



PAUL J. CRUTZEN AWARD FOR EARLY CAREER SCIENTISTS - 2018



*International Commission on Atmospheric Chemistry and Global Pollution
(iCACGP)*

In 2017, the International Commission on Atmospheric Chemistry and Global Pollution (iCACGP) decided to launch the Paul J. Crutzen Award for Early Career Scientists as part of its 60th Anniversary celebrations. The first winner is to be presented with the award during a Ceremony at the 2018 joint 14th iCACGP Quadrennial Symposium/15th IGAC Science Conference, which takes place from the 25th to 29th of September 2018 at the Sunport Takamatsu Convention Center, 2-1 Sunport, Takamatsu, Kagawa, 760-0019 Japan.

After a selection process based on scientific excellence, productivity, breadth of scientific contribution, as reflected in the nomination and support letters, the scientific publications and their impact on the science community, ***the iCACGP Paul J. Crutzen Award for Early Career Scientists 2018, is given to Manabu Shiraiwa in recognition of his contribution to the fundamental understanding of multiphase chemistry of secondary organic aerosols (SOA) and reactive oxygen species (ROS) and the assessment of their impact on, and role in, both air quality and public health.***

Manabu Shiraiwa was nominated by Barbara Finlayson-Pitts and endorsed strongly by Ulrich Pöschl, Jonathan Abbatt, Allan Bertram and John Seinfeld. He undertook his PhD entitled "Kinetic modelling and experiments on gas uptake and chemical transformation of organic aerosol in the atmosphere" at the Max Planck Graduate Center - Johannes-Gutenberg University Mainz completing in 2011. After post-doctoral positions at the MPI Mainz and Caltech, he became a Group leader at MPI-Mainz, prior to joining UC Irvine in 2016, as an assistant professor, where he has been promoted to Associate Professor in 2018. During his career, Manabu Shiraiwa has demonstrated creativity, enthusiasm and broad interest in, and impact on, a number of areas that are critical to understanding anthropogenic impacts on our environment (1) the quantification of the gas-particle interaction through the development and use of kinetic multi-layer models; (2) the impact of particle viscosity and phase on particle chemistry and properties; and (3) the role of reactive oxygen species (ROS) interactions in particles and within human systems.

He has authored and co-authored 74 publications in peer reviewed journals, among which many are as the lead author. He has received several prizes for his research: a postdoctoral fellowship from the Japan Society for the Promotion of Science, the 2011 Otto-Hahn Medal of the Max Planck Society, the 2012 Paul Crutzen Prize of the German Chemical Society, the 2015 Young Scientist Award of Japan Society of Atmospheric Chemistry, the 2014 Sheldon Friedlander Award of the American Association for Aerosol Research and the 2017 NSF CAREER Award by the National Science Foundation. In summary Manabu Shiraiwa is an outstanding early career scientist and the worthy winner of the iCACGP Paul J. Crutzen Award for Early Career Scientists 2018.