



# Using PhET Simulations in Physical Chemistry Topics

<http://phet.colorado.edu>

## **Empirical Properties of Gases**

Gas Properties

## **Phase Equilibrium in Simple Systems**

States of Matter

## **Intermolecular Forces**

Atomic Interactions

## **Chemical Kinetics**

Reactants, Products and Leftovers

Reactions & Rates

## **Structure of Matter**

Models of the Hydrogen Atom

Davisson-Germer: Electron Diffraction

Double Wells and Covalent Bonds

Band Structure

Rutherford Scattering

## **Introduction to Quantum Mechanics**

Models of the Hydrogen Atom

Fourier Making Waves

Photoelectric Effect

Quantum Bound States

Quantum Wave Interference

Stern-Gerlach Experiment

Quantum Tunneling

## **Spectroscopy**

Lasers

Neon Lights and Other Discharge Lamps

Microwaves

Simplified MRI

## **Quantum Applications**

Davisson-Germer: Electron Diffraction

Lasers

Simplified MRI

Neon Lights and Other Discharge Lamps

Conductivity

Semi-Conductors

Nuclear Fission

## **All General Chemistry Simulations**

Alpha Decay

Atomic Interactions

Balloons & Buoyancy

Balloons and Static Electricity

Beta Decay

Blackbody Spectrum

Gas Properties

The Greenhouse Effect

Microwaves

Models of the Hydrogen Atom

Neon Lights & Other Discharge Lamps

Nuclear Fission

pH Scale

Photoelectric Effect

Radio Waves & Electromagnetic Fields

Radioactive Dating Game

Reactants, Products and Leftovers

Reactions & Rates

Reversible Reactions

Rutherford Scattering

Salts & Solubility

States of Matter

Waves on a String

## **All Quantum Chemistry Simulations**

Davisson-Germer: Electron Diffraction

Double Wells and Covalent Bonds

Fourier Making Waves

Lasers

Quantum Bound States

Simplified MRI

Semi-Conductors

Stern-Gerlach Experiment

Quantum Wave Interference