



HYDROGEN IONS AND ACIDITY

Section Summary

Objectives

- Define hydrogen ion concentration and relate it to the pH of a solution.
- Define acid and base and relate them to the pH of a solution.
- Define strong and weak acids.

Key Vocabulary

<ul style="list-style-type: none">hydrogen ionacidbasestrong acidweak acidpH	<ul style="list-style-type: none">hydrogen ion concentrationacidicbasicneutraltitrationtitration curve
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Key Equations

- $\text{pH} = -\log_{10}[\text{H}^+]$
- $\text{pH} = \log_{10}[\text{OH}^-]$

Key Diagrams

- Titration curve
- Titration curve

Points of Consideration

Acidic and basic properties are determined by the concentration of hydrogen ions in a solution. The concentration of hydrogen ions is measured by the pH of a solution.

Hydrogen ions are the only ions that contribute to the concentration of ions in a solution. The concentration of ions in a solution is determined by the concentration of hydrogen ions.

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Hydrogen ions are the only ions that contribute to the concentration of ions in a solution. The concentration of ions in a solution is determined by the concentration of hydrogen ions.

Key Equations

$\text{pH} = -\log_{10}[\text{H}^+]$	$\text{pH} = \log_{10}[\text{OH}^-]$
$\text{pH} = 7$	$\text{pH} = 14$
$\text{pH} = 1$	$\text{pH} = 13$
$\text{pH} = 2$	$\text{pH} = 12$
$\text{pH} = 3$	$\text{pH} = 11$
$\text{pH} = 4$	$\text{pH} = 10$
$\text{pH} = 5$	$\text{pH} = 9$
$\text{pH} = 6$	$\text{pH} = 8$
$\text{pH} = 7$	$\text{pH} = 7$
$\text{pH} = 8$	$\text{pH} = 6$
$\text{pH} = 9$	$\text{pH} = 5$
$\text{pH} = 10$	$\text{pH} = 4$
$\text{pH} = 11$	$\text{pH} = 3$
$\text{pH} = 12$	$\text{pH} = 2$
$\text{pH} = 13$	$\text{pH} = 1$
$\text{pH} = 14$	$\text{pH} = 0$

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**La Motte Chemical Products
Company, William Anthony Taylor**

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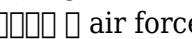
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