



# **Research and Education on Chemistry in USA: state of the art and future perspectives**

This seminar will give the opportunity to Professors and students at Faculty of Sciences to meet Professors from some of the best universities of the word. A certificate will be issued to those students attending the four talks, please sign here to receive the diploma: **u.uma.es/mN**/



#### January 13rd, Monday 12:30

FACULTAD DE CIENCIAS SALÓN DE GRADOS

Embracing Complexity of Catalytic Structures: Metal/Metal-Oxide Heterogeneous Catalysts for Energy and Chemical Conversion



# Eranda Nikolla

is an Associate Professor in the Department of Chemical Engineering and Materials Science at Wayne State University. Her research interests lie in the development of heterogeneous catalysts and electrocatalysts for chemical conversion processes and electrochemical systems (i.e., fuel cells, electrolyzers) using a combination of experimental and theoretical techniques.

The overall arching objective of her research group is to develop efficient and economically viable catalytic materials for energy generation and storage. Dr. Nikolla received her Ph.D. in Chemical Engineering from University of Michigan in 2009 working with Prof. Suljo Linic and Prof. Johannes Schwank in the area of solid-state electrocatalysis. She conducted a two-year postdoctoral work at California Institute of Technology with Prof. Mark E. Davis prior to joining Wayne State University. At Caltech, she developed expertise in synthesis and characterization of meso/ microporous materials and functionalized surfaces. Dr. Nikolla is the recipient of a number of awards including the National Science Foundation CAREER Award, the Department of Energy CAREER Award, 2016 Camille Dreyfus Teacher-Scholar Award the Young Scientist Award from the International Congress on Catalysis and ACS Women Chemists Committee (WCC) Rising Stars Award for 2019.



## January 14th, Tuesday 12:30

FACULTAD DE CIENCIAS SALÓN DE GRADOS

Biological methane oxidation



#### Amy C. Rosenzweig

is the Weinberg Family Distinguished Professor of Life Sciences in the Departments of Molecular Biosciences and of Chemistry at Northwestern University. Her laboratory uses biochemical, biophysical, X-ray crystallographic, spectroscopic, and omic approaches to attack problems at the forefront of bioinorganic chemistry. Areas of interest include biological methane oxidation, metal uptake and transport, and oxygen activation by metalloenzymes.

She received a B. A. in chemistry from Amherst College, a Ph. D. in inorganic chemistry from Massachusetts Institute of Technology, and was a postdoctoral fellow at Harvard Medical School.

Rosenzweig is a fellow of the American Academy of Arts and Sciences (2014) and a member of the National Academy of Sciences (2017). Her awards include the Royal Society of Chemistry Joseph Chatt Award (2014), the American Chemical Society Nobel Laureate Signature Award for Graduate Education (2006), an Honorary Doctor of Science Degree from Amherst College (2005), and a MacArthur Fellowship (2003).









### January 15th, Wednesday 12:30

FACULTAD DE CIENCIAS SALÓN DE GRADOS

Metals in Medicine



is a professor of chemistry at Colorado State University, specializing in fundamental chemistry and biochemistry of drugs with particular interest in vanadium and other transition metal ions as metals in medicine and their mechanisms of toxicity. Debbie Crans studied at the University of Copenhagen, then moved to Harvard University in the US, where she successfully defended her PhD dissertation on "Methodology in Enzyme-Catalyzed Organic Synthesis: Glycerol Kinase Catalyzed Phosphorylations". Then, she went on to do postdoctoral work with Orville L. Chapman and Paul D. Boyer at the University of California, Los Angeles from 1985–1986. Dr. Crans is best known for her work on the role of vanadium in biological systems, especially the effects of its compounds on diabetes.

She has worked as senior editor several books on vanadium, such as Vanadium Compounds: Chemistry, Biochemistry, and Therapeutic Applications, Vanadium: The Versatile Metal and Vanadium in Biochemistry. Dr. Crans served as chair of the American Cemical Society in 2015 and 2016.

She has also been associate editor for The Journal of Chemistry and the Cooridnation Chemistry Reviews. During her carreer she has received with several awards such as 2019 ACS award for Distinguished Service in the Advancement of Inorganic Chemistry, 2015 Arthur P Cope ACS Scholar award, 2000 Japan Society of Promotion of Science award, among others.



#### January 16th, Thursday 12:30

FACULTAD DE CIENCIAS SALÓN DE GRADOS

Sciences Education: current situation and future trends



# Angelica M. Stacy

is the Associate Vice Provost for the Faculty and Professor of Chemistry at the University of California, Berkeley. Stacy was one of the first women to receive tenure in the College of Chemistry at UC Berkeley. At UC Berkeley, Stacy leads a research group that explores topics in materials science and chemistry education.

Stacy is particularly well known in the community for her contributions to chemistry education research with a specific focus on strategies to increase diversity in the field and STEM more generally. Stacy received her B.A. in Physics and Chemistry magna cum laude at LaSalle College (1977).

She would then go on to receive her Ph.D. from Cornell University (1981) with Professor Michell J Sienko. She was a postdoctoral fellow at Northwestern University (1981– 1983) with Professor Richard van Duyne and Professor Peter Stair prior to beginning her faculty position in the College of Chemistry at the University of California, Berkeley.

As a junior faculty member at Berkeley, Stacy was the first recipient of the Prytanean Faculty Award which is an unrestricted grant awarded to distinguished female faculty members at University of California, Berkeley indented to maximize the recipient's scholarly impact. In the area of service, and as a senior member of the faculty at the University of California, Stacy has been outspoken about her commitment to issues surrounding diversity and equity in the sciences. Stacy has served as co-investigator and principle investigator of the University of California Faculty Family-Friendly Edge which is a Sloan Foundation research project based at UC Berkeley. In these roles and that of associate vice provost of the faculty at University of California, Berkeley, Stacy is particularly committed to promoting "datadriven initiatives to increase equity and inclusion in faculty recruitment, advancement, and retention".

## January 17th, Friday 12:30

FACULTAD DE CIENCIAS - SALÓN DE GRADOS

Roundtable: The scientific career when you are a woman: Difficulties and challenges (Chairperson: Prof. M. Olga Guerrero-Pérez) Diploma delivery.