

Scientific Program of the IHSS-14

Scientific program of the IHSS-14 will include oral sessions, poster sessions and round table discussions. Oral sessions will take place in the morning, and poster sessions in the afternoon. Oral sessions will include keynote invited lectures of 40 min long (30 min talk and 10 min questions) and volunteered oral presentations of 20 min long (15 min talk and 5 min questions). The special section will be dedicated to presentations of the IHSS travel awardees. The presentations at this session will be 10 min long (7 min talk and 3 min questions). Posters will have size of A0 format.

The special feature of the IHSS-14 program will be Round Table Discussions (RTD), which will take place in the after dinner time. The RTD will take place on September 15 and 16, 2008. Three parallel RTDs will be running on those days yielding a total of six. The topics of RTD will be following the main topics of the conference. The most attended session 2 “Humic substances and NOM in the changing environment” will be split into two round tables (2a and 2b) devoted to aquatic and soil environments, respectively. The goal of RTDs is to provide more space for discussions on the burning topics of humic research. The round tables will be two hours long: first hour will include 10-15 short (3 min) oral poster presentations, and the second hour – moderated discussions. The results of the RTDs will set the grounds for the conclusions of the IHSS-14 conference.

Another special feature of the IHSS-14 is the Exhibition “Humic materials – resources for the 21st century”. The Exhibition will be on display during the whole time of the conference. The official attendance time of the Exhibition by all participants is September 17, 2008.

Conference Schedule

September 13. Arrival to Moscow. Pre-conference excursions

20:00 – onwards Boarding the ship “Leonid Krasin”, dinner

September 14

7:15 – 8:15	Breakfast aboard the ship
8:15 – 9:30	Transfer from the ship to the Lomonosov MSU
9:30 – 12:00	Opening Ceremony at the Lomonosov Moscow State University
12:30 – 13:30	Transfer to the ship
13:30 – 14:30	Lunch aboard the ship
14:30 – 15:30	Moscow-Farewell
15:30 – 15:50	Welcome from organizers
15:50 – 16:50	Oral presentations. Section 2
16:50 – 17:20	Coffee break
17:20 – 18:40	Oral presentations. Section 2
18:40 – 19:40	Poster session 2
19:40 – 24:00	Get Together

September 15

7:30 – 9:00 Breakfast
9:00 – 10:20 Oral presentations. Section 1
10:20 – 10:50 Coffee Break
10:50 – 12:30 Oral presentations. Section 1
12:30 – 14:00 Lunch
14:00 – 16:00 Excursion to Uglich
16:00 – 16:30 Coffee break
16:30 – 17:00 Meeting of national coordinators of IHSS
17:00 – 18:00 Poster sessions 1 and 4
18:00 – 19:30 Dinner
19:30 – 21:30 Round table discussions 1, 2b, 4 and Exhibition Participants

September 16

7:30 – 9:00 Breakfast
9:00 – 10:20 Oral presentations. Section 5
10:20 – 11:00 Coffee break
11:00 – 14:00 Excursion to Goritsy (Kirillov)
14:00 – 15:30 Lunch
15:30 – 16:50 Oral presentations. Section 5
16:50 – 17:20 Coffee break
17:20 – 18:30 Poster sessions 3 and 5
18:30 – 20:00 Dinner
20:00 – 22:00 Round table discussions 2a, 3, 5 and Exhibition Participants

September 17

7:30 – 9:00 Breakfast
9:00 – 10:20 Oral presentations. Section 4
10:20 – 11:00 Coffee break
11:00 – 12:30 Oral presentations. Section 4
12:30 – 14:00 Lunch
14:00 – 15:00 Session of travel award winners
15:00 – 16:00 Exhibition "Humic materials – resources for the 21st century"
16:00 – 16:30 Meeting of RTD moderators / Poster Evaluation Committee
16:30 – 20:00 Excursion to Kizhi Island
20:00 – 21:30 Dinner
21:30 – 22:00 Local drink event

September 18

7:30 – 9:00 Breakfast
9:00 – 10:20 Oral presentations. Section 3
10:20 – 11:00 Coffee Break
11:00 – 14:30 Field trip to Mandrogi
14:30 – 15:50 Oral presentations. Section 3
15:50 – 16:20 Coffee break
16:20 – 17:20 General assembly
17:20 – 18:00 Keynote lecture
18:00 – 19:00 Conclusions of the Conference, Closing Ceremony
19:30 – 24:00 Conference Dinner

September 19

7:30 – 9:00 Breakfast
9:00 Arrival to Saint Petersburg.
10:00 Departure from the ship. Post-conference excursions in Saint Petersburg

Conference Program

September 14, 2008

Opening Ceremony at the Lomonosov Moscow State University

Chairs: Valery Lunin and Alexey Khokhlov

- 9:30 – 9:40 **Musical Greetings**
- Welcoming addresses**
- 9:40 – 9:45 **Valery Lunin** (Lomonosov MSU, Russia, Chair of Organizing Committees)
Welcome from the Local Conference Organizers
- 9:45 – 9:50 **Eugene Panteleev** (Minister for Science, Moscow Government).
Welcome from Moscow Government.
- 9:50 – 9:55 **Alexey Khokhlov** (Vice-Rector of Lomonosov Moscow State University).
Welcome from the Lomonosov MSU
- 10:00 – 10:05 **Kholstov Victor** (Ministry for Industry and Trade, Organization for prohibition
of chemical weapons) Greeting from OPCW
- 10:05 – 10:10 **Natalia Tarasova** (Director of Institute for Sustainable Development,
Mendeleev Russian Chemical-Technology University). Greetings from IUPAC.
- 10:10 – 10:15 **Paul Bloom** (Outgoing IHSS president, USA). Welcome from IHSS
- 10:15 – 10:20 **Jerzy Weber** (Coming IHSS president, Poland). Welcome from IHSS
- 10:20 – 10:25 **Pietro Tundo (Ca' Foscary University, Italy)** Greetings from the Chair of the
First IUPAC Green Chemistry Conference
- Plenary lectures**
- 10:25 – 11:05 **Valery Charushin** (Institute of Organic Synthesis, Ural Branch of RAS,
Russia). Principles of green chemistry in organic synthesis
- 11:05 – 11:45 **Joseph Bozell** (University of Tennessee, USA). Perspectives of lignin and
lignin-like materials as a source of value-added products
- 11:45 – 12:00 **Musical Greetings, Closing, Departure from MSU**
- 12:00 – 13:30 **Transfer to the ship**
- 13:30 – 14:30 Lunch aboard the ship
- 14:30 – 15:30 Moscow-Farewell
- HS and NOM in the changing environment**
Chairs: Gudrun Abbt-Braun and Roger Swift
- 15:30 – 15:50 Welcome from organizers: **Irina V. Perminova**.
From molecular understanding to innovative applications of humic substances
- 15:50 – 16:30 Keynote lecture: **Alain-Yves Huc**.
Sedimentary organic matter in the Earth system: origin and fate
- 16:30 – 16:50 **Serafim Chukov**.
Evolution of soil humic substances
- 16:50 – 17:20 Coffee break
- HS and NOM in the changing environment**
Chairs: Ekaterina Filcheva-Konyshcheva and Paul Bloom
- 17:20 – 17:40 **Ellen R. Graber**. Atmospheric HULIS: how humic-like are they?
- 17:40 – 18:00 **Montserrat Filella**. Freshwaters: do 'humics' always represent 50% of NOM?
- 18:00 – 18:20 **Eldor A. Paul**. Biological and molecular structure analyses of the controls on
soil organic matter dynamics
- 18:20 – 18:40 **Christian Feller**. Humus and the birth of Pedology: Müller, Dokuchaev and
successors
- 18:40 – 19:40 **Poster session 2, Deck 2**
- 19:40 – 24:00 **Get Together Moscow Restaurant**

September 15, 2008

Molecular understanding of HS and NOM

Chairs: Edward Huffman and Serge Neunlist

- 9:00 – 9:40 Keynote lecture: **Philippe Schmitt-Kopplin**. High resolution and hyphenated analytics as tools for exploring chemical space of HS and NOM from various environments
- 9:40 – 10:20 Keynote lecture: **Steve Cabaniss**
Agent based modeling of natural organic matter
- 10:20 – 10:50 Coffee Break

Molecular understanding of HS and NOM

Chairs: Fritz Frimmel and Evgeny Nikolaev

- 10:50 – 11:10 **Yiannis Deligiannakis**. Probing local pH in hydrophobic domains of humic acids: an EPR based method
- 11:10 – 11:30 **Andras Gaspar**. Multiple charged constituents in Suwannee River natural organic matter
- 11:30 – 11:50 **Juergen Thieme**. X-ray spectromicroscopy of organic matter in the environment.
- 11:50 – 12:10 **Martin Drastik**. Study on self-assembling mechanism of IHSS humic and fulvic standards
- 12:10 – 12:30 **Suzanne McDonald**. Hydrous pyrolysis of natural organic matter from a highly coloured surface water
- 12:30 – 14:00 Lunch
- 14:00 – 16:00 Excursion to Uglich
- 16:00 – 16:30 Coffee break
- 16:30 – 17:00 **Meeting of national coordinators of IHSS, Main Conference Hall**
- 17:00 – 18:00 **Poster session 1, Deck 2**
Poster session 4, Deck 3
- 18:00 – 19:30 Dinner
- 19:30 – 21:30 **Round table discussion 1**, Moderators: Philippe Schmitt-Kopplin and Norbert Hertkorn, *Main Conference Hall*
Round table discussion 2b, Moderators: Gerd Gleixner and Ladislau Martin Neto, *Library Room*
Round table discussion 4 (including Exhibition participants),
Moderators: Joe Bozell and Kamila Kydralieva, *Panorama Bar*

September 16, 2008

Industrial production of humates

Chairs: Serafim Chukov and Miroslav Pekar

- 9:00 – 9:40 Keynote lecture: **Claudio Ciavatta**. Standardization and legislative regulations of commercial humic and humic-based products
- 9:40 – 10:00 **Bruno Szpoganicz**. Characterization of organic and organomineral liquid fertilizers
- 10:00 – 10:20 **Olga Yakimenko**. Commercial humates: the role of organic matter origin
- 10:20 – 11:00 Coffee break
- 11:00 – 14:00 Excursion to Goritsy (Kirillov–Belozersky Monastery)
- 14:00 – 15:30 Lunch

Innovative applications of humic materials

Chairs: Renate Kloecking and Nicola Senesi

- 15:30 – 16:10 Keynote lecture: **John D. Coates**. Primary energy production by photoreduced humic materials
- 16:10 – 16:30 **Irena Twardowska**, Organogenic waste materials as promising metal sorbents
- 16:30 – 16:50 **Mir-M. Seyedbagheri**. A perspective on over a decade of on-farm research on the influence of humates products on crop production

- 16:50 – 17:20 Coffee break
 17:20 – 18:30 **Poster session 3, Deck 2**
Poster session 5, Deck 1
 18:30 – 20:00 Dinner
 20:00 – 22:00 **Round table discussion 2a**, Moderators: William Cooper and Rolf Vogt,
Library Room
Round table discussion 3, Moderators: Etelka Tombacz and Herbert Allen,
Main Conference Hall
Round table discussion 5 (including Exhibition participants),
 Moderators: Irena Twardowska and Kirk Hatfield, *Panorama Bar*

September 17, 2008

Knowledge-based design of humic materials

Chairs: Frank-Dieter Kopinke and Tohru Miyajima

- 9:00 – 9:40 Keynote lecture: **Masami Fukushima**. Biomimetic catalysts: oxidative degradation of chlorophenol by iron-porphyrin catalyst bound to humic acid via formaldehyde polycondensation
 9:40 – 10:00 **Maria G. Chernysheva**. Radiochemical approach for studying properties of humic substances
 10:00 – 10:20 **James Ian Van Trump**. Microbial oxidation of humic substances: agricultural consequences
 10:20 – 11:00 **Coffee break**

Knowledge-based design of humic materials

Chairs: Sanjaasuren Radnaasediin and Ming-Chao Wang

- 11:00 – 11:20 **Kamila Kydraliev**. Hybrid sorbents on the basis of magneto-active nanoparticles and humic substances
 11:20 – 11:40 **Leonid A. Karpouk**, Synthesis of alkoxy-silylated humic derivatives with different modification rate capable of self-adhering to mineral surfaces
 11:40 – 12:00 **Antonio S. Mangrich**. Preparation and characterization of biodiesel industry waste partially carbonized material in order to produce an organic soil conditioner
 12:00 – 12:20 **Michael H.B. Hayes**. Biorefinery chars as potential sources of soil humics
 12:20 – 14:00 **Lunch**

Session of Travel Award Winners

Chairs: Jerzy Weber and Ed Clapp

- 14:00 – 14:10 **Luis A. Tercero Espinoza**. Size exclusion chromatography investigation of the photocatalytic degradation of natural organic matter
 14:10 – 14:20 **Natalia S. Shcherbina**. Interaction of modified humic substances with Np(V): influence of monomer nature on redox properties of humic substance
 14:20 – 14:30 **Andre Hilscher**. Short time humification and mineralisation of different pyrogenic materials under controlled laboratory conditions
 14:30 – 14:40 **Krisztina Kovács**, Isolation and characterization of humic and fulvic acids from thermal waters as an unexplored biogeosystem
 14:40 – 14:50 **Chloé de Perre**. Interactions between Dissolved Organic Matter and Organic Contaminants in aquatic environment
 14:50 – 15:00 **Fien Amery**. The specific UV-absorbance of dissolved organic matter (DOM) explains the 5-fold variation of the copper mobilization by DOM in an agricultural soil horizon
 15:00 – 16:00 **Exhibition "Humic materials – resources for the 21st century"**, Deck 2
Chairs: Sergey Boston and Olga Yakimenko
 16:00 – 16:30 **Meeting of RTD moderators**, *Panorama Bar*
 16:00 – 16:30 **Meeting of Poster Evaluation Committee**: Chairs: Yona Chen and Maria De Nobili. Members: Steve Cabaniss, John Coates, Yanis Deligianakis, Jerzy

- Drozd, Nohibudu Fujitake, Masami Fukushima, Elen Graber, Kari Haenninen, Alan Huc, Dan Olk, Irina Sokolova, Mel Suffet, J. Xu, *Library Room*.
- 16:00 – 16:30 **Meeting of “Umnik” Selection Committee:** *Nadezhda Avvakumova (chair), Olga Bezuglova, Sergey Ponomatenko, Alexander Popov, Alexey Stepanov*
- 16:30 – 20:00 Excursion to Kizhi Island
- 20:00 – 21:30 Dinner
- 21:30 – 23:00 **Local Drink Event** *Saint Petersburg Bar*

September 18, 2008

Physical, chemical and biological properties of HS and NOM (morning)

Chairs: Norma Garcia Calderon and Egil Gjessing

- 9:00 – 9:40 Keynote lecture: **Yona Chen.** Organo-mineral complexes and their effects on the physico-chemical properties of soils
- 9:40 – 10:00 **Roger S. Swift.** Humic substances in soils and in their drainage waters
- 10:00 – 10:20 **William Cooper.** Reactive and refractory components of dissolved organic matter (DOM) in peatland soil porewaters and their relation to climate change
- 10:20 – 11:00 Coffee Break
- 11:00 – 14:30 **Field trip to Mandrogi**
Chair: Eugene Abakumov and Vladimir Kholodov
- ### **Physical, chemical and biological properties of HS and NOM (afternoon)**
- Chairs: Juan Gallardo Lancho and Serge Neunlist*
- 14:30 – 14:50 **Patrick Brezonik.** Strength of methylmercury binding by fulvic acid and aquatic NOM
- 14:50 – 15:10 **Ladislau Martin Neto.** Greenhouse effect and mitigation by soil carbon sequestration in tropical areas: importance and characteristics of humic substances
- 15:10 – 15:30 **J. Xu,** Interaction between pentachlorophenol and soil organic matter: sorption-desorption reaction and hysteresis
- 15:30 – 15:50 **Benoît Pernet-Coudrier.** What is making up dissolved organic matter in anthropized aquatic system?
- 15:50 – 16:20 Coffee break

Concluding session of the conference

Chairs: Irina Perminova and Jerzy Weber

- 16:20 – 17:20 **General assembly of IHSS**
- 17:20 – 18:00 Keynote lecture: **Norbert Hertkorn.** Depicting molecular dissimilarity in complex materials
- 18:00 – 19:00 **Conclusions of the Conference, Closing Ceremony**
- 19:00 – 19:30 **Meeting of CIS-IHSS chapter**
- 19:30 – 24:00 **Conference Dinner**

Poster Session Section 1

Molecular understanding of humic substances and natural organic matter

September 15, 2008, 16:30 – 18:00, Deck 2

- 2-1. **Brigante, Maximiliano.** Effects of pH, temperature, and organic and inorganic ions on the dissolution kinetics of humic acid particles. *TRAVEL AWARD*
- 2-2. **Brocchi, Eduardo Albuquerque.** Spectroscopic evaluation of compost humic acid and charcoal derived humic-like acid.
- 2-3. **Bursakova, Petra.** Properties of hydration shell of IHSS humic standards.
- 2-4. **Byrne, Corinna.** Insights into the composition of humin from an Irish grassland soil.
- 2-5. **Chiu, Chih-Yu.** Characterization of soil organic matter in different particle-size fractions by CP/MAS ^{13}C NMR along a slope of subtropical montane forest.
- 2-6. **Ciavatta, Claudio.** Characterization of chernozem humic acid SEC-PAGE fractions using DRIFT spectroscopy and thermal analysis.
- 2-7. **De Nobili, Maria.** Autodock simulation of interactions among humic substances and proteins.
- 2-8. **Drosos, Marios.** A water soluble polymer as a working structural model for humic acids: H-binding and spectroscopic properties. *TRAVEL AWARD.*
- 2-9. **Eglite, Linda.** Characterization of humic acids from peat column using pyrolysis-GC/MS.
- 2-10. **Filella, Montserrat.** Random generation of 3D structures of humic substances.
- 2-11. **Gougeon, Regis.** FTICR-MS analysis of cooperage oak wood extracts: an example of metabo-geography
- 2-12. **Grinhut, Tzafir.** Biodegradation of humic acid by white rot fungi determined by ^1H -NMR and ultra-high resolution mass spectrometry. *TRAVEL AWARD.*
- 2-13. **Haenninen, Kari.** Limitations in high resolution analysis of humic substances.
- 2-14. **Hatano, Ken-Ichi.** Investigation of chemical structure of natural organic matters from dried figs.
- 2-15. **He, Zhonggi.** Capillary electrophoresis and fluorescence excitation-emission matrix characterization of soil mobile and calcium humates.
- 2-16. **He, Zhonggi.** Spectral characterization of plant-derived dissolved organic matter.
- 2-17. **Kloeking, Renate.** Characterization of synthetic (core) humic substances made from dihydroxylated phenylpropanoids.
- 2-18. **Klucakova, Martina.** High resolution ultrasonic spectroscopy as aid in study of complexation of humic acids.
- 2-19. **Kunenkov, Erast.** Effective algorithm of charge state determination in Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectra of humic substances.
- 2-20. **Kononikhin, Alexey.** Characterization of Mumijo (Shilajit) from different regions by FTICR mass-spectrometry.
- 2-21. **Konstantinov, Andrey.** Size-exclusion chromatographic study of humic-like substances from oxidized lignin.
- 2-22. **Novotny, Etelvino Henrique.** Extraction and characterisation of humin fraction from Amazonian anthropogenic dark earths soils ("Terra Preta de Índios").
- 2-23. **Olk, Dan.** Measuring soil amino compounds by anion chromatography-pulsed amperometry.
- 2-24. **Parlanti, Edith.** Membrane processes applied to the study of marine dissolved organic matter.
- 2-25. **Sardashti, Alireza.** Studies of structure of extracted humic acid from Naharhoran forest Gorgan's soil.
- 2-26. **Suffet, Irwin H.** Application of a novel polarity method for the analysis of natural organic matter during water treatment.
- 2-27. **Ubner, Monika.** Comparison of humic acid and metal salt interactions in capillary electrophoresis.
- 2-28. **Vladimirov, Gleb.** Comparison of Mumijo (Shilajit) and humic acids (HA) chemical composition using FTICR mass-spectrometry.
- 2-29. **Walter, Serge.** Solid phase micro extraction (SPME): a powerful tool for complex natural organic matter investigation.

Poster Evaluation will take place on September 17 at 16:00 in the Library

Chair: Prof. Yona Chen

Co-chairs: Prof. Maria De Nobili and Prof. Michael Hayes.

Poster Session Section 2a

Humic substances and natural organic matter in the changing environment.

Aquatic NOM and HS

September 14, 2008, 18:40 – 19:40, Deck 2

- 2-30. **Andersen, Dag Olav.** Global warming and effects of sea-salts on dissolved natural organic matter (DNOM) draining from a sub-catchment upstream Lake Terjevann, southernmost Norway.
- 2-31. **Fouchard, Samuel.** Use of lipid biomarkers in sediments and aquatic systems.
- 2-32. **Glowacki, Mariusz.** The content of humic substances in ground water from agricultural area in Opole region, Poland.
- 2-33. **Guo, Jingheng.** Distribution of water soluble organic nitrogen (WSON) in acidic forest soils, southwestern China.
- 2-34. **Haenninen, Kari.** Evolution and NOM.
- 2-35. **Hongve, Dag.** Long term trends of TOC and colour in raw water from a forest lake caused by increased precipitation and changed precipitation chemistry.
- 2-36. **Kislinger, Juri.** Role of aromaticity degree in the stability of humic substances.
- 2-37. **Levshina, Svetlana.** Humus substances in natural and technogenic polluted waters in Priamurje.
- 2-38. **Makarotseva, Natalia.** Analysis of pore water dissolved organic matter by UV-spectroscopy and spectral fluorescence signatures technology.
- 2-39. **Podgorsky, David.** Characterization of microbiological effects on the composition and photochemical properties of DOM in coastal sands using ultrahigh resolution mass spectrometry and 3-D excitation/emission fluorescence spectroscopy. *TRAVEL AWARD.*
- 2-40. **Rasmussen, Janet.** Reactive polyphenols and dissolved nutrients in an N-limited headwater catchment in Western Oregon, USA.
- 2-41. **Rozhko, Tatiana.** Bioluminescent monitoring of detoxification processes.
- 2-42. **Rozhko, Tatiana.** Use of bioluminescent assay systems to monitor detoxification processes in radionuclide' solutions.
- 2-43. **Senesi, Nicola.** Chemical and spectroscopic characterization of humic acids isolated from urban soils.
- 2-44. **Trichet, Jean.** *In situ* humification and humics preservation, in phosphatic pellets, under sulfate reducing conditions.
- 2-45. **Tsuda, Kumiko.** Comparison of ¹³C NMR spectra of fulvic acids from neighboring two clear water lakes in Japan.
- 2-46. **Vogt, Rolf.** Correlation between optical and chemical properties of DNOM.

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Chair: Prof. Yona Chen

Co-chairs: Prof. Maria De Nobili and Prof. Michael Hayes.

Poster Session Section 2b

Humic substances and natural organic matter in the changing environment.

Soil HS and NOM

September 14, 2008, 18:40 – 19:40, Deck 2

- 2-47. **Abakumov, Evgeniy.** Genesis of cambisol, luvisol and rendzic leptosol of Samara forest-steppe ridges with special reference to characteristic of humic acids.
- 2-48. **Abakumov, Evgeniy.** Paramagnetic activity of humic acids in soil chronosequence of former sandy quarry, Leningrad region, Russia.
- 2-49. **Hassouna, Mohammad.** Characterization of soil organic matter from flooded rice fields contaminated by geogenic arsenic in Bangladesh.
- 2-50. **Celi, Luisella.** Soil organic matter chemical and physical fractionation: a comparison on a developing soil.
- 2-51. **Da Silva, Wilson Tadeu Lopes.** Impact on SOM of an oxisol after application of sewer effluent treated by Brazilian septic cesspool biodigester.
- 2-52. **Drozd, Jerzy.** Effect of different fruit tree cultivation on humic substances and soil properties.

- 2-53. **Duguay, Beatriz.** Long-term effects of wildfires in the characteristics of soil organic matter: a study in Mediterranean shrublands.
- 2-54. **Filcheva, Ekaterina.** Organic carbon stocks in Bulgarian soils.
- 2-55. **Gallardo Lancho, Juan F.** Thermal properties in soil particle-size fractions of Andosols, with different land-use, in the Trans-Mexican volcanic range.
- 2-56. **Garcia-Calderon, Norma.** Soil organic carbon stocks and humic substances in extremely acid soils, Sierra Norte de Oaxaca, México.
- 2-57. **Gleixner, Gerd.** Mechanisms of soil carbon storage in experimental grasslands.
- 2-58. **Gonzales-Perez, Martha.** Characterization of humic and fulvic acids in tropical spodosols by FTIR and fluorescence spectroscopy.
- 2-59. **González-Pérez, José Antonio.** Spectroscopic features of humic substances in diagnostic horizons from andosols as seen by FT-IR and ¹³CPMAS NMR.
- 2-60. **Klenov, Boris.** Humic acids structure as a reflection of bioclimatic factor of soil formation in boreal ecosystems.
- 2-61. **Kovaleva, Natalia.** Aromatic lignin compounds in soils of different ecosystems.
- 2-62. **Makhinova, Aleksandra.** Risk assessment of soil degradation and possible soil recultivation in mining in Priokhotje region.
- 2-63. **Malawska, Margorzata.** Variation in lipid relative abundance and composition among different peat bog profiles.
- 2-64. **Metrak, Monika.** Characterization of humic substances isolated from various peat bog profiles.
- 2-65. **Pereira, Betania.** Characterization of soil and humic acids extracted from native forest and oil shale industrialization rehabilitated areas.
- 2-66. **Pizarec, Izabella.** Diversity of fractional composition of humic substances and the content of total and availability forms of some metals in selected soils of the Opole region, Poland.
- 2-67. **Rovira, Pere.** Density fractions of SOM in mediterranean forest soils: characterization by TMAH-thermochemolysis-GC-MS.
- 2-68. **Sire, Janis.** Humification of peat and characteristics of its humic substances depending on their origin and age.
- 2-69. **Slepetiene, Alvyra.** The impact of land use conversion on the carbon and humic substances.
- 2-70. **Song, Guixue.** Char and humin fractions in Amazonian dark earths. Novotny
- 2-71. **Throckmorton, Heather M.** Diverse microbial carbon turnover and dynamics in temperate and tropical forest soils.
- 2-72. **Tischenko, Svetlana.** The comparison between humus structure of 5 to 1 µm particle-size fractions and fine clay fractions in soils of locally hydromorphic landscapes.
- 2-73. **Traversa, Andreina.** Fluorescence spectroscopy of humic acids isolated from different litters and corresponding underlying soils. Senesi
- 2-74. **Traversa, Andreina.** Properties of humic acids in forest soils: influence of different plant covering.
- 2-75. **Wang, Ming-Kuang.** Difference between humic acids from soils derived under different tree species in a temperate rain forest, as measured with ¹³C CPMAS-NMR.
- 2-76. **Wilkomirski, Boguslaw.** Humus level in soils of south Kazakhstan irrigated massifs.

Poster Evaluation will take place on September 17 at 16:00 in the Library

Chair: Prof. Yona Chen

Co-chairs: Prof. Maria De Nobili and Prof. Michael Hayes.

Poster Session Section 3

Physical, chemical and biological properties of natural organic matter and humic substances

September 16, 2008, 17:20 – 18:30, Deck 3

- 3-1. **Allen, Herbert.** Modeling Zn adsorption and desorption to soils.
- 3-2. **Canales, Josefina.** A relationship of P chemical speciation and PZSE in allophanic synthetic surfaces enriched with natural humic acids from Chilean andisols.
- 3-3. **Filella, Montserrat.** Testing online collaboration on trace metal-humic binding modelling.
- 3-4. **Georgi, Anett.** Influence of sorption to dissolved humic substances on transformation reactions of organic compounds in water.

- 3-5. **Ghaemi, Negin.** Ultrafiltration behaviour of nitrophenols in the presence of humic substances.
- 3-6. **Gougeon, Régis D.** Interaction selectivity between lignin and phenolic compounds.
- 3-7. **Hammer, Heiko.** Experimental analysis of sorption of environmental chemicals to soil organic matter.
- 3-8. **Houston, Melanie.** Influence of Suwannee river fulvic acid on the speciation and toxicity of uranium, aluminum and arsenic to Australian tropical freshwater species.
- 3-9. **Kulikova, Natalia.** Uptake of humic substances by plants: a study using tritium autoradiography and FTICR MS analysis.
- 3-10. **Linnik, Petr.** Effect of humic substances on metal desorption from sediments under conditions of experimental simulation.
- 3-11. **Lutsenko, Tatyana.** Acid-base properties of dissolved humic substances in landscape waters of the southern Primorye (Russia).
- 3-12. **McDonald, Suzanne.** Photochemical reactivity of Australian floodplain river and billabong fulvic acids upon exposure to UV-B radiation.
- 3-13. **Muresan, Bogdan.** Complexation of mercury to dissolved organic matter isolated from an anthropized aquatic ecosystem.
- 3-14. **Nikolaev, Ilya.** Development and validation of antioxidant capacity assessment protocol for humic and humic-like substances.
- 3-15. **Pernet-Coudrier, Benoit.** Dissolved organic matter in urban water: a key and protective role to organisms.
- 3-16. **Popov, Alexander.** The probable mechanism of biological effect of humic substances.
- 3-17. **Popova, Todorka.** Physiological activity of humic substances from bark compost.
- 3-18. **Pospisilova, Lubica.** Chemical and optical characteristics of HS isolated from the south Moravian soils.
- 3-19. **Richard, Clarie.** Relationship between spectral and photosensitizing properties in bulk and fractionated humic substances.
- 3-20. **Sedláček, Petr.** Diffusivity of Cu²⁺ in the humic gel.
- 3-21. **Senesi, Nicola.** Use of diffusive gradient in thin-films (DGT) for the in vitro study of the effects of humic fractions and metals on the growth of a phytopathogenic fungus.
- 3-22. **Shakirova, Farida.** The role of hormonal system in Humi M-induced wheat plants protection.
- 3-23. **Shchegolikhina, Anastasia.** Effects of soil organic matter conformation and substrates addition on the fate of xenobiotics in soils.
- 3-24. **Sokolova, Irina.** The influence of humic acids on the phototransformation of organic chemical contaminants in water.
- 3-25. **Szpoganicz, Bruno.** Potentiometric and IR quantification of metal binding in humic substances.
- 3-26. **Van Zomeren, André.** A rapid batch procedure for assessment of humic substances and biodegradable components of organic matter in natural and contaminated materials.
- 3-27. **Vasylchuk, Tetiana.** Natural organic matter in some tributaries of the Dnieper river and their effect on phytoplankton growth.
- 3-28. **Vieira, Eny.** The influence of apparent molecular size of aquatic humic substances during coagulation with ferric chloride.
- 3-29. **Vieira, Eny.** Tropical humic substances and copper influence on the survival and reproduction of tropical *Cladocerans* (*Daphnia similis* and *Ceriodaphnia silvestrii*).
- 3-30. **Warchulska, Patrycja.** Buffer properties of humic acids in the system with phosphate ions.
- 3-31. **Yanagi, Yukiko.** Population of humic acid degrading microorganisms under different soil types and vegetation types.

Poster Evaluation will take place on September 17 at 16:00 in the Library

Chair: Prof. Yona Chen

Co-chairs: Prof. Maria De Nobili and Prof. Michael Hayes.

Poster Session Section 4

Knowledge-based design of humic materials

September 15, 2008, 16:30 – 18:00, Deck 3

- 3-32. **Bakajova, Barbora.** TG study of the gamma radiation effect on PVA with addition of sodium and ammonium salts of humic acids.

- 3-33. **Brocchi, Eduardo Albuquerque.** *In vivo* algae growth monitoring in sea water containing production water treated with humic compounds.
- 3-34. **Fernandes, Tania.** Effect of humic and fulvic acids on the anaerobic hydrolysis of lignocellulosic biomass.
- 3-35. **Jordan, Mike.** Pyrolysis of biomass and the genesis and oxidations of the chars. hayes
- 3-36. **Kholodov, Vladimir.** Retention of plutonium on model kaolin-humic complexes.
- 3-37. **Kydraliev, Kamilya.** Synthesis, biological activity and detoxifying properties of carbonylated humic substances.
- 3-38. **McInerney, Raymond.** Extraction and characterization of organic fractions isolated from a China ball clay quarried in Devon south west England.
- 3-39. **Pekar, Miloslav.** Efficiency of lignite as an antioxidant for polyolefines.
- 3-40. **Philippova, Olga.** Mitigating activity of humic substances and their Si-enriched derivatives in relation to wheat seedlings under salt-stress condition.
- 3-41. **Revchuk, Alex.** Evaluation of the quality assurance of ultrafiltration separation for humic substances by chemical probes.
- 3-42. **Sanjaasuren, Radnaasediin.** Results of a study on obtaining of the humic containing plasticizers and their influence on the physic-mechanical properties for the cement and concrete mixtures.
- 3-43. **Sorkina, Tatiana.** Humic substances as stabilizing agents for superparamagnetic nanoparticles.
- 3-44. **Vicente Vilas, Victor.** Sorption of Np(V) onto hybrid clay-based materials: montmorillonite-melanoidin.

Poster Evaluation will take place on September 17 at 16:00 in the Library

Chair: Prof. Yona Chen

Co-chairs: Prof. Maria De Nobili and Prof. Michael Hayes.

Poster Session Section 5

Industrial production and innovative applications

September 16, 2008, 17:20 – 18:30, Deck 1

- 1-1. **Adesanwo, Olusola.** Greenhouse experiment on the effect of humic substances on solubilization of Ogun phosphate rock.
- 1-2. **Avvakumova, Nadezhda.** Structural components and biological activity among humic substances of low-mineralized silt sulphide muds.
- 1-3. **Bezuglova, Olga.** Beneficial effects of the complex humic microfertilizer applied to the ornamental plum Hessei.
- 1-4. **Bikovens, Oskars.** Potentials of technical lignins for application as soil amendments: free radical scavengers and biological activity.
- 1-5. **Bratskaya, Svetlana.** Humic acids of brown coals of the Russia South Far East: extraction and complexing properties toward gold, platinum, and palladium.
- 1-6. **Chakalov, Konstantin.** Influence of humic content materials on poinsettia hydroponics.
- 1-7. **Ciavatta, Claudio.** Thermal analysis of standard humic acids.
- 1-8. **Coelho, Christian.** Photoremediation properties of dissolved organic matter extracted from compost.
- 1-9. **Drozd, Jerzy.** Influence of selected conditions on chemical properties of humic substances formed during composting of municipal solid wastes (MSW).
- 1-10. **Hassanpanah, Davoud.** Effect of potassium humate and kadostim on plantlets of advanced potato CVs.
- 1-11. **Hassanpanah, Davoud.** Effect of potassium humate on advanced potato cultivars for water deficit tolerance in Aradabil region, Iran.
- 1-12. **Hassanpanah, Davoud.** Effect of potassium humate on production of advanced potato minituber CVs.
- 1-13. **Ivanov, Alexander.** The stimulation of microorganisms activity of petropolluted soils by humic preparations.
- 1-14. **Klein, Olga.** Coal biodegradation by *Basidiomycetes* for production of biofertilizers and soil conditioners.

- 1-15. **Kloeking, Hans-Peter.** Influence of humic substances on the foam formation and cytotoxicity of detergents.
- 1-16. **Komarov, Andrey.** Effect of different physiologically active substances in conditions of greenhouse industrial production.
- 1-17. **Lebedeva, Galina.** Efficacy of silicious lignin products application for biological agriculture exemplified by experiments with red clovers.
- 1-18. **Mitchenko, Andrey.** The metal ions sorption by the humic-containing anion exchangers.
- 1-19. **Nadporozhskaya, Marina.** Artificial humic substances as possible compensators of the destroyed links in carbon cycle.
- 1-20. **Nakayasu, Ken.** Utilization of humic substances isolated from underground brine water of Chiba, southeast Japan.
- 1-21. **Poputnikova, Tatiana.** Biotic control of humic substances ecotoxicity and their remediation effect in contaminated environment.
- 1-22. **Romao, Luciane.** Evaluation of tropical peat as a potential medium for bioremediation of vanadium.
- 1-23. **Romao, Luciane.** Extraction and exchange behavior of metal species in therapeutically applied peat characterized by competitive extractants.
- 1-24. **Romao, Luciane.** Study of the parameters that influence on the process of alkaline extraction of humic substances from peat.
- 1-25. **Savov, Valentin.** Influence of soybean chelates on chemical and biochemical properties of humic substances from biotransformed lignite.
- 1-26. **Senesi, Nicola.** Inhibitory action of new organic substrates for ornamental plants and their humic fractions on the growth of the phytopathogenic fungus *Pythium ultimum*.
- 1-27. **Shahryari, Reza.** *In vitro* effect of potassium humate on terminal drought tolerant bread wheat.
- 1-28. **Skokanova, Marianna.** The effect of bioaugmentation on the PCP degradation in soil amended with humic acids.
- 1-29. **Solarska, Sylwia.** Application of white rot fungi for the removal of natural organic matter.
- 1-30. **Sorkina, Tatiana.** Synthesis and use of iron humates for correction of iron deficiency chlorosis in higher plants.
- 1-31. **Stepanov, Alexey.** Use of soil microorganisms for producing of the standard samples of humic acids.
- 1-32. **Stepchenko, Liliya.** Metabolic and immune-modulating properties of peat preparations.
- 1-33. **Yakimenko, Olga.** Chemical and plant growth stimulatory properties of Lignohumate.

Poster Evaluation will take place on September 17 at 16:00 in the Library

Chair: Prof. Yona Chen

Co-chairs: Prof. Maria De Nobili and Prof. Michael Hayes.

Round Table Discussion 1

Molecular understanding of humic substances and natural organic matter
September 15, 2008, 19:30 – 21:30, Main Conference Hall

Moderators: Norbert Hertkorn and Philippe Schmitt-Kopplin

Oral Poster Presenters (3 minutes, 3-4 slides)

Brigante, Maximiliano. Effects of pH, temperature, and organic and inorganic ions on the dissolution kinetics of humic acid particles. *TRAVEL AWARD*

Byrne, Corinna. Insights into the composition of humin from an Irish grassland soil.

Chiu, Chih-Yu. Characterization of soil organic matter in different particle-size fractions by CP/MAS ^{13}C NMR along a slope of subtropical montane forest.

De Nobili, Maria. Autodock simulation of interactions among humic substances and proteins.

Drosos, Marios. A water soluble polymer as a working structural model for humic acids: H-binding and spectroscopic properties. *TRAVEL AWARD*

Grinhut, Tzafir. Biodegradation of humic acid by white rot fungi determined by ^1H -NMR and ultra-high resolution mass spectrometry. *TRAVEL AWARD*

He, Zhonggi. Capillary electrophoresis and fluorescence excitation-emission matrix characterization of soil mobile and calcium humates.

Kononikhin, Alexey. Characterization of Mumijo (Shilajit) from different regions by FTICR mass-spectrometry.

Novotny, Etelvino Henrique. Extraction and characterisation of humin fraction from Amazonian Anthropogenic Dark Earths Soils ("Terra Preta de Índios").

Olk, Dan. Measuring soil amino compounds by anion chromatography-pulsed amperometry.

Suffet, Irwin H. Application of a novel polarity method for the analysis of natural organic matter during water treatment.

Walter, Serge. Solid phase micro extraction (SPME): a powerful tool for complex natural organic matter investigation.

Attendees: All Poster Session 1 Presenters and all other conference or exhibition participants interested in this fascinating topic!

Round Table Discussion 2a

Humic substances and natural organic matter in the changing environment.
Aquatic NOM and HS

September 16, 2008, 20:00 – 22:00, Library

Moderators: Bill Cooper and Rolf Vogt

Oral Poster Presenters (3 minutes, 3-4 slides)

Andersen, Dag Olav. Global warming and effects of sea-salts on dissolved natural organic matter (DNOM) draining from a sub-catchment upstream Lake Terjevann, southernmost Norway.

Fouchard, Samuel. Use of lipid biomarkers in sediments and aquatic systems.

Haenninen, Kari. Evolution and NOM.

Hongve, Dag. Long term trends of TOC and colour in raw water from a forest lake caused by increased precipitation and changed precipitation chemistry.

Kislinger, Juri. Role of aromaticity degree in the stability of humic substances.

Podgorsky, David. Characterization of microbiological effects on the composition and photochemical properties of DOM in coastal sands using ultrahigh resolution mass spectrometry and 3-D excitation/emission fluorescence spectroscopy. *TRAVEL AWARD*

Rasmussen, Janet. Reactive polyphenols and dissolved nutrients in an N-limited headwater catchment in Western Oregon, USA.

Trichet, Jean. *In situ* humification and humics preservation, in phosphatic pellets, under sulfate reducing conditions.

Tsuda, Kumiko. Comparison of ^{13}C NMR spectra of fulvic acids from neighboring two clear water lakes in Japan.

Vogt, Rolf. Correlation between optical and chemical properties of DNOM.

Attendees: All Poster Session 2a Presenters and all other conference or exhibition participants interested in this fascinating topic!

Round Table Discussion 2b
Humic substances and natural organic matter in the changing environment.
Soil HS and NOM

September 15, 2008, 19:30 – 21:30, Library

Moderators: Gerd Gleixner and Ladislau Martin Neto

Oral Poster Presenters (3 minutes, 3-4 slides)

Abakumov, Evgeniy. Genesis of cambisol, luvisol and rendzic leptosol of Samara forest-steppe ridges with special reference to characteristic of humic acids.

Hassouna, Mohammad. Characterization of soil organic matter from flooded rice fields contaminated by geogenic arsenic in Bangladesh.

Drozd, Jerzy. Effect of different fruit tree cultivation on humic substances and soil properties.

Duguy, Beatriz. Long-term effects of wildfires in the characteristics of soil organic matter: a study in Mediterranean shrublands.

Garcia-Calderon, Norma. Soil organic carbon stocks and humic substances in extremely acid soils, Sierra Norte de Oaxaca, México.

Gleixner, Gerd. Mechanisms of soil carbon storage in experimental grasslands.

Pereira, Betania. Characterization of soil and humic acids extracted from native forest and oil shale industrialization rehabilitated areas.

Sire, Janis. Humification of peat and characteristics of its humic substances depending on their origin and age.

Slepetiene, Alvyra. The impact of land use conversion on the carbon and humic substances.

Song, Guixue. Char and humin fractions in Amazonian dark earths.

Attendees: All Poster Session 2b Presenters and all other conference or exhibition participants interested in this fascinating topic!

Round Table Discussion 3
Physical, chemical and biological properties of humic substances and
natural organic matter

September 16, 2008, 20:00 – 22:00, Main Conference Hall

Moderators: Herb Allen and Etelka Tombacz

Oral Poster Presenters (3 minutes, 3-4 slides)

Allen Herbert. Modeling Zn adsorption and desorption to soils.

Georgi Anett. Influence of sorption to dissolved humic substances on transformation reactions of organic compounds in water.

Houston Melanie. Influence of Suwannee river fulvic Acid on the speciation and toxicity of uranium, aluminium and arsenic to Australian tropical freshwater species.

Linnik Petr. Effect of humic substances on metal desorption from sediments under conditions of experimental simulation.

Popov Alexander. The probable mechanism of biological effect of humic substances.

Shakirova Farida. The role of hormonal system in Humi M-induced wheat plants protection.

Sokolova Irina. The Influence of humic acids on the phototransformation of organic chemical contaminants in water.

Szpoganicz Bruno. Potentiometric and IR quantification of metal binding in humic substances.

Vieira Eny. The influence of apparent molecular size of aquatic humic substances during coagulation with ferric chloride.

Attendees: All Poster Session 3 Presenters and all other conference or exhibition participants interested in this fascinating topic!

Round Table Discussion 4

Knowledge-based design of humic materials

September 15, 2008, 19:30 – 21:30, Bar Panorama

Moderators: Joe Bozell and Kamila Kydralieva

Oral Poster Presenters (3 minutes, 3-4 slides)

Bakajova, Barbora. TG study of the gamma radiation effect on PVA with addition of sodium and ammonium salts of humic acids.

Brocchi, Eduardo Albuquerque. *In vivo* algae growth monitoring in sea water containing production water treated with humic compounds.

Fernandes, Tania. Effect of humic and fulvic acids on the anaerobic hydrolysis of lignocellulosic biomass.

Jordan, Mike. Pyrolysis of biomass and the genesis and oxidations of the chars.

Kholodov, Vladimir. Retention of plutonium on model kaolin-humic complexes.

Kydralieva, Kamilya. Synthesis, biological activity and detoxifying properties of carbonylated humic substances.

McInerney, Raymond. Extraction and characterization of organic fractions isolated from a China ball clay quarried in Devon South West England.

Pekar, Miloslav. Efficiency of lignite as an antioxidant for polyolefines.

Revchuk, Alex. Evaluation of the Quality Assurance of Ultrafiltration Separation for humic substances by chemical probes.

Vicente Vilas, Victor. Sorption of Np(V) onto hybrid clay-based materials: montmorillonite-melanoidin.

Attendees: All Poster Session 4 Presenters, all Exhibition Participants and everybody who is interested in this fascinating topic!

Round Table Discussion 5

Industrial production and innovative applications of humic materials

September 16, 2008, 20:00 – 22:00, Bar Panorama

Moderators: Kirk Hatfield and Irena Twardowska

Oral Poster Presenters (3 minutes, 3-4 slides)

Bezuglova, Olga, Beneficial effects of the complex humic microfertilizer applied to the ornamental plum Hessei.

Bratskaya, Svetlana. Humic acids of brown coals of the Russia South Far East: extraction and complexing properties toward gold, platinum, and palladium.

Ciavatta, Claudio. Thermal analysis of standard humic acids.

Coelho, Christian. Photoremediation properties of dissolved organic matter extracted from compost.

Drozd, Jerzy. Influence of selected conditions on chemical properties of humic substances formed during composting of municipal solid wastes (MSW).

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Ivanov, Alexander. The stimulation of microorganisms activity of petropolluted soils by humic preparations.

Kloeking, Hans-Peter. Influence of humic substances on the foam formation and cytotoxicity of detergents.

Lebedeva, Galina. Efficacy of silicious lignin products application for biological agriculture exemplified by experiments with red clovers.

Nadporozhskaya, Marina. Artificial humic substances as possible compensators of the destroyed links in carbon cycle.

Nakayasu, Ken. Utilization of humic substances isolated from underground brine water of Chiba, southeast Japan.

Poputnikova, Tatiana. Biotic control of humic substances ecotoxicity and their remediation effect in contaminated environment.

Romao, Luciane. Evaluation of tropical peat as a potential medium for bioremediation of vanadium.

Stepanov, Alexey. Use of soil microorganisms for producing of the standard samples of humic acids.

Attendees: All Poster Session 5 Presenters all Exhibition Participants and everybody who is interested in this fascinating topic!

Meeting of Round Table Moderators

September 17, 2008, 16:00 – 16:30, Bar Panorama

Social program

Pre-conference excursions

September 13, 2008

There are two excursions in Moscow will be proposed of your choice:

Moscow: Kremlin, Armory and city sightseeing

14:00 – 22:00



Guided excursions to Moscow Kremlin and Armory Museum. The Moscow Kremlin is located in the very heart of the Russian capital. The Kremlin is the symbol of Russian statehood, the treasury, containing historic relics, cultural and artistic monuments. During the guided tour you will have an opportunity to enjoy the historical monuments, such as the Great Kremlin Palace and the Arsenal building, see the trophy weapons of the war of 1812 and admire the cathedrals on the territory of the Kremlin. You will be offered a detailed acquaintance with the beautiful Arkhangelsky, Uspensky and Annunciation cathedrals. Lunch and snack are included. Excursion route:

14-00 Bus leaving from Lomonosov Moscow State University to city sightseeing and Kremlin.

22-00 Arrival to the motorship "Leonid Krasin".

Total price 50 Euro

Moscow: city sightseeing

17:00 – 22:00



During the guided tour of Moscow, the capital of Russia, you will see all the major sights including Red Square, Novy Arbat Street, the Cathedral of Christ the Savior, Poklonnaya Mountain with the extensive Victory Park that was laid down to commemorate WWII victory, Vorobiev Mountains, Bulvarnoye Koltso and others. Snack is included.

Excursion route:

17-00 Bus leaving from Lomonosov Moscow State University to city sightseeing.

22-00 Arrival to the motorship "Leonid Krasin".

Total price 20 Euro

Social Program during the conference along the ship route

September 14, 2008

Get Together

19:40 – 24:00, Moscow Restaurant

September 15, 2008

Excursion to Uglich

14:00 – 16:00



Excursion to the blue-domed Church Prince-Dimitry-on-the-Blood and the 18th-century Transfiguration Church.

September 16, 2008

Excursion to Goritsy (Kirillov-Belozersky Monastery)

11:00 – 14:00



Meet the locals in Goritsy (Kirillov) and experience daily life in this part of the world. Enjoy local specialties like cranberry liquor and handmade breads.

September 17, 2008

Excursion to Kizhi Island

16:30 – 20:00



You'll visit Kizhi Island's famous Open Air Museum with fascinating edifices of northern wooden architecture, including the spectacular Church of Transfiguration constructed entirely out of wood without a single nail. Its 22 shimmering domes in three tiers are the ultimate in Russian fairy tale architecture.

Local drink event, Saint Petersburg Bar

21:30 – 22:00

September 18, 2008

Field trip to Mandrogi

11:00 – 14:30

During the field trip you will see the typical vegetation type of North-West Russia presented by coniferous taiga forests formed by Norway Spruce or Scotch Pine and a typical Russian village Mandrogi. You will have an opportunity to see the classical Podzol soil profile as well as Peaty-Podzols.



Mandrogi is a reconstructed village founded in the 18th century. It illustrates the traditions, architecture and lifestyle of Russia's past. Inside the wooden houses are many craftsmen working to make matrioshkas, lace and ceramics. A highlight of your visit to Mandrogi is a traditional Shashlik picnic ashore. Lunch is included.

Conference Dinner

19:30 – 24:00

Post-conference excursions in Saint Petersburg

September 19, 2008

There are four excursions in Saint Petersburg will be proposed of your choice

Hermitage

10:00 – 13:00



City sightseeing and excursion to Hermitage. Excursion route: 10-00 Bus leaving from Saint-Petersburg to city sightseeing and Hermitage. Nevsky prospect – Isaac Cathedral Square – Mariinsky palace – Senatskaya square – Strelka of Vasilyevsky Island – University embankment – the Peter and Paul Fortress – summer house of Peter the Great – Aurora Cruiser – Marsovo Field – Summer Garden – Our Savior on the Blood Cathedral – Winter Palace square. Excursion to

Hermitage located in the Winter Palace.

Total price 30 Euro

Peterhof

10:00 – 17:00



City sightseeing and excursion to Peterhof palace and park. Excursion route: 10-00 Bus leaving from Saint-Petersburg to city sightseeing and Peterhof. Nevsky prospect – Isaac Cathedral Square – Mariinsky palace – Senatskaya square – Strelka of Vasilyevsky Island – University embankment – the Peter and Paul Fortress – summer house of Peter the Great – Aurora Cruiser – Marsovo Field – Summer Garden – Our Savior on the Blood Cathedral – Winter Palace square – boat to Peterhof –

palace of Peter the Great and the park with famous fountains. 17-00 Return to Saint-Petersburg. 17-00 Return to Saint-Petersburg.

Total price 30 Euro

Pavlovsk: Imperial palace and park

10:00 – 15:30

Pavlovsk was the last one to be erected among the great historico-cultural complexes in the



environs of St. Petersburg. Its fame rests on the splendor of the palace with its classical architecture and sumptuous interiors and on the beauty of the spacious park, which covers 1,500 acres. It is one of the largest and picturesque parks of the Russian imperial family.

Excursion route: 10-00 Bus leaving from Saint-Petersburg to Pavlovsk. Excursion to Pavlovsk palace. Walk in the park. 15-30 Return to Saint-Petersburg.

Total price 35 Euro. **Please note additional payment is 5 Euro**

Gatchina: Imperial palace and park

10:00 – 17:00



Gatchina is a town in Leningrad region located 45 km south of St. Petersburg. In 1765, Gatchina was granted to Count General Orlov by Russian Empress Catherine the Great. Count Orlov built a splendid castle with 600 rooms and laid out an extensive English landscape park over 7 km². Excursion route: 10-00. Bus leaves Saint-Petersburg to Dudergoff Heights. Short Field excursion in protected areas with exposition of unequal lithogenic soils of Ordovician plateau – rendzic

leptosols, cambisols and arenosols on the way to Gatchina. 13-30. Excursion in Gatchina Palace, walk in the park with guide. 17-00. Return to Saint-Petersburg.

Total price 40 Euro. **Please note additional payment is 10 Euro.**