

The Department of Mechanical Engineering presents:

Dr. Donald Lucas

Deputy Director

*EH&S Division & Investigator in The Environmental Energy
Technologies Division in the Lawrence Berkeley National Laboratory*

University of California, Berkeley

Friday, October 23rd

11:10AM-12:00PM

Bourns Hall A265

New Fuels, New Issues

Abstract: Changing fuels and combustion systems can result in very different emissions, especially when air quality, human health effects, and groundwater contamination are considered. Testing fuels is not a trivial task, even for relatively simple stove designs used in rural areas of China and India, much less for engines in sophisticated modern vehicles.

New fuel blends, additives, and bio-based fuels can have quite different properties and emissions from conventional fuel, and the emissions that lead to observed human health effects are not well understood, especially for nanoparticles.

Bio: Donald Lucas is the Deputy Director of the EH&S Division and an investigator in the Environmental Energy Technologies Division at the Lawrence Berkeley National Laboratory. He also is a researcher in the School of Public Health and an Affiliate in the Energy and Resources Group at UC Berkeley. His research interests include pollutant formation from combustion systems, techniques to measure these pollutants (including the use of engineered nanomaterials), and the health effects associated with these emissions. He has a Ph.D. in physical chemistry from UC Berkeley, and works with researchers in the Department of Mechanical Engineering, the Environmental Health Sciences Division of the School of Public Health, and the Energy and Resources Group at UCB.

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