# AIChE<sup>®</sup> Rocky Mountain AIChE News

#### May 2020

# May Section Meeting: Natural Gas Hydrates in Energy, Recovery, Transportation, and Storage

Natural gas hydrates are solid inclusion compounds comprised of a threedimensional network of hydrogen-bonded water cages that can trap small gas molecules, such as methane and carbon dioxide. The ability to control (prevent or promote) gas hydrate crystal growth processes is important in several energy applications. During the production and transportation of oil/gas in subsea flowlines, gas hydrates can present a major problem blockages the flowline. forming in Conversely, gas hydrate technologies may be developed for energy storage of fuels in gas hydrate crystals, or as an alternative potential energy resource from naturally occurring hydrate deposits. This presentation will provide an overview and the state-of-the-art of gas hydrates in the different energy applications. Highlights of the research activities being performed in the Colorado School of Mines, Center for Hydrate Research will be presented. These activities include the investigations of the nucleation and growth processes and inter-particle interactions of gas hydrate crystals at high pressure and low temperature conditions; different synthesis conditions for the

#### Volume 29 Number 8

## **Topic:** Natural Gas Hydrates in Energy Recovery, Transportation, and Storage **Speaker:** Dr. Carolyn Koh, William K. Coors Distinguished Chair of the Chemical and Biological Engineering Department at Colorado School of Mines Date: Tuesday, May 12 \*\*\* SECOND Tuesday \*\*\* Time: 6:30 – Introduction 6:45 – Presentation 7:45 – Questions & Answers Cost: Free Location: Online Webex meeting Meeting Link: Webex May 12 Meeting Meeting ID: 797 388 934 **Meeting Pswd:** RMS-MoMtg-2020 Meeting moderator: Dr. Junpin Yao

May Section Meeting

**RSVP REQUIRED by Friday, May 8** (early RSVPs are greatly appreciated!) You may RSVP via email at <u>rms.webmeetings@gmail.com</u> indicating your name, phone number, and number of attendees. More information including the Webex login can be found on page 2 and on our <u>website</u>. production of gas hydrate slurry systems or stable/metastable clathrate hydrate phases. These studies can help further our knowledge for developing clathrate materials for storage and other technologies.



Dr. Carolyn Koh earned a Bachelor of Science in Chemistry and a Ph. D. in surface chemistry and catalysis from the University of West London in the UK, and conducted postdoctoral research and training at Cornell University. Among her many awards and recognitions, Koh is a Fellow of the Royal Society of Chemistry.

Dr. Koh joined the Chemical and Biological Engineering Department at Colorado School of Mines in 2004 as an associate professor, after beginning her career at King's College London University, and was promoted to professor in 2012. She was co-director of the Center for Hydrate Research from 2005 until 2014, when she became its director. In 2016 named William K. Coors she was Distinguished Chair of the Chemical and Biological Engineering Department at Colorado School of Mines.

## MAY MEETING LOGIN

When it's time, join the Webex meeting here.

Meeting number (access code): 797 388 934 Meeting password: RMS-MoMtg-2020

Tuesday, May 12, 2020 6:30 pm | Mountain Daylight Time

# Join meeting

#### Join by phone

Tap to call in from a mobile device (attendees only)

1-866-469-3239 USA Toll Free

+1-650-429-3300 USA Toll Global call-in numbers | Toll-free calling restrictions

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AIChE Meetings		
	2020	
May 13	Live Webinar: <u>Risk</u> <u>Reduction Through</u> <u>Quantitative Risk</u> <u>Assessment</u>	
May 20	Live Webinar: <u>Digital Reliability</u> 24/7 Real-time <u>Machinery</u> <u>Diagnostics</u>	
May 27	Live Webinar: <u>Computer-Aided</u> <u>Process</u> <u>Intensifications:</u> <u>Challenges, Trends,</u> <u>Opportunities</u>	
June 1-3	<u>Virtual Process</u> <u>Development</u> <u>Symposium</u>	
June 17	Live Webinar: <u>Exploring</u> <u>Electrophoresis</u> <u>Using COMSOL</u> <u>Multiphysics</u>	
June 22-25	2020 Synthetic Biology: Engineering, Evolution and Design (SEED)	
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Rocky Mountain AIChE News is published eight times a year by the Rocky Mountain section of AIChE. Opinions expressed herein are those of the authors and are not necessarily those of AIChE nor the officers of this section.

The objectives of AIChE are to advance chemical engineering in theory and practice, to maintain a high professional standard among its members, and to serve society, particularly where chemical, engineering can contribute to the public interest. AIChE Rocky Mountain is a public non-profit 501(c)(3) organizations and thus any and all donations are tax deductible.

## Rocky Mountain AIChE News Publication Schedule

September 2020 Issue Publish on Friday, September 4 Meeting on Tuesday, Septebmer 15

# **MEETING SCHEDULE**

The Rocky Mountain District of AIChE generally meets the second or third Tuesday of every month, September through November and January through May.