

Post-Doctoral Research Associate Position Available

McKetta Department of Chemical Engineering
The University of Texas at Austin
Austin, TX 78746

A post-doctoral research position is available immediately in the area of **polymer membranes** and **ionic liquids** for the separation of salts from aqueous solutions with the ultimate goal of purifying shale gas produced wastewater for agricultural use and potentially extracting valuable resources, such as lithium. The project is supported by the Department of Energy Advanced Manufacturing Office Rapid Advancement in Process Intensification Deployment (RAPID) program. The position will involve design, possible synthesis/fabrication, and testing of reverse osmosis (RO) and forward osmosis (FO) membranes, with a focus on high water flux and low flux of conventional salts, ionic liquids and other contaminants. Thermodynamic analysis, including osmometry, will play a critical part in the project. The Post-doc will work with and mentor a graduate student researcher, and have the opportunity to interaction with other academic and industrial partners on the project. Excellent oral and written communication skills are necessary. The ideal candidate would have experience with membrane preparation and characterization, as well as permeation testing. Familiarity with ionic liquids would be beneficial. Experience with NMR, EIS, SEM, DSC and TGA is desired. He/she should have a **Ph.D.** in Chemical Engineering or a related field. Duration of the appointment is one year. Salary will be commensurate with experience and background. Please send CV and the names, affiliations and email addresses of three references to:

Benny Freeman

or

Joan F. Brennecke

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Evaluation of applications will commence immediately, and the search will continue until a suitable applicant is found.