

Battle of the Acids Worksheet

Results Table

	Cylinder #1	Cylinder #2	Cylinder #3	Cylinder #4
Contents				
Color (pH)				
Reaction Rate with CaCO ₃				
Reversibility of Ionization Reaction	N/A		N/A	

Discussion Questions

- Why was sodium chloride added to the hydrochloric acid in cylinders #1 and 2 and sodium acetate added to the acetic acid in cylinders #3 and 4?
- Write a balanced chemical equation for each of the following reactions:
 - Ionization of hydrochloric acid in water
 - Ionization of acetic acid in water
 - Calcium carbonate with H₃O⁺
- Name two factors that distinguish a strong acid from a weak acid based on what you observed in this demonstration.
- Would this comparison between the strength of hydrochloric acid and acetic acid be valid if the hydrochloric acid was 2 M and the acetic acid was 1 M? Explain.