

PROGRAM

SCHEDULE

Sunday, 16 September

MAIN LOBBY OF PARADISE BLUE HOTEL	
14:00 – 20:00	Registration
19:00	Welcome cocktail

SCHEDULE

Monday, 17 September

SEA HALL	
09:00 – 10:00	Opening
10:00 – 10:30	Plenary lecture
10:30 – 11:00	Coffee break /Lobby of Paradise Blue Hotel/
11:00 – 12:15	Topic: Water Quality - Drinking Water – Surface Waters
12:15 – 14:00	Lunch /Main restaurant of Paradise Blue Hotel/
14:00 – 15:45	Topic: Environmental Chemistry – Dynamics - Role of Humic Substances and Natural Organic Matter
15:45 – 16:15	Coffee break /Lobby of Paradise Blue Hotel/
16:15 – 19:00	Topic: Environmental Chemistry – Dynamics - Role of Humic Substances and Natural Organic Matter

PROGRAM

Monday, 17 September

09:00 – 10:00	Opening and welcome addresses Chairpersons: N. Senesi, H. Abdelrahman
09:00 - 09:10	Opening ceremony <i>E. Filcheva /Chair of the 19th IHSS Conference/</i>
09:10 - 09:20	Opening remarks <i>G. Abbt-Braun /IHSS President/ Y. Deligiannakis /IHSS Vice President/</i>
09:20 - 09:25	Ministry of Agriculture, Food and Forestry
09:25 - 09:30	Agricultural Academy
09:30 - 09:35	Dobroudja Agricultural Institute, town of General Toshevo
09:35 - 09:40	Nikola Poushkarov Institute of Soil Science, Agrotechnology and Plant Protection, Sofia

09:40 - 09:45	Balkan Plant Science, Assoc. prof. Valentin Savov
09:45 - 09:50	National Agricultural Advisory Service, Sofia
09:50 - 09:55	President of the Association of Bulgarian Grain Producers
09:55 - 10:30	PLN1: Bulgarian Humic Substances Society and an overview on Humic Substances Research in Bulgaria <i>E. Filcheva</i>
10:30 - 11:00	Coffee break /lobby of Paradise Blue Hotel/
11:00 - 12:15	Topic WATER QUALITY - DRINKING WATER – SURFACE WATERS Chairpersons: L.P.C. Romão, M. Klucakova
11:00 - 11:30	INV1: Ecology and biogeochemistry of dissolved organic matter in inland waters <i>L. Tranvik</i>
11:30 - 11:45	03-1: Using water hyacinth (<i>Eichhornia crassipes</i>) biochar to remove chromium ions from tannery effluent <i>T. H. S. Menezes, I. A. A. Silva, J. R. A. Lima, G. C. Dacunha, L. P. C. Romão</i>
11:45 - 12:00	03-2: Measurement of CDOM Distribution in Two Northern Ecoregions by Satellite Imagery <i>P.L. Brezonik, R. M. Hozalski, L. G. Olmanson, J. C. Finlay, C. G. Griffin, M. E. Bauer</i>
12:00 - 12:15	03-3: Assessment of humification indices by monitoring humic products changes using UV-Vis and 2D-FTIR <i>Y. Zhang, D. Yue, W. Song</i>
12:15 - 14:00	Lunch /Main restaurant of Paradise Blue Hotel/
14:00 - 15:45	Topic ENVIRONMENTAL CHEMISTRY – DYNAMICS - ROLE OF HUMIC SUBSTANCES AND NATURAL ORGANIC MATTER Chairpersons:J. Weber, T. Shishkov
14:00 - 14:30	INV2: Chemical patterns of Humic Substances and Natural OM in diverse environments <i>I. Perminova</i>
14:30 - 14:45	01-1: Separation of the constituents of fulvic acids by HILIC and RP-HPLC <i>M. Aoyama, D. Sawame</i>
14:45 - 15:00	01-2: Influence of soil type and land use on amount and quality of soil organic matter <i>G. Barančíková, J. Halas, E. Tobiašová, E. Gömöryová, J. Makovníková, Š. Koco, R. Skalský</i>
15:00 - 15:15	01-3: Interaction of humic acid and wheat-straw-biochar native radicals with pesticides

I.Ćwieląg-Piasecka, M. Jerzykiewicz , A. Medyńska-Juraszek, E. Jamroz

15:15 - 15:30 **01-4:** Isolation of Humic and Fulvic Acids from the Suwannee River: A Report on the 2016 IHSS-Sponsored Expedition
R. M. Hozalski, P. Bloom, M. Perdue

15:30 - 15:45 **01-5:** Soil Organic Matter Management in a Tropical Low Carbon Agriculture: Data Review and Current Challenges
L. Martin-Neto, D. M.B.P. Milori, A. M. Tadini, A. Nobernardi, P. Villas-Boas

15:45 - 16:15 **Coffee break/lobby of Paradise Blue Hotel/**

16:15 – 19:00 **Topic**
ENVIRONMENTAL CHEMISTRY – DYNAMICS - ROLE OF HUMIC SUBSTANCES AND NATURAL ORGANIC MATTER
Chairpersons: G. Barančíková, R. Baigorri

16:15 - 16:30 **01-6:** Using natural organic matter (NOM) to synthesize magnetic materials applicable for removal of polycyclic aromatic hydrocarbons (PAHs) from seawater and produced water
R. V. M. Oliveira, G. C. Da Cunha, L. P. C. Romão

16:30 - 16:45 **01-7:** Study on barrier and transport properties of humic substances towards ionic compounds
J. Smilek, P. Sedlacek, M. Kalina, M. Klucakova

16:45 - 17:00 **01-8:** Maritsa East lignite humus matter study through AP-TPR-GC/MS
M. Stefanova, S. P. Marinov, J. Czech, R. Carleer, J. Yperman

17:00 - 17:15 **01-9:** Main chemical and diagnostic features of organic matter in soils from green urban areas of Sofia (Bulgaria)
V. Tsoleva, P. Tomov, G. Petkova, I. Nikova

17:15 - 17:30 **01-10:** Electrophoresis of soil humic acids – what are electrophoretic zones present itself?
O. Trubetskoj, O. Trubetskaya

17:30 - 17:45 **01-11:** Computational modeling of metal binding by complex organic systems – humic substance models
E. A. Vialykh, R. L. Cook, C. H. Langford, D. Salahub, G. Achari

17:45 - 18:00 **01-12:** The Fate of Terrigenous Organic Matter from the Mississippi River Delta to the Canyon of the Continental Shelf, Gulf of Mexico
S. Ware, D. Waggoner, P. Hatcher

18:00 - 18:15 **01-13:** Organic matter and physicochemical characteristic of chernozems from the region of Kavarna town in north-eastern Bulgaria
T. Shishkov, E. Filcheva, M. Nankova, E. Dimitrov

- 18:15 - 18:30 **01-14:** Molecular characterization of cloud water samples collected at the puy de Dôme (France) by Fourier Transform Ion Cyclotron Resonance Mass Spectrometry
A. Bianco, M. Vaitilingom, E. Nicol, N. Chaumerliac, L. Deguillaume, M. Bridoux
- 18:30 – 18:45 **01-15:** Molecular composition of humic substances from permafrost peats of European North of Russia as climate change markers
R. Vasilevich, E. Lodygin
- 18:45 – 19:00 **01-16:** Development of the theory of humic substances optical properties formation
E. Shirshin, A. Zhrebker, S. Shakirov

SCHEDULE

Tuesday, 18 September

SEA HALL	
09:00 – 09:30	Invited lecture BHSS
09:30 – 10:15	Topic: Water Quality - Drinking Water – Surface Waters
10:15 – 10:30	Coffee break /Lobby of Paradise Blue Hotel/
10:30 – 12:00	Poster session I: P-1 to P-55
12:00 – 13:30	Lunch /Main restaurant of Paradise Blue Hotel/
12:00 – 13:30	National Coordinators Meeting /Wind Hall/
13:30 – 22:00	Tour of Varna and Aladja Monastery

PROGRAM

Tuesday, 18 September

Chairpersons: D. Olk, M. Perdue

09:00 - 09:30	INV BHSS: Humic Substances - Versatile Natural Products: Properties & Applications <i>Z. Islam, M. Dizman, O. Faruk Tutar, <u>A. Tutar</u></i>
09:30 – 10:15	Topic
	WATER QUALITY - DRINKING WATER – SURFACE WATERS
09:30 - 09:45	03-5: Protein-like fluorescence of water NOM – the key role of free aromatic amino acids <i><u>O. Trubetskaya</u>, C. Richard, O. Trubetskoj</i>
09:45 - 10:00	03-6: Characteristics of terrestrial organic matter and iron in rivers of the northwest of Hokkaido, Japan <i><u>M. Yamamoto</u>, H. Iwai, A. Yamaguchi, D. Liu</i>
10:00 - 10:15	03-7: Antioxidant properties of Humic Acids in Aquatic Environments -a Thermodynamic study <i>E. Bletsa, <u>Y. Deligiannakis</u></i>
10:15 - 10:30	Coffee break/lobby of Paradise Blue Hotel/
10:30 - 12:00	Poster session I: P-1 to P-55
12:00 - 13:30	Lunch /Main restaurant of Paradise Blue Hotel/
12:00 – 13:30	National Coordinators Meeting /Wind Hall/
13:30 - 22:00	Aladja Monastery and Varna

PROGRAM

Wednesday, 19 September

FIELD TRIP

08:30 - 19:00

Soil profile. Site visit

19:00 - 22:00

Dinner in National Style Restaurant

SCHEDULE

Thursday, 20 September

SEA HALL	
09:00 – 10:45	Topic: Biotic Interactions – Toxicity - Role of Humic Substances and Natural Organic Matter
10:45 – 11:00	Coffee break /Lobby of Paradise Blue Hotel/
11:00 – 12:30	Topic: Soil Physical Chemistry - Soil Fertility
12:30 – 14:00	Lunch /Main restaurant of Paradise Blue Hotel/
14:00 – 15:00	Poster session II: Posters P-56 to P-87, P-104 to P-110 and T-1 to T-16
15:00 – 16:30	Topic: Humic Based Technologies - Crop Production
16:30 – 17:00	Coffee break /Lobby of Paradise Blue Hotel/
17:00 – 19:00	Topic: Humic Based Technologies - Crop Production
20:00 – 24:00	Gala Dinner /Ara Hall of Flamingo Grand Hotel/

PROGRAM

Thursday, 20 September

09:00 – 10:45

Topic

BIOTIC INTERACTIONS – TOXICITY - ROLE OF HUMIC SUBSTANCES AND NATURAL ORGANIC MATTER

Chairpersons: L. P. C. Romão, O. Trubetskaya

09:00 - 09:30

INV3: Biotic Interactions and the Humic Substances in the pedosphere

Y. Kuzyakov

09:30 - 09:45

O2-1: Effect of sugars on the structure and morphological features of mixed biofilms

I. Ganchev

09:45 - 10:00

O2-2: Molecular and structural changes in dissolved organic matter in the Critical Zone

G. Gleixner

10:00 - 10:15

O2-3: Integrity of the use of humic substances (HS) as tracers of biological transformation during storage of treated sludge

A. Khakbaz, C. Bravo, M. Contin, D. Goi, M. De Nobili

10:15 - 10:30

O2-4: Both (root ABA-Lpr)- and (root IAA-PM H⁺ATPase)-signaling pathways are crucial in the plant growth promoting action of rhizospheric humic acids

M. Olaetxea, R. Baigorri, M. Fuentes, V. Mora, M. Garnica, L. Spichal, A. M. Zamarreño, J. M. Garcia-Mina

10:30 - 10:45

O2-5: Step-by-step formation of humic-like biologically active substances in the technological process of Lignohumate[®] synthesis

O. Gladkov, O.Yakimenko, O. Osipova, R. Poloskin, A. Stepanov

10:45 - 11:00

Coffee break /lobby of Paradise Blue Hotel/

11:00 – 12:30

Topic

SOIL PHYSICAL CHEMISTRY - SOIL FERTILITY

Chairpersons: M. Mierzwa-Hersztek, V. Tsoлова

11:00 – 11:30

INV4: Determination of humification degree in peat profiles
T. Miano

11:30 - 11:45

O4-1: Subsoil incorporation of crop residues enhances humic acid accumulation and its carbohydrates enrichment
H. Abdelrahman, D. Olk, D. Dinnes

11:45 - 12:00

O4-2: Comparison of size and molecular mass distributions of humic acids originating from different source matrices
M. Kalina, M. Drossos, D. Sirucek, S. Sovova, A. Piccolo, M. Pekar

12:00 - 12:15

O4-3: Sequestration of organic carbon (OC) in S agricultural soils by *in situ* photo-polymerization of humic molecules under biomimetic catalysis
A. Piccolo, R. Spaccini

12:15 - 12:30

O4-4: Molecular Changes of SOM due to Cropping System as revealed by Humeomics
M. Drosos, A. Piccolo

12:30 - 14:00

Lunch /Main restaurant of Paradise Blue Hotel/

14:00 – 15:00

Poster session II: Posters P-56 to P-87, P-104 to P-110 and T-1 to T-16

15:00 – 16:30

Topic

HUMIC BASED TECHNOLOGIES - CROP PRODUCTION

Chairpersons: H. Knicker, P. Bloom

15:00 - 15:30

INV5: Can humic products substantially improve ecosystem quality and economic yield?
D. Olk

15:30 - 15:45

O5-1: Effects of percolate recirculation frequency on the organic matter composition after solid-state anaerobic digestion of straw and pig slurry
O. Cavallo, J. M. De La Rosa, J. A. González-Pérez, C. Zacccone, D. Pezzolla, G. Gigliotti, H. Knicker, M. R. Provenzano

15:45 - 16:00

O5-2: Growth and nutritional quality of lettuce plants as affected by humic conditioners
D. P. Dick, A. C. Bender, D. Hanke, E. L.S. De Sá

16:00 - 16:15

O5-3: Application of Humic Acid in a Malaysian Super Large Scale Field Experiment

16:15 - 16:30	<p><i>O. Kostov, N. T. Ye, V. Vasileva</i></p> <p>05-4: Long-term Low-input Nutrition Regime of Haplic Chernozems and Its Influence on the productivity of <i>T.aestivum L. cultivars</i></p> <p><i>M. Nankova, V. Savov, K. Chakalov, E. Filcheva</i></p>
16:30 - 17:00	Coffee break /lobby of Paradise Blue Hotel/
17:00 – 19:00	<p>Topic</p> <p>HUMIC BASED TECHNOLOGIES - CROP PRODUCTION</p> <p>Chairpersons: Y. Chen, I. Perminova</p>
17:00 - 17:30	BALKAN Plant Sci. Presentation
17:30 - 17:45	<p>05-5: Three dimensional excitation emission matrix (3D-EEM) fluorescence spectroscopy for soil powder samples without extraction</p> <p><i>Y. Nakaya, S. Nakashima, M. Moriizumi, M. Oguchi, S. Kashiwagi, N. Naka</i></p>
17:45 - 18:00	<p>05-6: Effect of humified organo-mineral fertilisers on nitrogen in a soil-plant agroecosystem-A ¹⁵N study</p> <p><i>K. Sahabiplob, M. T. Rose, V. Wong, T. R. Cavagnaro, A. F. Patti</i></p>
18:00 - 18:15	<p>05-7: Evolution of Maize Residues into SOM in a study of two years incubation</p> <p><i>G. X. Song, E.H. Novotny, M.H.B. Hayes</i></p>
18:15 - 18:30	<p>05-8: Extraction of Fulvic-Acid-Like Compounds from Mushroom (<i>Lentinus edodes</i>) Bed Waste and the Application to Plant Growth</p> <p><i>S. Yoshizawa, Y. Hashikawa, H. Yajima, R. Tomoi, Y. Hidawa</i></p>
18:30 - 19:00	<p>05-9: The Existence and Importance of Humic Substances and of Humin</p> <p><i>R. S. Swift, M. H.B. Hayes</i></p>
20:00 - 24:00	Gala Dinner /Ara Hall of Flamingo Grand Hotel/

SCHEDULE**Friday, 21 September**

SEA HALL	
09:00 – 10:30	Travel awards. Session I
10:30 – 11:00	Coffee break /Lobby of Paradise Blue Hotel/
11:00 – 12:30	Travel awards. Session II
12:30 – 14:00	Lunch /Main restaurant of Paradise Blue Hotel/
14:00 – 14:30	Discussion on the article - The Existence and Importance of Humic Substances and of Humin, discussion
14:30 – 15:30	General Assembly
15:30 – 16:30	Closing remarks

PROGRAM**Friday, 21 September****09:00 – 10:30****Travel awards. Session I****Chairpersons: G. Abbt-Braun**

T1: The specific role of endophytic microbiome in the mechanism of action of humic substances as plant growth promoters

D. De Hita, M. Fuentes, J.M. García-Mina

T2: The molecular composition of humic acids, as reflected by FTICR-MS, varies systematically in terms of the total C storage of the corresponding soils

M. A. Jiménez-González, D. Waggoner, A.M. Álvarez, F.J. González-Vila, P. Hatcher, G. Almendros

T3: Upgrading from the lab to a pilot plant and an industrial bath process in the production of biochar from three types of Brazilian biomasses residues

T. T. S. Matos, J. Shultz, E. M. C Cardoso, M. R. Fornari, L. P. C Romão, R. O. C. Ribeiro, A.S. Mangrich

T4: Molecular Evolution of Ageing Dissolved Organic Matter in Forest Soils

S. Benk, Y. Li, V. Roth, G. Gleixner

T5: Dissolved organic matter diversity in Antarctic lakes and streams (Soya Coast, East Dronning Maud Land)

M. Kida, T. Kojima, Y. Tanabe, K. Hayashi, S. Kudoh, N. Maie, N. Fujitake

T6: Thermally treated sewage sludge: a humic substance precursor with the potential to serve as phosphate fertilizer?

M. Paneque, J. M. De La Rosa, J. Kern, H. Knicker

T7: Use of iron mining waste and natural organic matter (NOM) in the synthesis of magnetic hybrids for remediation of chromium and nitrophenol

D. Cruz, B. Santos, I. Silva, G. Cunha, L. Romao

T8: Influence feed additives humic nature on coagulation disorders in laboratory rats after combined stress

L. M. Diachenko, L. M. Stepchenko

10:30 - 11:00

Coffee break /lobby of Paradise Blue Hotel/

11:00 - 12:30

Travel awards. Session II

Chairpersons: G. Abbt-Braun

T9: Low molecular weight organic acids of peat permafrost-affected soils

O. S. Kubik, E.V. Shamrikova, D. A. Kaverin, A. V. Pastukhov, V. V. Punego

T10: Production of hydroxylating species from DOM model sensitizers

K. D. Couch, G. Mckay, F.L. Rosario-Ortiz

T11: Effect of temperature and humic substances on initial bacterial adhesion to reverse osmosis membranes

S. Binahmed, S. Romero-Vargas Castrillón, R. Hozalski

T12: Lability and spectroscopic characteristics of dissolved organic matter from Amazonian rivers

I.C. Constantino, A. M. Tadini, S. Mounier, A. B. Moreira, M. C. Bisinoti

T13: Hydrochar and Process Water from Hydrothermal Carbonization of Sugarcane Industry By-Products: Germination Studies and Humic Substances Characterization

L. G. Fregolente, F. S. Mazatti, J. V. Dos Santos, A. B. Moreira, O. P. Ferreira, M. C. Bisinoti

T14: Evaluation of humic substances from hydrochar and of Anthrosols profile (Amazonian Black Earth) by spectroscopic techniques

L. R. Bento, C. A. Melo, A. B. Moreira, O. P. Ferreira, M. C. Bisinoti

T15: A cost effective and slow release humified organo-mineral fertilisers for increasing nitrogen use efficiency and crop yield

A. K. Saha, M. T. Rose, V. Wong, T. R. Cavagnaro, A. F. Patti

T16: Supramolecular organic matter assembly in light of multidetector data analyses

U. J. Wünsch, E. Acar, K. R. Murphy, C. A. Stedmon

12:30 - 14:00

Lunch /Main restaurant of Paradise Blue Hotel/

14:00 - 14:30

Discussion on the article:
The Existence and Importance of Humic Substances and of Humin
by R. S. Swift and M. H.B. Hayes

14:30 - 15:30

General Assembly

15:30 - 16:30

Closing remarks - *E. Filcheva and Y. Deligianakis*