

CeRCaS News Blast 4/14/22

Ring 1: Welcome New Members Clariant and Evonik!

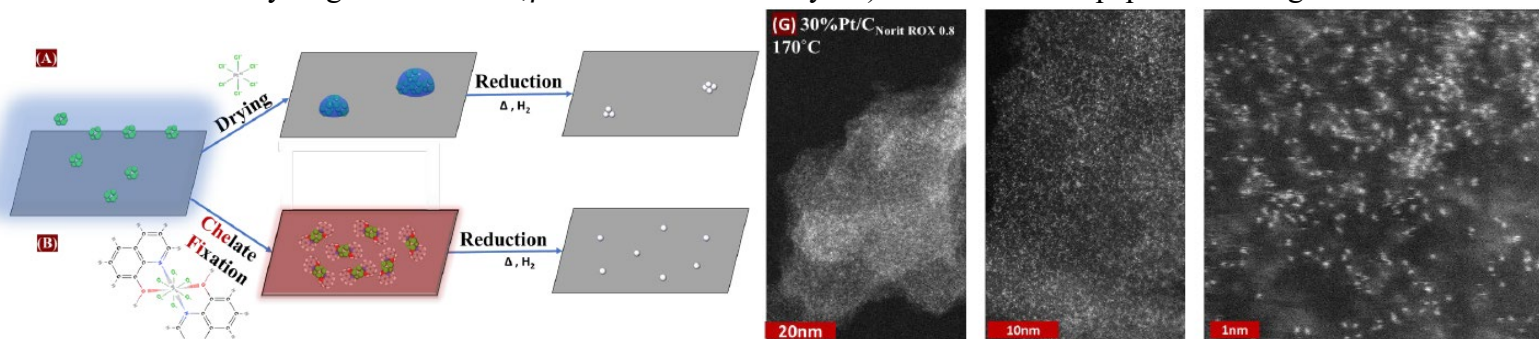
What could an IUCRC do to add two of the finest specialty chemical companies to its membership?



Add Clariant and Evonik of course! Both companies will be familiar to our existing members through their guest participation at previous meetings. We are now very happy to have them officially join us as members. Evonik will be represented by ShaRee Thomas, Radhika Rao and Wynter Osminski, and Clariant by Shuo Cao, Mingyong Sun, Todd Osbourne, Abrin Schmucker, and Victor Johnson. Welcome to the party, folks!

Ring 2: Another “Catalyzing Commercialization” article for CEP is in the works.

Our NSF Program Director, Dr. Prakash Balan, has requested a write-up on the commercial potential of our recently discovery of a simple, scalable method to synthesize single atom catalysts at high metal loading, without the need for anchoring sites on the support. Grad students (and husband/wife team) Nabi **Shakouri** and Horie **Adabi**, working with Profs. **Regalbuto**, **Williams** and **Mustain** at UofSC, have dubbed their method “Chelate Fixation.” Underpinning our current projects 35 (Simple Synthesis of Supported Single Atom Catalysts via Chelate Fixation) and 37 (Bimetallic Single Atom Catalysts via Chelate Fixation for Selective Hydrogenation of α,β -Unsaturated Aldehydes) For the CEP paper our long-time CeRCaS



SACs via chelate fixation. left) Schematic of chelating agents replacing water and isolating metal precursors onto the support surface, right) a 30wt% Pt SAC on a high surface area activated carbon at various magnifications.

representative from ExxonMobil and National Academy of Engineering member, Dr. Stu Soled, provided the following quote:

“The area of single metal supported catalysts has been gaining a huge interest in the catalysis community over the last number of years. What has been desperately needed is a simple preparation method that can be utilized by researchers in the area and which would lend itself to practical scale up. This could lead to new catalytic chemistries which would be very impactful. It is toward that end that the CheFi methodology has shown some early promise. The member companies in the program are really excited to see where this can lead.”

You will find out where this has led at our spring meeting. Speaking of which...

Ring 3: Virtual Spring CeRCaS Meeting (May 11-13th, 2022).

May virtual meetings rest in peace. This will be our last one, as our Fall meeting will return to face-to-face format in Columbia. (Come early and bring your golf clubs for that!) The 2022 Spring meeting will be conducted via Zoom from Wednesday morning, May 11th, through Friday morning, May 13th. Our eleven current projects will be updated by the students who performed the research (it's a recruiting bonanza!), we'll hear from more students and postdocs about related research, and we'll meet in detail several of our member companies. A detailed meeting agenda will be distributed soon. Guest participation requires the completion of a non-disclosure agreement, which we are happy to provide.

For more information:

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