

Rocky Mountain AIChE News

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December Section Meeting: Techno-economic Assessment of Algae Biomass Cultivation and Conversion

The use of microalgae for the production of biofuels and bioproducts is highly desirable in a circular economy as a potential source of carbohydrates, lipids, and proteins in the quest to decarbonize the fuels and chemical industries. While other biobased feedstocks are already converted into a large suite of products in biorefinery concepts, this still remains to be true for microalgae biomass. To help understanding the effect that multiple criteria would have on future algae-based biorefineries, it is imperative that researchers in the field be able to determine where to best focus efforts for increased chances of economic viability. In this context, this presentation will provide an overview of current efforts tied to microalgae biomass cultivation and conversion from a techno-economic assessment (TEA) standpoint. Focus will be given on recent developments concerning algae cultivation trials; on harnessing several low-cost algae resources ("waste" biomass) to produce renewable fuels and chemicals; and on showing the effect of biomass compositional profile on different algae biorefining setups.

December Section Meeting

Topic: Techno-economic Assessment of Algae Biomass Cultivation and Conversion

Speaker: Bruno Klein, National Renewable Energy Laboratory

Date: Tuesday, December 13th

Time: 6:00 – Introduction
6:05 - Career Discussion
6:15 - Technical Presentation
7:15 – Q & A

Cost: Free

REGISTRATION REQUIRED. More information can be found on our [website](#).

[Register](#)

After you register, you will receive instructions via email for joining the meeting.



VOLUNTEER AS A YOUNG PROFESSIONAL LIAISON (YPL)

We are looking for Young Professional Liaisons for each state – CO, NM, WY, SD & MT. Please send nominations to any section officer listed below.

Speaker Biography: Bruno Klein is a research engineer in the Economic Sustainability & Market Analysis group of the National Renewable Energy Laboratory (NREL). Prior to joining NREL in 2019, Bruno worked for six years at a Brazilian national laboratory with the assessment of biomass conversion through various technologies. His research interests include conceptual process design, process integration, and simulation; sustainability assessment; biochemical conversion process pathways; and algal biomass production and conversion.



AIChE Meetings

2022

- Dec 9-11 [5th International Conference on Microbiome Engineering](#)
Boston, MA
- Dec 9-11 [6th Int'l Conference on Plant Synthetic Biology, Bioengineering, and Biotechnology](#)
Ft. Lauderdale, FL
- Dec 14-16 [7th Bioengineering and Translational Medicine Conference](#)
Boston, MA
- Jan 8-11 [ICBE 2023 – 12th Int'l Conference on Biomolecular Engineering](#)
Santa Barbara, CA
- Mar 12-16 [2023 Spring Meeting & 19th Global Congress on Process Safety](#)
Houston, TX

National AIChE Contact Info

AIChE Customer Service Center:
(US/Canada): 1-800-AIChemE
(1-800-242-4363)
(International): 203/702-7660
E-mail: CustomerService@aiche.org
Member Services: 800.242.4363
Career Services: 646.495.1330
Awards & Honors: 646.495.1317
Address: 120 Wall Street, 23rd floor
New York, NY 10005
Web Page: <http://www.aiche.org>

Rocky Mountain Local Section AIChE Officers

Marc Paffhausen	Chair	406/544-5871 marcpaff43@gmail.com
Nick Skadberg	Program Chair	970/690-7227 nick@skadberg.us
Pete Sharpe	Treasurer	713/409-7360 Pete.Sharpe@emerson.com
Mike Mutnan	Secretary	303/423-1586 michaelmutnan@live.com
Kevin Milliman	Director	303/515-1027 Kmilliman94@gmail.com
Mike Moes	Communication	303/915-1238 mmoes@ekiconsult.com
Dr. Corey Leclerc	New Mexico Liaison	575/835-5293 corey.leclerc@nmt.edu
Kevin Cash	Colorado Liaison	303/273-3631 kcash@mines.edu
Kate Morrissey	Montana Liaison	406/994-2289 kathryn.morrissey1@montana.edu
Dr. Patrick Johnson	U of Wyoming Liaison	303/766-6524 pjohns27@uwoyo.edu
Dr. Christie Peebles	CSU Liaison	970-491-6779 christie.peebles@colostate.edu
Stephanie Kwon	Colorado Young Professional Chair	mkwon@mines.edu
Open	Liaison for other states including South Dakota and Wyoming	
Laura Moes	Editor and Web Admin	303/770-2432 lauramoes@msn.com

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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.

MEETING SCHEDULE

The Rocky Mountain Local Section (RMLS) of AIChE generally meets the second or third Tuesday of every month, September through May.