ChemReaX™ is a web app offered by ScienceBySimulation for modeling and simulating basic chemical reactions. The software is intended for chemistry students and their teachers at the undergraduate and high school (AP/IB) levels. Run a nearly unlimited variety of virtual chemical reactions and perform what-if experiments. Explore chemical thermodynamics, equilibrium, kinetics, and acid-base interactions. Or just use ChemReaX™ as a high-quality source of thermodynamic data for 1200+ chemical species.

- **ChemReaX - Simulation Dashboards**

  **ChemReaX includes two simulation dashboards for setting up and running simulations. One supports general reactions focusing on thermodynamics, equilibrium and kinetics. The second dashboard supports acid-base titrations.**

  - ChemReaX - Acid-Base Titrations
  - ChemReaX - General Reactions

- **ChemReaX - Documentation**

  The User Guide contains detailed instructions for setting up and running simulations. It also includes a brief theory of operation and numerous examples to illustrate the use of ChemReaX. References and data sources can be found under Frequently Asked Questions. The Tutorials include articles that show how ChemReaX can be used as a virtual lab in chemistry courses.

  - ChemReaX - Frequently Asked Questions
  - ChemReaX - Tutorials
ChemReaX - User Guide

What is unique about ChemReaX

ChemReaX - Virtual Lab Exercises

Each of these virtual lab exercises focuses on a specific chemistry topic and requires students to perform multiple simulations in ChemReaX (using the appropriate ChemReaX simulation dashboard above), plus additional calculations/analysis. Each exercise is structured as a quiz in Google Forms that walks students through a guided sequence of virtual lab experiments, with questions to answer along the way. Students get instant feedback and scores.

- ChemReaX Virtual Lab: Acid-Base Titration
- ChemReaX Virtual Lab: Chemical Kinetics
- ChemReaX Virtual Lab: Le Chatelier's Principle - Concentration Variations
- ChemReaX Virtual Lab: Le Chatelier's Principle - Pressure Variations
- ChemReaX Virtual Lab: Le Chatelier's Principle - Temperature Variations
- ChemReaX Virtual Lab: Limiting Reagent
- ChemReaX Virtual Lab: Phase Change
- ChemReaX Virtual Lab: Solubility and Precipitation