



2nd Korea-Germany Environmental Workshop

Urban air pollution control facing human health

13-14 November 2018

Tagungshotel campus.guest der Universität Stuttgart
Universitätsstraße 34, 70569 Stuttgart-Vaihingen, Germany

Air pollution that causes serious health effects and environmental problems represents currently one of the most serious issues in most cities worldwide. The principal source of significant air pollutants in urban areas such as PM₁₀ and NO₂ is emission by road traffic, particularly diesel vehicles. In this context, there is a lot of pressure on the most of cities to prepare and apply effective measures for the reduction of high air pollutant concentrations. Given this background, the 2nd Korea-Germany Environmental Workshop deals with selected fundamentals of urban air quality and strategies to improve the urban air quality focusing on PM and NO₂.

Organizer



재독한국과학기술자협회

Verein Koreanischer Naturwissenschaftler und Ingenieure in der BRD e.V.
The Korean Scientists and Engineers Association in the FRG

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13th November 2018 (Tuesday)

12:00 Registration

13:00 Opening and welcome remarks

Dr. Wonsun Park
VeKNI e.V. President;
GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany

Dr. Hans-Wolf Zirkwitz
City of Stuttgart, Office for Environmental Protection, Germany

Session 1 Importance of PM for the urban air quality

Chair: Dr. Ulrich Reuter
(Stuttgart, Germany)

13:30 Air quality problems in German cities:
the example of Stuttgart

Dr. Rayk Rinke
City of Stuttgart, Office for Environmental Protection,
Department of Urban Climatology, Germany

14:00 PM₁₀ problems in Korean cities:
the example of Seoul

Prof. Dr. Minju Yeo
Ewha Womans University, Department of Environmental Science
and Engineering, Seoul, Republic of Korea

14:30 Particulate matter - causes and
long distance transport:
the example of East Germany

Dr. Annette Rauterberg-Wulff
Senate Department for the Environment,
Transport and Climate Protection, Berlin, Germany

15:00 Airborne particulate matter management
in Korea and international cooperation

Prof. Dr. Jongin Dong
University of Seoul, School of Environmental Engineering,
Republic of Korea

15:30 Coffee break

Session 2 NO₂ as traffic-specific air pollutant

Chair: Prof. Dr. Wilhelm Kuttler
(University of Duisburg-Essen, Campus Essen, Applied Climatology, Germany)

16:00 Causal chain of air pollutants:
examples of PM₁₀ and NO₂

Prof. Dr. Helmut Mayer
Albert-Ludwigs-University of Freiburg,
Chair of Environmental Meteorology, Germany

16:30 Small scale spatial and temporal
variation of NO₂ in urban agglomerations
- the example of Stuttgart

Dr.-Ing. Ulrich Vogt
University of Stuttgart, Institute of Combustion and
Power Plant Technology, Department Air Quality Control, Germany

17:00 Can photocatalysis help to solve
the urban NO₂ problem?

PD Dr. Jörg Kleffmann
Bergische Universität Wuppertal, Research Group Physical and
Theoretical Chemistry, Germany

17:30 Quantification of environmental disease
burden due to NO₂ exposure in Germany
- results and interpretation of UBA study

Dr. Josef Cyrus
Helmholtz-Zentrum München, Institute of Epidemiology, Germany

Dinner together

19:00 Tagungshotel campus.guest der Universität Stuttgart

14th November 2018 (Wednesday)

Session 3 Measures and techniques to improve the urban air quality

Chair: Prof. Dr. Helmut Mayer

(Albert-Ludwigs-University of Freiburg, Chair of Environmental Meteorology, Germany)

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| 09:00 | The effect of electro mobility on air quality in Hamburg | Dr. Matthias Karl
Helmholtz-Zentrum Geesthacht,
Centre for Materials and Coastal Research, Germany |
| 09:30 | Estimation of air pollution from the OGVs and its dispersion in a coastal urban area | Prof. Dr. Heekwan Lee
Incheon National University,
School of Urban Environmental Engineering, Republic of Korea |
| 10:00 | Effect of climate change on transport and accumulation of air pollutants | Prof. Dr. Ja-Ho Koo
Yonsei University,
Department of Atmospheric Science, Seoul, Republic of Korea |
| 10:30 | Coffee break | |
| 11:00 | VOC characteristics and contributions to ozone, SOA formation in Seoul | Dr. Eun Mi Jeon
Seoul Metropolitan Research Institute
of Public Health and Environment, Seoul, Republic of Korea |
| 11:30 | Influence of urban vegetation on air quality | Prof. Dr. Wilhelm Kuttler
University of Duisburg-Essen,
Campus Essen, Applied Climatology, Germany |

Closing discussion

- | | | |
|--------------|--------------------------------|---|
| 12:00 | Chair: Dr. Hyunjung Lee | |
| 12:30 | | VeKNI e.V.;
City of Stuttgart, Office for Environmental Protection, Department of Urban Climatology, Germany |

Lunch together

- 13:00** Tagungshotel campus.guest der Universität Stuttgart

Coordinator of the workshop: Dr. Hyunjung Lee

(VeKNI e.V.; City of Stuttgart, Office for Environmental Protection, Department of Urban Climatology)

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Organizer



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