



Rocky Mountain AICHE News

September 2003

Volume 13 Number 1

September Section Meeting - Solid-Liquid Extraction in the Natural Products Industries

Many industries, including food, cosmetics, pharmaceuticals, and specialty chemicals, utilize ingredients that are extracted from botanical materials. Extracting or leaching chemicals from botanical raw materials involves understanding equilibrium and mass transfer principles, the chemical properties of the extracted compounds, and the physical properties of the botanical raw material. Once these are known, then the appropriate equipment and operating conditions can be selected to achieve cost-effective recovery.

Dr. Gertenbach will discuss the fundamental principles for solid-liquid extraction of botanicals, then discuss the various types of equipment available to the manufacturer. Both dispersed phase and percolation technologies are used commercially, and the selection depends on a wide variety of factors covered in this presentation. Also discussed is the necessary ancillary equipment, including grinding and solvent recovery operations.

Hazen Research has been in operation since 1961, providing technical information for industrial clients. Hazen's major business is performing experimental work to develop new processes for the chemical, mineral, energy, and environmental industries. Projects ranged in scope from short-term, bench-scale experiments to extensive continuous pilot plant demonstrations. In addition, the company provides preliminary engineering, modular plant construction, and trouble-shooting services for large and small operating plants.

The staff at Hazen includes engineers, chemists, scientists, technicians, machine shop, and office personnel. Experiences include commercial plant operations, laboratory research and development, process design, construction, and pilot plant operation. Hazen is an employee-owned company with about 70 employees.

September Section Meeting

Speaker: Dennis Gertenbach, Ph.D.
Vice President
Hazen Research, Inc.

Topic: Solid-Liquid Extraction in the
Natural Products Industries

Date: Tuesday, September 16th

Time: 6:30 p.m. Tour begins
7:30 p.m. Dinner begins
8:00-8:45 p.m. Presentation

Tour Location: Hazen Research
4601 Indiana Street
Golden, CO

Dinner Location: Fairmount Bible Church
15100 W. 48th Ave.

Menu: BBQ chicken and pork

Cost: Non-Members: \$18
Members: \$15
Students & Unemployed: \$7.50

Please RSVP by **Friday, September 12th**. Indicate your name, phone number, and number of attendees by e-mailing Glenn Sprenger at Glenn.Sprenger@VECO.com. Alternatively, you may leave a voice mail for Glenn at 303-938-6642.

OFFICERS AUTHORIZE “ASSOCIATE MEMBERS”

The Officers of the Rocky Mountain Section of AIChE met in August and decided to accept “Associate Members” into the Section. Any person that is a chemical engineer, or has an interest in chemical engineering topics, can be an Associate Member. A key point is that an Associate Member does not need to be a member of the National AIChE. The annual dues for an Associate Member will be \$20, payable directly to the Section, as compared to the \$9 annual dues for a regular member of the Section that are paid through National AIChE. Associate Members will receive the Section’s newsletter and announcements, will be allowed to vote for Section Officers, and will be charged the member prices for monthly Section meetings and other events. Associate members may not serve as Officers in the Section and will not receive any of the benefits associated with membership in the National AIChE. If you know of anyone that may be interested, they may sign up as an Associate Member at any monthly meeting, or may contact Kevin Milliman at 303-804-2374 for more information.

CHANGE IN MEETING PRICE FOR NON-MEMBERS

The Officers of the Section, as a general policy, wish to encourage attendance at monthly meetings of the Section, including attendance by non-members with an interest in the meeting topic. However, the cost of the monthly meetings are slightly subsidized by member dues, and the Officers wish to encourage membership in the Section. As a result, the officers have elected to change the typical pricing for the monthly meetings for non-members. The member price will continue to be \$15/person, and the price for unemployed members and students will continue to be \$7.50/person. The price for non-members will increase \$3 to \$18/person. Please be aware that some members of the National AIChE decline to pay the \$9/year dues for the Rocky Mountain Section. Those persons are “non-members” of the Section and will be charged the non-member price.

If you are not sure whether you are a member of the Section, send an E-mail to mмоes@ekiconsult.com. We’ll check our database and let you know. If you are a member of the National AIChE but neglected to pay the \$9 Section dues for 2003, you may pay the dues directly to the Section at any meeting to bring your membership current.

Membership Chair Position Open

The Section is in need of a member to volunteer for the Membership Chair position. We owe sincere thanks to Stephanie Church who has graciously served in that role for several years. The primary responsibility of the Membership Chair is to be a point of contact for persons interested in joining the Rocky Mountain Section. Another primary role is to focus, with assistance from Section Officers, on member recruitment and retention, i.e., “What should the Section be doing to serve its members and encourage other to join?” The Officers look forward to assisting and working with anyone interested in taking on this important role. Please contact Kevin Milliman at 303-804-2374 if you are interested in the position.

NEWSLETTER GOES EXCLUSIVELY ELECTRONIC

In an effort to reduce costs and simplify production, the Officers of the Section have requested that ALL members of the Section receive the newsletter by E-mail beginning in January 2004. Currently over 2/3 of the members receive the newsletter by E-mail, yet we are still printing and snail-mailing about 200 hardcopies every month at considerable expense. Members in our E-mail database receive the newsletter earlier than hardcopy recipients, and also periodically receive E-mail announcements relevant to the Section membership. If you are receiving this newsletter in hardcopy, please send your name and your E-mail address to mмоes@ekiconsult.com to be added to our E-mail database for electronic newsletter delivery. The newsletter is delivered in Adobe Acrobat (.pdf) format and can be read with the free Adobe Acrobat reader software available at adobe.com.

We recognize there are probably a few members that do not have E-mail service. If that is the case for you, please call Mike Moes at 303-796-0535 to request continued hardcopy delivery of the newsletter. If we do not receive your E-mail address or hear from you, we will be calling (please save us the effort!).

AIChE Meetings

2003

Sept 23-25 CCPS Int'l
 Scottsdale, AZ

Nov 16-21 2003 Annual Mtng
 San Francisco, CA

2004

Apr 25-Apr 29 2004 Spring Nat'l
 New Orleans, LA

May 3-6 Offshore Tech.
 Houston, TX

June Process Develop.
 Symposium
 Chicago, IL

Sept 20-23 Safety in
 Ammonia Plants
 Denver, CO

Oct 7-8 Engineering &
 Construction
 Contracting
 Colorado Spg, CO

Nov 7-12 2004 Annual Mtg.
 Austin, TX

For further information, contact
National AIChE.

National AIChE Contact Info

AIChExpress Service Center:
(US/Canada): 1-800-AIChemE
(1-800-242-4363)
(International): 212/591-8100
Fax: 212/591-8888
E-mail: xpress@aiiche.org

Member Services: 212/591-7981

Career Services: 212/591-7670

Govt. Relations: 202/962-8690

Govt. Relations Fax: 202/962-8699

Web Page: <http://www.aiiche.org>

Rocky Mountain AIChE Officers

James Meyer	Director	720/201-0148
Kevin Milliman	Chair	303/804-2374
Glenn Sprenger	Vice-Chair / Program	303/938-6642
Curtis Dominicak	Secretary	303/969-9416
Craig Wildemuth	Treasurer	303/791-6307
Vacant	Membership	
Martin Vorum	Employment Info	303/789-0848
Collin Greenwell	Student Chptr. Liaison	720/497-2133
Laura Moes	Editor	303/770-2432

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.

LOOKING FOR AN EMPLOYEE??

If you have a position open for a chemical engineer, send a notice to mmoes@ekiconsult.com and we'll post it in the newsletter and on the website (aiiche-rm.org).

Articles for Upcoming Newsletters

Please submit articles for future newsletters to the editor at mmoes@ekiconsult.com. Let us know of interesting technical items you're working on or are familiar with, what is happening in the Chemical Engineering programs or AICHE Student Chapters at the universities in the Section, unique and useful web sites, or any other information your fellow Section members may find of interest.

IMPORTANT NOTICE

**This newsletter will be distributed via
EMAIL ONLY after January 2004. Send
your E-MAIL address to
mmoes@ekiconsult.com to receive this
newsletter electronically!**

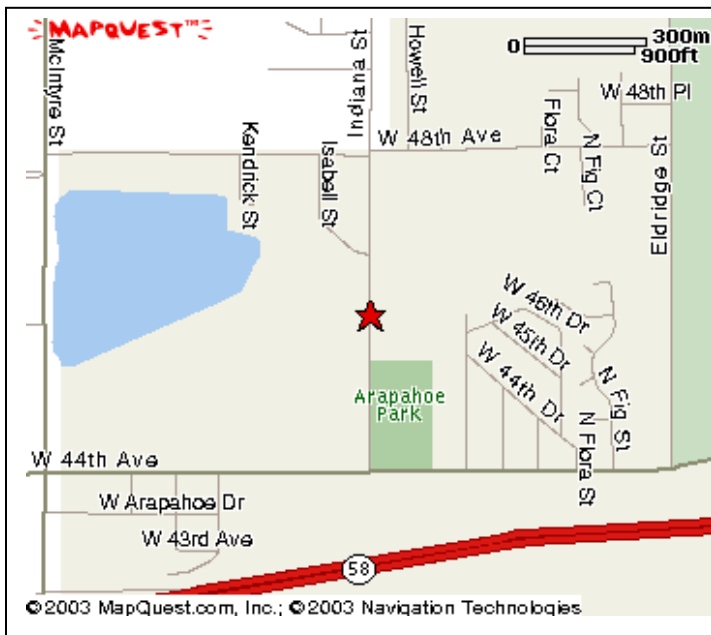
Rocky Mountain AIChE News
America Institute of Chemical Engineers
1025 West Peakview Circle
Littleton, CO 80120-3327

On the Web at:

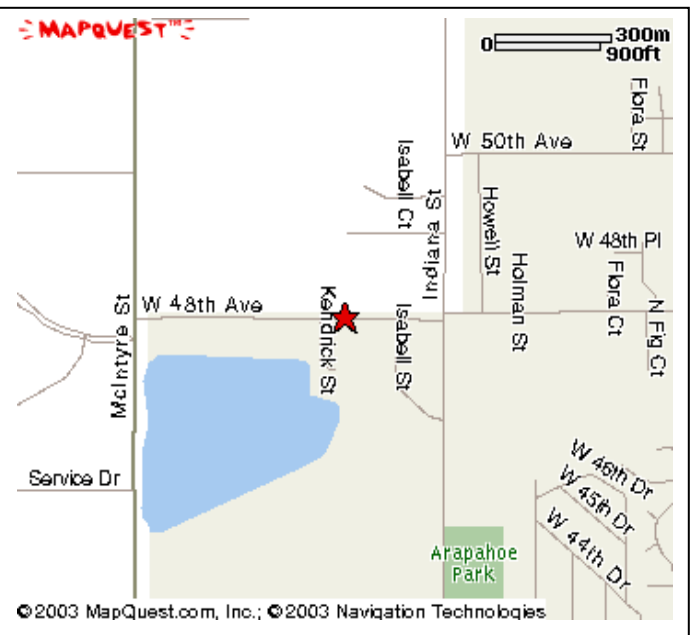
<http://www.aiche-rm.org>

**** IMPORTANT NOTICE ****

*This newsletter will be distributed via email
ONLY after January 2004. Send your
E-MAIL address to mmoes@ekiconsult.com
to receive this newsletter electronically!*



HAZEN RESEARCH - 4601 Indiana St.



FAIRMOUNT BIBLE CHURCH – 15100 W. 48th Ave

DIRECTIONS TO HAZEN: Travel west on I-70 towards Golden. Exit I-70 at Ward Road. Travel west on West 44th Ave. Turn right (north) onto Indiana Street. Travel 3 blocks and Hazen will be on the west side.

DIRECTIONS TO DINNER: From Hazen, travel north on Indiana Street. Turn left (west) onto West 48th Ave. Travel 2 blocks and look for the church.