

International Symposium on Trans-boundary Pollution and Integrated Research Studies

This symposium marks the adoption of Institute of Nature and Environmental Technology at Kanazawa University as one of the Joint Usage/Research Centers (JURC) by Ministry of Education, Culture, Sports, Science and Technology Japan (MEXT).

The symposium themes will be: atmospheric environment, water pollution, land-surface processes, disaster prevention, and geochemical cycles

Date : March 7 – 9, 2016 (Monday - Wednesday)

Venue : Lecture Room B1, General Education Hall, Kakuma Campus, Kanazawa University

Program

DAY 1: Monday, March 7, 2016

Core symposium dedicated to the JSPS funded project ‘International collaborations for interaction between atmosphere and marine-ecosystem caused by aerosols’

10:30-11:00 Registration

Opening Session

Chair: S. Tsukawaki

11:00-11:15 *Opening address* by Prof. K. Yamazaki, President of Kanazawa University, Japan

11:15-11:40 *Opening remarks* by Prof. K. Hayakawa Director of Institute of Nature and Environmental Technology (INET), Kanazawa University, Japan

11:40-13:00 Lunch break

Oral Session

Chair: A. Matsuki

13:00-13:30 *Is PM_{2.5} the right measurement to probe aerosol health effects?* by Prof. R. Flagan (California Institute of Technology, USA)

13:30-14:00 *Characterization of optical properties of atmospheric aerosols* by Prof. W. W. Szymanski (University of Vienna, Austria)

14:00-14:30 *Measurement of atmospheric nanoparticles* by Prof. T. Seto (Kanazawa University, Japan)

14:30-14:50 Coffee break

Oral Session (continued)

Chair: N. Tang

14:50-15:20 *Comparisons of the microbial communities in bioaerosol between Asian dust (Kosa) source and downwind areas* by Associate Prof. T. Maki (Kanazawa University, Japan)

- 15:20-15:50 *Desert dust, microbial dispersal and biogeography* by Prof. S. B. Pointing (Auckland University of Technology, New Zealand)
- 15:50-16:20 *Introduction to a major program of the National Natural Science Foundation of China: structure of the cloud system in the typical region of China and its radiation-climate effect* by Dr. B. Chen (Chinese Academy of Sciences, China)
- 16:20-16:50 *Air pollution in northeast Asia caused by particulate matters containing polycyclic aromatic hydrocarbons and nitropolycyclic aromatic hydrocarbons* by Prof. K. Hayakawa (Kanazawa University, Japan)

Closing Session

16:50-17:00 Closing remarks by Prof. K. Hayakawa (Director of INET)

DAY 2: Tuesday, March 8, 2016

International symposium for environmental research in East Asia

08:30-09:00 Registration

Opening address

Chair: N. Hasebe

09:00-9:10 Prof. K. Hayakawa (Director of INET)

Thematic Symposium I: Atmospheric environment

09:10-09:15 *Aims of the symposium* by Associate Prof. A. Matsuki (Kanazawa University, Japan)

09:15-09:40 *The role of photochemistry in secondary aerosol formation and evolution during high particulate matter episodes at a suburban site in Hong Kong* by Prof. C. K. Chan (City University of Hong Kong, China)

09:40-10:05 *Features of PAHs in atmospheric aerosols in the Primorsky Krai of Russia at least 15 years. Joint investigations of Pacific Oceanological Institute RAS and Kanazawa University* by Dr. V. Mishukov (Russian Academy of Sciences, Russia)

10:05-10:30 *Carbonaceous aerosols observed in Noto peninsula: Their source and impact on aerosol CCN activity* by Associate Prof. A. Matsuki (Kanazawa University, Japan)

10:30-10:45 Coffee break

Thematic Symposium II: Marine pollution

Chair: T. Sekiguchi

10:45-10:50 *Aims of the symposium* Prof. N. Suzuki (Kanazawa University, Japan)

10:50-11:15 *Implication of marine air emission from ocean-going vessels to neighboring coastal air quality* by Prof. H. Lee (Incheon University, Korea)

11:15-11:40 *Molecular genetics as indicator for marine pollution* by Dr. F. Kh. Abdel-Gawad (National Research Center, Egypt)

11:40-12:05 *Evaluation and risk assessment of polycyclic aromatic hydrocarbons (PAHs) on the Egyptian marine environment* by Dr. H. F. Nassan (National Research Center, Egypt)

12:05-12:30 *Effective mechanisms of vertical water and material transport in the Japan Sea* by
Dr. V. Lobanov (Russian Academy of Sciences, Russia)

12:30-13:30 Lunch Break

**Thematic Symposium III: Natural disaster and environmental change studies in
terrestrial area** Chair: K. Fukushi

13:30-13:35 *Aims of the symposium* Associate Prof. N. Hasebe (Kanazawa University, Japan)

13:35-14:00 *The adaptation of natural hazards under the threaten of climate change in Taiwan*
by Prof. J. -C. Lin (University of Taiwan, Taiwan)

14:00-14:25 *Sea level fluctuations of the last five millennia recorded in macrotidal flats along
the west coast of Korea* by Dr. W. H. Nahm (Korea Institute of Geoscience and
Mineral Resources, Korea)

14:25-14:50 *On-going research on paleoenvironmental change in arid area of Mongolia* by
Associate Prof. N. Hasebe (Kanazawa University, Japan)

14:50-15:05 Coffee break

**Thematic Symposium IV: Integrated environmental research, study on land and sea
interactions with radioactive and isotopic tracers** Chair: M. Inoue

15:05-15:10 *Aims of the symposium* Prof. S. Nagao (Kanazawa University, Japan)

15:10-15:35 *Water mass analysis using multi-tracers in the East China Sea: contribution of
Kuroshio Intermediate Water* by Prof. J. Zhang (Toyama University, Japan)

15:35-16:00 *Submarine groundwater discharge: a hidden pathway for the transport of
chemicals and radionuclides from land to ocean* by Dr. M. A. Charette (Woods Hole
Oceanographic Institute, USA)

16:00-16:25 *Transport behavior of particulate organic matter in the Kumaki River system in
Noto Peninsula, Japan using carbon isotopes* by Prof. S. Nagao (Kanazawa
University, Japan)

Closing remarks

16:25-16:35 Prof. K. Hayakawa (Director of INET)

Banquet

18:00-20:00 KKR Hotel Kanazawa Tel +81-76-264-3261 <http://kkrrhotelkanazawa.gr.jp/>

DAY 3: Wednesday, March 9, 2016

Annual meeting on the results of the INET research activities and joint usage projects

8:30-9:00 Registration

Opening remarks

Chair: N. Suzuki

09:00-09:10 Vice President of Kanazawa University by Prof. C. Mukai

1. Research activities

09:10-09:35 *Research results in the fiscal year 2015* by Prof. K. Hayakawa (Director of INET)

09:35-10:05 *Topics of recent researches: Track the past coastal disasters and environmental change in Lake Kitagata sediment, Hokuriku district, Japan* by Associate Prof. N. Hasebe (Kanazawa University, Japan)

2. Joint usage projects

Chair: U. Nisikawa

1) Priority research

10:05-10:35 *Clarification of atmospheric deposition of carbonaceous components and their characteristics in Northeast Asia* by Dr. K. Sato (Asia Center for Air Pollution Research, Japan)

10:35-10:45 Coffee break

2) General scientific research

10:45-11:05 *Secondary formation of chlorinated polycyclic aromatic hydrocarbons on sea salt and mineral dust aerosols* by Associate Prof. T. Kameda (Kyoto University, Japan)

11:05-11:25 *Environmental magnetic studies of roadside pollution along forest roads in northeast Asia* by Assistant Prof. K. Kawasaki (Toyama University, Japan)

11:25-11:45 *Effects of increasing nitrogen loading on coastal environment in Wakasa Bay* by Assistant Prof. Ryo Sugimoto (Fukui Prefectural University, Japan)

3) Young scientists' research

11:45-12:00 *Study on the complexation mechanism of dissolved organic carbon in deep underground water* by Graduate student S. Kimuro (Tohoku University, Japan)

Closing remarks

12:00-12:05 Prof. K. Hayakawa (Director of INET)