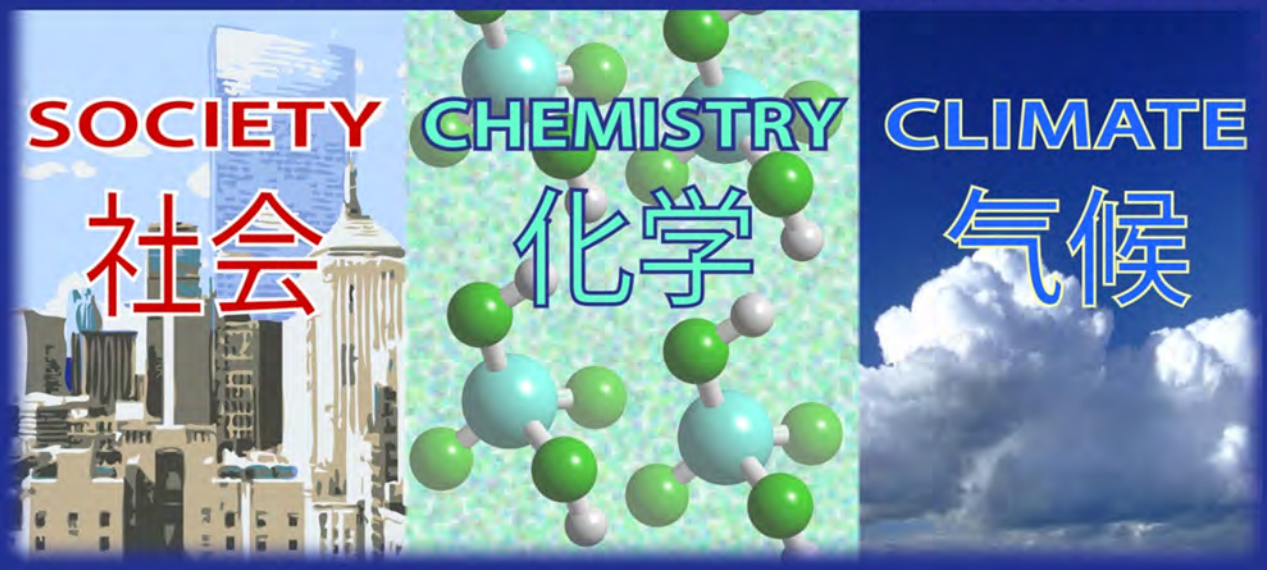
Atmospheric CHEMISTRY IN THE ANTHROPOCENE

17-21 SEPTEMBER 2012 • BEIJING



The 12th International Global Atmospheric Chemistry (IGAC) Science Conference

Final Programme

Contents

Welcome Letter from IGAC SSC

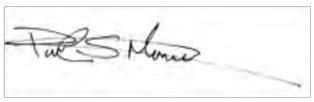
On behalf of the IGAC community, we would like to welcome you to the 12th biennial IGAC Open Science Conference in Beijing, China. IGAC was established in 1990 to address international concern over rapid changes observed in the Earth's Atmosphere. Over the past 20+ years IGAC has played a key role in underpinning the scientific understanding of atmospheric composition and the process that drive change in the Earth's atmosphere.

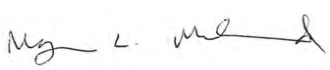
The theme of this year's conference is "Atmospheric Chemistry in the Anthropocene". In order to effectively address global change and meet economic and societal goals, it must be recognized that humans are the centre of the earth system both as the key forcer of change and a major recipient of its feedbacks. In recognition of this, IGAC has evolved its mission to ***coordinating and fostering atmospheric chemistry research towards a sustainable world*** by integrating, synthesizing, guiding, and adding value to research undertaken by individual scientists, through initiating new activities, acting as a hub of communication for the international atmospheric chemistry research community and through building scientific capacity. IGAC accepts there is a need to develop a multi-disciplinary approach to address global sustainability and embraces that challenge by integrating IGAC's core activities that focus on emissions, atmospheric processes, and atmospheric composition with sustainability issues such as climate, human health, ecosystems, and how individual and societal responses feed back onto the core IGAC research-led activities. IGAC believes by viewing the Earth as a resource and one of the bases of energy and economic activities, human well-being can be sustained.

Although the IGAC community comes together every two years, IGAC Activities are ongoing. Please visit igacproject.org to learn more about current IGAC Activities and how you can be involved in the IGAC community.

Throughout the week, we encourage you to speak with members of the IGAC Scientific Steering Committee (SSC) to learn more about IGAC and its activities. We look forward to sharing an exciting week of discussions on Atmospheric Chemistry and the Anthropocene with you!

Sincerely,





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IGAC SSC members:

Mary Barth (U.S.A.)
Graham Feingold (U.S.A.)
Claire Granier (France)
Abdourahamane Konare (Côte d'Ivoire)
Karla Longo (Brazil)
Olga Mayol-Bracero (Puerto Rico)
Rokjin Park (S. Korea)
Yinon Rudich (Israel)
Hiroshi Tanimoto (Japan)
Jonathan Abbatt (Canada)
Gufran Beig (India)
Allen Goldstein (U.S.A.)
Melita Keywood (Australia)
Mark Lawrence (Germany)
Shih-Chun Candice Lung (Taiwan)
Spyros Pandis (Greece)
Kobus Pienaar (South Africa)
Chhemendra Sharma (India)

Welcome Letter from Local Organizing Committee and Scientific Program Committee

On behalf of the local organizing committee and the program planning committee, we welcome you to participate in the 12th IGAC Open Science Conference to be held September 17-21, 2012, in Beijing, China.

The theme of the 2012 IGAC conference, "Atmospheric Chemistry in the Anthropocene", addresses the critical interactions between the atmosphere and human activities in an era where humans have fundamentally altered the composition and chemistry of our atmosphere. It fits the location of the conference, Beijing, China, quite well. As a megacity with more 20 million residents, Beijing has experienced fast social and economic development in recent decades. The pressure of development on the local environment is high, as evidenced by growing public attention on air pollution in Beijing. With atmospheric chemists from around the world attending the conference, we will have the opportunity to extensively discuss many questions related to atmospheric chemistry in the Anthropocene, the influence of Megacities, interactions with climate, impacts on human health, surface-atmosphere exchange, and the fundamentals of our science.

IGAC's biennial open science conferences are the primary mechanism for dissemination of scientific information across the community. The conference will feature five days of plenary, invited keynote, and submitted oral presentations, as well as high quality poster presentations which will be displayed continuously throughout the conference.

The IGAC Open Science Conference is a great event for atmospheric chemists around the world, and we look forward to hosting you all in Beijing.

Tong Zhu, Chair, Local Organizing Committee

Allen Goldstein
Yuanhang Zhang

Co-Chairs, Scientific Program Committee

Scientific Program Committee

Co-Chairs:

Allen Goldstein, University of California at Berkeley, CA, USA
Yuanhang Zhang, Peking University, Beijing, China

Members:

Mary Barth, National Center for Atmospheric Research, Boulder, CO, USA
Christian George, CNRS/Université Lyon, France
Alex Guenther, National Center for Atmospheric Research, Boulder, CO, USA
Makoto Koike, University of Tokyo, Japan
Melita Keywood, CSIRO, Aspendale, Victoria, Australia
Mark Lawrence, Institute for Advanced Sustainability Studies, Potsdam, Germany
Karla Longo, Brazilian National Institute for Space Research, SP, Brazil
Megan Melamed, University of Washington, Seattle, USA
Yinon Rudich, Weizmann Institute, Rehovot, Israel
Tong Zhu, Peking University, Beijing, China

Local Organizing Committee

Chair:

Tong Zhu, College of Environmental Sciences and Engineering, Peking University

Vice-Chairs:

Fahe Chai, Chinese Reaserch Academy of Environmental Sciences
Xiaoye Zhang, Chinese Academy of Meteorological Sciences
Min Hu, College of Environmental Sciences and Engineering, Peking University
Zifa Wang, Institute of Atmospheric Physics, Chinese Academy of Sciences

Members:

Junji Chao, Institute of Earth Environment, Chinese Academy of Sciences
Jianmin Chen, Fudan University
Maofa Ge, Institute of Chemistry, Chinese Academy of Science
Hong He, Research Center for Eco-Environmental Sci., Chinese Academy of Sciences
Kebin He, Tsinghua University
Jianping Huang, Lanzhou University
Hong Liao, Institute of Atmospheric Physics, Chinese Academy of Science
Fan Meng, Chinese Academy of Environmental Sciences
Min Shao, College of Environmental Sciences and Engineering, Peking University
Chunxia Wang, Chemistry Division, the National Natural Science Foundation of China
Tao Wang, Hong Kong Polytechnic University
Tijian Wang, Nanjing University
Yuesi Wang, Institute of Atmospheric Physics, Chinese Academy of Science
Xiaobin Xu, Chinese Academy of Meteorological Sciences

Chaolin Zhang, Geo-Sciences Division, the National Natural Science Foundation of China
Qingzhu Zhang, Shandong University
Mei Zheng, College of Environmental Sciences and Engineering, Peking University

Conference Secretaries:

Junxia Wang, College of Environmental Sciences and Engineering, Peking University
Xia Zou, College of Environmental Sciences and Engineering, Peking University

Program at a Glance

Sunday 16 September, 2012		
16:00-20:00	Registration	Main Lobby
18:00-20:00	Poster Set-Up	South Lobby
18:00-20:00	Ice Breaker/Welcome Reception	Ballroom C
Monday, 17 September, 2012		
08:00-18:00	Registration	Main Lobby
08:00-18:00	Poster Set-Up	South Lobby
09:00-09:25	Opening Remarks, P. Monks, A. Goldstein, T. Zhu	Ballroom C
09:25-09:55	Opening Lecture, Dahe Qin	Ballroom C
09:55-10:40	Keynote Presentation, Shaw Liu, Aerosols and Precipitation (Chair: T. Zhu)	Ballroom C
10:40-11:00	Coffee/Tea Break	South Lobby
11:00-12:35	Session 1. Atmospheric Chemistry in the Anthropocene (Chairs: Y.H. Zhang, M. Keywood)	Ballroom C
12:35-14:00	Lunch	Plenary B, 4th Floor
14:00-15:35	Session 2. Atmospheric Chemistry and Megacities (Chairs: M. Lawrence, M.L. Melamed,)	Ballroom C
15:35-18:00	***Poster Sessions 1 and 4 + Coffee/Tea Break***	South Lobby
Tuesday, 18 September, 2012		
08:00-18:00	Registration	Main Lobby
09:00-10:35	Session 3. Atmospheric Chemistry and Climate (Chairs: M. Barth, M. Koike)	Ballroom C
10:35-11:00	Coffee/Tea Break	South Lobby
11:00-12:35	Session 4. Atmospheric Chemistry and Health (Chairs: K. Longo, T. Zhu)	Ballroom C
12:35-14:00	Lunch	Plenary B, 4th Floor
12:35-14:00	YSP Keynote Lecture: Daniel Jacob + Lunch	Room 310
14:00-14:50	Session 4. Atmospheric Chemistry and Health (Chairs: K. Longo, T. Zhu)	Ballroom C
14:50-15:40	Session 5. Atmospheric Chemistry and Surface-Atmosphere Exchange (Chairs: A. Goldstein, A. Guenther,)	Ballroom C
15:40-18:00	***Posters Sessions 2 and 5 + Coffee/Tea Break***	South Lobby
18:30-21:30	Side Meeting 1: Aerosol Cloud Climate Feedback Processes and their Interaction with the Asian Monsoon (Conveners: X.Y. Zhang, S.L. Gong)	205B
Wednesday 19 September, 2012		
08:00-18:00	Registration	Main Lobby
09:00-09:45	Keynote Presentation, David Parrish, Ozone in the Anthropocene: Lessons from Urban to Remote Measurements at Northern mid-Latitudes	Ballroom C

	(Chair: A. Goldstein)	
09:45-10:35	Session 6. Atmospheric Chemistry Fundamentals (Chairs: C. George, Y. Rudich)	Ballroom C
10:35-11:00	Coffee/Tea Break	South Lobby
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14:00-15:35	Session 1. Atmospheric Chemistry in the Anthropocene (Chairs: Y.H. Zhang, M. Keywood)	Ballroom C
15:35-18:00	***Posters Sessions 3 and 6 +Coffee Break***	South Lobby
19:00-21:00	Side Meeting 2: Atmospheric Composition and the Asian Monsoon (Conveners: J. Crawford, L. Pan)	205B
Thursday, 20 September, 2012		
08:00-14:00	Registration	Main Lobby
09:00-10:35	Session 2. Atmospheric Chemistry and Megacities (Chairs: M. Lawrence, M.L. Melamed,)	Ballroom C
10:35-11:00	Coffee/Tea Break	South Lobby
11:00-12:35	Session 3. Atmospheric Chemistry and Climate (Chairs: M. Barth, M. Koike)	Ballroom C
12:35-13:30	Lunch	Plenary B, 4th Floor
13:00-18:30	***Free Time (Posters, Local Tours)***	
18:30-21:00	Banquet	Crown Plaza
19:00-19:30	Public Lecture, Xiaoyan Tang (Chair: S. Liu)	Crown Plaza
Friday, 21 September, 2012		
08:00-12:00	Registration	Main Lobby
09:00-09:45	Keynote Presentation, John Burrows, Global Remote Sensing of Tropospheric Trace Gases: GOME SCIAMACHY and GOME-2 (Chair: P Monks)	Ballroom C
09:45-10:35	Session 5. Atmospheric Chemistry and Surface-Atmosphere Exchange (Chairs: A. Goldstein, A. Guenther)	Ballroom C
10:35-11:00	Coffee/Tea Break	South Lobby
11:00-12:00	Session 5. Atmospheric Chemistry and Surface-Atmosphere Exchange (Chair: A Goldstein, A Guenther)	Ballroom C
12:00-12:30	Session 1. Atmospheric Chemistry in the Anthropocene (Chairs: Y.H. Zhang, M. Keywood)	Ballroom C
12:30-14:00	Lunch	Ballroom B
14:00-14:30	Session 1. Atmospheric Chemistry in the Anthropocene (Chairs: Y.H. Zhang, M. Keywood)	Ballroom C
14:30-15:30	Session 2. Atmospheric Chemistry and Megacities (Chairs: M. Lawrence, M.L. Melamed)	Ballroom C
15:30-16:30	Closing Remarks	Ballroom C

Keynote and Invited Speakers

Keynote Speakers

Prof. Shaw Liu	Research Center for Environmental Changes, Chinese Taipei	Sept. 17, 2012
Dr. David Parrish	National Oceanic and Atmospheric Administration, USA	Sept. 19, 2012
Prof. John Burrow	University of Bremen, Germany	Sept. 21, 2012

Opening Lecture

Dr. Dahe Qin	Chinese Administration of Meteorology	Sept. 17, 2012

Public Lecture

Prof. Xiaoyan Tang	Peking University, Beijing, China	Sept. 20, 2012

Young Scientists Session Keynote Speaker

Prof. Daniel Jacob	Harvard University, USA	Sept. 18, 2012

Invited Speakers

Session 1	Prof. David Etheridge	CSIRO, Australia	Sept. 17, 2012
	Prof. Kebin He	Tsinghua University, China	Sept. 19, 2012
Session 2	Prof. Louisa Molina	Molina Center, USA	Sept. 17, 2012
	Prof. Min Shao	Peking University, China	Sept. 20, 2012
Session 3	Prof. Nadine Unger	Yale, USA,	Sept. 18, 2012
	Prof. Richard Moore	Georgia Tech, USA	Sept. 20, 2012
Session 4	Prof. Bert Brunekreef	Utrecht University, Netherlands	Sept. 18, 2012
	Prof. Michael Jerrett	UC Berkeley, USA	Sept. 18, 2012
Session 5	Prof. Nick Hewitt	U Lancaster, UK	Sept. 18, 2012
	Prof. Allison Steiner	U Michigan, USA	Sept. 21, 2012
Session 6	Prof. Dwayne Heard	U Leeds, UK	Sept. 19, 2012
	Prof. Thomas Koop	Bielefeld University, Germany	Sept. 19, 2012

Detailed Program

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16:00-20:00	*Registration*	*Main Lobby*
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09:55-10:40	**Keynote Presentation**, Shaw Liu, Aerosols and Precipitation (Chair: T. Zhu)	
10:40-11:00	*Coffee/Tea Break*	*South Lobby*
Session 1. Atmospheric Chemistry in the Anthropocene (Chairs: Y.H. Zhang, M. Keywood)		
11:00-11:20	**Invited,** David Etheridge, Natural and anthropogenic changes in CO_2, CH_4 and N_2O over the past 2 millennia	Ballroom C
11:20-11:35	S1.1, Oliver Wild, Changing ozone at Europe's borders: Quantifying current and future impacts	
11:35-11:50	S1.2, Mike Newland, Historic atmospheric NMHC and alkyl nitrate trends from firn profiles at North GRIP and NEEM and the changing production efficiency of alkyl nitrates	
11:50-12:05	S1.3, Milan Vana, Long-term monitoring of volatile organic compounds at the background and suburban sites in the Czech Republic	
12:05-12:20	S1.4, Franz Rohrer, A new perspective for the self-cleansing capability of the atmosphere	
12:20-12:35	S1.5, Xinfeng Wang, Observation of abnormal daytime N_2O_5 and NO_3 at a coastal urban site in southern China	
12:35-14:00	*Lunch*	*Plenary B 4th Floor*
Session 2. Atmospheric Chemistry and Megacities (Chairs: M. Lawrence, M.L. Melamed)		
14:00-14:20	I**nvited**, Luisa Molina, Impacts of Emissions from Megacities on Air Quality and Climate	Ballroom C
14:20-14:35	S2.1, Tim Butler, Megacity ozone air quality under four alternative future scenarios	
14:35-14:50	S2.2, Liisa Jalkanen, WMO GURME addressing air quality in Megacities	
14:50-15:05	S2.3, Zadie Stock, Representing the air quality impacts of megacities in a global chemistry-climate model	
15:05-15:20	S2.4, Brian McDonald, Long-term trends in motor vehicle emissions of gaseous pollutants in the USA, 1990-2010	

15:20-15:35	S2.5, Cathy Liousse, BC/OC ratios: a new metrics to mitigate Emissions, Air quality, Health and Radiative Impacts. Focus on African megacities	
15:35-18:00	***Poster Sessions 1 and 4 + Coffee/Tea Break***	*South Lobby*
Tuesday, 18 September, 2012		
08:00-18:00	*Registration*	*Main Lobby*
Session 3. Atmospheric Chemistry and Climate (Chairs: M. Barth, M. Koike)		
09:00-09:20	I**nvited**, Nadine Unger, Anthropogenic land cover change effects on the short-lived climate forcers	Ballroom C
09:20-09:35	S3.1, Rodrigo Gonzalez-Abraham, Air Quality in the US under Current and Future Climate Conditions	
09:35-09:50	S3.2, Ian Galbally, Long Term Trends in Ozone in the Southern Hemisphere Extra-tropical Boundary Layer and Free Troposphere	
09:50-10:05	S3.3, Peter Brauer, Development of a mechanism generator and its application for the CAPRAM mechanism extension	
10:05-10:20	S3.4, Helen DeWitt, Subseasonal Variability in the Transport of Continental Aerosol to the Remote Indian Ocean: Possible Relation to the MJO	
10:20-10:35	S3.5, Sarah Doherty, Bounding the role of black carbon in climate: A scientific assessment	
10:35-11:00	*Coffee/Tea Break*	*South Lobby*
Session 4. Atmospheric Chemistry and Health (Chairs: K. Longo, T. Zhu)		
11:00-11:20	**Invited**, Bert Brunekreef, Atmospheric Chemistry and Health	Ballroom C
11:20-11:35	S4.1, Sandro Fuzzi, Science in support of decision-making concerning particulate matter air quality legislation: the European example	
11:35-11:50	S4.2, Wei Huang, Cardio-Pulmonary Responses of Healthy Young Adults to Source-Specific Particulate Constituents during the Beijing Olympics	
11:50-12:05	S4.3, Yinon Rudich, SiO2 nanoparticles stimulate inflammatory reaction in j774.4 macrophages cell line and basal insulin secretion in Min 6 cell line	
12:05-12:20	S4.4, Anindita Dutta, Systemic inflammatory changes, oxidative stress and increased cardiovascular risk in rural Indian women cooking with biomass fuels	
12:20-12:35	S4.5, Jianzhen Yu, Production of Reactive Oxygen Species Mediated by Humic-like Substances in Atmospheric Aerosols	
12:35-14:00	*Lunch*	*Plenary B 4th Floor*
12:35-14:00	***YSP Keynote Lecture: Daniel Jacob +Lunch***	***Room 310***
Session 4. Atmospheric Chemistry and Health (Chairs: K. Longo, T. Zhu)		
14:00-14:20	**Invited**, Michael Jerrett, Spatial Analysis of Air Pollution and Mortality in California	Ballroom C

14:20-14:35	S4.6, Armistead Russell, Hybrid Chemical Transport-Receptor-Geostatistical Modeling for Spatial and Temporal Source Impact Assessment in Health Studies	
14:35-14:50	S4.7, Amanda Pappin, Quantification of source-specific contributions to ozone mortality through adjoint sensitivity analysis	
Session 5. Atmospheric Chemistry and Surface-Atmosphere Exchange (Chairs: A. Goldstein, A. Guenther,)		
14:50-15:10	**Invited**, Nick Hewitt, Biofuel production, isoprene emissions and ground-level ozone	Ballroom C
15:10-15:25	S5.1, Darius Ceburnis, Marine submicron aerosol sources, sinks and chemical fluxes	
15:25-15:40	S5.2, Paul Shepson, Studies of the propagation of bromine chemistry in the Arctic: from the sea ice to open leads and across the tundra	
15:40-18:00	***Posters Sessions 2 and 5+ Coffee/Tea Break***	*South Lobby*
18:30-21:30	Side Meeting 1: Aerosol Cloud Climate Feedback Processes and their Interaction with the Asian Monsoon (Conveners: X.Y. Zhang, S.L. Gong)	205B
Wednesday 19 September, 2012		
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09:00-09:45	**Keynote Presentation**, David Parrish, Ozone in the Anthropocene: Lessons from Urban to Remote Measurements at Northern mid-Latitudes (Chair: A Goldstein)	Ballroom C
Session 6. Atmospheric Chemistry Fundamentals (Chairs: C. George, Y. Rudich)		
09:45-10:05	**Invited,** Thomas Koop, On the physical state of aerosol particles: principal processes and atmospheric implications	Ballroom C
10:05-10:20	S6.1, Hartmut Herrmann, Recent Multiphase Atmospheric Chemistry Investigations: HCCT-2010 and CAPRAM Developments	
10:20-10:35	S6.2, Shengrui Tong, Heterogeneous Processes between mineral dust and gases at ambient condition	
10:35-11:00	*Coffee/Tea Break*	*South Lobby*
11:00-11:20	I**nvited,** Dwayne Heard, Field measurements of tropospheric OH and HO_2 radicals: Comparisons with model calculations, novel chemical mechanisms, and technique development	Ballroom C
11:20-11:35	S6.3, Ditte Mogensen, A crucial oxidation mechanism to form sulphuric acid in VOC rich environments	
11:35-11:50	S6.4, Yunliang Zhao, Insights for SOA formation mechanisms from measured gas/particle partitioning of specific organic tracer compounds	
11:50-12:05	S6.5, Lynn Russell, Comparison of Spectroscopic Signatures of Smog Chamber and Atmospheric Aerosols	

12:05-12:20	S6.6, Jianfei Peng, Change of morphology, hygroscopisity and optical properties during soot aging under ambient atmospheric conditions	
12:20-12:35	S6.7, Astrid Kiendler-Scharr, Stable carbon isotope ratio analysis of anhydrosugars in biomass burning source aerosol	
12:35-14:00	*Lunch*	*Plenary B 4th Floor*
Session 1. Atmospheric Chemistry in the Anthropocene (Chairs: Y.H. Zhang, M. Keywood)		
14:00-14:20	**Invited**, Kebin He, Multi-resolution Emission Inventory for China (MEIC): model framework and 1990-2010 anthropogenic emissions	Ballroom C
14:20-14:35	S1.6, Kostas Tsigaridis, Understanding our current knowledge on organic aerosol modeling and comparison with measurements: an AEROCOM multi-model approach	
14:35-14:50	S1.7, Min Hu, Secondary Organic Formation in the Megacity of Beijing	
14:50-15:05	S1.8, Spyros Pandis, Ambient Organic Aerosol Aging: Application of the 2-D Volatility Basis Set to Field Studies	
15:05-15:20	S1.9, Nicole Riemer, Particle-resolved simulations to determine size-dependent aging time-scales of black carbon aerosol	
15:20-15:35	S1.10, Michelle Cain, Nighttime chemistry: modelling and observations from RONOCO	
15:35-18:00	***Posters Sessions 3 and 6 +Coffee Break***	*South Lobby*
19:00-21:00	Side Meeting 2: Atmospheric Composition and the Asian Monsoon (Conveners: J. Crawford, L. Pan)	205B
Thursday, 20 September, 2012		
08:00-14:00	*Registration*	*Main Lobby*
Session 2. Atmospheric Chemistry and Megacities (Chairs: M. Lawrence, M.L. Melamed)		
09:00-09:20	**Invited,** Min Shao, Increase of total oxidant in Beijing atmosphere in summer, 1995-2010	Ballroom C
09:20-09:35	S2.6, Franz Meixner, The growing dryland city of Urumqi (Xinjiang, China): A long term study (2000-2006) of emission sources, air pollution, and meteorological processes	
09:35-09:50	S2.7, Paul Monks, Changes in Emissions and the Effect on Regional Ozone Production from the London Megacity	
09:50-10:05	S2.8, Matthias Beekman, The Paris MEGAPOLI campaign to better quantify fine aerosol sources and formation in a tertiary type mid-latitude Megacity	
10:05-10:20	S2.9, Joost de Gouw, Emissions and Chemistry of Volatile Organic Compounds in a North American Megacity: Los Angeles, California	
10:20-10:35	S2.10, Laura Gallardo, The evolution of air quality and monitoring in Santiago, Chile since the mid 1980's	
10:35-11:00	*Coffee/Tea Break*	*South Lobby*

Session 3. Atmospheric Chemistry and Climate (Chairs: M. Barth, M. Koike)		
11:00-11:20	**Invited**, Richard Moore, Using Global Models to Unravel the Footprint of Human Activities on Clouds and Climate	Ballroom C
11:20-11:35	S3.6, Jing Ming, Black Carbon Deposition and High Asia Glaciers: An Interaction between Human and Nature Revealed by Pollutants	
11:35-11:50	S3.7, Mian Chin, Multi-decadal trends of atmospheric aerosols and their effect on surface radiation	
11:50-12:05	S3.8, Naga Oshima, Wet removal of black carbon in Asian outflow: Aerosol Radiative Forcing in East Asia (A-FORCE) aircraft campaign	
12:05-12:20	S3.9, Yan Zhang, Quantifying above-cloud aerosols through integrating multi-sensor measurements from A-Train satellites	
12:20-12:35	S3.10, Ryan Spackman, Pole-to-Pole Observations of Black Carbon Aerosol in the Remote Pacific	
12:35-13:30	*Lunch*	*Plenary B 4th Floor*
13:00-18:30	**Free Time (Posters, Local Tours)**	
18:30-21:00	**Conference Banquet**	Crown Plaza
19:00-19:30	**Public Lecture**, Xiaoyan Tang, 40 Years Atmospheric Chemistry Research in China (Chair: S. Liu)	Crown Plaza
Friday, 21 September, 2012		
08:00-14:00	*Registration*	*Main Lobby*
09:00-09:45	**Keynote Presentation**, John Burrows, Global Remote Sensing of Tropospheric Trace Gases: GOME SCIAMACHY and GOME-2 (Chair: P. Monks)	Ballroom C
Session 5. Atmospheric Chemistry and Surface-Atmosphere Exchange (Chairs: A. Goldstein, A. Guenther)		
09:45-10:05	**Invited**, Allison Steiner, BVOC exchange at the atmosphere-forest interface: Adding canopy complexity from the local to regional scale	Ballroom C
10:05-10:20	S5.3, Vinayak Sinha, Isoprene and monoterpenes at a mixed suburban site in the Indo-Gangetic Plain: Implications for regional ozone chemistry and seasonal biosphere-atmosphere exchange	
10:20-10:35	S5.4, Pawel Misztal, Aircraft-scale Eddy Covariance Fluxes of Biogenic Volatile Organic Compounds in California during CABERNET	
10:35-11:00	*Coffee/Tea Break*	*South Lobby*
11:00-11:15	S5.5, Jason Williams, Quantifying the uncertainty in simulating global tropospheric composition due to the variability in global emission estimates of Biogenic Volatile Organic Compounds	Ballroom C
11:15-11:30	S5.6, Dylan Millet, Global constraints on methanol and formic acid sources based on measurements from the Tropospheric Emission Spectrometer	

11:30-11:45	S5.7, Clare Murphy, Characterising African & South American Biomass Burning Emissions using Total Column Measurements from the East Coast of Australia	
11:45-12:00	S5.8, Maria Kanakidou, Global simulations of organic and inorganic nitrogen atmospheric deposition: Past and Future changes	
Session 1. Atmospheric Chemistry in the Anthropocene (Chairs: Y.H. Zhang, M. Keywood)		
12:00-12:15	S1.11, Daniel Jacob, Trends in atmospheric mercury and implications for past and future mercury accumulation in surface reservoirs	Ballroom C
12:15-12:30	S1.12, Martin Van Damme, Atmospheric ammonia: global distributions and trends from the IASI satellite mission	
12:30-14:00	*Lunch*	*Ballroom B*
14:00-14:15	S1.13, Johan Paul Beukes, Anthropogenic atmospheric source region plume characterisation of the interior of South Africa	Ballroom C
14:15-14:30	S1.14, Shang Liu, Secondary organic aerosol formation from fossil fuel and biogenic sources dominate summertime organic mass at Bakersfield, California	
Session 2. Atmospheric Chemistry and Megacities (Chairs: M. Lawrence, M.L. Melamed,)		
14:30-14:45	S2.11, James Crawford, Improving the view of air quality from space: An overview of DISCOVER-AQ observations over the Baltimore-DC area during July 2011	Ballroom C
14:45-15:00	S2.12, Dejian Fu, Remote Sensing of Spatial Distributions of Greenhouse Gases in the Los Angeles Basin	
15:00-15:15	S2.13, Steffen Beirle, Megacity NO_x emissions and lifetimes probed from space	
15:15-15:30	S2.14, Mihalis Vrekoussis, Economic crisis detected from space: Trends in air quality of Athens in Greece	
Closing Remarks		
15:30-16:30	Young Scientist Representative	Ballroom C
	Natal Presentation for iCACGP/IGAC 2014 Conference	
	IGAC SSC Co-Chair	
	Scientific Program Co-Chair	
	Local Organization Committee Chair	

Side Meetings

IGAC Side Meeting 1: (Aerosol-Cloud-Asian Monsoon)
Sept. 18, 2012, 18:30-21:30, Room 205B

18:30-18:35	Xiaoye Zhang CAMS, CMA	Welcome address
18:35-18:50	Sunling Gong Environment Canada	NRT Data Application in Chinese Air Quality Forecasts. (invited talk)
18:50-19:05	Hua Zhang NCC, CMA	Simulation of direct radiative forcing of aerosols and their effects on East Asian climate using an interactive AGCM-aerosol coulpled system. (invited talk)
19:05-19:20	Chunsheng Zhao, Peking University	Aerosol activation properties in the North China Plain (invited talk)
19:20-19:35	Tijian Wang Nanjing University	Mixing aerosols and their impact on East Asia monsoon climate (invited talk)
19:35-19:45	Jiannong Quan, CMA	Impact of Heavy Loading Aerosols on Cloud and Precipitation Over Beijing
19:45-19:55	Weijun Li Shandong University	Haze Particles over a coal-burning region in the China Loess Plateau in winter: three flight missions in December 2010
19:55-20:05	Weigang Wang Institute of Chemistry, CAS	Hygroscopic Properties of Internally Mixed Ammonium Sulfate and Phthalic Acid Particles
20:05-20:15	**Break**	
20:15-20:25	Junying, Sun CAMS, CMA	Cloud Condensation Nuclei Measurement at Mount Tai
20:25-20:35	Huizheng Che CAMS, CMA	Aerosol Optical Properties over China based on China Aerosol Remote Sensing NETwork (CARSNET) observation
20:35-20:45	Tianhai Cheng IRSA, CAS	Polarized Remote Sensing of Aerosol properties over China
20:45-20:55	Chunhong Zhou CAMS, CMA	Multi-component aerosols activation and their impact on the cloud physics and precipitation in a heavy polluted episode.
20:55-21:05	Hong Wang CAMS, CMA	Impacts of aerosol radiative effects on a meso-scale weather system
21:05-21:20	Lizheng An Nanjing University	Impacts of East Asian Summer Monsoon Circulation on Aerosol Distribution and its Direct Radiative Effect
21:20-21:30	Xiaojing, Shen CAMS, CMA	Particle Number Size Distribution and Optical Closure Study at Mt.Tai in Central East China