Xiangrui Kong

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Current Employments

Senior Researcher **2018 -**
University of Gothenburg, Gothenburg, Sweden

Research Experience

Adjunct Professor **2018 - 2022**
Northwest University, Xi'an, China

Postdoc **2015 - 2017**
Paul Scherrer Institute, Villigen, Switzerland
Focus: Synchrotron-based photoelectron spectroscopy in a Near Ambient Pressure Photoemission (NAPP) end station, for both solid chamber and liquid jet.
Budget responsibility: SEK 2,100,000

Visiting Scientist **2016 summer & 2017 summer**
Massachusetts Institute of Technology, Cambridge, MA, USA
Focus: Innovative study of sea salt particle phase change by an online continuous flow diffusion chamber.

Researcher **2017**
University of Oulu, Oulu, Finland
Focus: Synchrotron-based Atmospheric Research.

Visiting Scientist **2014**
Czech Academy of Science, Prague, Czech Republic
Focus: Molecular dynamics simulation.

Education

Ph.D in Chemistry
University of Gothenburg, Sweden, 2014
Dissertation: "Molecular Investigations of Atmospherically Relevant Interface Processes: Ice Formation and Water Accommodation on Ice and Organic Surfaces"
Supervisor: Prof. Jan Pettersson

Licentiate in Chemistry
University of Gothenburg, Sweden, 2013
Thesis: "Interaction of Water and Alcohols under Conditions Relevant to the Upper Troposphere"

Master of Science (Environmental Measurements and Assessments)
Chalmers University of Technology, Sweden, 2009
Thesis: "Clustering Analysis for Alkali-containing Aerosol Particles: Influence of Meteorological Conditions"

Granted Funding

Swedish Research Council (vetenskapsrådet, VR) Starting Grant **2022 - 2025**
Project title: Understanding the Novel Surface-Promoted RedOx (SPRO) Mechanism in the Context of Fundamental Chemistry and Atmospheric Chemistry
Project reference number: 2021-04042, € 400,000 (SEK 4,000,000)
Role: Principal investigator.

The Swedish Foundation for International Cooperation in Research and Higher Education (STINT) Joint China-Sweden Mobility Program **2020 - 2023**
Partners: University of Gothenburg (GU) and Peking University (PKU)
Project title: Understanding the Hygroscopicity and Ice Nucleation Activity of Secondary Organic Aerosol on a Molecular Level
Project reference number: CH2019-8361, SEK 600,000 + CNY 400,000
Role: Principal investigator.

National Natural Science Foundation of China (NSFC) General Program **2020 - 2023**
Title: Direct Experimental Characterization of Aerosol Interface Properties and Processes under Relevant Atmospheric Conditions
Project reference number: 41975160, € 65,000 (CNY 490,000)
Role: Principal investigator.

The Swedish Foundation for International Cooperation in Research and Higher Education (STINT) Initiation Grants **2017 - 2018**
Partners: University of Gothenburg (GU) and Massachusetts Institute of Technology (MIT)
Project title: Sea Salt Particles Acting as Cloud Seeds: Deliquescence, Ice Nucleation and Ice Sublimation
Project reference number: IB2016-6612, SEK 150,000
Role: Principal investigator.

Swedish Research Council (vetenskapsrådet, VR) International Postdoc Fellowship **2015 - 2017**
Project title: A new view on ice surface disorder and its role in geochemical processes
Project reference number: 2014-6924, € 224,000 (SEK 2,100,000)
Role: Principal investigator.

Swedish Research Council (vetenskapsrådet, VR) Project Research Grant **2016 - 2019**
Project title: Towards a molecular-level understanding of interface processes in the atmosphere
Project reference number: 2015-04212, € 350,000 (SEK 3,265,000)
Role: Co-investigator.

Individual Fellowships, Awards and Scholarships

Swedish Research Council (vetenskapsrådet, VR) starting grant fellowship	**Sweden 2022-2025**
Swedish Research Council (vetenskapsrådet, VR) international postdoc fellowship	**Sweden 2015-2017**
International Union of Geodesy and Geophysics (IUGG)/International Association of Meteorology and Atmospheric Sciences (IAMAS) grant	**USA 2017**
The Royal Society of Arts and Sciences in Gothenburg (KVVS) scholarship	**Sweden 2016**
Wenner-Gren Stiftelserna grant	**Sweden 2020&2018&2016&2015**
International Global Atmospheric Chemistry (IGAC) grant	**International 2014**
European Geosciences Union (EGU) grant	**Europe 2014**
Ångpanneföreningens Forskningsstiftelse grant	**Sweden 2013**
National Science Foundation Office of Polar Programs grant	**USA 2013**
International Association of Cryospheric Sciences (IACS) grant	**International 2012**
Kunt och Alice Wallenbergs Stiftelse grant	**Sweden 2014&2012**
Adlerbertska stipendiestiftelsen scholarship	**Sweden 2013&2012&2011**
National Volleyball Second-level Athlete	**China 2000**

Supervision and Hosts for Visitors

Co-supervisor for PhD students

Dr. Sofia Johansson, 02/2015 - 01/2020, University of Gothenburg, Sweden
Dr. Dimitri Castarède, 08/2016 - 12/2021, University of Gothenburg, Sweden
Mr. Viktor Andersson, 08/2018 - , University of Gothenburg, Sweden
Mr. Yaxin Ge, 09/2018 - , University of Gothenburg, Sweden
Mr. Luis Santos, 11/2018 - , University of Gothenburg, Sweden
Mr. Nicolas Fauré, 09/2021 - , University of Gothenburg, Sweden

Supervisor for Master students
Ms. Sofia Johansson, 07/2014 - 12/2014, University of Gothenburg, Sweden
Ms. Jun Li, 01/2020 - , Northwest University, China
Ms. Wanyu Liu, 01/2020 - , Northwest University, China

Host for Visiting Professor
Prof. Sen Wang (Northwest Uni. of China), 01/2020 - 01/2021, University of Gothenburg, Sweden

Reviewer

2021 –	*Guest editor, organizing a special issue in Frontier in Environmental Science, UK*
2020 –	*Appraiser at the Natural Science Foundation of China (NSFC), China*
2019 –	*Appraiser at the Swiss National Science Foundation (SNSF), Switzerland*
2018 –	*Reviewer for the Elsevier journals, Netherlands*
2017 –	*Reviewer for the Royal Society of Chemistry (RSC) journals, UK*
2017 –	*Reviewer board member for MDPI journals, Switzerland*
2015 –	*Reviewer for the American Chemistry Society (ACS) journals, US*

Teaching Experience

2019 –	*Course coordinator and lecturer – "Aerosol" & "Environmental Chemistry", GU, Sweden*
2009 – 2014	*Teaching lab assistant – 'Aerosol', 'General Chemistry', 'Inorganic Chemistry', 'Environmental Modelling', 'Environmental Chemistry', etc., GU, Sweden*

Organized Workshops

2021	*Main organizer, GU & Peking University STINT Workshop 2020 & 2021, online (~200 participants)*
2020	*Main organizer, GU & Peking University STINT Workshop 2020 & 2021, online (~30 participants)*
2017	*Main organizer, GU & MIT Workshop 2017 ---- Insights into Sea Salt and Organic Aerosols, Gothenburg, Sweden (~30 participants)*

Organized Field Campaigns

Evaluating Small Scale Biomass Burner at RISE, Borås, Sweden **4-5/2018 & 3-4/2019**
Coordination of atmospheric measurements for evaluating emissions from biomass burners during the two 5-week-long campaign. The instrumentation included CIMS, SID, PAM chamber for aerosol aging, PASS-3, SMPS, AAC, CPC, GRIMM dust monitor, gas analyzers, CCNc, and dilution systems.

Memberships of Scientific Societies

2022 –	*Vice-coordinator of ClimBEco Graduate Research School, Sweden*
2021 –	*Member of National Society for Mineralogy Petrology and Geochemistry, China*
2019 –	*APXPS user community member, MAX IV, Sweden*
2018 –	*Associated member, Finnish Synchrotron Radiation Users Organization (FSRUO), Finland*
2015 –	*Founding member, Martina Roeselova memorial fellowship, Czech Republic*

International Conferences and Seminars

NCAR/ACOM seminar

Boulder, Colorado, USA (Virtual), June 2022
Title: "Water-on" Catalysis Mechanism on Aerosol Surfaces (INVITED)

Swedish Chemical Society Annual Conference
Linköping, Sweden, June 2022
Title: Understanding the "Water-on" Surface Catalysis in the context of Atmospheric Chemistry (INVITED)

A Molecular Level Understanding of Atmospheric Aerosols (MUOAA 2022) Conference
Los Angeles, CA, USA, May 2022
Title: Understanding the 'water-on' surface catalysis in the context of atmospheric chemistry (INVITED)
https://web.cvent.com/event/bf038569-85b1-4b68-aedd-9cfef522bb00/summary

The 27th Conference on Atmospheric Environment Science and Technology
Beijing, China, (Virtual), November 2021
Title: Seeding a New Surface Chemistry Theory in the Context of Atmospheric Science (INVITED)

Swedish Gasification Center Annual Conference
Stockholm, Sweden, November 2021
Title: An Overview of Alkali Desorption from Biomass Gasification Materials (INVITED)

Paul Scherrer Institute LUC Seminar
Virtual, November 2021
Title: Surface-Promoted Redox Reactions on a Solvating Salt Surface (INVITED)

Sweden-China Ice Nucleation Workshop
Online, November 2020
Title: Water Adsorption and Ice nucleation on Atmospheric Salt Particles (INVITED)

Innovation Forum at the Northwest University of China
Xi'an, China, October 2019
Title: Aerosol Interface Research ----- from Global Warming to Synchrotron (INVITED)

Special Seminar at the Institute of Earth Environment, Chinese Academy of Science
Xi'an, China, October 2019
Title: Aerosol Interface Research ----- from Synchrotron to Environmental Molecular Beams (INVITED)

Sweden-China Framework Project (Photosmog) Conference
Beijing, China, October 2019
Title: Factor Analysis and Molecular Characterization of Emissions from Biomass Burning

The 20th International Conference on Nucleation and Atmospheric Aerosols (ICNAA 2017)
Helsinki, Finland, June 2017
Title: A Continuous Flow Diffusion Chamber Study of Sea Salt Particles Acting as Cloud Seeds: Deliquescence, Ice Nucleation and Sublimation

American Geophysical Union Fall Meeting (AGU2016)
San Francisco, CA, US, December 2016
Title: Hunting liquid micro-pockets and quasi-liquid layers in snow and ice.

European Science Foundation (ESF) Workshop on Microphysics of Ice Clouds
Vienna, Austria, April 2015
Title: Molecular Investigations of Atmospheric Ice Formation and Growth (INVITED)

Workshop on Chemical Atmosphere-Snow-Sea Ice Interactions: taking the next big step in the field, lab & modelling
Cambridge, UK, October 2014
Title: Development of a New Generation of Environmental Molecular Beam Method

13th International Conference on the Physics and Chemistry of Ice (PCI-2014)
Hanover, NH, USA, March 2014
Title: Water Accommodation on Bare and Coated Ice Surfaces

Davos Atmosphere and Cryosphere Assembly (DACA13)
Davos, Switzerland, July 2013
Title: Accommodation Coefficient and Kinetics of D_2O on Ice Surface between 170 K and 200 K

Publication List

1. V. Andersson, Y. Ge, X.R. Kong and J.B.C. Pettersson, A novel method for on-line characterization of alkali release and thermal stability of materials used in thermochemical conversion processes, *Energies*, 15 (**2022**), 4365. DOI: https://doi.org/10.3390/en15124365
2. J. Li, W.Y. Liu, D. Castarède, W.J. Gu, L.J. Li, T. Ohigashi, G.Q. Zhang, M.J. Tang, E.S. Thomson, M. Hallquist, S. Wang, X.R. Kong, Hygroscopicity and Ice Nucleation Properties of Dust/Salt Mixtures Originating from the Source of East Asian Dust Storms, Front. Environ. Sci., 10 (2022), 897127. DOI: 10.3389/fenvs.2022.897127
3. X.R. Kong, S.Y. Zhu, A. Shavorskiy, J. Li, W.Y. Liu, P. Corral Arroyo, R. Signorell, S. Wang, and J.B.C. Pettersson, Surface Solvation of Martian Analogous Salts at Low Relative Humilities, *Environ. Sci.: Atmos.*, 2 (**2022**), 137-145. DOI: https://doi.org/10.1039/D1EA00092F
4. X.R. Kong, J. Dou, S.Z. Chen, B.B. Wang and Z.J. Wu, Progress of Synchrotron-based Research on Atmospheric Science, *Progress in Chemistry*, 34 (**2022**), 963-972. DOI: 10.7536/PC210438
5. S.M. Johansson, J. Lovrić, X.R. Kong, E.S. Thomson and J.B.C. Pettersson, Water interactions with condensed carboxylic acids: adsorption and desorption of water on valeric acid surfaces, *in press* in *Phys. Chem. Chem. Phys.*.
6. V. Andersson, A.H. Soleimanisalim, X.R. Kong, H. Leion, T. Mattisson and J.B.C. Pettersson, Alkali Interactions with a Calcium Manganite Oxygen Carrier used in Chemical Looping Combustion, *Fuel Process. Technol.*, 227 (**2021**), 107099. DOI: https://doi.org/10.1016/j.fuproc.2021.107099
7. S.Z. Chen, L. Artiglia, F. Orlando, J. Edebeli, X.R. Kong, H.Y. Yang, A. Boucly, P. Corral Arroyo, N. Prisle, and M. Ammann, Impact of Tetrabutylammonium on the Oxidation of Bromide by Ozone, *ACS Earth Space Chem., 5* (**2021**), 3008-3021. DOI: https://doi.org/10.1021/acsearthspacechem.1c00233
8. X.R. Kong, D. Castarède, A. Boucly, L. Artiglia, M. Ammann, E.S. Thomson, I. Gladich, and J.B.C. Pettersson, A Surface-Promoted Redox Reaction Occurs Spontaneously on Solvating Inorganic Aerosol Surfaces, *Science*, 374 (**2021**), 747-752. DOI: https://doi.org/10.1126/science.abc5311
9. J. Li, W.Y. Liu, L.J. Li, W.J. Gu, X.Y. Zhang, M. Hallquist, M.J. Tang, S. Wang, X.R. Kong, Hygroscopicity of Fresh and Aged Salt Mixtures from Saline Lakes, *Atmosphere*, 12 (**2021**), 1203. DOI: https://doi.org/10.3390/atmos12091203
10. X.R. Kong, J. Lovrić, S.M. Johansson, N. Prisle, and J.B.C. Pettersson, Dynamics and Sorption Kinetics of Methanol Monomers and Clusters on Nopinone Surfaces, *J. Phys. Chem. A*, 125 (**2021**), 6263-6272. DOI: https://doi.org/10.1021/acs.jpca.1c02309
11. V. Andersson, A.H. Soleimanisalim, X.R. Kong, F. Hildor, H. Leion, T. Mattisson and J.B.C. Pettersson, Alkali-Wall Interactions in a Laboratory-Scale Reactor for Chemical Looping Combustion Studies, *Fuel Process. Technol.*, 217 (**2021**), 106828. DOI: https://doi.org/10.1016/j.fuproc.2021.106828
12. W. Liu, J. Li, W. Gu, L. Santos, J. Boman, X. Zhang, M. Tang, S. Wang and X.R. Kong, Chemical and Hygroscopic Characterization of Surface Salts in Qaidam Basin: Implications for Climate Impacts on

Planet Earth and Mars, *ACS Earth Space Chem.*, 5 (**2021**), 651-662. DOI: https://doi.org/10.1021/acsearthspacechem.0c00339

13. T. Bartels-Rausch, X.R. Kong, F. Orlando, L. Artiglia, A. Waldner, T. Huthwelker and M. Ammann, Interfacial Supercooling and the Precipitation of Hydrohalite in Frozen NaCl Solutions by X-ray Absorption Spectroscopy, *The Cryosphere*, 15 (**2021**), 2001-2021. DOI: https://doi.org/10.5194/tc-15-2001-2021
14. D. Schlesinger, S.J. Lowe, T. Olenius, X.R. Kong, J.B.C. Pettersson and I. Riipinen, A Molecular Perspective on Water Vapour Accommodation into Ice and its Dependence on Temperature, *J. Phys. Chem. A.*, 124 (**2020**), 10879-10889. DOI: https://pubs.acs.org/doi/10.1021/acs.jpca.0c09357
15. X.R. Kong and J.B.C. Pettersson, Ordinal Analysis Applied to the Results of Positive Matrix Factorization of Chemical Ionization Mass Spectrometry Data, *MethodsX*, 7 (**2020**), 101170. DOI: https://doi.org/10.1016/j.mex.2020.101170
16. X.R. Kong, C.M. Salvador, S. Carlsson, R. Pathak, K.O. Davidsson, M. Le Breton, S.M. Gaita, K. Mitra, Å.M. Hallquist, M. Hallquist, and J.B.C. Pettersson, Molecular Characterization of Emissions from a Residential Wood Burning Boiler, *Sci. Total Environ.*, 754 (**2020**), 142143. DOI: https://doi.org/10.1016/j.scitotenv.2020.142143
17. S.M. Johansson, J. Lovrić, X.R. Kong, E. S. Thomson, M. Hallquist, and J.B.C. Pettersson, Experimental and Computational Study of Water Interactions with Condensed Nopinone Surfaces at Atmospherically Relevant Conditions, *J. Phys. Chem. A.*, 124 (**2020**) 3652-3661. DOI: https://doi.org/10.1021/acs.jpca.9b10970
18. X.R. Kong, D. Castarede, A. Boucly, L. Artiglia, M. Ammann, T. Bartels-Rausch, E. Thomson, and J.B.C. Pettersson, Reversible Physisorbed and Chemisorbed Water on Alkaline Organic Salt Surface at Atmospheric Conditions, *J. Phys. Chem. C*, 124 (**2020**), 5263-5269. DOI: https://doi.org/10.1021/acs.jpcc.0c00319
19. J. Noda, R. Bergström, X.R. Kong, T. L. Gustafsson, B. Kovacevik, M. Svane, and J.B.C. Pettersson, Aerosol from Biomass Combustion in Northern Europe: Influence of Meteorological Conditions and Air Mass History, *Atmosphere*, 10 (**2019**), 789. DOI: https://doi.org/10.3390/atmos10120789
20. F. Orlando, L. Artiglia, H. Yang, X.R. Kong, K. Roy, A. Waldner, S. Chen, T. Bartels-Rausch and M. Ammann, Disordered Adsorbed Water Layers on TiO_2 Nanoparticles under Subsaturated Humidity Conditions at 235 K, *J. Phys. Chem. Lett.*, 10 (**2019**), 7433-7438. DOI: https://doi.org/10.1021/acs.jpclett.9b02779
21. X.R. Kong, E. Thomson, N. Marković, and J.B.C. Pettersson, Dynamics and Kinetics of Methanol - Graphite Interactions at Low Surface Coverage, *ChemPhysChem*, 20 (**2019**), 2171-2178. (Cover Paper). DOI: https://doi.org/10.1002/cphc.201900457
22. S.M. Johansson, J. Lovrić, X.R. Kong, E.S. Thomson, P. Papagiannakopoulos, C. Toubin and J.B.C. Pettersson, Understanding Water Interactions with Organic Surfaces: Environmental Molecular Beam and Theoretical Studies of the Water – Butanol System, *Phys. Chem. Chem. Phys.*, 21 (**2019**), 1141-1151. DOI: https://doi.org/10.1039/C8CP04151B
23. X.R. Kong, C. Toubin, A. Habartova, E. Pluharova, M. Roeselova and J.B.C. Pettersson, Rapid Water Transport through Organic Layers on Ice, *J. Phys. Chem. A,* 122 (**2018**), 4861-4868. DOI: https://doi.org/10.1021/acs.jpca.8b01951
24. X.R. Kong, M. Wolf, M. Roesch, E. Thomson, T. Bartels-Rausch, P. Alpert, M. Ammann, N. Prisle and D.J. Cziczo, A Continuous Flow Diffusion Chamber Study of Sea Salt Particles Acting as Cloud Nuclei: Deliquescence and Ice Nucleation, *Tellus B: Chemical & Physical Meteorology*, 70 (**2018**), 1463806. DOI: https://doi.org/10.1080/16000889.2018.1463806
25. A. Waldner, L. Artiglia, X.R. Kong, F. Orlando, M. Ammann and T. Bartels-Rausch, Formic Acid in the Disordered Interface of Ice at 253 K: A Near-ambient Pressure X-ray Photoemission Spectroscopy Study, *Phys. Chem. Chem. Phys.*, 20 (**2018**), 24408-24417. DOI: https://doi.org/10.1039/C8CP03621G

26. X.R. Kong, A. Waldner, F. Orlando, M. Birrer, L. Artiglia, M. Ammann, T. Huthwelker, and T. Bartels-Rausch, Coexistence of Physisorbed and Solvated HCl at Warm Ice Surfaces, *J. Phys. Chem. Lett.*, 8 (**2017**) 4757–4762. DOI: https://doi.org/10.1021/acs.jpclett.7b01573
27. T. Bartels-Rausch, F. Orlando, X.R. Kong, L. Artiglia, M. Ammann, Experimental Evidence for the Formation of Solvation Shells by Soluble Species at the Ice Surface, *ACS Earth and Space Chemistry*, 1 (**2017**) 572-579. DOI: https://doi.org/10.1021/acsearthspacechem.7b00077
28. S.M. Johansson, X.R. Kong, E.S. Thomson, M. Hallquist, and J.B.C. Pettersson, The Dynamics and Kinetics of Water Interactions with a Condensed Nopinone Surface, *J. Phys. Chem. A*, 121 (**2017**) 6614-6619. DOI: https://doi.org/10.1021/acs.jpca.7b06263
29. S.M. Johansson, X.R. Kong, P. Papagiannakopoulos, E.S. Thomson, and J.B.C. Pettersson, A Gas-Vacuum Interface for Environmental Molecular Beam Studies, *Rev. Sci. Instr.*, 88 (**2017**) 035112. DOI: https://doi.org/10.1063/1.4978325
30. E.S. Thomson, X.R. Kong, N. Markovic, P. Papagiannakopoulos, J.B.C. Pettersson, Deposition-mode Ice Nucleation Reexamined at Temperatures below 200 K, *Atmos. Chem. Phys.*, 15 (**2016**) 1621-1632. DOI: https://doi.org/10.5194/acp-15-1621-2015
31. X.R. Kong, P. Papagiannakopoulos, E.S. Thomson, J.B.C. Pettersson, Water Accommodation and Desorption Kinetics on Ice, *J. Phys. Chem. A*, 118 (**2014**) 3973-3979. DOI: https://doi.org/10.1021/jp503504e
32. X.R. Kong, E. S. Thomson, P. Papagiannakopoulos, S. Johansson, and J.B.C. Pettersson, Water Accommodation on Ice and Organic Surfaces: Insights from Environmental Molecular Beam Experiments, *J. Phys. Chem. B*, 118 (**2014**) 13378-13386. DOI: https://doi.org/10.1021/jp5044046
33. P. Papagiannakopoulos, X.R. Kong, E.S. Thomson, J.B.C. Pettersson, Water Interactions with Acetic Acid Layers on Ice and Graphite, *J. Phys. Chem. B*, 118 (**2014**) 13333-13340. DOI: https://doi.org/10.1021/jp503552w
34. E.S. Thomson, X.R. Kong, N. Markovic, P. Papagiannakopoulos, J.B.C. Pettersson, Collision Dynamics and Uptake of Water on Alcohol-covered Ice, *Atmos. Chem. Phys.*, 13 (**2013**) 2223-2233. DOI: https://doi.org/10.5194/acp-13-2223-2013
35. P. Papagiannakopoulos, X.R. Kong, E.S. Thomson, N. Markovi, J.B.C. Pettersson, Surface Transformations and Water Uptake on Liquid and Solid Butanol near the Melting Temperature, *J. Phys. Chem. C*, 117 (**2013**) 6678-6685. DOI: https://doi.org/10.1021/jp4003627
36. Z. Niu, X. Zhang, S. Wang, Z. Ci, X.R. Kong, Z. Wang, The Linear Accumulation of Atmospheric Mercury by Vegetable and Grass Leaves: Potential Biomonitors for Atmospheric Mercury Pollution, *Environ. Sci. Pollut. Res.*, 20 (**2013**) 1-7. DOI: https://link.springer.com/article/10.1007%2Fs11356-013-1691-0
37. X.R. Kong, P.U. Andersson, E.S. Thomson, J.B.C. Pettersson, Ice Formation via Deposition Mode Nucleation on Bare and Alcohol-covered Graphite Surfaces, *J. Phys. Chem. C*, 116 (**2012**) 8964-8974. DOI: https://doi.org/10.1021/jp212235p
38. Z.C. Niu, F.W. Zhang, X.R. Kong, J.S. Chen, L.Q. Yin, L.L. Xu, One-year Measurement of Organic and Elemental Carbon in Size-segregated Atmospheric Aerosol at a Coastal and Suburban Site in Southeast China, *J. Environ. Monit.*, 14 (**2012**) 2961-2967. DOI: https://doi.org/10.1039/C2EM30337J
39. E.S. Thomson, X.R. Kong, P.U. Andersson, N. Markovic, J.B.C. Pettersson, Collision Dynamics and Solvation of Water Molecules in a Liquid Methanol Film, *J. Phys. Chem. Lett.*, 2 (**2011**) 2174-2178. DOI: https://doi.org/10.1021/jz200929y
40. X.R. Kong, P.U. Andersson, N. Markovic and J.B.C. Pettersson, Environmental Molecular Beam Studies of Ice Surface Processes, *Physics and Chemistry of Ice 2010*, in *12th International Conference on the Physics and Chemistry of Ice (PCI-2010)*, Y. Furukawa, G. Sazaki, T. Uchida, N. Watanabe (Eds.), Hokkaido University Press, Sapporo, Japan, **2010**, 79-88.
41. X.R. Kong, D. Qu and L.N. Zhou, Effects of Sulfur Nutrition on Root Hydraulic Conductivity of Maize and Wheat under Heavy Metals Stress, *Acta Botanica Boreali-Occidentalia Sinica*, 27 (**2007**), 2257-2262.