

UNDERGRADUATE RESEARCH INTERNSHIPS IN ALTERNATIVE FUEL TECHNOLOGY

NOVEL EXPERIMENTS

Use cutting edge technology to characterize porous carbon.

Including

- Scanning Electron Microscopy
- Hydrogen, Methane and Nitrogen Adsorption
- X-ray scattering



- Would you like to become a leader in alternative energy technologies?
- Would you like to help develop the fuel tank for the next generation of clean vehicles?
- Would you like to help reduce oil imports?
- Would you like to help convert a pollutant into a renewable energy source?

INSPIRED THEORY

Use well founded theory to explore the nature of gas adsorption. Learn how molecular dynamics simulations can be used to optimize the carbon's pore network.

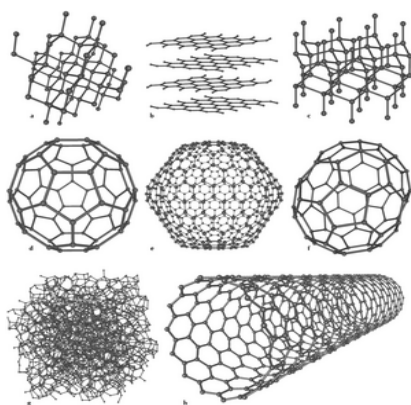
The Alliance for Collaborative Research in Alternative Fuel Technology, **ALL-CRAFT**, led by the University of Missouri-Columbia (MU) and funded by the Department of Energy and California Energy Commission, invites you to apply for a research internship for Summer 2012, May 28 - July 27 (9 weeks), and/or for the academic year 2012/13, in one of the labs associated with **ALL-CRAFT**.

University of
Missouri, Columbia

Summer 2012 &
Academic Year
2012/13



Internship Features and Benefits



We are developing storage technologies for natural gas and hydrogen, based on a nanoporous biocarbon made from waste corncob and synthetic materials, for fuel tanks in clean automobiles, collection of natural gas from landfills, and large-scale shipping of natural gas from Alaska. Interns will be able to use cutting edge experimental equipment under the tutelage of seasoned experimentalists. Typically students will have a chance to visit the Advanced Photon Source at Argonne National Lab to run X-ray scattering

experiments. Student technicians will be taught the basics of gas adsorption, x-ray scattering and electron microscopy. Interns will leave with a better understanding of physics, chemical engineering, experimental design, theoretical modeling and the workings of a government funded laboratory.

Internship Details

- **ELIGIBILITY:**
Undergraduates should have a math/science/engineering background, an interest in pursuing a major in one of these areas. They should also be interested in interdisciplinary work, transforming scientific discoveries into technological innovations, and helping build a sustainable world. Students from under-represented groups are strongly encouraged to apply.
- **PAY:**
Summer internship: Stipend of \$3,000, one hour of academic credit.
Academic-year internships: Stipend of \$1,000, three hours of academic credit.
- **DEADLINES:**
Summer internships: April 20, 2012, or until positions are filled.
Academic-year internships: May 18, 2012, or until positions are filled.

"Working in the lab was a wonderful learning experience for me"

Carol Faulhaber, former undergraduate intern



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CONTACT

Submit application form and a copy of transcripts to:

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For more information please visit us on the Web at:
<http://all-craft.missouri.edu/>