

Chem 130

Quiz 3 Study Guide

These are the topics you must master to complete this quiz.

Names and characteristics of common acids and bases

Name	Formula	Maximum Number of Hydrogen or Hydroxide Ion(s) Released	Strength
Hydrochloric Acid	HCl	1 H ⁺ ion	Strong acid
Nitric Acid	HNO ₃	1 H ⁺ ion	Strong acid
Sulfuric Acid	H ₂ SO ₄	2 H ⁺ ions	Strong acid
Phosphoric Acid	H ₃ PO ₄	3 H ⁺ ions	Strong acid
Acetic Acid	CH ₃ COOH or C ₂ H ₄ O ₂	1 H ⁺ ion	Weak acid
Sodium Hydroxide	NaOH	1 OH ⁻ ion	Strong base
Ammonium Hydroxide	NH ₄ OH	1 OH ⁻ ion	Weak base

Definitions

Be sure you know the definition for each of the following terms. Some of the questions about these terms may ask you to identify the term from examples of chemical reactions or situations.

Acid (Arrhenius and Bronsted-Lowry)

Base (Arrhenius and Bronsted-Lowry)

Salt

pH

Buffer

Oxidation (all four definitions on p.96)

Reduction (all four definitions on p.96)

Hard water

Solubility

Polar molecule

Non-polar molecule

Osmosis

Osmotic pressure (not the same as osmosis!)

Semi-permeable membrane

Hypertonic

Hypotonic

Colloid

Suspension

Hydrate

Hydrolysis