NAME		PRE	F \$	SECTION S	C	_ DATE				
		EXPERIME	ent 2	26: HYI	ROLYSIS					
Materials: red and blue litmus paper				r, 1-2g of the following: NaCl, Na ₂ CO ₃ , Na ₃ PO ₄ , Al ₂ (SO ₄) ₃ , AlCl ₃ ,						
In this ontain K	experiment y OH or NaOH	ou will learn why so I and why "excess st	ome h	ighly basi h acid" ca	c household on be neutrali	cleaning zed with	g agents do NaHCO ₃ .	not have		
and Na	₃ PO ₄ in each	of two other test tu	bes. T	rest each	of these solut	tions wit	mounts o	f Na ₂ CO ₃ l blue		
Which ion must be in excess in order to cause the results observed in two of the test tubes?										
2.	What is the	e source of this ion?				_				
B. Dissolve a pinch of $Al_2(SO_4)_3$ or $AlCl_3$ in about $1/3$ test tube of water and a similar amount of NH_4Cl or $(NH_4)_2SO_4$ in another test tube of water. Test each solution with red and blue litmus paper and with pH paper. Enter your findings in the table below.										
Table I										
LT SOLU	TIONS USED	EFFECT ON LITMUS	рН	ION IN E	KCESS					
	Equipm Materia In this ontain K Dissolv and Na litmus 1. Dissolv NH ₄ Cl paper a 3. 4.	Equipment: 5 test tube Materials: red and NH ₄ Cl, In this experiment young ontain KOH or NaOH Dissolve a pinch of and Na ₃ PO ₄ in each litmus paper and w 1. Which ion tubes? 2. What is the Dissolve a pinch of NH ₄ Cl or (NH ₄) ₂ SO ₄ paper and with pH 3. Which ion	Experime Equipment: 5 test tubes, rack, glass rod. Materials: red and blue litmus paper, 1- NH4Cl, (NH4)2SO4, wood splin In this experiment you will learn why so ontain KOH or NaOH and why "excess st Dissolve a pinch of NaCl in about 1/3 t and Na3PO4 in each of two other test tu litmus paper and with pH paper. Enter 1. Which ion must be in excess in tubes? 2. What is the source of this ion? Dissolve a pinch of Al2(SO4)3 or AlCl3 in NH4Cl or (NH4)2SO4 in another test tube paper and with pH paper. Enter your f 3. Which ion must be in excess in 4. What is the source of this ion?	Experiment: 5 test tubes, rack, glass rod. Materials: red and blue litmus paper, 1-2g of to NH4Cl, (NH4)2SO4, wood splints (as sometiment of NaCl, (NH4)2SO4, wood splints (as sometiment KOH or NaOH and why "excess stomach ontain KOH or NaOH or N	Experiment: 5 test tubes, rack, glass rod. Materials: red and blue litmus paper, 1-2g of the followin NH ₄ Cl, (NH ₄) ₂ SO ₄ , wood splints (as spatulas). In this experiment you will learn why some highly basicontain KOH or NaOH and why "excess stomach acid" can Dissolve a pinch of NaCl in about 1/3 test tube of water and Na ₃ PO ₄ in each of two other test tubes. Test each litmus paper and with pH paper. Enter your findings in the tubes? 1. Which ion must be in excess in order to cause tubes? 2. What is the source of this ion? Dissolve a pinch of Al ₂ (SO ₄) ₃ or AlCl ₃ in about 1/3 test tuber. Test paper and with pH paper. Enter your findings in the tuber. Test paper and with pH paper. Enter your findings in the tuber. Test paper and with pH paper. Enter your findings in the tuber. What is the source of this ion? Table I	Equipment: 5 test tubes, rack, glass rod. Materials: red and blue litmus paper, 1-2g of the following: NaCl, Na ₂ Co NH ₄ Cl, (NH ₄) ₂ SO ₄ , wood splints (as spatulas). In this experiment you will learn why some highly basic household ontain KOH or NaOH and why "excess stomach acid" can be neutralised and Na ₃ PO ₄ in each of two other test tubes. Test each of these solutimus paper and with pH paper. Enter your findings in the table best tubes? 2. What is the source of this ion? Dissolve a pinch of Al ₂ (SO ₄) ₃ or AlCl ₃ in about 1/3 test tube of water NH ₄ Cl or (NH ₄) ₂ SO ₄ in another test tube of water. Test each solution paper and with pH paper. Enter your findings in the table below. 3. Which ion must be in excess in order to cause the results of the content of the conte	EXPERIMENT 26: HYDROLYSIS Equipment: 5 test tubes, rack, glass rod. Materials: red and blue litmus paper, 1-2g of the following: NaCl, Na ₂ CO ₃ , Na ₃ PO NH ₄ Cl, (NH ₄) ₂ SO ₄ , wood splints (as spatulas). In this experiment you will learn why some highly basic household cleaning ontain KOH or NaOH and why "excess stomach acid" can be neutralized with Dissolve a pinch of NaCl in about 1/3 test tube of water. Dissolve similar a and Na ₃ PO ₄ in each of two other test tubes. Test each of these solutions willitmus paper and with pH paper. Enter your findings in the table below. 1. Which ion must be in excess in order to cause the results observed tubes? 2. What is the source of this ion? Dissolve a pinch of Al ₂ (SO ₄) ₃ or AlCl ₃ in about 1/3 test tube of water and a s NH ₄ Cl or (NH ₄) ₂ SO ₄ in another test tube of water. Test each solution with repaper and with pH paper. Enter your findings in the table below. 3. Which ion must be in excess in order to cause the results observed the source of this ion? Table I	EXPERIMENT 26: HYDROLYSIS Equipment: 5 test tubes, rack, glass rod. Materials: red and blue litimus paper, 1-2g of the following: NaCl, Na ₂ CO ₃ , Na ₃ PO ₄ , Al ₂ (SO ₄) ₃ NH ₄ Cl, (NH ₄) ₂ SO ₄ , wood splints (as spatulas). In this experiment you will learn why some highly basic household cleaning agents do ontain KOH or NaOH and why "excess stomach acid" can be neutralized with NaHCO ₃ . Dissolve a pinch of NaCl in about 1/3 test tube of water. Dissolve similar amounts of and Na ₃ PO ₄ in each of two other test tubes. Test each of these solutions with red and litimus paper and with pH paper. Enter your findings in the table below. 1. Which ion must be in excess in order to cause the results observed in two of tubes? 2. What is the source of this ion? Dissolve a pinch of Al ₂ (SO ₄) ₃ or AlCl ₃ in about 1/3 test tube of water and a similar amount NH ₄ Cl or (NH ₄) ₂ SO ₄ in another test tube of water. Test each solution with red and blu paper and with pH paper. Enter your findings in the table below. 3. Which ion must be in excess in order to cause the results observed? 4. What is the source of this ion? Table I		

SALT SOLUTIONS USED	EFFECT ON LITMUS	рН	ION IN EXCESS	

of a	a given salt solution. d then to compare the	One way is to	o consider hydrolysi	s the reverse of ne	utralization
Arr	henius Theory. Neut	ralization: ac	id + base = salt + wa	iter	,
	Hydrolys	sis: salt + wa	ter = acid + base		
If appl	lete and balance the f licable, circle or unde solution expected to	rline the stro	nger of the acid and	base.	
Na ₂ CC	O ₃ + HOH =	+_			
	4 + HOH =				
	+ HOH =				
	+ HOH =				
che wh	en though the Arrhen emists think the proto at is really happening our conjugate acid-ba	on transfer ide in hydrolysis	eas of the Brönsted- s.	Lowry Theory are o	closer to
•					
	+ HOH =				
PO ₄ -3	+ HOH =	+			
NH ₄ ⁺ -	+ HOH =	+ + .			
Al(H ₂ O) ₆ +3 + HOH =		+		
C. Use both the to the hydropaper.	e Arrhenius Theory a llysis of the following	salt solutions	led-Lowry Theory to b. Test your predicti	predict the pH of sons with pH paper	solution due and litmus
SALT SOLUTION USED	Prediction: Acidic, Basic, Neutral	pH OF SOLUTION	REASON (REASON or Explanation	
NaNO ₃					
CuSO₄					
FeSO₄					
K₂SO₄					
CONCLUSIONS According to	the Brönsted-Lowry	Theory, hydro	olysis is the slight re	eaction between th	e
	or		of a salt, and w	ater to give an exc	ess of
	ions or		ions.		