



THE 33rd ANNUAL MEETING AND SYMPOSIUM ON AEROSOL SCIENCE AND TECHNOLOGY

August 31 – September 2, 2016
Osaka Prefecture University, Sakai, Japan

Timetable

	Room A (Room 118)	Room B (Room 122)	Hall in front of Room A and Room 104
Aug. 31 (WED)	A. Symposium A1 (8) Highly time-resolved measurement of chemical components in PM _{2.5} (9:30–11:46)	B. Measurement & Analysis I (8) (9:30–11:46)	Poster (Hall) Exhibition (Room 104)
	C. Atmospheric Aerosol I, Health Effects (7) (13:00–14:59)	D. Measurement & Analysis II (7) (13:00–14:59)	
	Y.P. Short Presentation for Best Poster Award (19) (15:10–15:30)		
		Young Researchers Meeting (17:20–19:15)	P. Poster Presentation (47) (including 19 posters by young researchers) (15:30–17:10)
Sep. 1 (THU)	E. Symposium A3 (11) Frontier researches on indoor aerosols relevant to their formation, behaviors, control and measurement technologies (9:00–10:25) (10:35–12:17)	F. Symposium A2: (7) Advances in aerosol measurements for nano, submicron, and supermicron size ranges (9:00–10:30) (10:40–11:40)	Poster (Hall) Exhibition (Room 104)
	S. Special Lecture (1) Evolving ships for future (13:30–14:10)		
	JAAST General Meeting (14:15–15:25)		
	SS. Special Session (Iinoya Award) (3) (15:35–16:20)		
	Presentation by Exhibitors (16:30–17:40)		
Banquet (Cafeteria) (18:00–20:00)			
Sep. 2 (FRI)	G. Dynamic Behavior & Deposition, Air Filter & Dust Collection, Application of Aerosols (8) (9:00–11:16)	I. Atmospheric Aerosol II (12) (9:00–10:42) (10:50–12:32)	Poster (Hall) Exhibition (Room 104)
	H. Formation & Composition (4) (11:20–12:28)		

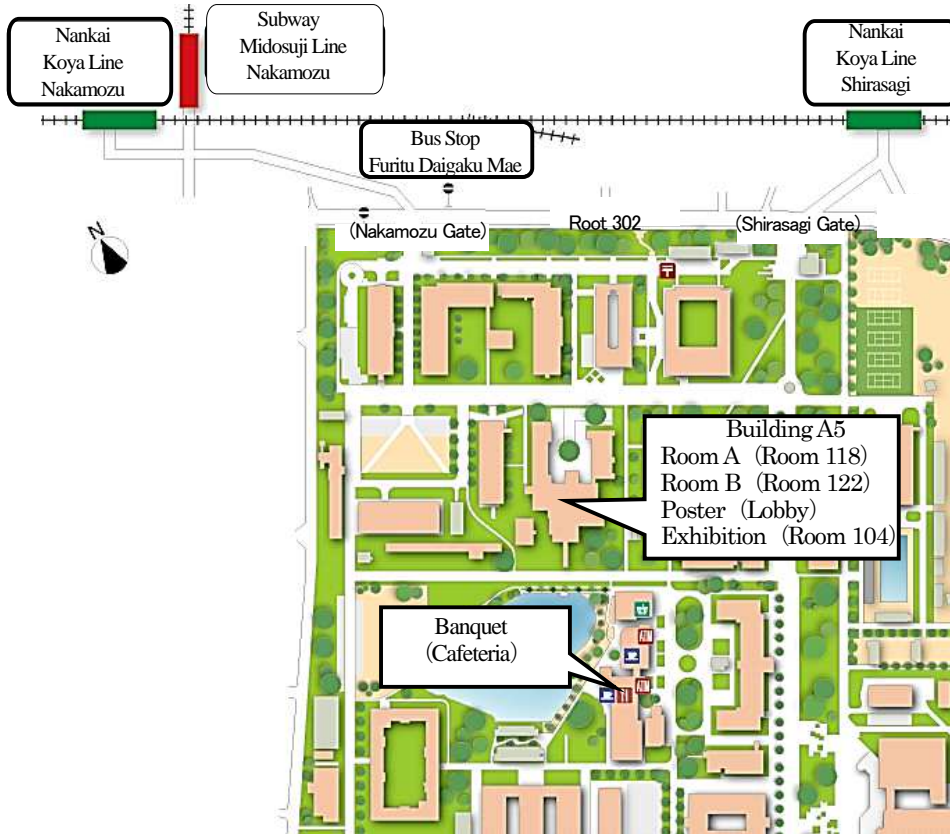
The figures in parentheses after session title indicate the number of presentations

Instructions for Presentation

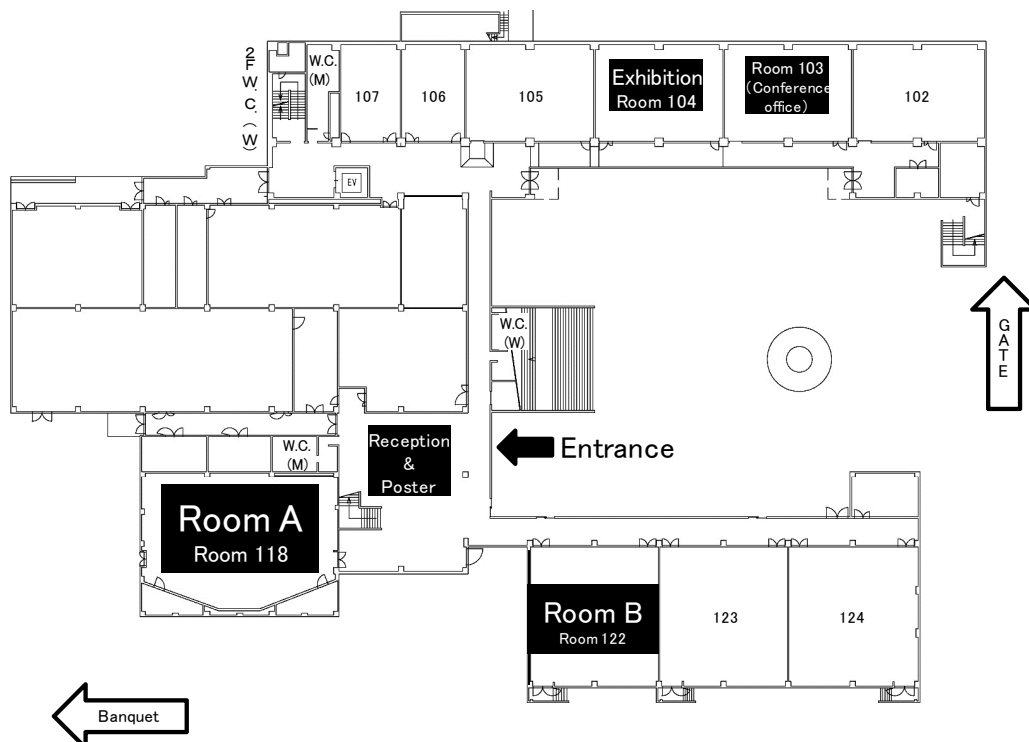
- Oral Presentation: 12 min for presentation and 5 min for discussion, excluding invited speakers.
- Short Presentation by Young Researchers (Best Poster Award): 1 min
- Special Session (Iinoya Award): 5 min for presentation and 10 min for discussion (15 min in total)
- Use your own PC for the slide projection
- Place your posters before the poster session on August 31
- Poster board size: 201 x 90 cm

Access to Osaka Prefecture University

- From Shin Osaka or JR Osaka station, take Subway Midosuji Line (about 30 min) and get off at Nakamozu Station.
- From Nakamozu Station, 1,000 m southeast (about a 13-minute walk)
Take the bus (bound for Kitanoda Eki Mae, Route 31 or 32, 32-1) at Nakamozu Station (about a 5-minute ride) and get off at the Furitsu Daigaku Mae stop.
- From Shirasagi Station, 500 m southwest (about a 6-minute walk)



Building A5 Floor Guide



PROGRAM

Wednesday, August 31

< Room A >

(Room 118)

Symposium A1

Highly time-resolved measurement of chemical components in PM_{2.5}

(9:30–11:46) Chaired by: S. Hasegawa and M. Kido

A01 Preliminary study on real-time measurement of the elements in aerosols by virtual impactor/gas exchange device/ICP-MS

T. Okuda¹, M. Iwara¹, Y. Mori¹, M. Ohata²
¹ Keio Univ., ² AIST

A02 The development and evaluation of the URG-9000 ambient ion monitor for the high-time resolution quantification of ambient gas and particulate phase species using ion chromatography (Part 1)

Matthew S. Landis
U.S. EPA Office of Research and Development

A03 Comparison of ionic concentrations on size-segregated atmospheric aerosol particles based on a denuder-filter method and a continuous dichotomous aerosol chemical speciation analyzer (ACSA-12)

K. Osada¹, Y. Kamiguchi¹, S. Yamamoto²,
S. Kuwabara³, P. Xiaole³, Y. Hara³, I. Uno³
¹ Nagoya Univ.
² Fukuoka Pref. Dep. of Environ.
³ Kyusyu Univ.

A04 Hourly analysis of the components in PM_{2.5} by ACSA at Kumamoto

K. Misawa¹, A. Yoshino², S. Tatsuta³,
T. Kojima⁴, S. Hatakeyama³, A. Takami²
¹ Tokyo Metropolitan Univ.
² NIES
³ Tokyo Univ. of Agriculture and Technology
⁴ Kumamoto Univ.

A05 Pollution factor analysis of PM_{2.5} by aerosol automatic analyzer

R. Nakatsubo, Y. Horie, T. Hiraki
Hyogo Prefectural Institute of Environ. Sci.

A06 Dynamics of levoglucosan emitted from a forest fire: a discussion from high temporal resolution data

D. Asakawa¹, Y. Oku²
¹ Osaka City Institute of Public Health and Environ. Sci.
² Univ. of Hyogo

A07 An analysis of PM_{2.5} mass and chemical components

A. Takami, A. Yoshino
NIES

A08 Trend and expansion of ambient aerosol research by aerosol mass spectrometer instruments

A. Shimono
Shoreline Science Research, Inc.

BREAK (74 min)

Atmospheric Aerosol I Health Effects

(13:00–14:59)

Chaired by: N. Ito and Y. Fujii

C01 Organic nitrogen of atmospheric aerosols in the coastal area of Seto inland sea

T. Nakamura¹, Y. Narita²,
K. Kanazawa¹, M. Uematsu²
¹ National Institute of Technology, Kagawa College
² The Univ. of Tokyo

C02 Estimation of effective concentration from East Asia for the sulfate in the atmospheric aerosols at Sakai, Osaka

N. Ito, A. Mizohata
Osaka Prefecture Univ.

C03 Estimation of long-range transported PM_{2.5} at Murodo, Tateyama in spring

M. Kido, M. Aibe, H. Hatsushika
Toyama Pref. Environ. Sci. Res. Center

C04 PM_{2.5} source apportionment in Malaysia: Influence by Indonesian peatland fires

Y. Fujii¹, S. Tohno², N. Amil³, M. T. Latif³
¹ Center for Environ. Sci. in Saitama
² Kyoto University, ³ Univ. Kebangsaan Malaysia

C05 Factors controlling new particle formation at the summit of Mt. Fuji based on in-situ and lidar observations

R. Kataoka¹, K. Miura¹, Y. Iwamoto¹, M. Yabuki²
¹ Tokyo Univ. of Science
² Kyoto Univ.

C06 Observation of atmospheric nanoparticles using TSI-1nm-SMPS at Fukue island, Japan

I. Chandra¹, L. Fengju¹, T. Seto¹,
Y. Otani¹, N. Hama², A. Yoshino³,
A. Takami³, N. Takegawa⁴
¹ Kanazawa Univ., ² Tokyo Dylec Co.,
³ NIES, ⁴ Tokyo Metropolitan Univ.

C07 Correlation between clinical findings and yellow dust collected with eyewash solution

M. Arimoto¹, R. Koh², T. Mimura³,
M. Hayashi², H. Hayashi², E. Uchio²,
H. Fujishima⁴, M. Nozaki¹, H. Yano¹
¹ KOBAYASHI Pharmaceutical Co., Ltd
² Fukuoka Univ.
³ Tokyo Women's Medical Univ.
⁴ Tsurumi Univ.

BREAK (11 min)

Short Presentation for Best Poster Award

(15:10–15:30)

Chaired by: M. Yabuki and Y. Iwamoto

YP01 Behavior of ultrafine particle formation from laser printers and reduction in their number

Y. Nishino¹, N. Namiki¹, N. Kagi², M. Ono³
¹ Kogakuin Univ., ² Tokyo Inst. of Technol.
³ Samsung R&D Institute Japan

YP02 Ultrafine particle collection using droplets generated by ultrasonic atomization

K. Nishishita¹, N. Namiki¹, S. Suzuki¹,
K. Sekiguchi², S. Nii³
¹ Kogakuin Univ., ² Saitama Univ.
³ Kagoshima Univ.

- YP03 Removal of NO_x in diesel engine exhaust gases using exhaust gas component recirculation
D. Fujita, N. Ikeda, S. Ito, M. Okubo, T. Kuroki
Osaka Prefecture Univ.
- YP04 Effects of primary particle size on particle size and mass concentration of aerosol particles generated by spray-drying
M. Kubo, M. Komurasaki, M. Shimada
Hiroshima Univ.
- YP05 A basic study of ozone denuder sampling for PM_{2.5}: influence of filter artefacts regarding organic compounds
M. Kohie¹, Y. Ohnishi^{1,2}, H. Gotoh¹, K. Kobayashi¹, S. Nakai¹
¹ *Yokohama National Univ.*
² *Murata Keisokuki Service Co., Ltd.*
- YP06 Estimation of collection efficiency of air filter by Langevin dynamics method
M. Watanuki¹, Y. Inui², T. Fujimoto¹, T. Seto², H. Higashi², Y. Otani², S. Yamanaka¹, Y. Kuga¹
¹ *Muroran Inst. of Technol.*
² *Kanazawa Univ.*
- YP07 Attempts to improve particle classification performance of a virtual impactor for PM_{2.5}/PM₁₀ mass concentration measurements in stacks
S. Okamoto¹, N. Namiki¹, H. Kamiya², M. Tukada²
¹ *Kogakuin Univ.*
² *Tokyo Univ. of Agriculture and Technology*
- YP08 Experimental evaluation of the feasibility of a method for testing mass concentration accuracy of automated PM_{2.5} monitors with lab-generated aerosols
Y. Murashima, H. Sakurai
AIST
- YP09 Development and application to air monitoring of high volume PM_{0.1} sampler with multi-nozzle inertial filter
Z. Tong¹, H. Takahashi¹, M. Hata¹, A. Toriba¹, T. Ikeda², Y. Otani¹, M. Furuuchi¹
¹ *Kanazawa Univ.*, ² *Nitta Corporation*
- YP10 Development and application of aerosol nanoparticle monitor using inertial filter
Y. Yamamoto¹, H. Takahashi¹, T. Thongyen², T. Ikeda³, Y. Otani¹, M. Hata¹, M. Furuuchi¹
¹ *Kanazawa Univ.*, ² *Kasetsart Univ.*
³ *Nitta Corporation*
- YP11 Investigation on the differential mobility analyzer methods for the development of new size reference materials below 10 nm
A. Maeda, K. Takahata, H. Sakurai
AIST
- YP12 Effect of moisture content on smoke particle emission from wood biomass combustion
Y. Okazaki¹, C. Jiraporn², P. Tekasakul³, S. Tekasakul³, M. Hata¹, M. Furuuchi¹
¹ *Kanazawa Univ.*, ² *Thaksin Univ.*
³ *Prince of Songkhla Univ.*
- YP13 Seasonal variation of light absorption properties of brown carbon in PM_{2.5} at Nagoya
F. Ikemori¹, T. Nakayama², H. Hasegawa¹, D. Asakawa³, S. Saito⁴, H. Nakashima¹, S. Sugata⁵
¹ *Nagoya City Inst. for Environ. Sci.*, ² *Nagoya Univ.*
³ *Osaka City Inst. of Public Health and Environ. Sci.*
⁴ *Tokyo Metropolitan Research Inst. for Environ. Protection*
⁵ *NIES*
- YP14 Analysis of individual aerosol particles collected at the summit of Mt. Fuji
S. Doi, Y. Iwamoto, K. Miura
Tokyo Univ. of Science
- YP15 Features of new particle formation and growth by air mass origin at the Mt. Fuji
R. Kataoka¹, K. Miura¹, Y. Iwamoto¹, M. Yabuki², S. Kato³
¹ *Tokyo Univ. of Science*, ² *Kyoto Univ.*
³ *Tokyo Metropolitan Univ.*
- YP16 Investigation of ambient nano-particles in East-Asian city areas
T. Zhao¹, S. Hongtieab¹, M. Hata¹, A. Matsuki¹, M. Furuuchi¹, K. Sekiguchi², F. Yoshikawa³, F. Ikemori⁴, R. Nishimura⁵, P. Tekasakul⁶, S. Hor⁷, Q. H. Bang⁸, Kunaifi⁹
¹ *Kanazawa Univ.*, ² *Saitama Univ.*
³ *National Inst. of Technol.*, *Toyama College*
⁴ *Nagoya City Environ. Center*
⁵ *Res. Inst. of Environ., Agriculture and Fisheries, Osaka Pref.*
⁶ *Prince of Songkhla Univ.*
⁷ *Inst. of Technol. of Cambodia*
⁸ *Vietnam National Univ., Ho Chi Minh City*
⁹ *Universitas Islam Negeri Sultan Syarif Kasim*
- YP17 Effect of traffic and construction on air quality of Phnom Penh city, Cambodia
P. Ung¹, S. Sroy², S. Hor², S. Try², S. Hul², T. Zhao³, M. Hata³, S. Tsukawaki³, M. Furuuchi³
¹ *Tokyo Inst. of Technol.*
² *Inst. of Technol. of Cambodia*
³ *Kanazawa Univ.*
- YP18 Measurements of ambient PAHs in Kumamoto: Distinction between transboundary pollution and local pollution
T. Sugiyama¹, K. Shimada², C. K. Chan³, Y. P. Kim⁴, G. Lin⁵, A. Takami⁶, S. Hatakeyama²
¹ *Kyoto Univ.*
² *Tokyo Univ. of Agriculture and Technol.*
³ *City Univ. of Hong Kong*
⁴ *Ewha Womans University*
⁵ *National Central Univ.*, ⁶ *NIES*
- YP19 Characterization of polycyclic aromatic hydrocarbons and their derivatives and n-alkanes in atmospheric aerosols collected in Malaysia
N. Saitoh¹, Y. Fujii², Y. Kamiya¹, T. Kameda¹, S. Tohno¹, M. Mahmud³, T. Ohura⁴
¹ *Kyoto Univ.*
² *Center for Environ. Sci. in Saitama*
³ *Univ. Kebangsaan Malaysia*
⁴ *Meijo Univ.*

Wednesday, August 31

< Room B >

(Room 122)

Measurement & Analysis I

(9:30–11:46)

Chaired by: K. Nagato and H. Kobara

- B01 Gravitational effect on fundamental feature of DMA
C. Tsunoda
Forum on Environ. Sci.
- B02 Inference of particle size distributions by electrical mobility analysis: Application of the DMA moment method to multi-modal distributions
K. Takahata, H. Sakurai, K. Ehara
AIST
- B03 Analysis of atmospheric cluster ions using FAIMS
K. Nagato
Kochi National College of Technol.
- B04 In situ observation of crystallization process of single levitated microdroplet using electrodynamic balance
Y. Shiratori, A. Harano
Gunma Univ.
- B05 Observation of electrospray using high-resolution high-speed camera
H. Kobara, Y. Sugawara, H.H. Kim, A. Wakisaka
AIST
- B06 Development of layered mesh inertial filter combined with an impactor
Z. Tong¹, H. Takahashi¹, M. Hata¹, A. Toriba¹,
T. Ikeda², Y. Otani¹, M. Furuuchi¹
¹Kanazawa Univ., ²Nitta Corporation
- B07 Particle sampling method for quantitative evaluation with SEM : Surface-collection efficiency of Nuclepore filters for nanoparticles
I. Ogura¹, M. Kotake², H. Sakurai¹, K. Honda¹
¹AIST, ²TASC
- B08 Applicability of LIVE/DEAD BacLight stain with glutaraldehyde fixation for the measurement of bacterial abundance and viability in rainwater
W. Hu, K. Murata, D. Zhang
Pref. Univ. of Kumamoto

BREAK (74 min)

Measurement & Analysis II

(13:00–14:59)

Chaired by: S. Ikawa and Y. Fujitani

- D01 Calibration of a condensation particle counter using wafer surface scanner at low concentration
S. Kimoto¹, G. W. Mulholland²,
M. C. Owen³, D. Y. H. Pui¹
¹Univ. of Minnesota
²The Univ. of Maryland, College Park
³U.S. Army Primary Standard Laboratory
- D02 Evaluation of counting efficiencies for light scattering airborne particle counter using inkjet aerosol generator
T. Minakami¹, K. Iida², H. Sakurai²,
K. Kondo¹, T. Hosokawa¹
¹RION CO., LTD., ²AIST
- D03 Influence of artifact in PM_{2.5} carbonaceous measurement
S. Hasegawa
Center for Environ. Sci. Saitama
- D04 Performance evaluation of black carbon measurement with soot particle-AMS
Y. Fujitani¹, T. Hikida², A. Shimono²
¹NIES, ²Shoreline Science Research Inc.
- D05 Measurement of abraded particles released from carbon nanotube composites
I. Ogura¹, M. Kotake², K. Honda¹
¹AIST, ²TASC
- D06 Study of standard particle generation method for PM_{2.5} composition analyzer
N. Takeda
Fuji Electric Co., Ltd.
- D07 An investigation for design of instruments using a CFD (computational fluid dynamics)
S. Ikawa
Sibata Scientific Technology LTD.
- P01 Basic investigation on odor behavior in aerosol
K. Ratanachaijaroen¹, R. Fujii¹, L. Bao²,
M. Kotaki³, M. Hata¹, M. Furuuchi¹
¹Kanazawa Univ.
²Nippon Muki Co. Ltd.
³Japan Tobacco Inc.
- P02 Characteristics of natural ventilation driven by outside wind through ventilation equipment
Y. Suwa¹,
Wan Shahrul Nizam Bin Wan Mansol¹,
S. Takagi²
¹Shibaura Inst. of Technol.
²Oiles ECO corporation
- P03 Particle size dependence of the efficiency of an electrospray aerosol generator in aerosolizing particles suspended in liquid
H. Sakurai, Y. Murashima
AIST
- P04 Experimental evaluation of two commercial aerosol particle mass analyzers in their mass measurement accuracy in sub-100 nm range
H. Sakurai, Y. Murashima
AIST
- P05 Quantification of ammonium nitrate aerosols using a particle trap laser desorption mass spectrometer
T. Oizumi¹, Y. Ozawa², N. Takegawa¹
¹Tokyo Metropolitan Univ.
²The Univ. of Tokyo
- P06 The development and evaluation of the URG-9000 ambient ion monitor for the high-time resolution quantification of ambient gas and particulate phase species using ion chromatography (Part 2)
Matthew S. Landis
U.S. EPA Office of Research and Development

- P07 Preliminary experiments to measure the electrostatic charging state of ambient aerosols
T. Okuda, K. Fujioka, M. Kitagawa, S. Okahisa, T. Takashima
Keio Univ.
¹ Kumamoto Univ.
² Prefectural Univ. of Kumamoto
- P08 Development of the high-volume simultaneous sampler for PM_{2.5} and coarse particles
T. Okuda¹, Y. Terui¹, D. Shishido¹, R. Isobe¹, Y. Iwaki¹, K. Funato², K. Inoue²
¹ Keio Univ., ² Tokyo Dylec Corp.
- P09 Development of a small PM_{2.5} instrument and its applications
Y. Matsumi, T. Nakayama
Nagoya Univ.
- P10 Humidity influence on PM_{2.5} instruments by the comparative evaluation method using the air-distribution tube system
M. Nishikawa¹, S. Hasegawa², Y. Iwamoto¹, K. Miura¹
¹ Tokyo Univ. of Science
² Center for Environ. Sci. in Saitama
- P11 Seasonal and diurnal variations of the fine aerosol volume concentrations in Tokyo
Y. Iwamoto, K. Miura, M. Nishikawa
Tokyo Univ. of Science
- P12 Emission regulations altered the concentrations, origin, and formation of carbonaceous aerosols in the Tokyo metropolitan area
T. Miyakawa¹, Y. Kanaya¹, Y. Komazaki¹, T. Miyoshi², H. Nara², A. Takami², N. Moteki³, M. Koike³, Y. Kondo^{3,4}
¹ JAMSTEC, ² NIES
³ The Univ. of Tokyo, ⁴ NIPR
- P13 Trace element composition of aerosol collected at Tokorozawa and Yokosuka, Japan
M. Honda
National Environ. Res. and Training Inst.
- P14 The presentation was cancelled.
- P15 Variation of atmospheric aerosol particle concentrations at Fukuoka city and their controlling factors
C. Nishita-Hara, K. Hara, M. Hayashi
Fukuoka Univ.
- P16 Continuous observations of chemical components in PM_{2.5} in Hokuriku district
K. Watanabe, N. Yamazaki, H. Takeuchi, H. Sato, S. Jin
Toiyama Prefectural Univ.
- P17 Transboundary transport of anthropogenic sulfur in PM_{2.5} at a coastal site in the sea of Japan as studied by sulfur isotopic ratio
Y. Inomata¹, T. Ohizumi², N. Take², K. Sato³, M. Nishikawa⁴
¹ Kanazawa Univ.
² Niigata Prefectural Institute of Public Health and Environ. Sci.
³ Asia Center for Air Pollution Research, ⁴ NIES
- P18 Event analyses for transboundary transport of air pollutants at Fukue island
Y. Sadanaga¹, R. Takaji¹, A. Takami², A. Yoshino², S. Ire³, H. Bandow¹
¹ Osaka Prefecture Univ., ² NIES
³ Univ. of the Ryukyus
- P19 Comparison of the particle size distributions of an Asian dust air mass between Qingdao and Amakusa in March, 2015
H. Enokuma¹, T. Kojima¹, W. Hu², S. Fukuyama², K. Murata², S. Fukushima², A. Naganuma², D. Zhang²
- P20 Changes in size distribution of dry deposited dust particles during long lasting Kosa
K. Osada¹, Y. Kurosaki², C. Nishita³, K. Hara³, M. Hayashi³
¹ Nagoya Univ., ² Tottori Univ.
³ Fukuoka Univ.
- P21 Characteristics of organic compounds in atmospheric aerosols collected in Hanoi, Vietnam and Kanto area, Japan
K. Kumagai¹, K. Sekiguchi², R. Yamaguchi², Y. Fujitani³, T. T. T. Nguyen⁴, T. D. Nghiem⁴
¹ Gunma Prefectural Institute of Public Health and Environ. Sci.
² Saitama Univ., ³ NIES
⁴ Hanoi University of Science and Technology, Vietnam
- P22 Optical properties of secondary organic aerosol from vehicle engine exhaust
T. Nakayama¹, Y. Fujitani², K. Sato², S. Inomata², T. Morino², A. Fishimi², Y. Kondo², A. Takami², K. Tanabe², S. Kobayashi², Y. Matsumi¹
¹ Nagoya Univ., ² NIES
- P23 Investigation of ambient nano-particles in Hokuriku region by annual monitoring
T. Zhao¹, S. Hongtieab¹, A. Matuski¹, D. Onizuka¹, F. Yoshikawa², F. Ikemori³, M. Hata¹, M. Furuuchi¹
¹ Kanazawa Univ.
² National Inst. of Technol., Toyama College
³ Nagoya City Environ. Center
- P24 Relationship between growth of secondary particles and their hygroscopicity observed at Tsukuba
Y. Zaizen, N. Orikasa, T. Tajiri
MRI
- P25 Comprehensive study on the weekend effect of particulate density in Japan
A. Shimizu, T. Nishizawa, N. Sugimoto
NIES
- P26 Evaluating the DNA strand breaks by airborne particulate matter: A case study at southwestern coast of Kyushu in 2014
S. Fukuyama¹, C. Hou², Y. Hu², L. Shao², K. Murata¹, D. Zhang¹
¹ Prefectural Univ. of Kumamoto
² China Univ. of Mining and Technol. Beijing
- P27 Make use of electron-microscopic aerosol data: Construction trial of the database-3
Y. Igarashi, M. Kajino, K. Adachi, Y. Zaizen, T. Sekiyama
MRI
- P28 Introduction to atmospheric science research division, research institute for science and technology, Tokyo University of Science
K. Miura
Tokyo Univ. of Science
- P29 Distributing characteristics investigation of bioaerosols in small animals veterinary hospitals
C.-Y. Chuang¹, C.-S. Lin², P.-C. Hung³, S. Yang⁴, C.-H. Luo⁵
¹ Chang Jung Christian Univ.,
² National Taiwan Univ., ³ ILOSH,
⁴ Toko Univ., ⁵ Hungkuang Univ.

Thursday, September 1

< Room A >
(Room 118)

Symposium A3

Frontier researches on indoor aerosols relevant to their formation, behaviors, control and measurement technologies

(9:00–10:25)

Chaired by: N. Namiki and N. Kagi

- E01 Influence of frequency on ultrasonic mist generation
K. Sekiguchi¹, T. Kudo¹, K. Sankoda¹,
N. Namiki², S. Nii³
¹ Saitama Univ., ² Kogakuin Univ.
³ Kagoshima Univ.

- E02 Degradation of VOCs using droplets generated by ultrasonic
atomization and TiO₂ photocatalyst
S. Suzuki¹, K. Nishishita¹, N. Namiki¹,
K. Sekiguchi², S. Nii³
¹ Kogakuin Univ., ² Saitama Univ.,
³ Kagoshima Univ.

- E03 Evaluation of chemical reactivity of VOC gas with active
species on ultrasonic mist
K. Sekiguchi¹, S. Narahara¹, N. Namiki²,
S. Fujii³, N. Kagi⁴, Y. Suwa⁵, H. Tamura⁶,
K. Azuma⁷, H. Tarumi³
¹ Saitama Univ., ² Kogakuin Univ.
³ Kanazawa Inst. of Technol., ⁴ Tokyo Inst. of Technol.
⁵ Shibaura Inst. of Technol., ⁶ Techno Ryowa Ltd.
⁷ Kinki Univ.

- E04 Characterization of indoor secondary organic nano-sized
aerosol (ISOA) formation from volatile organic compounds
derived from house-keeping wares and its evolution
N. Namiki¹, M. Suzuki¹, N. Kagi²,
S. Fujii³, H. Tarumi³, K. Sekiguchi⁴,
K. Azuma⁵, Y. Suwa⁶, H. Tamura⁷
¹ Kogakuin Univ., ² Tokyo Inst. of Technol.
³ Kanazawa Inst. of Technol., ⁴ Saitama Univ., ⁵ Kinki Univ.
⁶ Shibaura Inst. of Technol., ⁷ Techno Ryowa Ltd.

- E05 Modeling and computer simulation on the formation process of
ISOA
Y. Suwa¹, Y. Matsuhisa¹, N. Namiki²,
N. Kagi³, S. Fujii⁴, K. Sekiguchi⁵,
K. Azuma⁶, H. Tarumi⁴, H. Tamura⁷
¹ Shibaura Inst. of Technol., ² Kogakuin Univ.
³ Tokyo Inst. of Technol., ⁴ Kanazawa Inst. of Technol.
⁵ Saitama Univ., ⁶ Kinki Univ., ⁷ Techno Ryowa Ltd.

BREAK (10 min)

(10:35–12:17)

Chaired by: N. Namiki and N. Kagi

- E06 Applicability to suppress ultrafine particle formation from
laser printers using electret filters
Y. Muramoto¹, N. Namiki², N. Kagi³
¹ Japan Vilene Co., Ltd., ² Kogakuin Univ.
³ Tokyo Inst. of Technol.

- E07 Influence of static electricity on removal performance for fine
particles adhered on a surface using pulse air jets
D. Munemura¹, N. Namiki¹, H. Tamura², T. Sato²
¹ Kogakuin Univ., ² Techno Ryowa Ltd.

- E08 Spatial performance evaluation of airborne particles for
portable air cleaner by air age
N. Kagi¹, Y. Suwa², M. Koizumi³
¹ Tokyo Inst. of Technol.
² Shibaura Inst. of Technol.
³ Shimizu corporation

- E09 Evaluation of dynamic behaviors of particles and odor in ETS
at the interface between the non-smoking and smoking zones
at a low interfacial velocity
N. Namiki¹, K. Niikura¹, N. Kagi²
¹ Kogakuin Univ., ² Tokyo Inst. of Technol.

- E10 Study on fan filter unit realizing local clean
H. Hasebe
Shimizu corporation

- E11 An advanced model for the stack effect based on the fluid
dynamics
Y. Suwa¹, T. Ozeki¹,
T. Kitagawa², N. Kagi²
¹ Shibaura Inst. of Technol.
² Tokyo Inst. of Technol.

BREAK (73 min)

Special Lecture

(13:30–14:10)

Chaired by: M. Okubo

- S01 Evolving ships for future
Y. Ikeda
Research Institutes for the Twenty First Century,
Osaka Prefecture Univ.

BREAK (5 min)

JAAST General Meeting

(14:15–15:25)

BREAK (10 min)

Special Session (Inoya Award)

(15:35–16:20)

Chaired by: Y. Okada

- SS01 A high-volume cyclone sampler will open new areas of aerosol
research
T. Okuda
Keio Univ.

- SS02 Toward a unified index for the evaluation of the health effect of
airborne particulate matter
S. Fukuyama, D. Zhang
Prefectural Univ. of Kumamoto

- SS03 The industrial value of computational fluid dynamics for
aerosol measurement designs
S. Ikawa
Sibata Scientific Technology LTD.

BREAK (10 min)

Presentation by Exhibitors

(16:30–17:40)

Chaired by: M. Adachi

KANOMAX JAPAN INC.
Airy Technology Ltd.
Tsukasa Sokken Co., Ltd.
INDUSTRIAL HYGIENE DEVICE CALIBRATION Inc.
Tokyo Dylec Corp.
KIMOTO ELECTRIC Co., Ltd.
FUJI ELECTRIC CO., LTD.
Shoreline Science Research Inc.
Transtech Inc.

Thursday, September 1

< Room B >

(Room 122)

Symposium A2

Advances in aerosol measurements for nano, submicron, and supermicron size ranges

(9:00–10:30)

Chaired by: T. Takegawa

F01 Sampling and chemical analysis for evaluating sources and behavior of atmospheric nanoparticles

A. Fushimi
NIES

F02 Analysis of physical properties of individual Kosa particles by atomic force microscopy

Y. Kizu¹, H. Sakurai², H. Seki³,
H. Okuda³, Y. Ueno³, H. Higashi¹,
T. Seto¹, Y. Otani¹
¹ Kanazawa Univ, ² AIST
³ Shimadzu Corporation

F03 Measurements of the hygroscopicity and cloud condensation nucleus activity of atmospheric submicrometer particles

M. Mochida
Nagoya Univ.

F04 Development and performances of a single-particle polar nephelometer: Measurement of optical scattering angular distributions for individual submicron particles in the atmosphere

M. Nakagawa, T. Nakayama, Y. Matsumi
Nagoya Univ.

BREAK (10 min)

(10:40–11:40)

Chaired by: T. Takegawa

F05 Measurement of the single micro-particle in electrodynamic balance

A. Harano
Gunma Univ.

F06 Analysis of physical properties of individual Kosa particles by atomic force microscopy

A. Matsuki¹, Y. Mizushima¹, A. Iwata¹,
M. Watanabe¹, T. Maki¹,
M. Kakikawa¹, F. Kobayashi²
¹ Kanazawa Univ.
² Hirosaki Univ.

F07 Improvement of high-volume impactor for PM_{2.5} (HVI2.5) and application of hydrous gel-sheet was tested as an impaction substrate

N. Kaneyasu¹, S. Yamamoto²
¹ AIST

² Fukuoka Institute of Health and Environ. Sciences

Friday, September 2

< Room A >

(Room 118)

Dynamic Behavior & Deposition

Air Filter & Dust Collection

Application of Aerosols

(9:00–11:16)

Chaired by: T. Fujimoto and K. Iida

G01 Deposition of aerosol in laminar flow through a cylindrical tube by Langevin dynamics method

T. Fujimoto, S. Yamanaka, Y. Kuga
Muroran Institute of Technology

G02 Evaluation of the structure of nanoparticle-embedded thin films fabricated by PECVD using solid- and gaseous-raw materials

M. Shimada, M. Kubo,
K. Kusdianto, T. Taguchi
Hiroshima Univ.

G03 Effect of filter media properties on collection performance of centrifugal filter

S. Nakajima, P. Thanyaphorn,
T. Seto, Y. Otani
Kanazawa Univ.

G04 Experimental study on charge decay of electret filter by organic solvent exposure

H.-J. Choi¹, M. Tanaka¹, M.-H. Lee²,
T. Seto¹, Y. Otani¹
¹ Kanazawa Univ.
² Korea Inst. of Industrial Technol.

G05 CO₂ concentration and reduction technology using non-thermal plasma combined process

S. Kamiya, K. Takahashi,
T. Kuroki, M. Okubo
Osaka Prefecture Univ.

G06 The value of the NO_x, SO_x simultaneous removal performance of the wet plasma reactor

N. Tsuda, H. Murakami,
T. Kuroki, M. Okubo
Osaka Prefecture Univ.

G07 Investigation of reasonable emission control technology for small biomass stoves

M. Hata, T. Kajita, M. Furuuchi
Kanazawa Univ.

G08 Aerosol technique for making a water suspension of hydrophobic powder

K. Iida, K. Ehara, H. Sakurai,
K. Yamamoto, M. Gamo
AIST

BREAK (4 min)

Formation & Composition

(11:20–12:28)

Chaired by: M. Shimada and T. Kinoshita

H01 Synthesis of SOFC anode fine particle by citric acid-addition spray pyrolysis

Y. Wada, Y. Marumoto,
T. Kinoshita, Y. Okada
Kansai Univ.

H02 Aerosol-assisted synthesis of metal-organic framework

HKUST-1

M. Kubo, R. Moriyama,
T. Saito, M. Shimada
Hiroshima Univ.

H03 Synthesis of silica-titania composite nanoparticles in a flame reactor

T. Kubo, D. Yamaoka, Y. Okada,
H. Ishikawa, N. Ikenaga
Kansai Univ.

H04 Techniques based on coating for composite material of nickel nanoparticles formed by gas-phase reaction

S. Matsumoto, R. Sawai, S. Kudoh,
T. Kinoshita, Y. Okada
Kansai Univ.

BREAK (8 min)

(10:50–12:32) Chaired by: K. Sato, M. Furuuchi and K. Adachi

I07 Development of analysis method of Perfluoro Alkyl substances in atmospheric particulate matters

G. E. Hui¹, E. Yamazaki², N. Yamashita²,
S. Taniyasu², Z. Tong¹, A. Ogata¹,
M. Hata¹, M. Furuuchi¹
¹ *Kanazawa Univ.*
² *AIST*

I08 Volatility of secondary aerosol particles formed from the photooxidation of 1, 3, 5-trimethylbenzene

K. Sato, Y. Fujitani, S. Inomata,
Y. Morino, K. Tanabe
NIES

I09 Influence of the metal seed particles on generation of secondary organic aerosol

D. Hama, K. Sekiguchi, K. Sankoda
Saitama Univ.

I10 Aerosol particles from biomass burning during BBOP campaign

K. Adachi
MRI

I11 Effect of agriculture and forest fire on carbon components in size-classified ambient particles in Thailand

M. Furuuchi¹, W. Phairuang¹, M. Hata¹,
P. Suwattiga², T. Chetiyankornkul³
¹ *Kanazawa Univ.*
² *King Mongkut's Univ. of Technology North Bangkok, Thailand*
³ *Chiang Mai Univ., Thailand*

I12 Dependence of the backscattering of aerosol particles on their composition and size: Observations at AERU

S. Fukushima¹, D. Zhang¹, T. Shibata²,
S. Katagiri³, T. Hayasaka³
¹ *Prefectural Univ. of Kumamoto*
² *Nagoya Univ.*, ³ *Tohoku Univ.*

Friday, September 2

< Room B >

(Room 122)

Atmospheric Aerosol II

(9:00–10:42) Chaired by: K. Sato, M. Furuuchi and K. Adachi

I01 Resuspension processes of the radioCs from the FDNPP accident: Could bioaerosol play a significant role?

Y. Igarashi¹, K. Kita², T. Maki³, C. Takenaka⁴,
T. Kinase², K. Adachi¹, M. Kajino¹,
T. T. Sekiyama¹, Y. Zaizen¹, M. Ishizuka⁵,
K. Ninomiya⁶, H. Okochi⁷, A. Sorimachi⁸
¹ *MRI*, ² *Ibaraki Univ.*, ³ *Kanazawa Univ.*
⁴ *Nagoya Univ.*, ⁵ *Kagawa Univ.*, ⁶ *Osaka Univ.*
⁷ *Waseda Univ.*, ⁸ *Fukushima Medical Univ.*

I02 Measurements of bioaerosols in the atmosphere by bio trak real time viable particle counter

K. Watanabe¹, H. Sato¹, T. Hirai¹,
N. Yamazaki¹, T. Maki²
¹ *Toyama Prefectural Univ.*
² *Kanazawa Univ.*

I03 A laboratory study for formulating the immersion freezing ice nucleation ability of dust particles

T. Tajiri¹, M. Murakami²
¹ *MRI*, ² *Nagoya Univ.*

I04 The characterization of atmospheric ice nucleating particle by single droplet freezing method

A. Iwata, A. Matsuki
Kanazawa Univ.

I05 Interaction between humic-like substances extracted from PM_{2.5} and polycyclic aromatic hydrocarbons

D. Asakawa
Osaka City Institute of Public Health and Environ. Sci.

I06 Characteristic evaluation of chemical components in PM_{2.5} and PM_{0.1} collected in Hanoi, Vietnam

R. Yamaguchi¹, K. Sekiguchi¹, K. Sankoda¹,
K. Kumagai², Y. Fujitani³, T.T.T. Nguyen⁴, T.D. Nghiem⁴
¹ *Saitama Univ.*

² *Gunma Prefectural Institute of Public Health and Environ. Sci.*

³ *NIES*, ⁴ *Hanoi University of Science and Technology, Vietnam*

Local Organizing Committee

Okubo, M. Osaka Prefecture Univ. (Chairman)
Kuroki, T. Osaka Prefecture Univ.

JAAST Organizing Committee

Adachi, M. Osaka Prefecture Univ. (Chairman)
Kinoshita, T. Kansai Univ.
Yabuki, M. Kyoto Univ.