

Hydrolysis of some salts (pages 96-97)

Experiment "A": pH of aqueous solution of salts

Use 0.1 g salt and dissolve it in 10 cm³ distilled water

Type of salts	Structure	Indicator	Observed pH (acidic, basic, neutral)	Balanced equation of hydrolysis
Salts of strong acid and strong bases	NaCl	universal indicator paper		
	K ₂ SO ₄			
	Ba(NO ₃) ₂			
Salts of strong acids and weak bases	NH ₄ Cl	universal indicator paper and methyl red indicator solution*		
	(NH ₄) ₂ SO ₄			
	ZnSO ₄			
	Al ₂ (SO ₄) ₃			
Salts of weak acids and strong bases	Na ₂ CO ₃	universal indicator paper and phenolphthalein solution*		
	NaHCO ₃			
	Na ₂ SO ₃			
	CH ₃ COONa			

* use a few drops of indicator solution to test the pH

Experiment "B": Suppression of hydrolysis

A few crystals of SnCl₂, SbCl₃ and Bi(NO₃)₃ should be used.

Add 5 cm³ distilled water to each salt. What can be seen? Explain your observation.

Add 5 cm³ concentrated HCl to each salt and heat them mildly. What can be seen? Explain your observation.

Add 1-2 drops of the above prepared solutions to 50 cm³ distilled water. Stir the solutions. What can be observed? Explain your observation and write balanced equations for the hydrolytic reactions.