CHEMISTRY & ENVIRONMENT

This comprehensive set of Chemistry & Environment video resources from JoVE provides the breadth and depth needed to meet the needs of students and researchers at all levels. With videos illustrating basic and advanced concepts and methods, novel experimental research and more, this solution maximizes productivity from the classroom to the advanced research laboratory.

24/7
Access worldwide

1,500+
Chemistry & Environment videos

Improve Learning Outcomes With JoVE

Improve student engagement and learning outcomes

JoVE videos enable quick in-depth comprehension of complex Chemistry & Environment topics, improving student performance by up to 100%.[1] Videos demonstrating laboratory protocols and concepts also help science major and non-major students prepare for lab work: in studies on the effectiveness of JoVE videos, 90% reported feeling more confident in the lab.[2]

Streamline lesson planning

JoVE videos can save faculty 30+ minutes of lesson planning and facilitate success in in-person, flipped, and virtual classrooms, such as online lab courses. In addition, free syllabus maps, personalized video playlists, and customizable tests are available to support instruction.

> ***"The JoVE videos are an excellent teaching aid and can be used to support teaching of 1st year through to PhD studies, and for both text book learning as well as complex experimental procedures."***
>
> —Craig L. Bennett, MSc, Ph.D., Senior Lecturer in Molecular Biology, University of Lincoln

Accelerate Research With JoVE

Improve reproducibility and productivity

As a young researcher, JoVE's co-founder and CEO Dr. Moshe Pritsker realized that videos could capture the intricate details of complex experiments better than text alone, making them easier to replicate and improving productivity.

> ***"It [watching a JoVE video] can actually bring other researchers to the point where they can, in their laboratory, get the same results that we were getting in the JoVE publication."***
>
> —Marilene Pavan, Lab Manager at Boston University

Save time, money and resources

JoVE videos save time and money spent on travel and resources oftentimes needed to reproduce a complex experiment or learn a new technique under expert guidance. After adopting JoVE videos, Valerie Rezek, Lab Manager at UCLA, saved 2,336 work hours, 20% of lab resources, and at least $5,700 in personnel costs, based on salaries.

Enable faster onboarding and training of new lab members

JoVE videos make onboarding and training more efficient, and preserve knowledge in the lab by providing a consistent reference point for new researchers working on old or ongoing projects.

Partnering With JoVE Today

- **Free syllabus mapping and customized playlists for teaching, research and training** JoVE's staff Ph.D.'s can map JoVE content to any syllabus or lab training program and create shareable playlists.
- **Seamless integration with online learning platforms** such as Zoom, Microsoft Teams, Google Classroom, as well as learning management systems.
- **Expanding JoVE Chemistry & Environment solution** keeps up with scientific developments and automatically updates with newly released subject-specific video content and products.

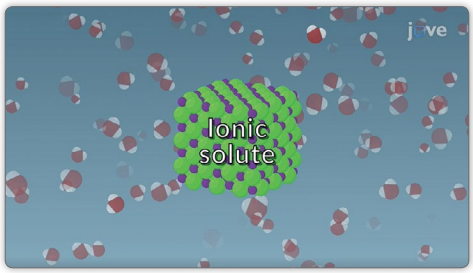
[1] Mutch-Jones, K., Sengupta, N., Minor, V. C., & Goudsouzian, L. K. (2020). Professional science education videos improve student performance in nonmajor and intermediate biology laboratory courses. Biochemistry and Molecular Biology Education. Advance online publication. [2] Ramachandran, R., Sparck, M., & Levis-Fitzgerald, M. (2019). Investigating the Effectiveness of Using Application-Based Science Education Videos in a General Chemistry Lecture Course. Journal of Chemical Education 96(3), 479-485.

jove CHEMISTRY & ENVIRONMENT CONTENT

JoVE Core

Chemistry Organic Chemistry

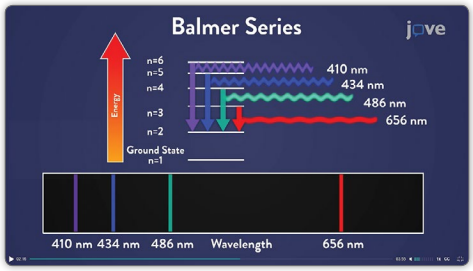
Video textbooks that bring key concepts to life through high-impact animations and scientist-in-action videos of experiments being conducted in laboratory settings. Covering topics commonly taught in General and Organic Chemistry courses, JoVE Core: Chemistry and JoVE Core: Organic Chemistry can serve as effective primary or supplementary teaching resources.



Picture from video — Electrolyte and Nonelectrolyte Solutions

JoVE Lab Manual: Chemistry

Curriculum-focused video resources which provide faculty and students with step-by-step instructions for commonly taught labs. There are three separate videos for each lab experiment, illustrating preparation for instructors, key theoretical concepts, and a protocol for students.



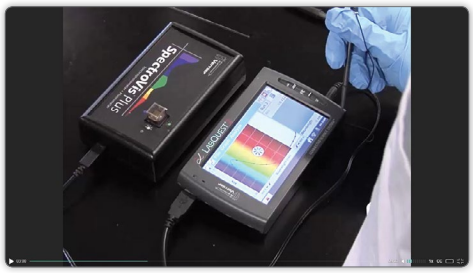
Picture from video — Balmer Series

JoVE Science Education

Chemistry Environmental Sciences

A revolutionary video library dedicated to teaching scientific fundamentals through easy-to-understand video demonstrations with text translations and subtitles in over 10 languages. Chemistry and Environmental Sciences videos capture key conceptual and methodological details that are difficult to visualize using text alone.

> ***"I found the practical experiments in particular great as they incorporate the theory and technical bits together to introduce the concept to the student in a simple yet informative way."*** — Aref Zayed, Assistant Professor, Department of Medicinal Chemistry and Pharmacognosy, Jordan University of Science and Technology

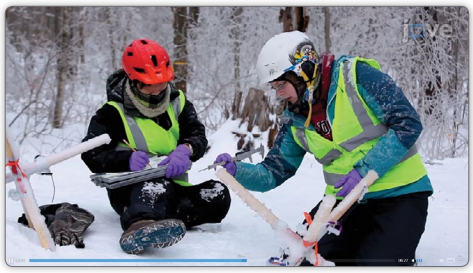


Picture from Chemistry — Purification of Ferrocene by Sublimation

JoVE Journal

Biochemistry Chemistry Environment

A peer-reviewed scientific video journal indexed in PubMed, Web of Science, SciFinder, Scopus and SCI Expanded. Scientific research is published in video form alongside downloadable text protocols, bringing to life the intricate details of experimental methods.



Picture from Environment — Simulating Impacts of Ice Storms on Forest Ecosystems