



THE FLORIDA STATE UNIVERSITY OFFICE OF IP DEVELOPMENT & COMMERCIALIZATION

Technology Opportunity



High Efficiency Ion Exchange in Zeolites

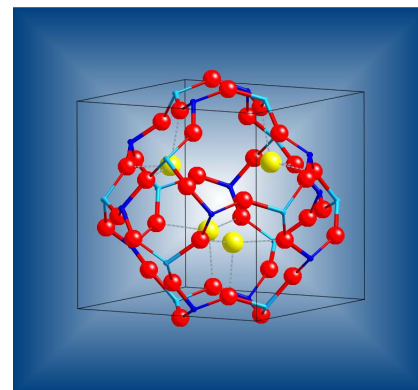
Aqueous ion exchange in zeolites is currently hindered by the acidic byproducts that deteriorate the zeolite structure. This invention improves the ion exchange efficiency in zeolites by utilizing polymer solutions that do not damage the zeolite network. The result is an efficient zeolite that is ideal for ion exchange, catalysis, and gas exchange.

Applications

- Industries that use ion exchange, i.e., nuclear power, petroleum processing, etc.
- Lithium-ion batteries
- Gas exchange

Advantages

- Increased ion exchange efficiency than zeolites with aqueous solutions
- Ion exchange efficiency further increased by the use of zeolites with lower Si/Al ratio
- Operation at intermediate temperatures unlike molten salts



The Inventors

Susan Lattuner is a professor in the Department of Chemistry and Biochemistry at Florida State University. She conducts research in the areas of intermetallics for hydrogen storage. Recently, her work has expanded into using polymers as ion exchange solvents. She currently has 10 publications.



Gina Canfield is a graduate student in the Department of Chemistry and Biochemistry at Florida State University. Below is a picture of the inventors' team.



Contact

Office of IP Development & Commercialization

2010 Levy Avenue, Suite 276-C

Tallahassee, FL 32306-2743

Jack Sams / E-mail: jsams@fsu.edu

Ph: (850) 644-8637

Fax: (850) 644-3675



THE FLORIDA STATE UNIVERSITY
OFFICE OF IP DEVELOPMENT & COMMERCIALIZATION

www.techtransfer.fsu.edu