

NAME

TORORO GIRLS' SCHOOL
SENIOR SIX INORGANIC CHEMISTRY
TERM TWO 2015
ASSIGNMENT



Instruction

- Attempt all questions
- Periodic table will be provided

1. Carbonates and hydrogen carbonates react with mineral acids to release carbon dioxide and water:

(a) Write equations for the reaction between carbonates and hydrogen carbonates with mineral acids. (2 marks)

(i) Carbonates

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(ii) Hydrogen carbonates

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(b)(i) Name the reagent which can be used to test for the presence of carbon dioxide gas. (1 mark)

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(iii) State the observation when the reagent named in (i) above is used. (1 mark)

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(iv) Write equations to support your observation in b(ii) above. (2 marks)

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(c) (i) Name a reagent which can be used differentiate between a carbonate and a hydrogen carbonate. (½ mark)

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(ii) State the observation in c(i) above. (1 mark)

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(iii) Write equations to support your observation in c(ii) above. (1 ½ mark)

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2. (a) State the conditions for the reaction between sodium hydroxide and :-

(i) Silicon (½ mark)

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(ii) Germanium (½ mark)

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(iii) Tin (½ mark)

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(b) Write equations for the reaction between sodium hydroxide and:-

(i) Silicon (1 mark)

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(ii) Germanium (1 mark)

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(iv) Tin (1 mark)

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3. Write equations for the reaction between nitric acid and:-

(i) Silicon (1 mark)

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(ii) Germanium (1 mark)

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(iii) Tin (1 mark)

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4. Lead carbonate was heated in a test until no further change:

(a) State the observation and write the equation for the reaction.

(2 ½ marks)

Observation

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Equation

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(b) To the solid formed after the heating, nitric acid was added, State what was observed. (1 mark)

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(c) Potassium chromate was added to the resultant solution formed in (b), state the observation and write the equation for the reaction.

(2 ½ marks)

Observation

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Equation

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5. Write the observation and equation of reaction between:-

(a) Lead (ii) nitrate and potassium iodide

(2 ½ marks)

Observation

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Equation

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(b) Lead acetate and potassium iodide

(2 ½ marks)

Observation

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Equation

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(c) Lead (ii) nitrate and zinc sulphate

(2 ½ marks)

Observation

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Equation

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(d) Lead acetate and cobalt(ii) chloride

(2 ½ marks)

Observation

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Equation

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6. Explain the following observations:-

(a) Carbon is more electronegative than lead

(2 marks)

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(b) Carbon forms chain compounds but lead does not.

(2 marks)

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7. A solution salt Y contains lead (ii) ions

(a) State the observation and write the equation for the reaction between solution of salt Y and:-

(i) Dilute sodium hydroxide (3 marks)

Observation

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Equation

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(ii) Ammonia solution (3 marks)

Observation

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Equation

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(iii) Zinc chloride (2 ½ marks)

Observation

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Equation

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END