

Experiment Selection

- Mode
- ☒ Simulation
 - ☐ Demo Video
 - ☐ Quiz
 - ☐ Report Generation
 - ☐ Chat Assistant

Choose an experiment

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Chemical Engi

Ultimate Virtual Lab Experience

Explore 10 realistic chemical engineering experiments without physical lab access

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Key Features



Interactive Simulations

Adjust parameters and observe real-time results

Experiment Categories



Reactors



Size Reduction




Separation




Classification

Reactor Experiments




1. Isothermal Batch Reactor

Study of a non-catalytic homogeneous reaction in a batch reactor, including concentration profiles and conversion...



2. Isothermal Semi-batch Reactor


Simulation of reactions in semi-batch mode with continuous addition of one reactant.



3. Isothermal CSTR


Continuous stirred tank reactor with heat transfer analysis

Separation & Classification




5. Crushers and Ball Mill

Size reduction equipment simulation and analysis of product size distribution.



6. Plate and Frame Filter Press

Solid-liquid separation with analysis of filtration rates and cake formation.



7. Rotary Vacuum F

Continuous filtration process operation visualization.

Learning Modes



Simulation Mode

Interact with virtual equipment, adjust parameters, and observe real-time results with data visualization.



Demo Video Mode

Watch demonstration videos showing real lab procedures and equipment operation.



Quiz Mode

Test your knowledge and of experiment principles with quizzes.



Getting Started

1. Select an experiment from the sidebar
2. Choose a mode (Simulation, Demo Video, Quiz, or Report Generation)
3. Interact with the interface based on your selected mode
4. Use the chat assistant if you need help

All features are available! Select an experiment from the sidebar to begin exploring.