

Graduate Study in Environmental Chemistry



Learn Environmental Chemistry from Chemists. SUNY-ESF's graduate program in environmental chemistry is one of only a handful in the country housed in a formal chemistry department.

Build on a Core of Chemistry. Students receive a well-grounded education in the traditional areas of analytical, inorganic, organic and physical chemistry, with the added value of a specialty area aligned with the needs of the 21st century.

Join a Community. ESF is the only university in the U.S. focused exclusively on the environmental and natural sciences and engineering. This common mission promotes the exchange of ideas across disciplines.

World-Class Faculty and Students. ESF's chemistry professors and graduate students have received numerous awards from organizations such as the American Chemical Society, the National Academy of Sciences, NASA, and the National Science Foundation.



Outstanding Facilities. Chemistry's home is the new Edwin C. Jahn Laboratory. The building's 72,000 square feet include 24 special purpose labs and facilities for biological and trace organic analysis, trace-metal studies, and atmospheric chemistry. The building boasts state-of-the-art GC and LC mass spectrometers, electro-spray mass spectrometers, and a 300 MHz and a 600 MHz NMR.

Recent publications

An antioxidant function for DMSP and DMS in marine algae. 2002, in *Nature*.

An inexpensive remotely operated vehicle for underwater studies. 2009, in *Limnology and Oceanography: Methods*.

Cyanobacterial Harmful Algal Blooms: State of the Science and Research Needs. 2008, in *Advances in Experimental Medicine and Biology*.

Dissolved DMSO production via biological and photochemical oxidation of dissolved DMS in the Ross Sea, Antarctica. 2009, in *Deep Sea Research*.

Failures and Limitations of Quantum Chemistry for Two Key Problems in the Atmospheric Chemistry of Peroxy Radicals. 2008, in *Atmospheric Environment*.

Identification of the Sex Pheromone of the German Cockroach, *Blattella germanica*. 2008, in *Science*.

Current Research

- Global carbon and sulfur cycles
- Destruction of airborne pollutants
- Aquatic and terrestrial food webs
- Harmful algal blooms
- Stable isotope biogeochemistry
- Indoor environmental quality
- Fate of persistent organic pollutants like PCBs, dioxins and mirex
- Kinetics and mechanisms of smog chemistry
- Photochemistry in lakes, streams and marine waters
- Microbial uptake of heavy metals
- Chemical Ecology
- New techniques for field and laboratory analysis in water, air and soil



Learn More:

Chemistry @ ESF

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Applications should be received by February 1 to ensure consideration for fall admission.



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www.esf.edu/chemistry/environmental

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College of Environmental Science and Forestry