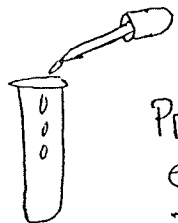
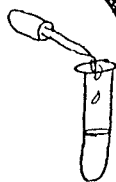
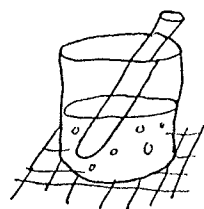


An illustration of the analysis of some cations from Groups IA + IIA

Ba²⁺, Mg²⁺, Ca²⁺ Lab 1



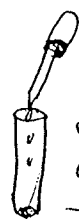
Prepare a known using 7 drops equal amounts of the 3 provided solutions



add ammonium chloride solution + ammonia solution until strongly basic. Then add ammonium carbonate solution + heat. 4 drops



Then centrifuge + decant



add drops of dilute acetic acid to dissolve the white precipitate 3 drops

add drops of aqueous Na₂HPO₄ to the decantate



A white precip of MgNH₄PO₄ occurs when magnesium ion is present

add drops of K₂CrO₄ (aq) to the solution 4 drops

centrifuge + decant

a yellow barium chromate precip occurs when barium ion is present



add drops of (NH₄)₂C₂O₄ until a white precip occurs from the yellow solution to show calcium is present

Reagents

- 1 M (NH₄)₂CO₃
- 6 M NH₃
- 1 M NH₄Cl
- 1 M Na₂HPO₄
- 1 M (NH₄)₂C₂O₄
- 6 M HOAC
- 0.5 M K₂CrO₄

Notes

