

Published on *Joint Center for Energy Research* (<http://www.energy.psu.edu/jcer>)

[Home](#) > [Personnel](#) > Michael Janik

Michael Janik



Associate Professor, Chemical Engineering

Email: mjanik@psu.edu

Research Areas:

- Computational Design of Catalysts and Electrocatalysts

Research Methods:

- Computational algorithms based on quantum mechanics
- Novel approaches to including electrode potential variation

Research Applications:

- Electrocatalysis:
 - Borohydrides & Alkaline Cells
 - Hydrocarbons & Solid Oxide Cells
 - Oxygen Reduction at the Electrode-Membrane Interface
- Heterogeneous Catalysis:

- Reforming for H₂ production
- Catalytic combustion
- Selective transformation in zeolites
- High temperature desulfurization
- Complex interfaces
- Alloy Design
- Aqueous Environments

©2015 [EMS Energy Institute](#), [The Pennsylvania State University](#) | [Privacy and Legal Statements](#) | [Copyright](#) | [Accessibility Help](#)

This site is maintained by the EMS Energy Institute. If you have questions about this site, please contact eiwebmaster@ems.psu.edu

Source URL (retrieved on 01/24/2015 - 22:45): <http://www.energy.psu.edu/jcer/personnel/MichaelJanik>