Schedule of Events

Date	Time	Events
Nov. 08	09:00 – 09:10	**Welcome address**
	09:10 – 10:10	**A**: Gaseous components at mountain sites A01 – A03
		Coffee Break
	10:30 – 11:50	**A**: Gaseous components at mountain sites A04 – A07
	11:50 – 13:20	Lunch Break
	13:20 – 15:00	**B**: Background baseline observations at mountain sites B01 – B05
		Coffee Break
	15:20 – 17:00	**C**: Planetary boundary layer at mountain sites and transport modeling C01 – C05
Nov. 09	08:40 – 10:00	**D**: Aerosol particles at mountain sites D01 – D04
		Coffee Break
	10:20 – 12:00	**D**: Aerosol particles at mountain sites D05 – D09
	12:00 – 13:30	Lunch Break
	13:30 – 14:30	**E**: Aerosol optical depth and aerosol optical properties E01 – E03
	14:30 – 15:30	**F**: Studies relating to mountain atmosphere F01 – F03
		Coffee Break
	15:40 – 17:40	**P**: **Poster session** P01 – P38
	18:00 – 20:00	**Banquet**
Nov. 10	08:40 – 10:00	**G**: Chemistry of fog/cloud, rain, and dew at mountain sites G01 – G04
		Coffee Break
	10:20 – 12:00	**G**: Chemistry of fog/cloud, rain, and dew at mountain sites G05 – G09
	12:00 – 12:30	**Closing Remarks**

Technical Program

08th November, 2017

Welcome address

09:00–09:05

Shiro Hatakeyama
NPO MFRS President, Center for Environmental Science in Saitama

09:05–09:10

Koichi Sugiyama
Director General, Shizuoka Institute of Environment and Hygiene

Gaseous components at mountain sites

Chair: Drs. Kato & Necki

09:10–09:30 (A-01) Long-term monitoring for atmospheric CO_2 concentration at the summit of Mt Fuji, Japan

Shohei Nomura and Hitoshi Mukai
Center for Global Environmental Research, National Institute for Environmental Studies, Japan

09:30–09:50 (A-02) Over 20 years of main greenhouse gases measurements at the mountain station Kasprowy Wierch, southern Poland

Lukasz Chmura[1, 2], Jaroslaw M. Necki[1], Jakub Bartyzel[1], Michal Galkowski[1], Wojciech Wolkowicz[3], Damian Zięba[1], Miroslaw Zimnoch[1] and Kazimierz Rozanski[1]
[1]*Faculty of Physics and Applied Computer Science, AGH-University of Science and Technology, Poland*
[2]*Institute of Meteorology and Water Management, National Research Institute, IMGW-PIB, Poland*
[3]*Polish Geological Institute – National Research Institute, Poland*

09:50–10:10 (A-03) Greenhouse gases at Kasprowy Wierch, Tara, Europe. Can mountain station be useful?

Jaroslaw M. Necki[1], Jakub Bartyzel[1], Lukasz Chmura[1, 2], Michal Galkowski[1], Wojciech Wolkowicz[3] and Miroslaw Zimnoch[1]
[1]*AGH-University of Science and Technology, Kraków, Poland*
[2]*National Research Institute, IMGW-PIB Branch of Krakow, Poland*
[3]*Polish Geological Institute – National Research Institute, Warsaw, Poland*

COFFEE BREAK (20 min.)

10:30–10:50 (A-04) Ozone, aerosol and carbon gases at the Mt. Bachelor observatory

Dan Jaffe[1], Arlyn Andrews and Jonathan Koffler (Presented by I.B. McCubbin)
[1]*University of Washington, USA*
[2]*NOAA-GMD, USA*

10:50–11:10 (A-05) Long-term changes in free tropospheric ozone in northern mid-latitudes: comparison between alpine measurements and chemistry climate model SOCOL

Johannes Staehelin[1], Fiona Tummon[1], Laura Revell[2], Andrea Stenke[1], and Thomas Peter[1]
[1]*Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland*
[2]*Bodeker Scientific Christchurch, New Zealand*

11:10–11:30 (A-06) Changes in springtime tropospheric ozone observed at Mt. Happo, Japan: Interplay of Asian emissions and long-range transport

Sachiko Okamoto, Kohei Ikeda and Hiroshi Tanimoto
Center for Global Environmental Research, National Institute for Environmental Studies, Japan

11:30–11:50 (A-07) CO and O_3 observation at the summit of Mt. Fuji during summer

Shungo Kato, Hiroshi Okochi and Kazuhiko Miura
[1]*Faculty of Urban Environmental Sciences, Tokyo Metropolitan University, Japan*
[2]*Graduate School of Creative Science and Engineering, Waseda University, Japan*
[3]*Faculty of Science Division 1, Tokyo University of Science, Japan*

Lunch (90 min.)

Background baseline observations at mountain sites

Chair: Drs. Lin & Coen

13:20–13:40 (B-01) Overview of ten-year measurements at Lulin Atmospheric Background Station (LABS, 2,862m MSL) in East Asia

Neng-Huei (George) Lin[1,2,3], Guey-Rong. Sheu[1], Chung-Te Lee[2], Chang-Feng Ou-Yang[1], Jia-Lin Wang[3], Shang-Hsiung Wang[1], Ta-Chih Hsiao[3], Kai Hsien Chi[4], Hao-Ping Chia[1], Ming-Tung Chuang[5], Shuen-Chin Chang[6], Brent Holben[7], Russel Schnell[8], John Ogren[8], and Patrick Sheridan[8]
[1]*Department of Atmospheric Sciences, National Central University, Taiwan*
[2]*Graduate Institute of Environmental Engineering, National Central University, Taiwan*
[3]*Department of Chemistry, National Central University, Taiwan*
[4]*Institute of Environmental and Occupational Health Sciences, National Yang Ming University, Taiwan*
[5]*Department of Mechanical Engineering, National Central University, Taiwan*
[6]*Environmental Protection Administration, Taiwan*
[7]*Goddard Space Flight Center, NASA, Greenbelt, USA*
[8]*Global Monitoring Division, ESRL, NOAA, Boulder, USA*

13:40–14:00 (B-02) Characteristics of volatile organic compounds at Lulin Atmospheric Background Station, Taiwan

Chang-Feng Ou-Yang[1], Chih-Chung Chang[2], Jia-Lin Wang[3], Guey-Rong Sheu[1], and Neng-Huei Lin[1]
[1]*Department of Atmospheric Sciences, National Central University, Taiwan*
[2]*Research Center for Environmental Changes, Academia Sinica, Taiwan*
[3]*Department of Chemistry, National Central University, Taiwan*

14:00–14:20 (B-03) Trend of atmospheric mercury at the Lulin Atmospheric Background Station in 2006-2016 and its implication

Guey-Rong Sheu[1], Nguyen Ly Sy Phu[1], Da-Wei Lin[1],
Neng-Huei Lin[1], and Leiming Zhang[2]
[1]*Department of Atmospheric Sciences, National Central University, Taiwan*
[2]*Science and Technology Branch, Environment and Climate Change Canada, Canada*

14:20–14:40 (B-04) Ten years research at Mount Fuji research station

Yukiko Dokiya[1], Shiro Hatakeyama[2], Kazuhiko Miura[3], Hiroshi Okochi[4],
Masashi Kamogawa[5], Naoki Kaneyasu[6], Yoko Katayama[7], Kazuya Sasaki[8],
Shungo Kato[9], Yukiya Minami[10] and Hiroshi Kobayashi[11]
[1]*NPO Mount Fuji Research Station, Japan*
[2]*Center for Environmental Science in Saitama, Japan*
[3]*Tokyo University of Science, Japan*
[4]*Waseda University, Japan*
[5]*Tokyo Gakugei University, Japan*
[6]*National Institute of Advanced Industrial Science and Technology, Japan*
[7]*Tokyo University of Agriculture and Technology, Japan*
[8]*Hirosaki University, Japan*
[9]*Tokyo Metropolitan University, Japan*
[10]*Ishikawa Prefectural University, Japan*
[11]*University of Yamanashi, Japan*

14:40–15:00 (B-05) Chemical composition of $PM_{2.5}$ from mountain and foothill sites in upper northern Thailand during biomass burning season in 2015

Somporn Chantara[1,2*], Chanakarn Khamkaew[2], Sukanya Prawan[2],
Chung-Te Lee[3] and Neng-Huei Lin[4]
[1]*Environmental Chemistry Research Laboratory, Chemistry Department, Faculty of Science, Chiang Mai University, Thailand*
[2]*Environmental Science Research Center, Faculty of Science, Chiang Mai University, Thailand*
[3]*Graduate Institute of Environmental Engineering, National Central University, Taiwan*
[4]*Department of Atmospheric Sciences, National Central University, Taiwan*

COFFEE BREAK (20 min.)

Planetary boundary layer at mountain sites and transport modeling

15:20–15:40 (C-01) The topography contribution to the influence of the planetary boundary layer at high altitude stations

M. Collaud Coen[1], E. Andrews[2], and D. Ruffieux[1]
[1]*Federal office of Meteorology and Climatology, MeteoSwiss, Swizerland*
[2]*University of Colorado, CIRES, USA*

15:40–16:00 (C-02) Ceilometer based automatic measurement of the local CBL and the continuous aerosol layer at the Jungfraujoch

Y. Poltera[1,3], G. Martucci[1], M. Collaud Coen[1], M. Hervo[1],
L. Emmenegger[2], S. Henne[2], D. Brunner[2] and A. Haefele[1]
[1]*Federal Office of Meteorology and Climatology, MeteoSwiss, Switzerland*
[2]*Swiss Federal Laboratories for Materials Science and Technology, Switzerland*
[3]*Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland*

16:00–16:20 (C-03) High-resolution numerical simulation of turbulent flows and dry deposition in mountainous forest

Hiromasa Nakayama[1] and Genki Katata[2]
[1]*Nuclear Science and Engineering Center, Japan Atomic Energy Agency, Japan*
[2]*Institute for Global Change Adaptation Science (ICAS), Ibaraki University, Japan*

16:20–16:40 (C-04) Aerosol vertical profiles near Mt. Fuji using a micropulse lidar

Masanori Yabuki[1], Kazuhiko Miura[2], and Masataka Shiobara[3]
[1]*Research Institute for Sustainable Humanosphere, Kyoto University, Japan*
[2]*Faculty of Science Division I, Tokyo University of Science, Japan*
[3]*National Institute of Polar Research, Japan*

16:40–17:00 (C-05) Chemical evolution of $PM_{2.5}$ compositions in long-range transport biomass burning plume and short-range transport from anthropogenic pollutants to Mt. Lulin

Ming- Tung Chuang[1], Ta-Chih Hsiao[2], Guey-Rong Sheu[3],
Sheng-Hsiang Wang[3], and Neng-Huei Lin[3]
[1]*Graduate Institute of Energy Engineering, National Central University, Taiwan*
[2]*Graduate Institute of Environmental Engineering, National Central University, Taiwan*
[3]*Graduate Institute of Atmospheric Physics, National Central University, Taiwan*

09th November, 2017

Aerosol particles at mountain sites

Chair: Drs. Miura & Kita

08:40–09:00 (D-01) Temperate forest as big bioaerosol sources?: Implication from atmospheric Fukushima radio-cesium studies

Y. Igarashi[1], K. Kita[2], T. Maki[3], T. Kinase[2], N. Hayashi[2], K. Adachi[1], C. Takenaka[4], M. Kajino[1], M. Ishizuka[5], T. T. Sekiyama[1], Y. Zaizen[1], K. Ninomiya[6], H. Okochi[7], and A. Sorimachi[8]

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[4]*Graduate School of Bioagricultural Sciences, Nagoya University, Japan*

[5]*Faculty of Engineering, Kagawa University, Japan*

[6]*Graduate School of Science, Osaka University, Japan*

[7]*Research Institute for Science and Engineering, Waseda University, Japan*

[8]*Fukushima Medical University, Japan*

09:00–09:20 (D-02) Bioaerosols sampled in Fukushima mountainous region and contribution to the radio-cesium resuspension

K. Kita[1], N. Hayashi[1], K. Minami[1], M. Mimura[1], Y. Igarashi[2], K. Adachi[2], T. Maki[3], M. Ishiduka[4], H. Ohkochi[5], J. Furukawa[6], K. Ninomiya[7], and A. Shinohara[7]

[1]*Colledge of Sciences, Ibaraki University, Japan*

[2]*Meteorological Research Laboratory, Japan*

[3]*Colledge of Science and Engineering, Kanazawa University, Japan*

[4]*Faculty of Engineering, Kagawa University, Japan*

[5]*School of Creative Science and Engineering, Waseda University, Japan*

[6]*Faculty of Life and Environmental Sciences, Tsukuba University, Japan*

[7]*Graduate School of Sciences, Osaka University, Japan*

09:20–09:40 (D-03) Online analysis of water-soluble acidic gases and anions in particulate matter at the summit of Mt. Fuji, Japan

Masaki Takeuchi[1], Naoya Tomiyasu[2], Makoto Namikawa[2], Hideji Tanaka[1], Kei Toda[3], and Hiroshi Okochi[4]

[1]*Institute of Biomedical Sciences, Tokushima University Graduate School, Japan*

[2]*Faculty of Pharmaceutical Sciences, Tokushima University, Japan*

[3]*Department of Chemistry, Kumamoto University, Japan*

[4]*Department of Resources and Environmental Engineering, Waseda University, Japan*

09:40–10:00 (D-04) Aerosol chemistry in summer at the top of Mt. Fuji

K. Shimada[1,2], C. F. Ou-Yang[4], S. Kato[3], N. H. Lin[1,4],
C. K. Chan[5], Y. P. Kim[1,6,7], and S. Hatakeyama[1,2]
[1]*Global Innovation Research Organization, Tokyo University of Agriculture and Technology, Japan*
[2]*Institute of Agriculture, Graduate School of Tokyo University of Agriculture and Technology, Japan*
[3]*Faculty of Urban Environmental Sciences, Tokyo Metropolitan University, Minamioosawa, Japan*
[4]*Department of Atmospheric Sciences, National Central University, Taiwan*
[5]*School of Energy and Environment, City University of Hong Kong, China*
[6]*Department of Chemical. Engineering & Materials Science, Ewha Womans University, Republic of Korea*
[7]*Department of Environmental Science & Engineering, Ewha Womans University, Republic of Korea*

COFFEE BREAK (20 min.)

10:20–10:40 (D-05) Properties of new particle formation at the summit of Mt. Fuji, Japan - Measured results during summer from 2006 to 2016 –

Ryota Kataoka[1], Kazuhiko Miura[2], Masahiro Momoi[1], Yoko Iwamoto[3],
Masanori Yabuki[4], Katsuhiro Nagano[5], Shungo Kato[6],
Hiroshi Kobayashi[7], Hiroshi Hayami[8], and Hiroshi Okochi[9]
[1]*Department of Physics, Graduate School of Science, Tokyo University of Science, Japan*
[2]*Department of Physics, Faculty of Science Division 1, Tokyo University of Science, Japan*
[3]*Graduate School of Biosphere Science, Hiroshima University, Japan*
[4]*Research Institute for Sustainable Humanosphere, Kyoto University, Japan*
[5]*Department of Liberal Arts, Faculty of Science and Technology, Tokyo University of Science, Japan*
[6]*Faculty of Urban Environmental Sciences, Tokyo Metropolitan University, Japan*
[7]*Faculty of Life and Environmental Sciences, University of Yamanashi, Japan*
[8]*Central Research Institute of Electric Power Industry, Japan*
[9]*Graduate School of Creative Science and Engineering, Waseda University, Japan*

10:40–11:00 (D-06) Statistical connections between new particle formation events and enhanced cloud condensation nuclei at a mountaintop site

Catherine N. Chachere[1], A. Gannet Hallar[1], and Alla Zelenyuk[2] (Presented by R.C. Petersen[1])
[1]Department of Atmospheric Sciences, University of Utah, USA
[2]Pacific Northwest National Laboratory, USA

11:00–11:20 (D-07) Properties of cloud condensation nuclei at the summit of Mt. Fuji, Japan, and their relationship to fog droplets

Ayami Watanabe[1], Yoko Iwamoto[2, 5], Ryota Kataoka[2], Kazuhiko Miura[2],
Mitsuo Uematsu[3] and Hiroshi Kobayashi[4]
[1]*Graduate School of Science, Tokyo University of Science, Japan*
[2]*Faculty of Science Division I, Tokyo University of Science, Japan*
[3]*Atmosphere and Ocean Research Institute, the University of Tokyo, Japan*
[4]*Graduate school of Interdisciplinary Research, University of Yamanashi, Japan*
[5]*Graduate School of Biosphere science, Hiroshima University, Japan*

11:20–11:40 (D-08) Cloud condensation nuclei (CCN) activation behavior of black carbon in liquid clouds at the high-altitude site Jungfraujoch, Switzerland (3580m asl)

Ghislain Motos, Joel Corbin, Erik Herrmann, Julia Schmale, Robin Modini, Nicolas Bukowiecki, Urs Baltensperger and Martin Gysel
Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Switzerland

11:40–12:00 (D-09) Comparison of aerosol chemistry and physics from multiyear wildfire measurements at Whistler Peak

Michael J. Wheeler[1], Anne Marie Macdonald[1], W. Richard Leaitch[2], Lin Huang[2], Sangeeta Sharma[2], Andrea Darlington[1], and John Liggio[1]
[1]*Air Quality Research Division, Environment and Climate Change Canada, Canada*
[2]*Climate Research Division, Environment and Climate Change Canada, Canada*

Lunch (90 min.)

Aerosol optical depth and aerosol optical properties

Chair: Drs. Wheeler & McCubbin

13:30–13:50 (E-01) Integrating chemical and optical properties of atmospheric aerosols measured at the remote Montsec site (NE Spain)

Marco Pandolfi[1], Marina Ealo[1,2], Anna Ripoll[1], Xavier Querol[1], and Andrés Alastuey[1]
[1]*Institute of Environmental Assessment and Water Research (IDAEA-CSIC), Spain*
[2]*Department of Applied Physics, Faculty of Physics, University of Barcelona, Spain*

13:50–14:10 (E-02) Impacts of increasing aridity and wildfires on aerosol loading in the intermountain western U.S.

A.G. Hallar[1,2], N. Molotch[3], E. Andrews[4,5], J.J. Michalsky[4,5], R. C. Petersen[1,2], B. Livneh[4], J. Hand6, D. Lowenthal[2], K.E. Kunkel[7], and I.B. McCubbin[2]
[1]*Department of Atmospheric Science, University of Utah, USA*
[2]*Storm Peak Laboratory, Desert Research Institute, USA*
[3]*Department of Geography, University of Colorado, USA*
[4]*Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, USA*
[5]*NOAA Earth System Research Laboratory, Global Monitoring Division (GMD), USA*
[6] *Cooperative Institute for Research in the Atmosphere (CIRA), Colorado State University, USA*
[7]*Cooperative Institute for Climate and Satellites, North Carolina State University, USA*

14:10–14:30 (E-03) Aerosol optical properties by using sky radiometer at Mt. Jodo/Tateyama, Japan

Kazuma Aoki
Faculty of Science, University of Toyama, Japan

Studies relating to mountain atmosphere

14:30–14:50 (F-01) Study of atmospheric electricity at the summit of Mt. Fuji

Masashi Kamogawa
Department of Physics, Tokyo Gakugei University, Japan

14:50–15:10 (F-02) Exploring the importance of O_2--catalyzed SO_2 oxidation in the formation of sulfates

Narcisse T. Tsona and Lin Du
Environment Research Institute, Shandong University, China

15:10–15:30 (F-03) Experimental Study of Turbulent Flow Inlet System Performance

R.C. Petersen[1,2], A.G. Hallar[1,2], I. Novosselov[3], I.B. McCubbin[2], D. Lowenthal[4], J. Ogren[5], R. Gorder[6], and R. Purcell[4]
[1]*Department of Atmospheric Science, University of Utah, USA*
[2]*Storm Peak Laboratory, Desert Research Institute, USA*
[3]*Department of Mechanical Engineering, University of Washington, USA*
[4]*Desert Research Institute, USA*
[5]*Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, USA*
[6]*Enertechnix, Inc., USA*

COFFEE BREAK (10 min.)

15:40 – 17:40 Poster session

(P-01) Global comparisons of seasonal cycles of tropospheric ozone and its precursors observed at mountain sites

Sachiko Okamoto[1], Hiroshi Tanimoto[1], Louisa K. Emmons[2], Silvie Gravel[3], Daven K. Henze[4], Marianne T. Lund[5], R. Bradley Pierce[6], Kengo Sudo[7] and Michael Schulz[8]
[1]*National Institute for Environmental Studies, Japan*
[2]*National Center for Atmospheric Research, USA*
[3]*Environment Canada, Japan*
[4]*University of Colorado, USA*
[5]*Center for International Climate and Environmental Research, Norway*
[6]*National Ocean and Atmospheric Administration, USA*
[7]*Nagoya University, Japan*
[8]*Norwegian Meteorological Institute, Norway*

(P-02) Observation of acidic gases and aerosols in the upper atmospheric boundary layer and in the free troposphere on Mt. Fuji (2)

Yosuke Miyauchi[1], Hiroshi Okochi[1], Kojiro Shimada[1], Naoya Katsumi[2], Yukiya Minami[2], Hiroshi Kobayashi[3], Kazuhiko Miura[4], Shungo Kato[5], Masaki Takeuchi[6], Kei Toda[7], and Shinichi Yonemochi[8]
[1]*Waseda University, Japan*
[2]*Ishikawa Prefectural University, Japan*
[3]*University of Yamanashi, Japan*
[4]*Tokyo University of Science, Japan*
[5]*Tokyo Metropolitan University, Japan*
[6]*Tokushima University, Japan*
[7]*Kumamoto University, Japan*
[8]*Center for Environmental Science in Saitama, Japan*

(P-03) How large is the influence of local pollution sources at the Jungfraujoch, Switzerland? Parallel aerosol measurements at an adjacent mountain ridge

Nicolas Bukowiecki[1], Erik Herrmann[1], Günther Wehrle[1], Ghislain Motos[1], Martine Collaud Coen[2], Urs Baltensperger[1] and Martin Gysel[1]
[1]*Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Switzerland*
[2]*MeteoSwiss, Switzerland*

(P-04) Long-term changes in free tropospheric fine aerosol particles and snow chemistry at Mt. Tateyama, central Japan

Kazuo Osada[1], Hajime Iida[2] and Mizuka Kido[3]
[1]*Graduate School of Environmental Sciences, Nagoya University, Japan*
[2]*Tateyama Caldera SABO Museum, Japan*
[3]*Toyama Prefectural Environmental Science Research Center, Japan*

(P-05) Observation of gaseous mercury at the top and the foot of Mt. Fuji

Tatsuya Yamaji[1], Hiroshi Okochi[1], Satoshi Ogawa[1], Naoya Katsumi[1,3], Kojiro Shimada[1], Hiroshi Kobayashi[2], Yukiya Minami[3], Kazuhiko Miura[4], Shungo Kato[5], Shin-ichi Yonemochi[6], Natsumi Umezawa[6], Kiyoshi Nojiri[6], and Kei Toda[7]

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[2]*Faculty of Engineering, University of Yamanashi, Japan*

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[5]*Faculty of Urban Environmental Science, Tokyo Metropolitan University, Japan*

[6]*Center for Environmental Science in Saitama (CESS), Japan*

[7]*Department of Chemistry, Kumamoto University, Japan*

(P-06) Winter and summer $PM_{2.5}$ chemical compositions in Jeju island, Korea

Ki-Ho Lee[1], Chul-Goo Hu[1], Young-Ju Kim[2] and Shinichi Yonemochi[3]

[1]*Department of Environmental Engineering, Jeju national University, Korea*

[2]*Ilsung Landscaping Ltd., Korea*

[3]*Center for Environmental Science in Saitama, Japan*

(P-07) Oxidant concentration by the solar term in Minami-Aizu Mountainous resion, Fukushima prefecture, Japan

Akihiko Naemura[1], Kimiko Nakamura[1] and Yoshitaka Fukuoka[2]

[1]*Department of General Studies and Liberal Arts, Toita Women's College, Japan*

[2]*Emeritus Professor of Hiroshima and Rissho University, Japan*

(P-08) Characteristics of spring outflow aerosol from Southeast Asia observed at Mt. Lulin

Ta-Chih Hsiao[1], Chun-Chiang Kuo[2], Guey-Rong Sheu[2], and Neng-Huei Lin[2]

[1]*Graduate Institute of Environmental Engineering, National Central University, Taiwan*

[2]*Department of Atmospheric Sciences, National Central University, Taiwan*

(P-9) Effects of forest management on CO_2 emission from Satoyama (Village-vicinity Mountain) soil

Eri Sonoda[1], Daisuke Kawamoto[1], Hiroshi Okochi[2], and Akane Miyazaki[1]

[1]*Department of Chemical and Biological Sciences, Japan Women's University, Japan*

[2]*Graduate school of Creative Science and engineering, Waseda University, Japan*

(P-10) Characteristics of volatile organic compounds emitted from livestock sheds in Japan

Nobuyuki Tanaka[1], Nao Osaka[2] and Akane Miyazaki[2]

[1]Environmental Science Laboratory, Central Research Institute of Electric Power Industry, Japan

[2]Department of Science, Japan Women's University, Japan

(P-11) NO_y measurements at the top of Mt. Fuji

Ryuichi Wada[1], Yasuhiro Sadanaga[2], Shungo Kato[3], Naoya Katsumi[4], Hiroshi Okochi[4], Yoko Iwamoto[5,9], Kazuhiko, Miura[5], Hiroshi Kobayashi[6], Hitoshi Kamogawa[7], Jun Matsumoto[4], and Seiichiro Yonemura[8]
[1]*Teikyo University of Science, Japan*
[2]*Osaka Prefecture University, Japan*
[3]*Tokyo Metropolitan University, Japan*
[4]*Waseda University, Japan*
[5]*Tokyo University of Science, Japan*
[6]*University of Yamanashi, Japan*
[7]*Tokyo Gakugei University, Japan*
[8]*National Agriculture and Food Research Organization, Japan*
[9]*now at Graduate School of Biosphere Science, Hiroshima University*

(P-12) Observation of columnar aerosol optical properties by Sky-radiometer from 2014 to 2016 at the middle of Mt. Fuji, Japan

Masahiro Momoi[1], Kazuhiko Miura[2], and Kazuma Aoki[3]
[1]*Department of Physics, Graduate School of Science, Tokyo University of Science, Japan*
[2]*Department of Physics, Faculty of Science Division 1, Tokyo University of Science, Japan*
[3]*Department of Earth Sciences, Faculty of Science, University of Toyama, Japan*

(P-13) Correction for light absorption coefficient measured by multiangle absorption photometer at low concentration

Jeonghoon Lee and Hyeok Min Kwon
Korea University of Technology and Education (KOREATECH), South Korea

(P-14) Measurement of particle size distribution of nanoparticles at summit of Mt. Fuji

Shinji Muramoto[1], Indra Chandra[1], Yayoi Inomata[1], Hidenori Higashi[1], Yoshio Otani[1], Takafumi Seto[1], Kazuhiko Miura[2], Yoko Iwamoto[2], and Shungo Kato[3]
[1]*Department of Chemical Engineering, Kanazawa University, Japan*
[2]*Department of Chemical Physics, Tokyo University of Science, Japan*
[3]*Department of Physical Chemistry, Tokyo Metropolitan University, Japan*

(P-15) Atmospheric behavior and health risk assessment of polycyclic aromatic hydrocarbons in urban, forest and mountainous site in Japan (2)

Masayuki Nohchi[1], Hiroshi Okochi[1], Kazuki Ono[1], Kojiro Shimada[1], and Naoya Katsumi[2]
[1]*Graduate School of Creative Science and Engineering, Waseda University, Japan*
[2]*Biosources and Environmental Sciences, Ishikawa Prefectural University, Japan*

(P-16) Forest filter effect for acidic substances and trace metal elements in a small forested hilly mountain in the Tokyo metropolitan area

Reina Nagaoka[1], Hiroshi Okochi[1], Kojiro Shimada[1], and Akane Miyazaki[2]
[1]*Graduate School of Creative Science and Engineering, Waseda University, Japan*
[2]*Faculty of Science, Japan Women's University, Japan*

(P-17) Chemical constituents in atmospheric aerosols observed at Tateyama mountain area, Japan during 2004 to 2016

Mizuka Kido, Toshiaki Mizoguchi, Hiroaki Hatsushika, and Hiroyuki Shimada
Toyama Prefectural Environmental Science Research Center, Japan

(P-18) Transport efficiency of black carbon aerosol to the lower free troposphere evaluated from simultaneous observation at Suzu and Happo ridge sites

M. Endo[1], K. Kita[1], Y. Namaizawa[1], T. Fujita[1], A. Matsuki[2],
Y. Sadanaga[3], K. Nakagomi[4], and Y. Kondo[5]
[1]Colledge of Sciences, Ibaraki University, Japan
[2]*Institute of Nature and Environmental Technology, Kanazawa University, Japan*
[3]*Department of Applied Chemistry, Osaka Prefecture University, Japan*
[4]*Nagano Environmental Conservation Research Institute, Japan*
[5]*National Institute for Polar Research, Japan*

(P-19) Aerosol observation with a polarization optical particle counter at mountain sites

Hiroshi Kobayashi[1], Yoshihiro Oki[2], Yuji Zaizen[3], Yasuhito Igarashi[3] and Kazuhiko Miura[4]
[1]*Graduate Faculty of Interdisciplinary Research, University of Yamanashi, Japan*
[2]*Graduate School of Life and Environmental Sciences, University of Yamanashi, Japan*
[3]*Meteolorogical Research Institute, Japan*
[4]*Faculty of Science Division I, Tokyo University of Science, Japan*

(P-20) Internal mixing state of wintertime Asian dust (Kosa) with air pollutant arriving at mountainous site in coastal area faced to Japan Sea

Masaru Nishide and Yukiya Minami
Department of Environmental Science, Ishikawa Prefectural University, Japan

(P-21) Investigation of quantitative method for atmospheric humic-like substances and its application to atmospheric aerosols in the free troposphere

Naoya Katsumi[1,2], Shuhei Miyake[2], and Hiroshi Okochi[2]
[1]*Department of Environmental Science, Ishikawa Prefectural University, Japan*
[2]*Department of resources and Environmental Engineering, Waseda University, Japan*

(P-22) Simultaneous observation of $PM_{2.5}$ focusing on coal combustion at the highest mountains in Japan and Korea

Shinichi Yonemochi[1], Ki-Ho Lee[2], Hiroshi Okochi[3], Chul-Goo Hu[2],
Yuichi Horii[1] and Hitoshi Tanaka[1]
[1]*Center for Environmental Science in Saitama, Japan*
[2]*Jeju National University, Korea*
[3]*Waseda University, Japan*

(P-23) Observational study on wet removal process of black carbon particles in Tokyo and Okinawa

Tatsuhiro Mori[1,2], Nobuhiro Moteki[2], Sho Ohata[2], Makoto Koike[2], and Yutaka Kondo[3]
[1]*Department of Physics, Faculty of Science Division I, Tokyo University of Science, Japan*
2*Department of Earth and Planetary Science, Graduate School of Science, The University of Tokyo, Japan*
3National Institute of Polar Research, Japan

(P-24) Characteristics of cloud condensation nuclei at the summit of Mt. Fuji (Japan, 3776m a.m.s.l.) during summer season

Konosuke Sato[1], Ryota Kataoka[1], Yoko Iwamoto[2], Kazuhiko Miura[1], Mitsuo Uematsu[3] and Hiroshi Okochi[4]
[1]*Department of Physics, Tokyo University of Science, Japan*
[2]*Graduate School of Biosphere science, Hiroshima University, Japan*
[3]*Atmosphere and Ocean Research Institute, the University of Tokyo, Japan*
[4]*Graduate School of Creative Science and Engineering, Waseda University, Japan*

(P-25) Stream water chemistry in a mountain forest near the Tokyo metropolitan area and the impact of atmospheric deposition (3)

Mamoru Maniwa[1], Hiroshi Okochi[1], Kojiro Shimada[1], Takanori Nakano[1], and Manabu Igawa[2]
[1]*Graduate School of Creative Science and Engineering, Waseda University, Tokyo, Japan*
[2]*Department of Engineering, Kanagawa University, Kanagawa, Japan*

(P-26) Effect of atmospheric deposition on trace metals in stream water in mountains near the Tokyo metropolitan area (3)

Suzumi Nishimura[1], Hiroshi Okochi[1], Kojiro Shimada[1], Takanori Nakano[1], and Manabu Igawa[2]
[1]*Graduate school of creative science and engineering, Waseda University, Japan*
[2]*Faculty of Engineering, Kanagawa University, Japan*

(P-27) Chemical characteristics of snow cover at Murododaira, Mt. Tateyama

Koichi Watanabe, Taiki Hirai, Kohei Takatsuji, Keisuke Nakagawa, and Ryosuke Ejiri
Department of Environmental and Civil Engineering, Toyama Prefectural University, Japan

(P-28) Deposition of transboundary transported species by using multi-isotopes at Mt. Happo

Yayoi Inomata[1], Tatsuyoshi Saito[2], Masayuki Morohasi[3], Naoyuki Yamashita[4], Kazunori Nakagomi[5], Hiroyuki Sase[3], Tsuyoshi Ohizumi[2], and Takanori Nakano[6]
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[2]*Niigata Prefectural Institute of Public Health and Environmental Sciences, Japan*
[3]*Asia Center for Air Pollution Research, Japan*
[4]*Foresttry and Forest Products Research Institute, Japan*
[5] *Nagano Environmental Conservation Research Institute, Japan*
[6]*Research Institute for Humanity and Nature, Japan*

(P-29) Characteristics of carbonaceous fractions in $PM_{2.5}$ of Anmyeon Island, a background site in Korea

Jong Sik Lee[1], Yu Woon Jang[1], Eun Sil Kim[2], Yong Pyo Kim[3], Chang Hoon Jung[4], and Ji Yi Lee[1]
[1]*Department of Environmental Engineering, Chosun University, South Korea*
[2]*Korea Global Watch Center, Korea Meteorological Administration, South Korea*
[3]*Department of Chemical Engineering and Materials Science, Ewha Womans University, South Korea*
[4]*Department of Environmental Health, Kyungin Women's College, South Korea*

(P-30) Relationship between black carbon aerosol and carbon monoxide at a high-mountain background station in East Asia

Shantanu Kumar Pani, Chang-Feng Ou-Yang, and Neng-Huei Lin
Department of Atmospheric Sciences, National Central University, Taiwan

(P-31) Comparison of $PM_{2.5}$ and its Polycyclic Aromatic Hydrocarbons between basin and mountain sites in upper northern Thailand during smoke haze period

Duangduean Thepnuan[1], Somporn Chantara[1,2*], Wittaya Tala[1], Wan Wiriya[1,2], Lin-Chi Wang[3], Neng-Huei Lin[4]
[1] *Environmental Chemistry Research Laboratory, Department of Chemistry, Faculty of Science, Chiang Mai University, Thailand*
[2] *Environmental Science Research Center, Faculty of Science, Chiang Mai University, Thailand*
[3]*Department of Civil Engineering and Geomatics, Cheng Shiu University, Taiwan*
[4]*Department of Atmospheric Sciences, National Central University, Taiwan*

(P-32) Effects of open burning and metrological condition on concentrations of fine particulate matters at mountain and foothill sites in northern Thailand in 2015

Nuttipon Yabueng[1], Duangduean Thepnuan[2], Wan Wiriya[1,2], Somporn Chantara[1,2*]
[1] *Environmental Chemistry Research Laboratory, Department of Chemistry, Faculty of Science, Chiang Mai University, Thailand*
[2]*Environmental Science Research Center, Faculty of Science, Chiang Mai University, Thailand*

(P-33 Differences between high elevation and sea level trace gas measurements at similar latitudes

Russell Schnell, Steve Montzka, and Ed Dlugokencky
NOAA, Global Monitoring Division, USA

(P-34) Plausible trajectory of FDNPP-origin Cesium-134 infinitesimally detected at the summit of Mt. Fuji

Masashi Kamogawa
Department of Physics, Tokyo Gakugei University, Japan

18:00 – 20:00 Banquet

10th November, 2017

Chemistry of fog/cloud, rain, and dew at mountain sites

Chair: Drs. Okochi & Kaneyasu

08:40–09:00 (G-01) Deposition mechanisms of ^{137}Cs at mountainous regions in Japan

Naoki Kaneyasu[1], Naoyuki Sanada[2], Genki Katata[3], Chika Nakanishi[2], and Yoshimi Urabe[4]
[1]*National Institute of Advanced Industrial Science and Technology, Japan*
[2]*Fukushima Environmental Safety Center, Japan Atomic Energy Agency, Japan*
[3]*Institute for Global Change Adaptation Science, Ibaraki University, Japan*
[4]*NESI, Inc., Japan*

09:00–09:20 (G-02) Multiphase chemistry modelling using the regional model COSMO-MUSCAT: Results for the field campaign HCCT-2010

Ralf Wolke[1], Roland Schrödner[2], Andreas Tilgner[1], Dominik van Pinxteren[1], and Hartmut Herrmann[1]
[1]*Leibniz-Institute for Tropospheric Research, Germany*
[2]*Lund University, Centre for Environmental and Climate Research, Sweden*

09:20–09:40 (G-03) SPACCIM modelling of the multiphase chemical aerosol processing in orographic clouds at Mt. Schmücke

A. Tilgner[1], E. H. Hoffmann[1], R. Wolke[2], and H. Herrmann[1]
[1]*Atmospheric Chemistry Department, Leibniz Institute for Tropospheric Research, Germany*
[2]*Modelling Atmospheric Processes Department, Leibniz Institute for Tropospheric Research, Germany*

09:40–10:00 (G-04) Observation of orographic clouds in alpine terrain with a holographic imager (HOLIMO)

Jan Henneberger, Alexander Beck, Fabiola Ramelli and Ulrike Lohmann
Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland

COFFEE BREAK (20 min.)

10:20–10:40 (G-05) Fog characteristics and air pollutants deposition on Mt. Oyama, Japan

Manabu Igawa[1], Kiyoshi Sakurai[1], and Hiroshi Okochi[2]
[1]*Department of Materials and Life Chemistry, Kanagawa University, Japan*
[2]*Graduate School of Creative Science and Engineering, Waseda University, Japan*

10:40–11:00 (G-06) Observation of cloud water chemistry in the free troposphere and the atmospheric boundary layer on Mt. Fuji (4)

Megumi Nakamura1, Hiroshi Okochi[1], Kojiro Shimada[1], Naoya Katsumi[2], Yukiya Minami[2], Hiroshi Kobayashi[3], Kazuhiko Miura[4] and Shungo Kato[5]

[1]*Graduate School of Creative Science and Engineering, Waseda University, Japan*

[2]*Faculty of Biosources and Environmental Sciences, Ishikawa Prefectural University, Japan*

[3]*Department of Environmental Sciences, University of Yamanashi, Japan*

[4]*Faculty of Science Division 1, Tokyo University of Science, Japan*

[5]*Faculty of Urban Environmental Sciences, Tokyo Metropolitan University, Japan*

11:00–11:20 (G-07) Dicarbonyl compounds in hygroscopic aerosols and cloud waters sampled at the top of Mt. Fuji

Kei Toda[1], Masakazu Iwasaki[1], Kasumi Mitsuishi[1], Shin-Ichi Ohira[1], Masaki Takeuchi[2], and Hiroshi Okochi[3]

[1]*Department of Chemistry, Kumamoto University, Japan*

[2]*Faculty of Pharmaceutical Sciences, Tokushima University, Japan*

[3]*Department of Resources and Environmental Engineering, Waseda University, Japan*

11:20–11:40 (G-08) The estimation of cloud-fog water collection at different mountain sites in Taiwan

Hsiu-Chen Chiang[1], Po-Hsiung Lin[1], and Stefan Simon[2]

[1]*Department of Atmospheric Sciences, National Taiwan University, Taiwan*

[2]*Research Centre for Environmental Changes, Academia Sinica, Taiwan*

11:40–12:00 (G-09) Precipitation chemical composition trends at Croatian mountain sites (1981-2016)

Sonja Vidič, Vedrana Džaja Grgičin, Ivona Igrec, Ksenija Kuna and Cleo Kosanović

Meteorological and Hydrological Service, Zagreb, Croatia

Closing Remarks

12:00–12:30