



Chem!stry

Name: ()

Class:

Date: / /

Qualitative Analysis

• Tests for Gases:

Gas	Acid / alkali / neutral	Test and Observation
Ammonia $\text{NH}_3(\text{g})$		Test:
		Observation:
Carbon Dioxide $\text{CO}_2(\text{g})$		Test:
		Observation:
Chlorine $\text{Cl}_2(\text{g})$		Test:
		Observation:
Hydrogen $\text{H}_2(\text{g})$		Test:
		Observation:
Oxygen $\text{O}_2(\text{g})$		Test:
		Observation:
Sulfur Dioxide $\text{SO}_2(\text{g})$		Test:
		Observation:
Water Vapour $\text{H}_2\text{O}(\text{g})$		Test:
		Observation:

• Tests for Cations:

Aqueous cation	Colour of solution	Result of adding a few drops of NaOH(aq)	Result of adding excess NaOH(aq)	Result of adding a few drops of NH ₃ (aq)	Result of adding excess NH ₃ (aq)	Ionic equation
Al ³⁺ (aq)						
Ca ²⁺ (aq)						
Cu ²⁺ (aq)						
Fe ²⁺ (aq)						
Fe ³⁺ (aq)						
NH ₄ ⁺ (aq)				(not applicable)	(not applicable)	
Pb ²⁺ (aq)						
Zn ²⁺ (aq)						

• Test for Anions

Aqueous anion	Test	Observation	Ionic Equation
$\text{CO}_3^{2-}(\text{aq})$			
$\text{Cl}^{-}(\text{aq})$			
$\text{I}^{-}(\text{aq})$			
$\text{NO}_3^{-}(\text{aq})$			
$\text{SO}_4^{2-}(\text{aq})$			

- Scan the QR Code below to view the answers to this assignment.



http://www.chemist.sg/qualitative_analysis/qa_student_ans.pdf