of **water** in this crystal?

- A 90%
- B 8.8%
- C 9.8%
- D 9.0%

(c)

In **saturated hydrocarbons**, carbon atoms are **bonded** to each other by

- A single covalent bonds, only
- B double covalent bonds, only
- C alternating single and double covalent bonds
- D alternating double and triple covalent bonds

(a)



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- C ether
- D ester



- D Fe₃(PO₄)₂

Which two substances are **covalent compounds**?

- A C₆H₁₂O₆(s) and KI(s)
- B C₆H₁₂O₆(s) and HCl(g)
- C KI(s) and NaCl(s)
- D NaCl(s) and HCl(g)

(b)

Which type of **change** must occur to form a **compound**?

- A chemical
- B physical
- C nuclear
- D phase

(a)

