

May 16, 2016 | By Robert Monroe

UC San Diego Chemistry Professor Wins Prestigious California Air Resources Board Honor

Kimberly Prather to receive one of four 2016 Clean Air Awards

Kimberly Prather, distinguished chair in atmospheric chemistry at the University of California San Diego, will receive the Haagen-Smit Clean Air Award from the California Air Resources Board May 18. The awards have since their inception in 2001 recognized individuals for career accomplishments in improving air quality in a number of categories.

Board officials said they bestowed the award upon Prather in its Atmospheric Chemistry Research category to acknowledge her “pioneering work that has transformed our understanding of atmospheric aerosols and their impacts on atmospheric chemistry, climate, and the hydrologic cycle.”

“I’m honored to receive this award,” said Prather. “The funding for our first field studies came from ARB back in the 1990s to build transportable versions of our single particle instruments. These instruments have been used in locations all over California and now are being used by other scientists worldwide. Our goal has been to better understand the sources of air pollution and their impacts on human health, climate, and our water supply.”

Prather holds a joint appointment at Scripps Institution of Oceanography and the Department of Chemistry and Biochemistry at UC San Diego. She joined the university in 2001 and has pioneered many aspects of the study of marine aerosols in the atmosphere, including the use of aerosol time-of-flight mass spectrometers (ATOFMS) that can analyze the chemical



Kimberly Prather

composition of airborne particles in real time. Prather has used information about the nature of aerosols to understand how they influence cloud formation and precipitation and to understand the influence of pollution on climate.

In 2010, an award from the National Science Foundation created the Center for Aerosol Impacts on Climate and the Environment (CAICE) at UC San Diego under Prather's leadership. The NSF awarded a \$20 million, five-year grant to CAICE in 2013 to support new research. Among the projects undertaken by the center in recent years has been the construction of a replica ocean in a wave tank located on the Scripps campus. Researchers simulated real-world conditions in a multi-week experiment in 2014 to analyze aerosols – particularly biological compounds – emitted by seawater pumped into the tank.

The Air Resources Board created the award in the memory of Arie Haagen-Smit, the board's first chairman who first described the process by which automotive and industrial emissions combined with sunlight to form ozone. Prather is the first recipient of the award from UC San Diego. Former awardees include State Sen. Fran Pavley and climate scientist James Hansen.

The presentation of the award and lectures by Clean Air Awards winners will take place at CalEPA Headquarters in Sacramento.

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