

Organic Chemistry

Direction: Based on the videos presented earlier, complete Table A below and answer question B.

A. (12 points)

Name of Test

Name (&Formula) of Compound Tested

Observation

color, physical state->color, phy. state

1. Ignition Test

a. Flammability

Water (H₂O), Ethanol (CH₃CH₂OH) and Hexane (C₆H₁₄)

Water: Clear, Liquid → Clear, Liquid (-)

- NR

It does not react to the flame, rendering it non-flammable.

Ethanol: Clear, Liquid → Clear, Liquid (+)

It reacts with the flame which makes it flammable.

Hexane: Clear, Liquid → Clear, Liquid (+)

It reacts with flame also, but is more reactive than the ethanol because it produced brighter and higher flame.

b. Charring

Sugar (C₁₂H₂₂O₁₁)

Sugar: White, Solid → Black, Liquid (+)

It melted and turns into liquid when it was heated, and it gets darker which means that the hydrogen and oxygen removed.

2. Solubility Test

a. Naphthalene in water

Naphthalene ($C_{10}H_8$) and water (H_2O)

Naphthalene: White, Solid → White, Solid (-)

- NR

It is insoluble because it does not dissolve in water.

b. Urea in Water

Urea (CH_4N_2O) and water (H_2O)

Urea: White, Solid → Clear, Liquid (+)

Even though urea does not easily dissolve in water if, it is still soluble. Because, when urea in has been shake, it will dissolve.

3. Electrical Conductivity

a. Sugar water or sugar solution

Sugar ($C_{12}H_{22}O_{11}$) and water (H_2O)

Clear, Liquid → Clear, Liquid, Dim light (-)

Based on the video, sugar doesn't change the conductivity of water

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b. Salt water or salt solution

Salt ($NaCl$) and water (H_2O)

Clear, Liquid → Clear, Liquid, Bright light (+)

Based on the video, salt conducts electricity that result for the bulb to light up, this conclude that salt increases the conductivity of water.

B. Write generalizations stating the observed properties of organic compounds.(3points)

In my observation as I watch the experiment video presented, ethanol and hexane which are organic compound shows a bright and high flame which means they are flammable when it reacts with flame. Naphthalene is insoluble and urea is also insoluble when you simply put it with water. Sugar does not

conduct electricity. These concludes that, the organic compound in general is flammable when reacted to flame, most of them is insoluble in water and does not conduct electricity.

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