



Orange County Section April Dinner Meeting  
College Awards Dinner Meeting  
Wednesday April 20, 2016

Concordia University, Irvine  
1530 Concordia West, Irvine, CA 92612  
Grimm Hall Conference Center (Grimm Hall, the Third Floor)

## **Geochemistry as a Tool for Understanding Climate Change**

**Professor Matthew E. Kirby, Ph.D.**

**Department of Geological Sciences  
California State University, Fullerton**

Registration & Social:	6:00pm	Dinner:	6:15pm
Presentation:	7:15pm	Awards Program:	8:00pm

**Abstract:** The geological sciences are often overlooked as a core science. Yet, so much of what we take for granted – water, oil, gas, metals – are products of the geological sciences. A key part of this science is geochemistry. For example, geochemistry plays an important role in the location, extraction, and refinement of Earth materials such as water, oil, gas, and metals. The application of geochemical techniques, however, is not limited to flashy items only, but it extends to other geological fields as well, such as climate change – the focus of my research at California State University, Fullerton. For this talk, I will highlight my path to the world of geochemistry and some of the geochemical techniques I use to reconstruct 30,000 years of climate. Specifically, I will focus on the coastal southwest United States and its history of droughts and floods.

**Biography:** Dr. Matthew Kirby was raised along the Susquehanna River in Binghamton, NY. He received a A.B. from Hamilton College, a M.Sc. from the University of Colorado, Boulder, and a Ph.D. from Syracuse University. Prior to landing a job at Cal-State Fullerton, he served as a post-doc at the University of Southern California. In 1992, he spent 38 days on the RV Polar Duke along the Antarctic Peninsula collecting sediment cores for his undergraduate thesis project. From that time on, Dr. Kirby knew he wanted to study Earth's climate history. Today, he studies past climate using lake sediments collected in the rare, but wonderful lakes of the coastal southwest United States.

**Reservations:** Please visit [www.OCACS.org](http://www.OCACS.org) and make your reservation no later than April 13, 2016 (Wed) 1pm PST.