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Technology in Hybrid Learning: Improving Science Education at UNLV

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Technology in Hybrid Learning: Improving Science Education at UNLV

Jennifer Guerra, Ph.D., College of Sciences

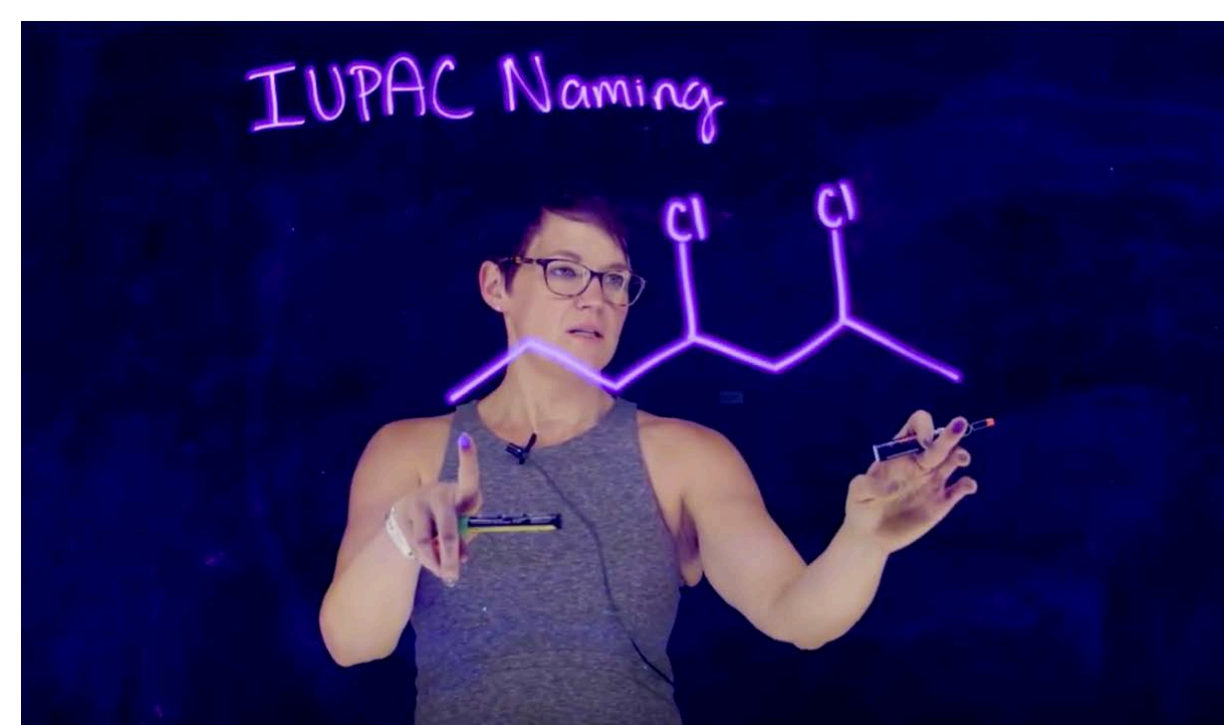
UNLV

Best Teaching Practices Expo 2020

The practice and the need it addresses

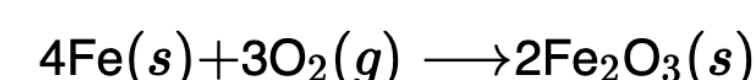
Teaching Practice

- Integrating light board content gives students a more personal experience that is often lost in online learning.



- H5P allows for integrated and interactive content in video lectures that allows for problem solving experiences (with light board guided solutions) that mimic the traditional lecture experience.

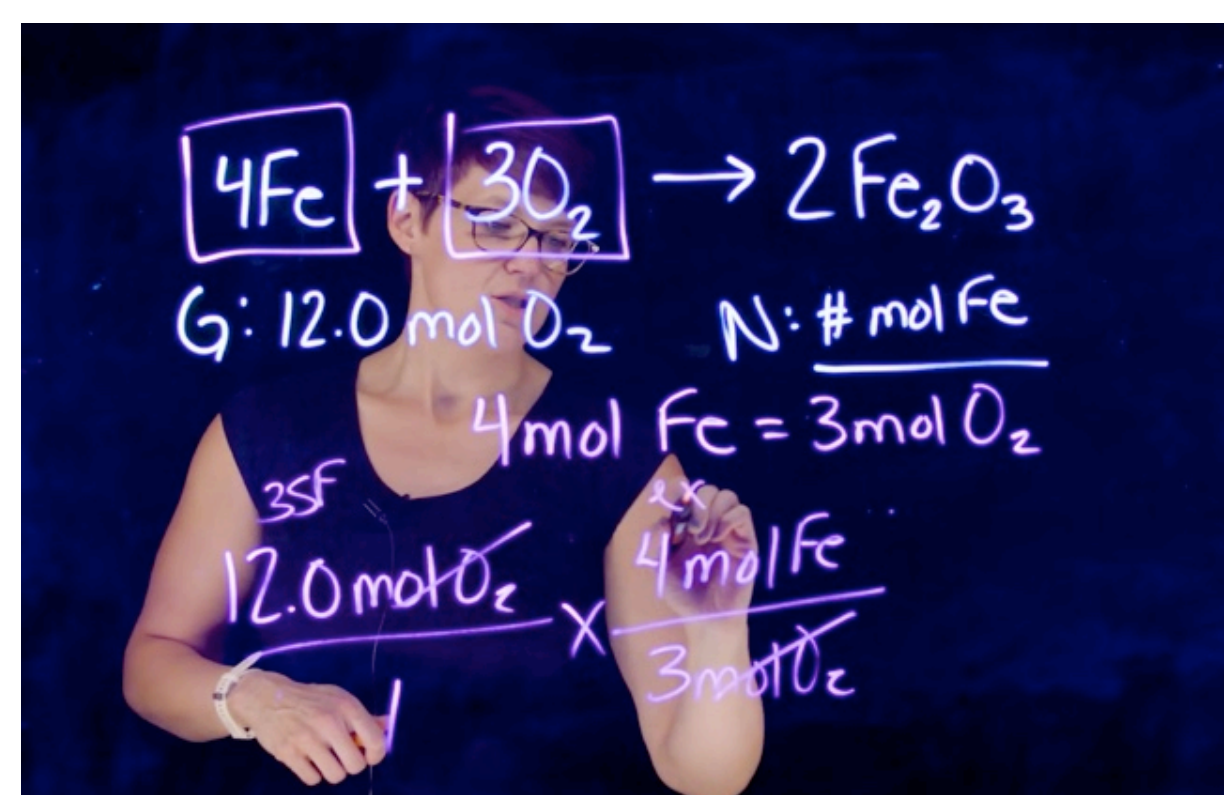
How many moles of Fe are needed for the reaction of 12.0 moles of O₂?



3.00 moles of Fe

16.0 moles of Fe

9.00 moles of Fe



Evidence this practice benefits UNLV Students

Student Testimonials

- "I loved this hybrid class. I can re-watch the lecture as many times as I wanted or needed to. There were resources, and the syllabus was clear. I especially love the little quiz in the video and wish there was more of them."
- "I really enjoyed the online lecture videos. It's nice to be able to pause or rewind the video to take notes and keep up. I also appreciated the intermittent quizzes throughout the lecture videos to ensure we are paying attention and following along. Overall, the class was one of the best classes I've taken. It was a well-rounded chemistry class."

Results

- The majority of the students taking this course need a B or higher for their program of study
- Early data shows a 15% increase in the A/B completion grades
- Successful completion drives the university RPC initiative

Resources and where to find them

Online Learning Tools

UNLV ONLINE EDUCATION

Ben Root, Instructional Applications Programmer, Office of Online Education



Matt Anderson, [James Frazee](#) and Michael Peshkin (2018). Reframing Learning with Learning Glass and Lightboard. Educause Review.

Brame, C.J. (2015). Effective educational videos. Retrieved [Dec 30 2019] from <http://cft.vanderbilt.edu/guides-sub-pages/effective-educational-videos/>

Southward, Sheryne M. and Young, Karen (2018) "An Exploration of Online Students' Impressions of Contextualization, Segmentation, and Incorporation of Light Board Lectures in Multimedia Instructional Content," The Journal of Public and Professional Sociology: Vol. 10: Iss. 1, Article 7

How other UNLV teachers might adopt this practice

Start Small

- H5P has many options and types of modalities for creating content and is free and open technology
- Content can be standalone or can be incorporated into lecture videos that have already been developed
- H5P content can also be incorporated into the Canvas LMS
- Workshops through The Office of Online Educations

Transitioning to more interactive and online components can be intimidating, but the benefits to students are readily apparent and the resources at UNLV make it a manageable process.

