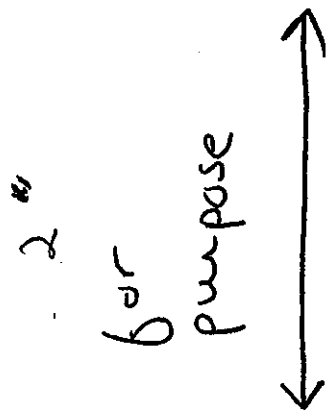


DATE	EXP. NUMBER	EXPERIMENT	
NAME		LAB PARTNER	WITNESS

CATION GROUP SEPARATION

PURPOSE:

You can write this section later



Apparatus	Glass ware	Chemicals
Universal pH indicator paper	6 4-mch test tubes	0.1M AgNO ₃
Hot plate	1 stirring rod	0.1M Cu(NO ₃) ₂
Centrifuge	Disposable pipet	0.1M NaNO ₃
Bunsen burner	Beacher	0.1M Zn(NO ₃) ₂
	Crucible	0.1M Ba(NO ₃) ₂
	pt wire	0.1M KNO ₃
	Cobalt glass	6M HCl
		6M NaOH
		NaC ₂ H ₃ O ₂
		6M H ₂ SO ₄

Due Thurs

Due Thurs
↓
Flowchart:

see prelab notes

Due Thurs
↓
Safety

- safety goggles must be worn at all times
- AgNO_3 will

- Dilute hydrochloric acid

} see expt. page 1

Procedure → (write all procedure before)

Observations

Do in Lab

A. Sample Preparation class on Thurs

Mix together 0.1 M solutions:
4 drops each of Ag^+ , Cu^{2+} , Na^+ , and Zn^{2+}
and 12 drops each of: Ba^{2+} and K^+

The resulting solution is light green

obs are after centrifuging! ∴ you can observe ppt & supernatant

B. Group I separation

Add 4 drops of 6M HCl. Mix and heat just below boiling for 10 mins. Centrifuge.

The supernatant is light blue. Approximately 1/2 pea size amount of white ppt. formed

Add 1 drop of 6M HCl to the supernatant to test for complete ppt.

No additional ppt. formed

Disposal: (see expt.)

Net-Ionic eqn:



makesure you leave space after the procedure for net-ionic eqns

C. Group II separation

Transfer the supernatant to another test tube

Add 6M NaOH until basic to universal indicator paper.

Add 4 drops NaOH in xs. Mix, heat, & centrifuge

pH = 8 to univ. indicator paper

make this obs. every time you use the indicator paper

Disposal:

Net-Ionic eqn:

- 1.)
- 2.)
- 3.)
- 4.)

make sure you leave space after the procedure for net-ionic eqns

6/14/04

Additional Notes @ Lab Notebook

- D. Group III separation - leave room for
at least 4 eqns
for Group III ^{latter} procedure
- E. Group IV separation - leave room for
2 eqns
- F. Group V - leave room for 2 eqns

I will talk @ the questions, summary
and purpose later

Note: All procedure Part A - F
is due on Thurs