

UC SAN DIEGO NANOENGINEERING SEMINAR

Wednesday, February 13th, 2019
Seminar Presentation: 11:00am – 12:00pm
SME 248

“Nano with Atomic Precision”

Dr. De-en Jiang

*Department of Chemistry
University of California, Riverside*



Abstract: De-en Jiang is an associate professor in Department of Chemistry, University of California, Riverside. He’s also a cooperating faculty member in Materials Science & Engineering Program and Department of Chemical & Civil Engineering at UCR. He received his B.S. and M.S. degrees from Peking University and his Ph.D. degree from UCLA, all in chemistry. He joined Oak Ridge National Laboratory first as a postdoctoral research associate and then became a research staff member. He moved to UCR in July 2014. His research focuses on computational materials chemistry and nanoscience.

Biosketch: Function is key to development of new nanomaterials. Modern computational software and hardware now allow us to design materials, predict structures, and simulate function for some well-defined systems, indicating the great potential of materials design for complex systems in the near future. In this talk, I will discuss our recent efforts in understanding the atomically precise metal nanoparticles for water splitting and CO₂ reduction; simulating one-atom-thin porous graphene membranes for gas separation; controlling the surfaces and interfaces at atomic precision for catalysis. In each of the studies, one will see a close interplay between computation and experiment, demonstrating that computation or an experiment *in silico* is now a valuable tool to drive advances in nanomaterials.