

Sec 4 Chem Experiment 5.4: Tests for unknown Anions

Name: _____ () Class: _____ Date: _____

Aim: To conduct an anion test to deduce the anion present in solutions

Solutions of Anion	Tests	Observations
P	To 2cm ³ of the solution, add equal volume of silver nitrate solution and then dilute nitric acid.	
P	To 2cm ³ of the solution, add equal volume of dilute nitric acid and then barium nitrate solution	
Q	To 2cm ³ of the solution, add equal volume of silver nitrate solution and then dilute nitric acid.	
Q	To 2cm ³ of the solution, add dilute aqueous sodium hydroxide. Add 2 pieces of little aluminium foil. Warm the mixture gently and test the gas produced with a piece of damp/moist red litmus paper.	
R	To 2cm ³ of the solution, add equal volume of silver nitrate solution and then dilute nitric acid.	
S	To 2cm ³ of the solution, add equal volume of barium nitrate solution and then dilute nitric acid.	
T	To 2cm ³ of the solution, add 2cm ³ of aqueous barium nitrate. Then add dilute nitric acid until no further changes are observed.	

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T	To 2cm ³ of the solution, add dilute hydrochloric acid. Pass the gas into limewater with the use of a delivery tube.	
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Conclusion: Deduce the anion present in each of the solution.

Solution P: _____

Solution Q: _____

Solution R: _____

Solution S: _____

Solution T: _____

1. In testing for the presence of chloride ions, acidified silver nitrate should be used.

- a. Silver nitrate is acidified by nitric acid. Explain why it shouldn't be acidified using hydrochloric acid?

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- b. What is the purpose for acidifying silver nitrate for the test of chloride ions?

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- c. State the ionic equation for the test of chloride ions using aqueous silver nitrate.

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