



AICHE Orange County

NEWSLETTER OF THE ORANGE COUNTY SECTION, AMERICAN INSTITUTE OF CHEMICAL ENGINEERS

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October 2006

OC-LA Joint Meeting OCTOBER DINNER MEETING

SOLID OXIDE FUEL CELLS FOR STATIONARY APPLICATIONS

Joe Ferrall
GE Global Research, Torrance, CA

Tuesday, October 24, 2006
5:30 PM

Fuel cells are electrochemical devices that convert chemical-fuel energy directly to DC electrical energy, promising power generation with high efficiency and low environmental impact. In principal, fuel cells are like batteries except that the reductant and oxidant must be continuously replenished to allow continuous operation. Possible applications include space power (Space Shuttle), battery chargers (for laptop computers), automotive (propulsion for cars and auxiliary power), and stationary power, e.g. industrial (for plant power) and dispersed power generation (for the grid).

This presentation will focus on the application of a Solid Oxide Fuel Cell system to stationary applications. System developers of the SOFC stationary application include GE, Siemens, Rolls Royce, Fuel Cell Energy and others. Whether the process configuration includes a simple cycle (< 10-kW net power, SOFC as the only power generating component) or a hybrid (>100 kW, SOFC and Gas Turbine) or a very large system (>100 MW, to include coal gasification, SOFC, GT and a steam turbine bottoming cycle), the incorporation of an SOFC promises significant efficiency and environmental improvements over conventional stationary power generation systems.

Joe Ferrall has a Bachelor of Science degree in Chemical Engineering from the University of Dayton and a Masters in Chemical and Petroleum Refinery Engineering from the Colorado School of Mines. During his career, he has worked for Texaco, Parsons, JPL, Allied-Signal, Honeywell, and GE. During the last 20 years, he has been involved in fuel-cell system design and analysis. Currently, he is a principal engineer for GE Global Research in Torrance, CA.

Meeting Schedule:

5:30 p.m.	Social Hour
6:30 p.m.	Dinner
7:20 p.m.	Break
7:30 p.m.	After-Dinner Program

Place: Khoury's Restaurant.

110 North Marina Dr., Long Beach

Directions: From the north, take the 605 south and take the Seventh Street/Long Beach exit. Go 1.4 miles and take the Studebaker Road exit. Continue south on Studebaker Road for 1.4 miles. Turn right on East Second Street. Continue on another 0.6 miles, then Turn left on Marina Drive at the first signal after PCH. Proceed 1 mile and enter the parking lot for Khoury's.

From Torrance/South Bay, take the 405 south and exit on Studebaker Road. Continue south on Studebaker for 2.1 miles. Turn right on East Second Street. Continue on another 0.6 miles, then Turn left on Marina Drive at the first signal after PCH. Proceed 1 mile and enter the parking lot for Khoury's.

From Orange County, take the 405 north and exit on Westminster Ave. West. Go 1.9 miles until Westminster Ave. becomes Westminster Blvd. Go an additional 3.9 miles until Westminster becomes East Second Street. Continue on another 0.6 miles, then Turn left on Marina Drive at the first signal after PCH. Proceed 1 mile and enter the parking lot for Khoury's.



Reservations: Please make a reservation at (714) 686-2791 by voice by Friday, Oct20, 2006. Or, you may email your reservation to dalebotts@adelphia.net

Cost: Members, \$20 with a reservation, \$25 at the door; Non-Members, \$25 with reservation, \$30 at the door; Students **Free** with reservation, \$5 at the door, Unemployed/Retired, \$5 with reservation, and \$10 at the door.

Starting with the month of January 2006, every third meeting a member attends is FREE with reservation

STUDENT CORNER

Please contact the newsletter editor if you would like to publish any AIChE student chapter meeting summary or contribute any articles related to science/engineering.

Professional Engineering Employment Update

Job#1 : Product Manager Perlite Division
Location: Goleta CA

Job Summary: This position is accountable for managing the global profitability of the existing Perlite business of the company, representing approx. 25% of the company's revenue and gross margin and affecting 6 plants and 3 mines in the US, 2 plants and 1 mine in Latin America, 5 plants and 1 mine in Europe, under the direction of the Director of Product Management and Strategic Planning.

Job Specifications: Requires English written and verbal communications knowledge, experience in strategic planning; experience in project management, knowledge and experience of cost analysis.

Education: Undergraduate and graduate level studies in Business Administration, Economics, Engineering or related fields.

Job#2: Segment Market Manager (2 openings)
Location: World Minerals/ Santa Barbara County
(Lompoc or Goleta)

Job Summary: Lead strategic and tactical marketing for assigned market segments. Develop detailed understanding of market segments/sub segments. Develop and implement market segment strategies and the tools to implement growth in prioritized market segments. Develop and implement channel strategies for each market segment. Lead the market technology process to define new product and application development programs for individual market segments. Understand the needs of individual market segments and define value-

added strategies to increase sales and margins of the business.

Education: BS in Marketing, Business or technical discipline with 5 years commercial experience in sales, marketing, or product management or an equivalent combination of education and experience.

For details on the above jobs please contact –

Al Rettig
Downing Teal
Ph: 719-783-2332
Cell#: 719-371-1465

- ① If you have an employment opportunity in Southern California for a chemical engineer, the newsletter will advertise it for free.

Newsletter Contributors Wanted

The newsletter editor would like to hear from you if you have one or more brief articles to contribute, especially a review or brief discussion of a good website, technical book, etc.



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- ANNOUNCEMENT - AIChE Orange County Section Webmaster Needed

Cheryl Zheng is stepping down as the AIChE Orange County Web Master. This a great opportunity for someone who would like to run a web site. Please contact any of the Section officers if you are interested in this position. Thanks.

The entire website is currently in Microsoft Front-Page.

Skills: website design and HTML programming capability.

Time: Depending on the person's skills, probably around half an hour per month.

Cheryl can provide some training as necessary to set it up for the new person.

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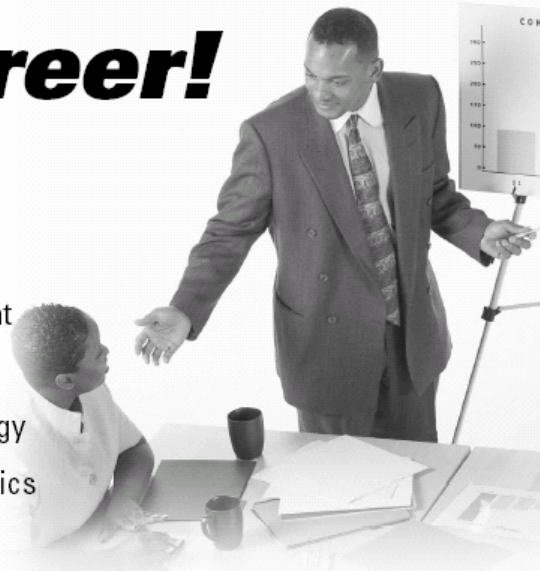
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