

2023 PRACTICAL SHORT COURSE

Hosted by

Amalgamated Research, LLC

ADSORPTION, ION EXCHANGE & INDUSTRIAL CHROMATOGRAPHY

June 8, 2023

Magic Valley Arts Council

Twin Falls, Idaho USA



Why Attend?

The short course instructors will provide basic information required for understanding operations and process design related to adsorbent-based separation technologies that use fine granulated media (adsorption, ion exchange and industrial chromatography). This includes providing instruction on the required pretreatment of feed material and post-treatment of effluent streams.

Additionally, the course provides opportunities to create your own network of experts and industry suppliers and obtain information on all aspects of resin-based processes, ranging from bench scale studies to industrial commercialization. A focus is placed on the practical aspects of adsorbent-based technologies required for successful integration into industrial processes.

An industrial tour will provide the opportunity to observe pilot demonstrations at an active research and development facility and have a detailed discussion on the specifics of process operations and design.

Lastly, sufficient time is provided for interactions between the participants in an informal environment.



Short Course Topics and Outcomes

- Basic principles of adsorbent-based separation technologies and topics related to system design, equipment configurations, process economics, and practical applications.
- Major challenges for process and equipment design for ion exchange, adsorption and large-scale chromatography.
- Overview of membrane filtration technology and its use as pre-treatment and post-treatment to resin technologies for the food, sugar, sweetener, and biotech industries.
- New advances in equipment, media and process design for ion-exchange and large-scale chromatography technologies.
- Demonstrations of pilot and industrial equipment, including membrane filtration, ion exchange and SMB chromatography.
- Networking opportunities with leading experts in the industry.



Thursday June 8, 2023

8:00 AM	Welcome and introduction (Vadim Kochergin – President, ARi)
8:10 AM	Increasing importance of industrial absorbent-based separations (Vadim Kochergin)
8:40 AM	Filtration – important pretreatment for separations with granular media (Carl Christian Radinger – CEO Putsch GmbH)
9:10 AM	Membrane filtration as pre- and post-treatment for resin technologies (Scott Wittwer – Product Manager, Graver Technologies)
9:40 AM	BREAK
10:00 AM	Resin technologies – resin chemistry and application to separations (Rick Muschi – Sales & Marketing Manager, Itochu Chemicals USA)
10:30 AM	Ion exchange in chemical industries and hydrometallurgy (Rudolf Weinand – CEO, Chemra GmbH)
11:00 AM	Adsorption, ion exchange and SMB chromatography – basic theory (Peter Ferrero – Project Manager, ARi)
11:30 AM	LUNCH
12:30 AM	Optimization of process design for ion exchange and chromatography separations (Peter Ferrero)
1:00 PM	Design challenges of ion exchange and industrial chromatography equipment (Oliver Tzschatzsch – Managing Director, ESCON GmbH)
1:30 PM	Importance of fluid distribution and fractal-based equipment (Steve Peacock – Director of Process Research, ARi)
2:00 PM	Design of energy efficient evaporator stations (Oliver Tzschatzsch)
2:30 PM	Tour of ARi pilot facility
5:00 PM	“Mixer” at Venue

Registration Information

Registration Fee: \$895

(A discount of 20% is given to companies sending two or more representatives)

To register, please email the following information to ddaniels@arifractal.com

Full Name, Title, Company, Address, Telephone

Credit Card Type (V or MC)

CC Number - CC Security Code - CC Expiration

Date - Name on Card - Billing Address

Venue:

The short course will be held at the Magic Valley Arts Council located at 195 River Vista Place, Twin Falls, ID located inside Elevation 486 Building.

Accommodations:

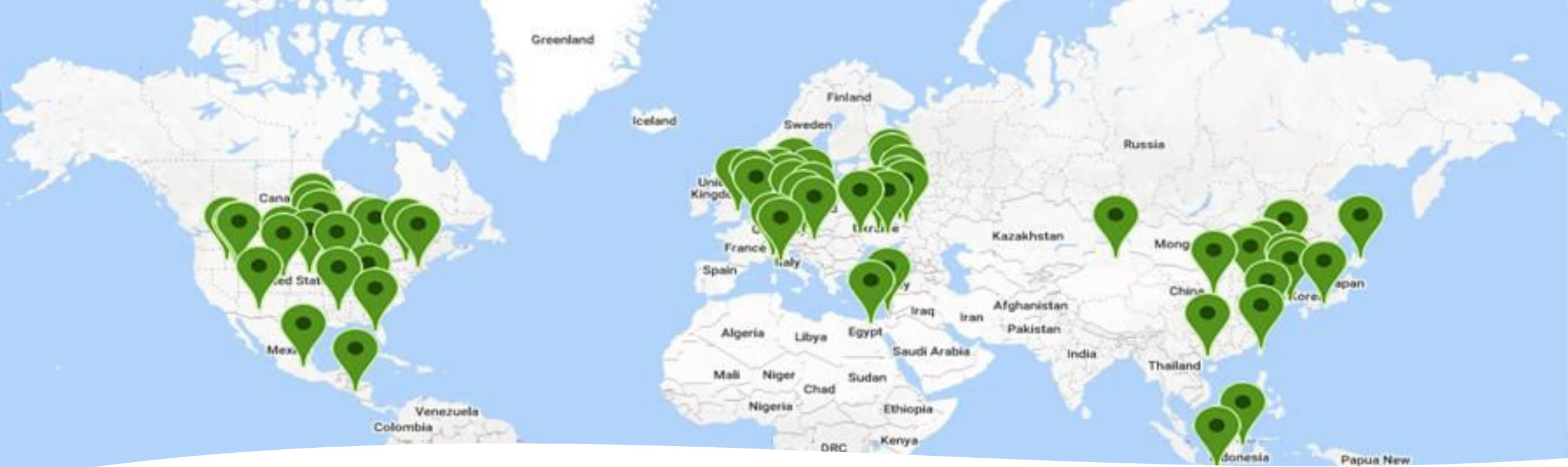
Rooms have been blocked at the Fairfield Inn & Suites (1788 Washington St N, Twin Falls, ID



83301). The rate is 129 USD/night with a booking deadline of May 7, 2023. Please use the attached reservation link (QR Code).

Cancellation Policy:

The meeting organizers reserve the right to restrict numbers as necessary or cancel a course if there is insufficient support. In this event, you will be notified immediately. The organizers are not responsible for the purchase of nonrefundable airline tickets or the associated cancellation/change fees.



About Us

Amalgamated Research LLC (ARi) has been providing services and technology to customers worldwide for 40 years.

Based in Twin Falls, Idaho, ARi is a subsidiary of Amalgamated Sugar Company, and is a leader in providing high-efficiency separation, mixing, and distribution technologies

ARi installed its first industrial scale, simulated moving bed (SMB) chromatography system in 1981, and in 1992 became the first company in the world to manufacture fractal-patterned fluid distributors for industrial use. Since that time, ARi has installed SMB and other separation systems for a variety of markets worldwide (i.e., sweeteners, petrochemical, water treatment, hydrometallurgy, and protein separations applications).

ARi's separation systems and fractal technology are installed in more than 20 countries.