

CeRCaS News Blast 5/2/16

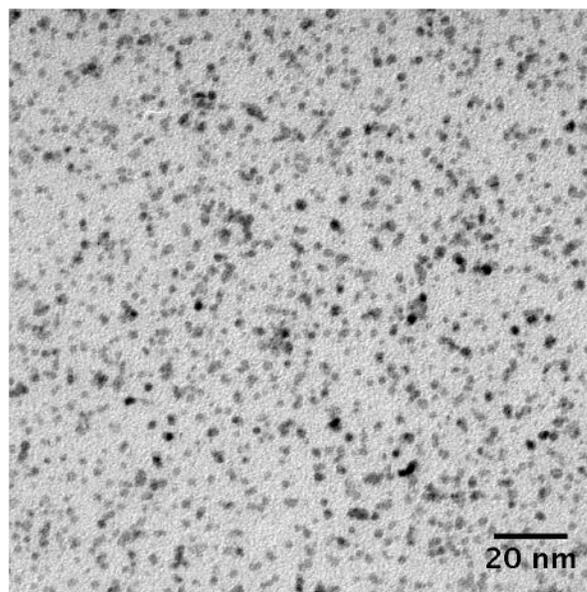
Ring 1: CeRCaS Welcomes Two More Members: Afton and ExxonMobil

We are thrilled to add Afton Chemical and ExxonMobil to our membership of BASF, Eastman Chemicals, Thales Nano, Boehringer-Ingelheim, and Biogen, bringing our total to 7 members. There's room for more!



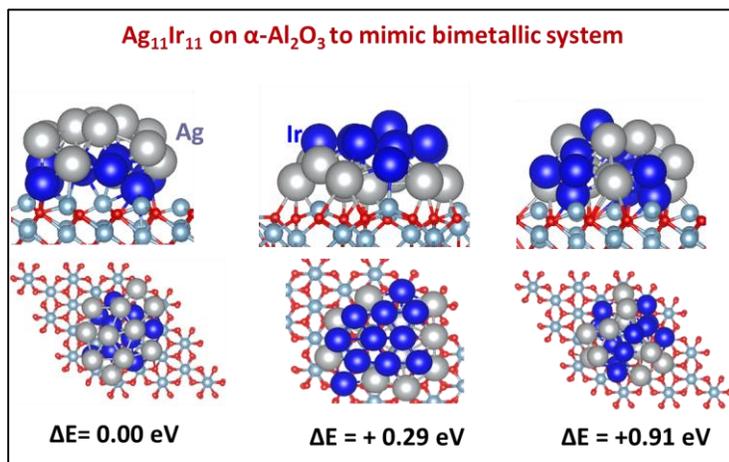
Ring 2: Recent Results Achieved for Projects 1: Continuous Production of Metal Nanoparticles)

- Everett Carpenter and his team at VCU and USC have demonstrated the synthesis of ultrasmall (2-3 nm) Pt nanoparticles and are now working to make the process continuous.



- DLS Size (d.nm): 5.337 (99.7%), 70.63 (0.3%)

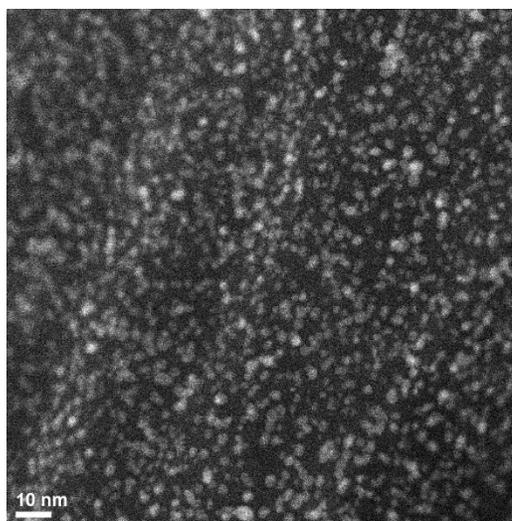
Project 2: Enhanced stability of catalytic surfaces by bimetallic core-shells



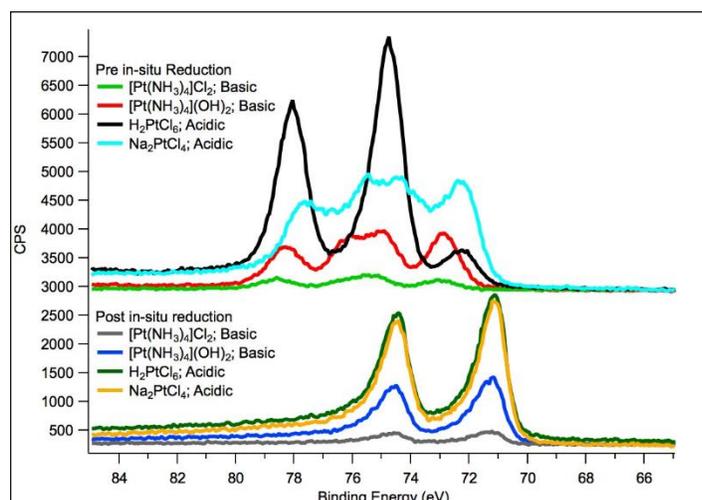
- John Monnier at USC, and the computational gurus (Shiv Khanna and Art Reber) at VCU have concluded their studies on the stabilities of δ, θ -Al₂O₃-supported Ag-Ir bimetallic catalysts which are in very good agreement with experimental results.

Project 3: Evaluation of Pd/graphene surface properties for cross-coupling and C-H activation

- Keith Ellis his team at VCU and USC have developed methods to deposit sub-2 nm Pd particles on graphene oxide. Some samples exhibit remarkably high catalytic activity.



Project 4: “Real world” nanoparticle synthesis on model supports



- Donna Chen and her team at USC, using XPS, have discovered a stable Pt(IV) adsorbing complex on HOPG which bodes well for future study of the reduction adsorption mechanism.

➔ Members can access current and past updates at: www.che.sc.edu/centers/cercas/projects.html

Ring 3: Spring CeRCaS Meeting (May 19-20, 2016) in Richmond at the Jefferson Hotel.

The Spring CeRCaS meeting will be held at the historic Jefferson Hotel in downtown Richmond, VA (101 West Franklin Street, Richmond, VA 23220, phone 804 649-4750 or 888 918-1895). The group rate is \$255, mention that you will be attending the “Center for Rational Catalyst Synthesis” meeting in order to join the block. This discount is available until May 8. Additional rooms will be available at the Linden Row Inn. A full agenda will circulate soon; plan on arriving Wednesday evening (May 18th). The meeting will end with lunch, Friday May 20th.



For more information:
<http://www.che.sc.edu/centers/cercas/>