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SIMON PODKOLZIN
(201) 216-8074
(201) 482-5424 (fax)
Simon.Podkolzin@Stevens.edu

Secretary
XIAOMING WANG
(732) 205-6080
(732) 205-5300 (fax)
xiaoming.wang@BASF.com

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JOHN BRODY
(908) 730-2932
(262) 313-4051 (FAX)
John.f.brody@exxonmobil.com

Wednesday, April 17, 2013
Somerset-Bridgewater Hotel, Somerset, New Jersey
(Formerly Crowne Plaza Hotel)

Peng Chen

Professor, Department of Chemistry and Chemical Biology, Cornell
University

Single-Nanoparticle Catalysis at Single-Turnover and Nanometer Resolution

This presentation will describe our work of studying metal nanoparticle catalysis at the single-nanoparticle level with single-molecule super-resolution imaging techniques. I will present how we interrogate the catalytic activity, mechanism, heterogeneous reaction pathways, selectivity, and surface-restructuring-coupled temporal dynamics of individual metal nanoparticles. I will also present our latest work in imaging and resolving catalytic reactions on a single nanocatalyst at nanometer resolution, which maps the reactivity of different surface sites and uncovers diverse spatial reactivity patterns at the nanoscale. This spatial resolution of catalysis also enables us to probe communication of catalytic reactions at different locations on a single nanocatalyst, in much relation to allosteric effects in enzymes.

Dinner is a buffet, and includes
a choice of beef, chicken or fish

Social Hour (Cash Bar)

Dinner

Presentation

6:00 PM

7:00 PM

7:45 PM

Members

Non-members

Students

Retired/Post-Doc/ Unemp.

Annual Dues

\$40

\$50

\$25 (Student Members = \$10)

\$40 (Members = \$30)

\$35 (Student/Retired = \$15)

Deadline for dinner reservations is **2:00 p.m. Friday, April 12, 2013**

Email Xiaoming Wang (xiaoming.wang@basf.com) for reservations. With the exception of extreme circumstances, anyone not canceling reservations by the above deadline will be billed for dinner regardless of attendance.

2012-2013 Officers: **Simon Podkolzin** (Chair), **Lucas Dorazio** (Chair-Elect), **Marco Castaldi** (Past Chair),
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