

Bringing Authentic Science to the Undergraduate Lab Experience

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This fellowship project is associated with the NSF-sponsored Center for Authentic Science Practice in Education (CASPiE), which aims to introduce students to authentic research experiences in the first- and second-year chemistry laboratory curriculum.

One thrust of the project will result in a guidebook for scientists who are adapting their research for the undergraduate laboratory courses. To supplement the lab experience, a series of workshops following the Peer-Led Team Learning (PLTL) model have been created. Additional training materials to educate graduate teaching assistants about research-based laboratory teaching will be developed.

The project's second thrust investigates the properties of bio-modified electrodes as possible components in hydrogen-producing photoelectrochemical systems. Research into solar hydrogen production will be incorporated into a CASPiE laboratory module, providing an opportunity to integrate the research and educational components of the project.

