

Magali Ferrandon

Argonne National Laboratory
Chemical Sciences and Engineering Division
9700 South Cass Avenue, Building 205
Argonne, IL 60439
phone: 630/252-6260, fax: 630/252-4176
e-mail: ferrandon@anl.gov

Professional Experience

- **2005-Present.** Assistant Chemical Engineer, Catalysis and Energy Conversion Group, Chemical Sciences and Engineering, Argonne National Laboratory
- **2002-2005.** Postdoctoral Appointee, Fuel Cell for Transportation, Chemical Technology, Argonne National Laboratory

Research Experience

- Investigated the chemical and physical mechanism using scanning electron microscopy (SEM) that led to degradation of Ceramatec's cell performance over time for high-temperature steam electrolysis
- Studied various techniques to deposit a low amount of Pt on aligned carbon nanotubes to reduce the Pt high cost in the polymer electrolyte membrane fuel cell stack
- Investigating the hydrolysis reaction in the Cu-Cl thermochemical cycle, to understand the mechanism and optimize operating parameters using thermogravimetric analysis characterization and reactor design
- Synthesized and characterized novel fuel reforming catalysts for hydrogen production, with improved activity, thermal stability and resistance to sulfur
- Built and operated reactors for the catalytic activity study for auto-thermal reforming of fuels and water-gas shift reaction
- Investigated the effects of catalytic supports and metals interaction using conventional and advanced characterization tools such as BET, XRD, ICP, SEM, and EXAFS

Education

- PhD, Chemical Engineering, Royal Institute of Technology; Stockholm, Sweden, 2001
- MS, Chemical Engineering, ENSSPICAM; Marseille, France, 1995

Awards

- Best Poster Award Honorable Mention, Fuel Cell Seminar (2005)

Professional Society Affiliations

- Member, Catalysis Club of Chicago
- Member, American Institute of Chemical Engineers

Publications

- 9 Publications
- 3 Abstracts and Proceedings Papers
- 5 Presentations