

News from C&PE

Chemical and Petroleum Engineering Newsletter

Week of Nov 21st, 2016

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Prof. Mark Shiflett receives National Award

Distinguished Foundation Professor and AIChE Technical Fellow Mark B. Shiflett received an Industrial Research and Development award at the recent AIChE conference. The award recognizes several of Shiflett's pioneering discoveries at DuPont where he was a Technical Fellow for more than 20 years before joining KU in August. Shiflett's work has led to non-ozone depleting refrigerants with revenues in excess of one billion dollars, as well as new applications with ionic liquids and an environmentally friendly process for making highly durable grades of titanium dioxide. He was also recognized for his valuable efforts mentoring and educating chemical engineers. More information [here](#).

New TORP Director speaks at the ADIPEC Conference

Dr. Shahin Negahban just returned from Abu Dhabi where he presented at the annual ADIPEC conference. This conference is a highly respected and important venue for Petroleum engineers from all around the world, and this was a fantastic opportunity that will allow KU to have greater global visibility and could lead to potential future industry investments. The CPE department is honored to have been represented by Dr. Negahban at this conference. For a link to the full article, click [here](#).

DuPont Donates Library of New Materials to CEBC

The DuPont Company and Dr. David Corbin recently donated a library of microporous materials containing over 3,000 unique zeolites, carbons and ion-exchange resins to be housed at KU's Center for Environmentally Beneficial Catalysis (CEBC). Many of these materials are commonly used as commercial adsorbents and catalysts for chemical processes. Access to this library gives the CEBC a unique resource for a variety of chemical catalysis and separation projects. For the full article—click [here](#).

Chem E Undergraduate Annie Lynn receives Astronaut Scholarship

Not many college students can say they've been presented an award by two former NASA astronauts. Then again, not many students can say they're making an impact in their respective fields before receiving their undergraduate diploma. Senior Annie Lynn of Overland Park received the scholarship for her research and work in the field of chemical engineering, and her award was presented to her by former astronaut Sam Gemar, who was a crew member on three different NASA missions. For a link to the full article, click [here](#).

Looking for a job or internship?

The Engineering Career Center offers Walk-in Wednesdays every week from 1-4pm in 1410 LEEP2. Feel free to drop in and ask questions about anything career oriented! You can also check for available positions on their website: www.ecc.ku.edu Also their Jayhawks on the Job program is now accepting applications until Dec 5th. ([LINK](#))

Fall Graduation is coming!

If you plan to graduate this fall (next month!), make sure you have officially applied for graduation through Enroll and Pay. The engineering recognition ceremony will be at Murphy Hall in the Crafton-Preyer Theater. The ceremony will start at 9am sharp, so make sure to show up a little early to get checked in. If you are a graduate student and you have not scheduled your final defense, please contact Martha at mkehr@ku.edu to make the arrangements. For checklists and more information: Undergraduates click [here](#) | Graduate students click [here](#)

New NSF Grant seeks to turn carbon dioxide into useful products

A new green catalysis grant award was just announced! The three faculty members associated with this \$450,000 award are Bala Subramaniam, Kevin Leonard, and James Blakemore (from Chemistry). This SusChEM division award has a goal of fostering research in sustainable chemistry, engineering, and materials. The team hopes to “develop a first-of-its-kind apparatus that combines traditional electrodes with a reactor that can operate under pressure.” To read the full CEBC article about this award, please see [this](#) link.

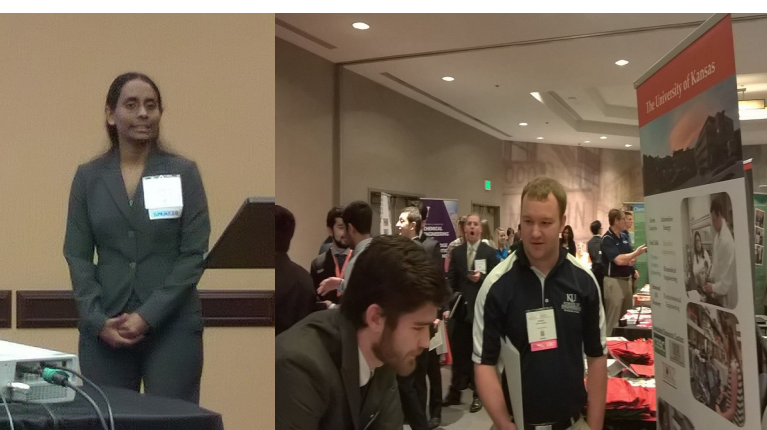
We want to wish you a safe and happy Thanksgiving break!!

New Publications

- H. Zhu, R. Maheswari, A. Ramanathan and **B. Subramaniam**, “Evaporation-Induced Self-Assembly of Mesoporous Zirconium Silicates with Tunable Acidity and Facile Catalytic Dehydration Activity,” *Microporous & Mesoporous Materials*, 223, 46–52 (2016). DOI: 10.1016/j.micromeso.2015.10.026
- Neslihan Alemdar, Jeroen Leijten, Gulden Camci-Unal, Jesper Hjortnaes, Joao Ribas, **Arghya Paul**, Pooria Mostafalu, Akhilesh K Gaharwar, Yiling Qiu, Sameer F Sonkusale, Rongliu Liao, Ali Khademhosseini* (2016). “Oxygen-generating photocrosslinkable hydrogels support cardiac progenitor cell survival by reducing hypoxia-induced necrosis.”
- Nguyen, L.; Liu, L.; Assefa, S.; Wolverson, C.; Schneider*, W. F.; **Tao, F.***; “In situ studies of structural evolution of model catalyst Rh(110) at atomic scale during catalysis”; *ACS Catalysis*. (2016, accepted.)
- Anand, Akash and **Weatherley, Laurence** “The Performance of Microbial Lipase Immobilized onto Ion Exchange Resins and onto the Natural Zeolite Clinoptilolite,” *International Journal of Chemical Separation Technology* Volume 2: Issue 2, 2016
- Shiflett, M.B.**, “Vinyl Fluoride Solubility and Density, Viscosity Correlations in Aqueous Solution of bis (trifluoromethylsulfonyl)imide,” *Journal of Chemical Thermodynamics*, 2016, in preparation.
- Dowd, R. & **Nguyen, T.** (06/01/2016 -). Engineering the Ionic Polymer Phase Surface Properties of a PEM Fuel Cell Catalyst Layer (Industrial Electrochemistry and Electrochemical Engineering Division Student Achievement Award Presentation). 229th Electrochemical Society Meeting. San Diego, CA

Last week was AIChE

Several members of our department were at the AIChE conference this past week in San Francisco, CA. Posters were posted, presentations were presented, and potential new graduate students were recruited. We hope everybody had a safe, educational, and enjoyable time. Here is a glimpse of some of the events (Pallavi Bobba presenting and Robbie Hable recruiting— Golden Gate Bridge pic by Martha Kehr). If you were at there and have a favorite picture, send it to mkehr@ku.edu to potentially have it added to the website!



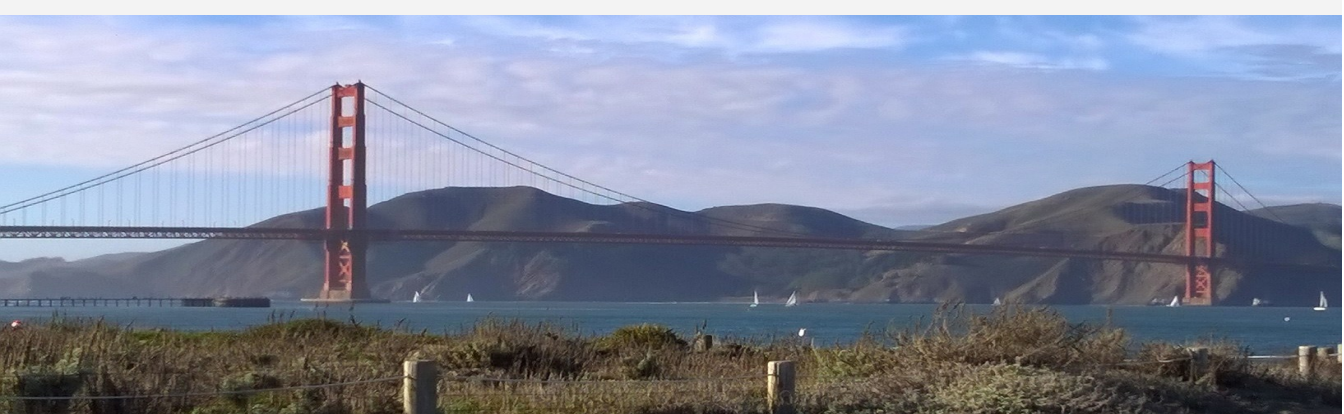
Upcoming Events

- Nov 29:** 1st Annual SPE Pie a Professor in the Face at 12pm in LEEP2 Atrium
- Nov 30:** Buffalo Wild Wings Fundraising Day – 10% of sales will go to SPE (must have ticket—email zmohi97@gmail.com)
- Dec 1:** Graduate Seminar with Morteza Akbarabadi- a petroleum engineer from the University of Wyoming
- Dec 8:** CEBC Holiday Party– 11:30 to 1pm Seminar Room, Bldg B– rsvp [Nancy Crisp](#)
- Dec 9:** STOP DAY and the C&PE Stop Day Potluck 11:30 to 1pm in 4161 Learned Hall
- Dec 10:** Engineering Recognition Ceremony Check-in at 8-9AM in the Murphy Hall. The ceremony will start at 9AM in the auditorium
- Feb 28:** 14th Annual Capitol Graduate Research Summit. Application deadline = Nov 21 ([LINK](#))

Quote of the Week

“At its heart, engineering is about using science to find creative, practical solutions. It is a noble profession.”

-Queen Elizabeth II



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