

Sheldon H.D. Lee

Chemical Engineer

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**Professional
Experience**

- Engineering design, installation, and testing of a micro-reactor test facility for steam reforming of ethanol at elevated pressures for distributed hydrogen production
- Engineering design and installation, laboratory setup and testing, and data analysis for FASTER (Feasibility of Acceptable Start-Time Experimental Reformer) test facility
- Design, fabrication, and installation of integrated methane reformer system based on Argonne autothermal reforming technology
- Design, fabrication, installation, and testing of engineering-scale integrated fuel-flexible fuel processor based on catalytic autothermal reforming
- Development of a regenerable sorption process to remove carbon monoxide from reformat fuel gas for polymer electrolyte fuel cells in transportation applications
- Testing of the partial oxidation reformer to develop reforming catalysts for hydrocarbon fuels and determine engineering parameters needed for scale-up
- Coal combustion studies (volatility of trace elements in coal and alkali emissions from coal combustion)
- Development of process to remove gaseous alkali metal compounds from hot pressurized fluidized-bed combustion flue gas

**Professional
Society
Activities**

- American Chemical Society
- Honor Society of Phi Kappa Phi
- Fuel Chemistry Division of American Chemical Society

Awards

- Argonne Quality and Safety Recognition Award 2004
- Pacesetter Award 2002
- Pacesetter Award 1997

Publications

- 2 patents

Education

- PhD, Fuels Engineering, University of Utah
- BS, Metallurgical Engineering, Cheng Kung University, Taiwan