News from C&PE

Chemical and Petroleum Engineering Newsletter

April 10, 2017

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C&PE Welcomes New Faculty Member Brandon DeKosky



The Chemical and Petroleum Engineering Department is excited to welcome new faculty member Brandon DeKosky whose research immunology, virology, vaccines, include biotechnology, therapeutic proteins, and antibody discovery. "Nextgeneration DNA sequencing technologies have revolutionized the way that immunologists and biotechnologists study adaptive immune responses to vaccination and disease. The DeKosky laboratory works to invent and apply advanced NextGen molecular biology techniques to accelerate development of new human vaccines and therapeutics. The laboratory has a special focus on understanding highly effective human antibody responses to persistent viral infections (including HIV, EBV, CMV), and in characterizing the antibody response to experimental vaccines." To access Dr. DeKosky's publications, click here and for a link to his full research site, click here.

Graduate Student Emily Li Receives Kokes Award

Congratulations to graduate student Emily (Yuting) Li for being awarded the 2017 Kokes Student Award for the 25th North American Catalysts Society (NACS) National Conference. About this award, Dr. Franklin (Feng) Tao, her research advisor, stated, "She will receive the certificate of this award on the meeting in this June at Denver and she has been offered with free registration and free hotel accommodation to attend the main catalysis meeting of North American. Yuting is the third student of our group after Shiran (2013) and Luan (2015) who received this award. I am happy to know that her hard work has been acknowledged by North American Catalysis Meeting." Dr. Tao is committed to nominating her for future awards and supporting her future successes. Congratulations, Emily!

Juan Bravo Joins Editorial Board of "Catalysts"

Assistant Professor Juan Bravo-Suarez has joined the editorial board of science journal "Catalysts." "Catalysts" is an international open access journal of catalysts and catalyzed reactions. It publishes reviews, regular research papers and short communications in heterogeneous, homogeneous, and enzyme catalysis, and electro- and photo- catalysis as enabled by kinetics, advanced characterizations, and computational studies. Impact Factor: 2.964 For more information about this journal, see this link. To see a list of editors, click here.

News from The Leonard Lab

Kevin Leonard has recently been the recipient of the Army Research Office's "Young Investigators Award." This prestigious award includes a research grant to further his electrochemical research and help The Leonard Lab achieve its various goals. Dr. Leonard was also recently selected by the Royal Society of Chemistry to be one of their "Emerging Investigators for 2017." Along with having his paper published in their journal, his research is being highlighted along with the other Emerging Investigators. For more information and to see a full list of awardees, see this link.

Award News

Kathryn Bauguess, a junior in Chemical Engineering, won 3rd place with her oral presentation and poster titled "Adsorption of Fe(III) Using Zeolite Molecular Sieve" at the Jayhawk Research Symposium on March 31st. Way to go, Kathryn!

The Shiflett group continues to expand its sorption measurement capabilities. This time with

New Hiden IGAsorp-HT device in Shiflett Lab

the Hiden IGAsorp-HT, a high temperature bench-top dynamic vapor sorption analyzer, shown in Figure 1. This ultrasensitive microbalance allows for precise studies on the uptake and kinetics of moisture sorption at elevated temperatures (ranging from 5 °C to 250 °C) and at a wide choice of humidity conditions (1%RH to 95%RH). The IGAsorp has different setting modes with the capability of using water or organics as the vapor stream. This high-precision instrument has a 5g sample capacity and measures sample weights to \pm 0.1 µg accuracy using the same force balance method as the IGA and XEMIS instruments. A diagram of the internal system can be seen on Figure 2. Our group is very excited to have the IGAsorp fully operational. For a link to the images, click here.

College of Fellows

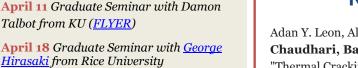
American Institute for Medical and Biological Engineering

Congratulations, Cory Berkland

Cory J. Berkland

(2017).

2017.



April 25 Graduate Seminar with Rick Stroman from the US Naval Research Lab

April 19 67th Annual Environmental

Engineering Conference | LINK

(<u>FLYER</u>)

UPCOMING EVENTS

April 28 Open tour of the Shiflett Lab | 2-4PM | 2444 LEEP2 (<u>LINK</u>)

at the Oread | 8-11PM | LINK April 29 CPE ANNUAL AWARD

BANQUET! Dancing, awards, drinks, fun,

April 28 GEA Formal | Griffith Ballroom

(FLYER) May 2 Graduate Seminar with Michael J. <u>Aziz</u> from Harvard University (<u>FLYER</u>)

and food—what else could ask for?

Ceremony 8AM in Allen Fieldhouse

May 13 <u>Doctoral Hooding Ceremony</u> 7:30PM | Lied Center

May 13 School of Engineering Recognition

{Looking for Graduate Workshops? Check out THIS link!}

May 14 KU Commencement Ceremony |

10:30AM | Memorial Stadium (<u>LINK</u>)

"Scientists dream about doing great things. Engineers do them."



Toluene." Energy & Fuels, 0887-0624 (2017). Mokhtari, M., Wood, D., Ghanizadeh, A., Kulkarni, P., Rasouli, V.,

Vacuum Residue and Its Maltenes and Asphaltenes Fractions in

Fathi, E., Saidian, M., Barati, R., "Virtual Special Issue: Advances in the Petrophysical and Geomechanical Characterization of Organic-Rich Shales." Journal of Natural Gas Science & Engineering (2017) Regis P. Dowd Jr., Vikram Lakhanpal, and Trung Van Nguyen, "Performance Evaluation of a Hydrogen-Vanadium

Reversible Fuel Cell," J. Electrochemical Society, 164 (6), F564-F567

Kelly R. Song, Laura C. Cummings, Kevin C. Leonard. "Microwave

Barforoush, Joseph M., Dylan T. Jantz, Tess E. Seuferling,

-assisted synthesis of a nanoamorphous (Nio.8,Feo.2) oxide oxygenevolving electrocatalyst containing only "fast" sites." Journal of Materials Chemistry. (2017) Gilbert, W. J. R.; Safarov, J.; Minnick, D. L.; Rocha, M. A.; Hassel, E.; Shiflett, M. B. "Density, Viscosity, and Vapor Pressure

Measurements of Water + Lithium Bis(trifluromethylsulfonyl)imide

Solutions." Chemical and Engineering Data 2017, In Press. Shan, J.; Zhang, S.; Choksi, T.; Nguyen, L.; Bonifacio, C.; Li, Y.; Zhu, W.; Tang, Y.; Zhang, Y; Yang, J; Greeley, J; Frenkel, A*; Tao, F* "Tuning Catalytic Performance through a Single or Sequential Post-Synthesis Reaction(s) in a Gas Phase" ACS Catalysis, 7, 191-204.

QUOTE OF THE MONTH

- James A Michener



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