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## GENERAL GENERAL CHENISTRY













Topics

**400+** 

Lessons



Scientist-In-Action Videos

#### Core Learning Objectives

Defining the terms 'hypothesis,' 'theory,' and 'law'

Explain concepts of basic atomic theory and relate the theory to the periodic table

Calculate and describe important gas laws

Calculate and describe important gas laws

To understand the basics of adding electrons to atomic orbitals

Describe the arrangement of atoms and ions in crystalline structures





#### JoVE Core: Chemistry

#### **List of Chapters**

- 1.1 Introduction: Matter And Measurement
- 1.2 Atoms And Elements
- 1.3 Molecules, Compounds, And Chemical Equations
- 1.4 Chemical Quantities And Aqueous Reactions
- 1.5 Gases
- 1.6 Thermochemistry
- 1.7 Electronic Structure Of Atoms
- 1.8 Periodic Properties Of The Elements
- 1.9 Chemical Bonding: Basic Concepts
- 1.10 Chemical Bonding: Molecular Geometry And Bonding Theories
- 1.11 Liquids, Solids And Intermolecular Forces
- 1.12 Solutions And Colloids
- 1.13 Chemical Kinetics
- 1.14 Chemical Equilibrium
- 1.15 Acids And Bases
- 1.16 Acid-Base And Solubility Equilibria
- 1.17 Thermodynamics
- 1.18 Electrochemistry
- 1.19 Radioactivity And Nuclear Chemistry
- 1.20 Transition Metals And Coordination Complexes
- 1.21 Biochemistry

#### JoVE Lab Manual: Chemistry

#### List of Videos

- 2.1 Lab Techniques Concept
- 2.2 Lab Techniques Prep
- 2.3 Lab Techniques Procedure
- 2.4 Scientific Measurement And Lab Skills Concept
- 2.5 Scientific Measurement And Lab Skills Prep
- 2.6 Scientific Measurement And Lab Skills Procedure
- 2.7 Stoichiometry, Product Yield, And Limiting Reactants - Concept
- 2.8 Stoichiometry, Product Yield, And Limiting Reactants - Prep
- 2.9 Stoichiometry, Product Yield, And Limiting Reactants - Procedure
- 2.10 Redox Reactions Concept
- 2.11 Redox Reactions Prep

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#### **Basic Biology**

**List of Topics** 3.1 General Laboratory Techniques 3.2 Lab Safety

#### <u>Chemistry</u>

- List of Topics
- 4.1 General Chemistry
- 4.2 Inorganic Chemistry
- 4.3 Analytical Chemistry

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