

ACS Fall National Meeting, August 2007, Boston, MA
Session: Inorganic Membranes for Energy and Environmental Applications

Technological advances will play a vital role in reaching our energy and environmental goals, and advanced inorganic membrane technology is a key research avenue to a clean, secure energy future. The aim of the sessions is to facilitate presentation, discussion, and diffusion of knowledge and technical know-how on the development and applications of inorganic membrane technologies to a variety of researchers, end users, and energy and environmental industry sectors. The role of inorganic membrane technologies in clean power generation, future hydrogen economy, and a technology-based response to global climate change concerns will be emphasized.

Contributions are invited in the following areas.

Applications of Membranes to Gas Separation Processes

Ion-Transport Membranes
Advanced Concepts in Metal, Metal-Alloy, and Cermet Membranes
Hybrid Membranes, Other Dense Membranes, and New Concepts and Applications
Advances in Zeolite Membranes

Applications of Inorganic Membranes to Power Production and Carbon Management

Approaches to Carbon Dioxide Mitigation using Inorganic Membranes
Inorganic Membrane Reactors for the Conversion of Coal to Synthesis Gas
Inorganic Membrane Reactors for the Conversion of Natural Gas to Synthesis Gas
Process Intensification via Coupled WGS Reaction and Hydrogen Separation in Membrane Reactors

Inorganic Membrane Reactor Design, Catalysis, and Advanced Materials

Design of Catalytic Membrane Reactors – Principles and Applications
Gas Separation Module Design and Integration Schemes in Energy Plants
Intrinsically-Catalytic Membranes and Surface Exchange Reaction Catalysis
Novel Membrane Materials

Please contact the following co-organizers for inquiries and submissions.

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