

### November Section Meeting: Presentation and Tour of the Atmel Manufacturing Plant

Since its development in Bell Labs in the 1940's, the integrated circuit has proliferated to the point where it is a critical component in everything from the most sophisticated supercomputer to the access cards used for access to office buildings. The manufacture of these devices requires a wide variety of technical disciplines including chemical engineering, which plays a key role in both making chips and appropriately managing the byproducts created.

Our November section meeting will include a presentation and tour of the Atmel manufacturing plant in Colorado Springs given by David Helmer, the EH&S Manager for the facility. Atmel is a semiconductor firm that specializes in Flash, ASIC (Application Specific Integrated Circuits) and RF (Radio Frequency) computer chips. The site employees about 2000 people and covers about 650,000 square feet in 6 buildings. The presentation will begin with an overview of semiconductor manufacturing, highlighting the five departments and processes used in making computer chips. It will also include an overview of the Environmental, Health, and Safety (EH&S) aspects of a semiconductor plant which include emergency response training, risks involved and protections in place for chemicals used in the process, and environmental permitting and program emphasis. There will also be a window tour of the clean room and a short tour of the chemical distribution system.

Mr. Helmer has a Bachelor of Science in Chemistry from Baylor University and a Masters of Science in

### November Section Meeting

**Topic:** Presentation and Tour of the Atmel Manufacturing Plant

**Speaker:** Mr. David Helmer  
Environmental, Health & Safety  
Manager at Atmel

**Date:** Tuesday, November 27<sup>th</sup>

**Time:** 6:00 p.m. Social Time  
6:45 p.m. Dinner  
7:30 p.m. Presentation & Tour

**Location:** Atmel Manufacturing Plant  
1150 E. Cheyenne Mountain Blvd  
**COLORADO SPRINGS**

**Menu:** Boston Chicken Catered Meal

**Cost:** Members: \$20  
(w/RSVP)\* Non-Members: \$25  
Students & Unemployed: \$10

**Please RSVP by FRIDAY, November 23<sup>rd</sup>**  
(early RSVPs are greatly appreciated!) indicating your name, phone number, and number of attendees. Please RSVP to Martin Vorum at [rockyaiche@yahoo.com](mailto:rockyaiche@yahoo.com).

\*Add \$5 for attending meeting without RSVP

Chemistry from Texas A&M - Commerce. David has been in the semiconductor business for 32 years and the EH&S Manager for this Atmel site for 18 years.

## October 2012 Rocky Mountain AIChE Tour of Lowry Landfill Superfund Site Groundwater Treatment System

The October meeting featured an in-depth presentation of the challenges of treating 1,4-dioxane in groundwater at the Lowry Landfill Superfund Site east of Denver. The ultimate solution was a fixed-film aerobic bioreactor using indigenous bacteria to cometabolize 1,4-dioxane and tetrahydrofuran (THF), a co-contaminant. If you missed the meeting, you can view the presentation slides at <http://rockymtn.aiche.org/content/past-meeting-slides>.

The presentation was followed by a tour of the treatment facility, including the pre-treatment facility for suspended solids removal, pH adjustment, and phosphorous addition (photo below), and the bioreactor facility (middle right photo). Many thanks to Tim Shangraw of EMSI and Chris Carlson of Parsons for a great presentation and tour!



## ***EMPLOYMENT - Positions Available***

**IMMEDIATE NEED FOR SENIOR ENGINEERS – West Denver, CO**

*If your field of expertise is Process Design/Engineering involving process energy related fields such as Coal Gasification, Clean Coal, Coal Beneficiation, Synfuels or Biomass and your field of knowledge are Catalysts – we need to talk!*

*I have some great career opportunities with an internationally established and prestigious U.S. company in Denver Colorado for Senior Engineers. Prefer B.S. Chemical Engineer but will consider B.S. ME or related along with 5-15 years experience in energy related process engineering. This work is in support of Research & Development.*

*This job includes defining the technical information needed by clients, developing process flow sheets, proposing and carrying out laboratory, pilot plant, and engineering studies to generate that information, interpreting and reporting results, and communicating with clients. The position will frequently require leading a team to accomplish these ends. A broad spectrum of process knowledge is required, and experience with industrial processes and equipment is a plus. Strong project management, supervisory, oral communications, and technical report writing skills are required.*

*If you are interested in learning more about these positions, please send me your resume. IF YOU KNOW ANYONE with this kind of experience who you think may be interested in learning more about these exceptional career opportunities, please pass this e-mail on to them. Thank you for your time and consideration.*

*To learn more please contact:*

*Jeff Beste*

*Sr. Executive Recruiter*

*[proexecrecruiter@aol.com](mailto:proexecrecruiter@aol.com)*

*Send **Position Available** notices to [lauramoes@msn.com](mailto:lauramoes@msn.com). \$25/month per listing.*

*Listing will also be placed on web page ([rockymtn.aiche.org](http://rockymtn.aiche.org)).*

## AIChE Meetings

### 2012

Nov 28 AIChE Annual Gala  
The Plaza Hotel, NY

### 2013

Jan 13-16 SBE's ICBE - Int'l  
Conference on  
Biomolecular Eng.  
Ft Lauderdale, FL

Jan 31-Feb 1 Midwest Regional  
Conference at  
Illinois Institute of  
Technology  
Chicago, IL

Feb 24-26 SBE's Int'l Conf. on  
Accelerating  
Biopharmaceutical  
Development  
Coronado Isl., CA

Apr 28-May 2 AIChE 2013 Spring  
Meeting and 9th  
Global Congress on  
Process Safety  
San Antonio, TX

### National AIChE Contact Info

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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.

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**

January 2012 issue

Articles due Wednesday, January 2<sup>nd</sup>

Publish on Friday, January 4<sup>th</sup>

Meeting on Tuesday, January 15<sup>th</sup>

### **MEETING SCHEDULE**

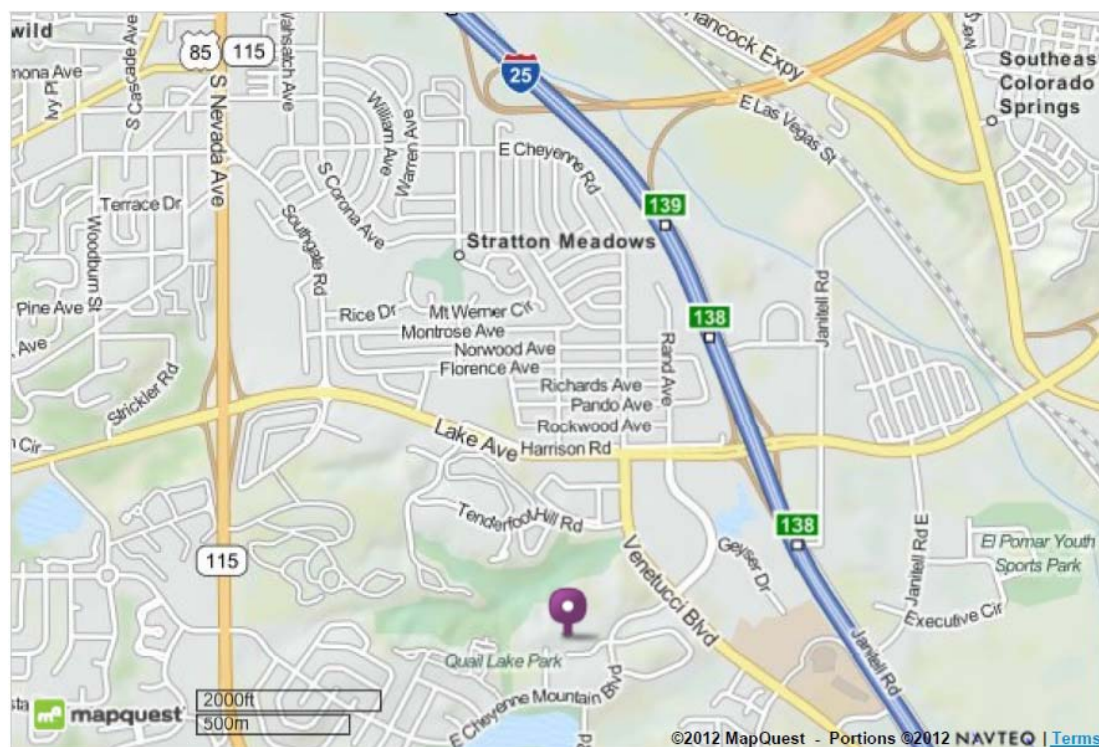
*The Rocky Mountain District of AIChE generally meets the third Tuesday of every month, September through November and January through May.*

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<http://rockymtn.aiche.org>

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[mмоes@ekiconsult.com](mailto:mмоes@ekiconsult.com) to receive  
this newsletter electronically!*



**DIRECTIONS:**  
Take I-25 south to Colorado Springs. Take exit 138, Circle Dr./Lake Ave, and take the fork right onto Lake Ave. Turn left onto Venetucci Blvd/US 85 South. Turn right onto E Cheyenne Mtn Blvd. Drive about 0.4 mile and look for Atmel on your right at address 1150 E. Cheyenne Mountain Blvd.