

**MATERIALS SCIENCE AND ENGINEERING (MS&E) SEMINAR SERIES**

Friday, November 20, 2020 at 3:00 pm via Zoom

[https://wvu.qualtrics.com/jfe/form/SV\\_80QQi6E8CUXmzwF](https://wvu.qualtrics.com/jfe/form/SV_80QQi6E8CUXmzwF)**“A Chemist Among Engineers”****Harry Finklea**, Professor Emeritus, C. Eugene Department of Chemistry, WVU

**Abstract:** Electrochemistry is at the heart of energy conversion technologies (batteries, fuel cells), corrosion, wastewater treatment and material science. It is natural then that an electrochemist would find many opportunities to contribute to engineering projects. This presentation will cover my teaching experience, research experience before collaborating with engineers, and most especially the multiple research projects with engineering faculty, postdocs and students. My goal is to provide you with a perspective of how collaboration across disciplines yields benefits in terms of education, productivity, publications, and funding.



**Biography:** Professor Finklea received his PhD in Chemistry from the California Institute of Technology in 1976. His postdoctoral studies were continued at the Royal Institution of Great Britain in London, the University of North Carolina at Chapel Hill, and Florida Atlantic University in Boca Raton. He started as a faculty member at the Virginia Polytechnic Institute & State University and moved to West Virginia University in 1986. During 2001-2007, he served as the Chair of the Chemistry Department at WVU. After retiring in 2017, he has remained active in research with an office and a lab in the Chemistry Dept. Previous research areas include semiconductor electrodes, semiconductor liquid junction solar cells, self-assembled monolayers on electrodes, long range electron transfer at electrodes, and proton-coupled electron transfer. Major research products in that period include editing a book (Semiconductor Electrodes, Elsevier) and writing a review on self-assembled monolayers that has been cited 931 times. Collaborations with engineers have covered a wide range of topics such as electro sorption of uranium on carbon fibers, solid oxide fuel cells, electrochemical cleaning of graphene, electrophoretic deposition of powders, hot corrosion, lithium sulfur batteries, desalination using electrodialysis, water treatment chemicals from brine electrolysis, and extraction of critical materials from acid mine drainage sludge.

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