Joint Session in TGSW2018

9:30am – 5:00pm Sept. 22 (Sat), 2018
Tsukuba International Congress Center, Tsukuba, Japan

–The Mitsubishi UFJ Environment Foundation Lectures–

Air Pollution and its Biological Effects

Keywords: Air pollution, Biological effect, Black carbon, Particulate pollutant, SDGs 3, 11 & 12

Session Organizers:
I. Suzuki (UT), A. Furuyama (NIES) and M. Shiraiwa (UCI)
Invited Speech
Part 1: Aerosol Chemistry

Role of photochemistry in controlling composition of organic aerosols

Dr. Sergey Nizkorodov
Co-Director, AirUCI Institute. Professor, Department of Chemistry.
Research Area: Chemistry, Processes, and Measurements

http://airuci.uci.edu/faculty/nizkorodov
Atmospheric new particle formation: Causes and impacts

Dr. James N. Smith
Professor, Department of Chemistry.
Research Area: Chemistry, Processes, and Measurements

http://airuci.uci.edu/faculty/smith
Invited Speech
Part 2: Air pollution & human health

Lung surface chemistry: Why air pollutants are "toxic"?

Dr. Shinichi Enami
Senior Researcher, Center for Environmental Measurement and Analysis (Environmental Reaction Chemistry Section)
Research Subject: Elucidating the mechanism of reactions at the air-water interface
Keywords: Aerosol, Interface, Biosurface
(JP) http://www.nies.go.jp/researchers/300899.html
(EN) http://www.nies.go.jp/researchers-e/300899.html
Invited Speech
Part 2: Air pollution & human health

Air pollution and climate change: Impact on human health

Dr. Yasushi Honda
Professor, Faculty of Health and Sport Sciences
Research fields: Epidemiology and preventive medicine
Research keywords: climate change, air pollution, electro-magnetic field
(EN) http://www.trios.tsukuba.ac.jp/en/researcher/0000001962,
https://www.researchgate.net/profile/Yasushi_Honda3
Invited Speech
Part 3: Air pollution & plants

Plant volatiles interactions with air pollution and other stressors

Dr. Alex Guenther
Professor, Department of Earth System Science.
Research Area: Simulations of Air / Water Pollution and Climate, Chemistry, Processes, and Measurements

http://airuci.uci.edu/faculty/guenther
Invited Speech
Part 3: Air pollution & plants

Molecular genetic studies on plant response to ozone

Dr. Hikaru Saji

Senior Research Associate, Center for Environmental Biology and Ecosystem Studies (Environmental Stress Mechanisms Section)

Research Subject: Clarification of effects of ozone and other environmental stress factors on plants and their underlying mechanisms

Keyword(s): genetic analyses, experimental exposure to air pollutants

(JP) http://www.nies.go.jp/researchers/100140.html
(EN) http://www.nies.go.jp/researchers-e/100140.html
Invited Speech
Part 4: Mechanisms & phenomena

A variety of adaptive responses to atmospheric electrophiles

Dr. Yoshito Kumagai
Professor, Environmental Biology Laboratory, Faculty of Medicine, University of Tsukuba

Title of Project: Modulation of signal transduction pathways mediated by environmental electrophiles through chemical modification

Laboratory Website:
(JP)http://www.md.tsukuba.ac.jp/environmental_medicine/
(EN)http://www.md.tsukuba.ac.jp/environmental_medicine/index-en.html
Invited Speech
Part 4: Mechanisms & phenomena

Multiphase Chemistry
at the Atmosphere-Biosphere Interface

Dr. Manabu Shiraiwa
Associate Professor, Department of Chemistry.
Research Area: Simulations of Air / Water Pollution and Climate, Chemistry, Processes, and Measurements

http://airuci.uci.edu/faculty/shiraiwa
Dr. Kei Sato

Senior Researcher, Center for Regional Environmental Research (Regional Atmospheric Environment Section)

Research Subject: Study on reaction processes relevant to trace reactive gas and aerosol species in the atmosphere

Keywords: Fine Particulate Matter (PM2.5), Secondary Organic Aerosol, Environmental Chamber, Photochemical Oxidant

http://www.nies.go.jp/researchers/100110.html
http://www.nies.go.jp/researchers-e/100110.html