



VIRTUAL GLOBAL CONFERENCE AUGUST 15-27, 2021

IHSS VIRTUAL CONFERENCE 2021

Click the link, sign up with your email, and access ALL poster and live session links starting August 15th:

<https://symposium.foragerone.com/ihss-virtual-conference-2021/>

You must "Sign Up" for the site and create a password. The site contains secure access to oral presentations hosted via [Zoom video](#), and posters. Content will be accessible from August 15th-August 27th. Live oral presentations will occur August 16th-20th, 2021. These sessions will be ½ days maximum with breaks. Oral presentations will also be recorded and available for asynchronous viewing August 23rd-27th, 2021. We hope you enjoy the events!

Conference Sessions and Keynote Speakers

1. **Monday, August 16th, 2021:**
Key unresolved questions about the chemistry and structure of humic substances
Maria De Nobili, University of Udine, Italy
2. **Tuesday, August 17th, 2021:**
Agricultural and commercial applications of humic substances
Dan Olk, USDA-ARS National Laboratory for Agriculture and the Environment, USA
3. **Tuesday, August 17th, 2021:**
Climate change and wildfire impacts on organic matter
Andrew Wozniak, University of Delaware, USA
4. **Wednesday, August 18th, 2021:**
Reactivity of DOM in Surface Waters and during Water Treatment
William Becker, University of Colorado Boulder, USA
5. **Thursday, August 19th, 2021:**
Stabilization mechanisms of soil organic matter
Malak Tfaily, Arizona State University, USA
6. **Thursday, August 19th, 2021:**
Interactions of NOM with Nanoparticles
7. **Friday, August 20th, 2021:**
Analytical methods for characterization of humic substances in soil and water
Heike Knicker, Instituto de Recursos Naturales y Agrobiología de Sevilla, Spain

Other Events

- ❖ **Monday, August 16th, 2021:** Student Travel Award Highlights featuring six-minute lighting talks by sixteen graduate student travel awardees
- ❖ **Wednesday, August 18th, 2021:** IHSS General Assembly Meeting
- ❖ **August 16-27th, 2021:** Great daily thematic posters; posters available for viewing and commenting at any time on Symposium.

Oral Presentation Agenda: *Time zones shown are US Mountain Time (US MT), Central Europe Summer Time (CEST), and Hong Kong Time (HKT)*

1. Monday, August 16th, 2021: Key Unresolved Questions about the Chemistry and Structure of Humic Substances

Start Time <i>Time Zones</i>			Title	Presenter <i>Abstract and authors available in full program</i>	Affiliation
US MT	CEST	HKT			
6:45 AM	2:45 PM	8:45 PM	Opening Remarks: Welcome to IHSS 2021! Update from José María García-Mina Freire	Fernando Rosario-Ortiz and Ray Hozalski	Universities of Colorado and Minnesota, USA
7:00 AM	3:00 PM	9:00 PM	Keynote: Key Unresolved Questions about the Chemistry and Structure of Humic Substances	Maria De Nobili	University of Udine, Italy
7:30 AM	3:30 PM	9:30 PM	Estes Park to Estes Park	Michael H. B. Hayes	University of Limerick, Ireland
7:45 AM	3:45 PM	9:45 PM	Environmental controls on dissolved organic sulfur chemistry	Brett A Poulin	University of California, Davis, USA
8:00 AM	4:00 PM	10:00 PM	Combining Physical and Mathematical Chromatography to Decipher the Molecular Fingerprints of Dissolved Organic Matter	Urban Wünsch	Technical University of Denmark, Denmark
8:15 AM	4:15 PM	10:15 PM	What are autochthonous vs. terrestrial DOM fluorescence spectra, and are they different?	Kathleen Murphy	Chalmers University, Sweden
8:30 AM	4:30 PM	10:30 PM	Do Charge Transfer States Play an Important Role in Chromophoric Dissolved Organic Matter Optical Properties and Photochemistry?	Garrett McKay	Texas A&M University, USA
<i>Break</i>					
9:00 AM	5:00 PM	11:00 PM	Computational Assessment of the Role of Three-Dimensional Configuration on the Optical Properties of Dissolved Organic Matter	Elena A Vialykh	University of Colorado Boulder, USA
9:15 AM	5:15 PM	11:15 PM	Mechanisms of humic substances optical properties formation	Evgeny Shirshin	Lomonosov Moscow State University, Russia
9:30 AM	5:30 PM	11:30 PM	Characterizing the redox state of dissolved humic substances by fluorescence spectroscopy	Diane McKnight	University of Colorado, Boulder, USA
9:45 AM	5:45 PM	11:45 PM	The Humic Uncertainty Principle	Jerry Leenheer	US Geological Survey(ret)
10:00 - 11:15AM	6:00- 7:15 PM	12:00 – 1:15 AM	Student Travel Award Lightning Talks, 16 graduate student awardees	Multiple Presenters Please see page 10	Multiple, page 10

2. Tuesday, August 17th: Agricultural and Commercial Applications of Humic Substances

Start Time <i>Time Zones</i>			Title	Presenter <i>Abstract and authors available in full program</i>	Affiliation
US MT	CEST	HKT			
7:00 AM	3:00 PM	9:00 PM	Practical Applications of Humic Materials in Agriculture, Industry, Environment, and Human Health	Dan Olk	USDA-ARS National Laboratory, Ames, IA, USA
7:30 AM	3:30 PM	9:30 PM	The Effects of Humic Substances of on Cannabinoid Distribution and content in Hemp production	Robert Faust	Faust Bio-Agricultural Services Inc., USA
7:45 AM	3:45 PM	9:45 PM	Comparison of Methods for Determination of Humic Substances in Commercial Liquid Biostimulants	Deborah P. Dick	Federal University of Rio Grande do Sul, Brazil
8:00 AM	4:00 PM	10:00 PM	Perception of humic substances and analysis of the resulting stress-related proximal signaling events in <i>A. thaliana</i> roots.	Richard Lamar	Bio Huma Netics, Inc., USA
8:15 AM	4:15 PM	10:15 PM	Bioactivity of humic matter from shale ore: FTICR-MS molecular characterization as related to plant yield and phenotype	Hiarhi Monda	Bio Huma Netics, Inc., USA
8:30 AM	4:30 PM	10:30 PM	Humics-Based Chemicals and Materials DesignHumics-Based Chemicals and Materials Designed for Ecodaptive Chemistry and Technology for Ecodaptive Chemistry and Technology	Irina Perminova	Lomonosov Moscow State University, USA
8:45 AM	4:45 PM	10:45 PM	Validating the alkaline extractable humic acid fraction for studying functionality of organic matter in organic amendments	Ibrahim Mohammed	University of Guelph, Canada
9:00 AM	5:00 PM	11:00 PM	<i>Break before Session 3</i>		

Continued

3. Tuesday, August 17th: Climate Change and Wildfire Impacts on Organic Matter

Start Time <i>Time Zones</i>			Title	Presenter <i>Abstract and authors available in full program</i>	Affiliation
US MT	CEST	HKT			
9:30 AM	5:30 PM	11:30 PM	Molecular heterogeneity in pyrogenic dissolved organic matter from a thermal series of oak and grass chars	Andrew Wozniak	University of Delaware, USA
10:00 AM	6:00 PM	11:45 PM	Composition and mobilization of natural organic matter from permafrost impacted soils and surface waters in sub-Arctic Alaska	Jennifer Guerard	University of Alaska Fairbanks, USA
10:15 AM	6:15 PM	12:15 AM	Effects of climate change and other regional drivers on Dissolved natural organic matter	Rolf David Vogt	University of Oslo, Norway
10:30 AM	6:30 PM	12:30 AM	Targeted fluorescence surrogates differentiate wildfire derived organic matter in freshwater mixing scenarios	Sarah Fischer	University of Colorado Boulder, USA
10:45 AM	6:45 PM	12:45 AM	Enrichment of dissolved organic nitrogen during simulated forest fires	William Bahureksa	Colorado State University, USA
11:00 AM	7:00 PM	1:00 AM	From the benchtop to global cycling: Current challenges in the quantification and modeling of pyrogenic organic matter	Alex Goranov	Rensselaer Polytechnic Institute, USA

Please see associated posters for viewing and commenting.

4. Wednesday, August 18th: Reactivity of DOM in Surface Waters and during Water Treatment

Start Time <i>Time Zones</i>			Title	Presenter <i>Abstract and authors available in full program</i>	Affiliation
US MT	CEST	HKT			
7:00 AM	3:00 PM	9:00 PM	The importance of DOM in Water Reuse	William Becker	University of Colorado Boulder, USA
7:30 AM	3:30 PM	9:30 PM	The Impact of Dissolved Organic Matter Composition on the Formation of Disinfection By-products in Groundwater	Christina Remucal	University of Wisconsin-Madison, USA
7:45 AM	3:45 PM	9:45 PM	The Value of Measuring Dissolved Organic Matter to Study Disinfection Byproducts in Drinking Water by the Polarity Rapid Assessment Method (PRAM) and Ultrafiltration	Mel Suffet	University of California Los Angeles, USA
8:00 AM	4:00 PM	10:00 PM	Transformation of Terrestrial and Microbial DOM by Drinking Water Treatments and Associated Disinfection Byproduct Formation	Juliana Laszakovits	The Ohio State University, USA
8:15 AM	4:15 PM	10:15 PM	Photodegradation of Particulate Organic Matter in Urban Watershed with Repeated Suspension	Hansaem Lee	Seoul National University of Science and Technology, South Korea
8:30 AM	4:30 PM	10:30 PM	Break		
9:00 AM	5:00 PM	11:00 PM	Photoreactivity of the dissolved organic matter (DOM) of the Auzon cut-off meander (Allier River, France)	Davide Palma	Université Clermont Clermont-Ferrand, France
9:15 AM	5:15 PM	11:15 PM	Organic Matter in Effluents from Wastewater Treatment Plants – an analytical Approach	Gudrun Abbt-Braun	Karlsruhe Institute of Technology, Germany
9:30 AM	5:30 PM	11:30 PM	Optical monitoring dissolved organic carbon removal in conventional drinking water treatment processes	Julie Korak	University of Colorado Boulder, USA
9:45 AM	5:45 PM	11:45 PM	Comparative Reactivity of HO and Chlorine Radicals with Different DOM Fractions	Paul Westerhoff	Arizona State University, USA
10:00 AM	6:00 PM	12:00 AM	IHSS General Assembly Meeting	Hosted by Ray Hozalski and IHSS Board	

Please see associated posters for viewing and commenting.

5i. Thursday, August 19th: Stabilization Mechanisms of Soil Organic Matter

Start Time <i>Time Zones</i>			Title	Presenter <i>Abstract and authors available in full program</i>	Affiliation
US MT	CEST	HKT			
7:00 AM	3:00 PM	9:00 PM	Stabilization mechanisms of soil organic matter: The knowns and the unknowns	Malak Tfaily	Arizona State University, USA
7:30 AM	3:30 PM	9:30 PM	The quality of soil organic matter, accessed by ¹³ C Solid State Nuclear Magnetic Resonance, is just as important as its content concerning pesticide sorption	Etelvino Henrique Novotny	Embrapa Soils, Rua Jardim Botânico, Brazil
7:45 AM	3:45 PM	9:45 PM	Water- and Alkaline-extracted dissolved organic matter complexes: main structural similarities and differences and practical implications for environmental studies.	José María García-Mina	University of Navarra, Spain
8:00 AM	4:00 PM	10:00 PM	Humification of wood promoted by Fenton chemistry	Patrick G. Hatcher	Old Dominion University, USA
<i>Break</i>					
8:30 AM	4:30 PM	10:30 PM	Molecular changes of dissolved organic matter explain its persistence during soil passage	Gerd Gleixner	Max Planck Institute for Biogeochemistry, Germany
8:45 AM	4:45 PM	10:45 PM	Simultaneous immobilization of cadmium and arsenic in soil by a novel calcium-based magnetic biochar	Jianming Xu	Zhejiang University, China
9:00 AM	5:00 PM	11:00 PM	Influence of Inorganic Cations on the Association of the Anticonvulsant Drug Lamotrigine with Soil Humic Acid	Joel Pedersen	University of Wisconsin Madison, USA
9:15 AM	5:15 PM	11:15 PM	<i>Break before Mini-Session 6</i>		

Continued

5ii. Thursday, August 19th: Mini Session - Interactions of NOM with Particles

Start Time <i>Time Zones</i>			Title	Presenter <i>Abstract and authors available in full program</i>	Affiliation
US MT	CEST	HKT			
9:30 AM	5:30 PM	11:30 PM	Natural Organic Matter Corona of Silver Nanoparticle: Is there a link between molecular composition and bulk properties?	Salimar Cordero	University of Massachusetts Amherst, USA
9:45 AM	5:45 PM	11:45 PM	Natural Organic Matter Exposure Conditions Influence Reactivity of Photocatalytic Nanoparticles	Stacey M. Louie	University of Houston, USA
10:00 AM	6:00 PM	12:00 PM	Electrochemical Characterization of Natural Organic Matter by Direct Voltammetry in an Aprotic Solvent	Paul G. Tratnyek	Oregon Health & Science University, USA

Please see associated posters for viewing and commenting.

6. Friday, August 20th: Analytical Methods for Characterization of Humic Substances in Soil and Water

Start Time <i>Time Zones</i>			Title	Presenter <i>Abstract and authors available in full program</i>	Affiliation
US MT	CEST	HKT			
7:00 AM	3:00 PM	9:00 PM	Closing Remarks and Passing of the IHSS Flag To Next Host Country – Russia 2022	Ray Hozalski and Irina Perminova	University of Minnesota, Moscow State University
7:30 AM	3:30 PM	9:30 PM	The story goes on- Application of established and advanced solid-state NMR and MRI techniques in humic substance research	Heike Knicker	Instituto de Recursos Naturales y Agrobiología de Sevilla, Spain
7:45 AM	3:45 PM	9:45 PM	Unresolved Questions in the Reactions of Inorganic Nitrogen with Natural Organic Matter	Kevin A. Thorn	U.S. Geological Survey, Colorado, USA
8:00 AM	4:00 PM	10:00 PM	Characterizing property and treatability of dissolved effluent organic matter using size exclusion chromatography with an array of absorbance, fluorescence, organic nitrogen and organic carbon detectors	Wentao Li	Nanjing University, China
8:15 AM	4:15 PM	10:15 PM	Beyond van Krevelen diagrams: Mass difference matching by ultrahigh-resolution tandem mass spectrometry reveals molecular ecosystem imprints in DOM	Carsten Simon	Max Planck Institute for Biogeochemistry, Germany
8:45 AM	4:45 PM	10:45 PM	<i>Break</i>		
9:00 AM	5:00 PM	11:00 PM	Investigating the abundance and polarity distribution of electrospray ionizable dissolved organic matter	Jeffrey Hawkes	Uppsala University, Sweden
9:15 AM	5:15 PM	11:15 PM	Online counter gradient applied to LC-FT-ICR MS offers new insight into highly polar DOM fractions	Limei Han	Helmholtz-Centre for Environmental Research, Germany
9:30 AM	5:30 PM	11:30 PM	An international laboratory comparison of IHSS DOM composition by high resolution mass spectrometry: Are we getting the same answer?	Juliana D'Andrilli	Louisiana Universities Marine Consortium, USA

Oral presentations will be recorded and available August 23rd-27th on the Symposium Site.

Highlight Biographies

Conference Keynote: Monday, August 16th, 2021, 7:00 AM MT USA



Key unresolved questions about the chemistry and structure of humic substances

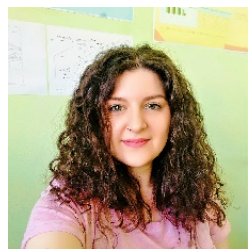
Maria De Nobili, University of Udine, Italy

Dr. Maria De Nobili is Full Professor of Soil Science and Environmental Chemistry and head of the Environmental Soil Functionality group at the Department of Agrifood, Environmental and Animal Sciences of the University of Udine (Italy). Her main scientific interests have been soil organic matter dynamics and soil biological properties. Her approach to the study of humic substances has aimed to investigate links between humification trends and soil biological activity considering pedoclimatic conditions with particular attention to submergence and agricultural soil management. Her present research

focuses on the consequences of plant biological invasions on soil properties and the redox state of humic substances in tidal soils and sediments and their relationship with sulfide and toxic metals immobilization. Other interests include the composting of sewage sludge and organic wastes (two patents) and their use in agriculture, particularly in relation to methane emission/oxidation in soil.

She served in the Board of Directors of the IHSS from 2000 to 2008 and as President of the Society from 2004 to 2006. She was Honorary Chairperson of Humic Substances Seminar VII (Boston, 2002) and Chairperson of the scientific committees of the 12th and of the 13th IHSS international conferences held in Sao Pedro (Brazil) in 2004 and in Karlsruhe (Germany) in 2006.

Graduate Travel Award Lighting Talk Session: Monday, August 16th, 2021, 10:00 AM MT USA

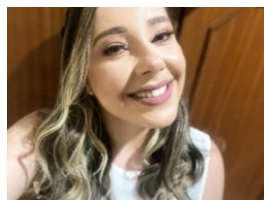


Gemenetzi Aikaterini, Malcolm Award Winner, is a PhD candidate (2018) at the Department of Chemistry University of Ioannina (Uoi), Greece in the team of Prof. Maria Louloudi. She is a chemist (Uoi, 2016), with a Master's degree in "Medicinal Chemistry". Her PhD thesis focuses on the development of Metal-Organic hybrids including biochar, synthesis, mechanistic studies and applications in catalysts and environment. She has published papers on biochar technology (10.1016/j.mcat.2020.110946), antioxidant activity (10.1016/j.freeradbiomed.2020.08.025), and Fe catalysts (10.1016/j.cplett.2020.138282 Received). In the present work, the physicochemical aspect of model and natural humic acids was studied in terms of their proton-binding, metal-binding, and redox properties with a focus on Electron Paramagnetic Resonance Spectroscopy.



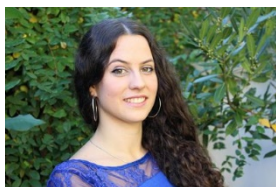
Gbenga Daniel Adejumo (Oluwagbemiga) completed his master's degree in the field of Soil Chemistry, under the supervision of Dr. Olusola O. Adesanwo, at the Department of Soil Science and Land Resources Management, Obafemi Awolowo University, Ile-Ife Southwestern Nigeria. Currently, he is pursuing a Ph.D. in the field of Environmental Chemistry, at the Department of Soil Science, University of Saskatchewan, Saskatoon, Canada. He was one of the recipients of 2019-IHSS Training award which accorded him the opportunity to be trained extensively on the use of sophisticated spectroscopic analytical instruments for characterization of organic matter, under the Supervision of Prof. Irina V. Perminova, at the Natural Humic Systems Laboratory, Department of Chemistry, Lomonosov Moscow State University, Moscow, Russia. The training was an impetus to his current Ph.D research. *Instagram: gbenga_adejumo, Snap Chat: gda1314, email: gbengadaniel289@gmail.com*

M.Sc. Research Title (Completed): Comparative effects of Vermicompost Tea and Emamectin-Benzothiazole on Fall-armyworm, Soil properties and Maize yield.



Clécia Andrade is a doctoral student in Analytical Chemistry at Universidade Estadual Paulista UNESP, Araraquara. His research interests include organic matter chemistry, synthesis of nanomaterials using natural organic matter (NOM) as a solvent. Clécia has a master's degree in chemistry from the Federal University of Sergipe (UFS).

Research Title: Use of natural organic matter (NOM) in the synthesis of graphene-based magnetic nanomaterial for BPA degradation/mineralization



Paloma Campos completed her PhD at Institute of Natural Resources and Agrobiology of Seville (Spain) in May 2021. Her research is focused on soil science and waste management, including remediation of polluted soils. Paloma obtained the IHSS Training Award-2019 for performing a predoctoral research stay in Università degli Studi di Bari Aldo Moro (Italy). Paloma holds a B.S. in Chemistry from University of Seville and M.S. in Environmental Sciences from University of Huelva.

Research title: Effects on soil carbon stability by the application of biochar in soils contaminated with trace elements



Salimar Cordero Mercado is a Ph.D candidate in the Environmental and Water Resources Engineering program at the University of Massachusetts in Amherst, MA, USA. Her research interests include nanoparticles, dissolved organic matter, and colloid surface chemistry. Salimar holds a B.S. degree in Chemical Engineering from the University of Puerto Rico in Mayagüez, PR.

Research Title: Natural Organic Matter Corona of Silver Nanoparticles: Is there a link between molecular composition and macroscopic properties?



Mayara Regina Fornari is a doctoral student at the Department of Chemistry at the Federal University of Paraná (DQ / UFPR), under supervision of Antônio S. Mangrich since 2017. The thesis work is “Synthesis and characterization of graphene-like materials from sugarcane biochar and exhausted bark for the development of supercapacitors”. This project aims to produce biochar with structures similar to graphene, from two types of agro-industrial biomass residues, with the objective of adding value to the residues, which is important according to the principles of green chemistry. As well, seeks to observe the effect of these biochars on the development of energy storage devices such as supercapacitors. Currently, Fornari has published several articles in major international journals. In addition, Fornari holds a master's degree in soil science and knowledge of humic substances and soil fertility.

Research Title: Synthesis and characterization of “natural graphene” materials from the biochar of agro-industrial waste.



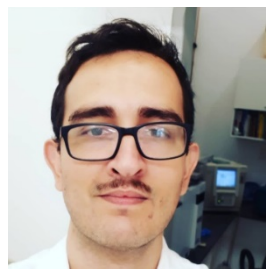
Aleksandar “Alex” Goranov is a postdoctoral researcher at Rensselaer Polytechnic Institute (Troy, NY) under the mentorship of Dr. Sasha Wagner. His research interests are broadly in the application of analytical chemistry to study environmental questions related to the cycling of natural organic matter (NOM) with a special focus on molecules derived from wildfires (pyrogenic organic matter). Alex holds a B.S. in Chemistry from Ramapo College of NJ and a Ph.D. in Chemistry from Old Dominion University (advised under Dr. Patrick Hatcher). Currently, Alex is studying condensed aromatic compounds in various environmental samples (petroleum, aerosols, DOM) using benzenepolycarboxylic markers (BPCAs) as well as stable carbon isotopes ($\delta^{13}\text{C}$). Alex is also presenting Tuesday, August 17th in the wildfire and climate change session.

Research title: Nitrogen-incorporation into pyrogenic dissolved organic matter



Juliana (July) Laszakovits received her PhD in environmental engineering from The Ohio State University in May 2021. Prior to this, she studied Chemistry at the University of Mary Washington where she conducted undergraduate research on dissolved organic matter photochemistry under the supervision of Professor Charles Sharpless. At Ohio State, her first research project focused on the removal of cyanotoxins from drinking water. To better understand drinking water treatment processes, she has moved into using advanced analytical techniques to characterize changes to dissolved organic matter during drinking water treatment and relate these changes to disinfection byproduct formation. July is also presenting Wednesday, August 18th in the reactivity of DOM in Water Treatment Session

Research Title: Transformation of Terrestrial and Microbial DOM by Drinking Water Treatments and Associated Disinfection Byproduct Formation



Márcio Laranja is a doctoral student in Chemistry at University of São Paulo State, Brazil. His research interests include hydrothermal carbonization, magnetic carbon, activated carbon and adsorption studies. Márcio holds a B.S. in Environmental Chemistry and M.S. in Chemistry from University of São Paulo State, Brazil. His doctoral research has sought to investigate the reuse of sugarcane bagasse as a carbon precursor for the synthesis of porous magnetic materials, using hydrothermal carbonization and activation with KOH.

Research Title: Valorization of sugarcane bagasse using hydrothermal carbonization for preparation of magnetic carbon for application as adsorbent



Carla Pereira de Moraes currently a Ph.D. student in Analytical Chemistry at University of São Paulo (USP), Brazil, developing research at Embrapa Instrumentation, under the cotutela agreement with the Université de Toulon (France). Her research interests include the development and validation of optical instrumentation and analytical methods for the elemental and organomineral characterization of agro-environmental samples. She has experience in Analytical Chemistry, focusing on spectroscopy, acting on the following subjects: LIBS, Fluorescence Spectroscopy, LIFS, F AAS, and ICP OES. She has expertise in Chemometrics, Design of Experiments, and Statistics. Carla holds a B.S. and M.S. in Chemistry from Institute of Chemistry of Araraquara, São Paulo State University (UNESP), Brazil. She completed an IHSS Training Award at University of Toulon.

Research Title: Assessing extracted organic matter quality from eutrophic tropical river sediments by molecular characterization.



Layla San-Emeterio is a PhD candidate in Soil Biogeochemistry at Institute for Natural Resources and Agrobiological Sciences of Seville, Spain (IRNAS-CSIC). Her research focuses on soil organic matter (SOM) and carbon turnover rates in representative Mediterranean soils from southern Spain. She is developing analytical approaches that comprises structural and chemical aspects related to SOM, such as microbial biomarkers and compound-specific stable isotopes, to elucidate SOM transformation. Layla holds a B.S. in Environmental Sciences (Univ. Pablo de Olavide, Seville, ESP) and M.S. in Conservation, Management and Restoration of Biodiversity (Univ. Granada, ESP).



João Vitor dos Santos is a master student in Analytical Chemistry at University of São Paulo (USP), Brazil, in partnership with the Brazilian Agricultural Research Corporation (EMBRAPA), under the supervision of Dr. Ladislau Martin Neto. His research interests include the study of soil quality by chemical, physical and biological indicators. João holds a B.S. in Environmental Chemistry from São Paulo State University (UNESP), Brazil. During his undergraduation, he developed part of his research at the University of Toulon, France, studying the interaction of organic matter from Amazonian anthropogenic soils with metals and PAHs by Fluorescence techniques. Currently, João is studying the dynamics of dissolved organic matter and biological activity of soils in intensive grazing and crop-livestock-forest systems.

Research Title: Quantification and spectroscopic characterization of dissolved organic matter in soils under pastures and integrated production systems

Additional Awardees include Tchémongo Berte, Carla Muller, and Chen Zhang.

Appendix: How to Sign Up and Navigate Conference: Click the link, sign up with your email, and access ALL poster and live session links starting August 15th:

<https://symposium.foragerone.com/ihss-virtual-conference-2021/>

As a security measure, only pre-paid or pre-approved emails can sign in the site. Click “Sign Up”, create a unique password, and verify your email:

The screenshot shows a web browser window with the URL symposium.foragerone.com/ihss-virtual-conference-2021/signup. The page features a navigation bar with links: Exit Event, Welcome Page, Presentations, Live Sessions, Login, and a highlighted Sign Up button. The main content area is a light gray box containing a white sign-up form. The form has the title "Sign Up" and a link "Signed up already? Login here." Below this is an "Email: *" field with the text "fernando.rosario@colorado.edu" entered. Underneath the email field is a checkbox area with the text "By signing up, you agree to Symposium's Terms of Service and Privacy Policy." and a "Next" button.

The screenshot shows the same web browser window, but the page has loaded the verification step. The URL remains the same. The navigation bar is identical. The main content area is a light gray box containing a white verification form. The form has the title "Please verify your email." and a message: "You're almost there! We sent an email to fernando.rosario@colorado.edu". Below this is a paragraph: "Just click on the link in that email to complete your signup. If you don't see it, you may need to check your spam folder. Please allow up to 5 minutes for email delivery." At the bottom of the form, there is a link "Still can't find the email?" followed by a "Resend Email" button, and a link "Need help? Contact Us" at the very bottom.


Starting August 15th, Navigate Conference:

<https://symposium.foragerone.com/ihss-virtual-conference-2021/>

1. Welcome Page: Navigate content at Top of Webpage


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 Symposium < Exit Event

Welcome Page Presentations Live Sessions

Navigate Content
Live Sessions and
Poster Presentations



Welcome to Virtual Global Conference 2021!

Hosted on Symposium by ForagerOne

Dear Conference Attendees,

We are excited for a great virtual IHSS Conference of live sessions, posters, and recorded content. Please navigate the conference by clicking the "Presentations" and "Live Sessions" tab at the top of your browser. Live sessions occur through Zoom - please have this downloaded ahead of the session. Posters and oral talks fit the following themes. Keynote speakers are also indicated:

- Monday, August 16th, 2021: Key unresolved questions about the chemistry and structure of humic substances Maria De Nobili, University of Udine, Italy
- Tuesday, August 17th, 2021: Agricultural and commercial applications of humic substances Dan Oik, USDA-ARS National Laboratory

2. Live Oral Session Tab with Zoom links:

The screenshot shows the 'Live Sessions' tab selected in the navigation menu. The main heading is 'Opening Remarks and Key Unresolved Questions about the Chemistry and Structure of Humic Substances'. Below this, the 'Session Time' is listed as 'Monday, August 16, 2021' from '6:45am - 9:45am MDT'. A 'Session Access Link' is provided: https://cuboulder.zoom.us/webinar/register/WN_aSFKBCRESiG6JmLQVcS_g. The 'Description' section includes time zones and a list of speakers: 'US MT/ CEST/HKT Time Zones: Title, Presenter, University', '6:45 AM/2:45 PM/8:45 PM: Opening Remarks: Welcome to IHSS 2021! Fernando Rosario-Ortiz and Ray Hozalski, Universities of Colorado and Minnesota, USA', '7:00 AM /3:00 PM/ 9:00 PM: Keynote: Key Unresolved Questions about the Chemistry and Structure of Humic Substances, Maria De Nobili University of Udine, Italy', and '7:30 AM/ 3:30 PM/ 9:30 PM: Estes Park to Estes Park, Michael H. B. Hayes, University of Limerick, Ireland'.

Opening Remarks and Key Unresolved Questions about the Chemistry and Structure of Humic Substances

Session Time
Monday, August 16, 2021
6:45am - 9:45am MDT

Session Access Link
https://cuboulder.zoom.us/webinar/register/WN_aSFKBCRESiG6JmLQVcS_g

Description

US MT/ CEST/HKT Time Zones: Title, Presenter, University

6:45 AM/2:45 PM/8:45 PM: **Opening Remarks: Welcome to IHSS 2021!** Fernando Rosario-Ortiz and Ray Hozalski, Universities of Colorado and Minnesota, USA

7:00 AM /3:00 PM/ 9:00 PM: **Keynote: Key Unresolved Questions about the Chemistry and Structure of Humic Substances**, Maria De Nobili University of Udine, Italy

7:30 AM/ 3:30 PM/ 9:30 PM: **Estes Park to Estes Park**, Michael H. B. Hayes, University of Limerick, Ireland

3. Posters in Presentations Tab. Navigate themes with left check boxes.

Click Here to Sort Posters →
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The screenshot shows the 'Presentations' tab with a search bar and a 'Filters' sidebar. The sidebar contains a list of 'Research Themes and Topics' with checkboxes: 'interactions with contaminants or pesticides', 'soil science', 'water quality', 'interactions with metals', 'Key unresolved questions about the chemistry and structure of humic substances', 'Agricultural and commercial applications of humic substances', 'Interactions of NOM with Nanoparticles or Particulates', and 'Analytical methods for characterization of humic substances in soil and water'. The main area displays a grid of poster thumbnails. Visible titles include 'Stable isotope composition and metal binding of humic acids in the Cananea-Iguape estuarine system (southeastern Brazil)', 'Development of a slow release fertilizer employing water hyacinth and NOM-rich water as solvent', 'The isolation of humin from soil - comments and recommendations', 'SYNTHESIS OF MAGNETIC NANOHYBRID BASED ON GRAPHEN AND COBALT FERRITE AS A', 'Impact of urea-intercalated-biochar on N-release in soil and humified soil organic matter', and 'Chemical composition of soil humic acids studied by DRIFT spectroscopy'.

Filters

Research Themes and Topics

- ☐ interactions with contaminants or pesticides
- ☐ soil science
- ☐ water quality
- ☐ interactions with metals
- ☐ 1. Key unresolved questions about the chemistry and structure of humic substances
- ☐ 2. Agricultural and commercial applications of humic substances
- ☐ 6. Interactions of NOM with Nanoparticles or Particulates
- ☐ 7. Analytical methods for characterization of humic substances in soil and water

Stable isotope composition and metal binding of humic acids in the Cananea-Iguape estuarine system (southeastern Brazil)
Presenter: Christian Milo
The Cananea-Iguape estuarine-la...

Development of a slow release fertilizer employing water hyacinth and NOM-rich water as solvent
Presenter: Iris Silva
High losses of urea in soil-plan...

The isolation of humin from soil - comments and recommendations
Presenters: Jerry Weber, Elzbieta Jamroz, Andrzej Kocowicz, Magdalena Dę...
Among humic substances, humin has been the least studied to date, although it usually constitutes ove...

SYNTHESIS OF MAGNETIC NANOHYBRID BASED ON GRAPHEN AND COBALT FERRITE AS A

Impact of urea-intercalated-biochar on N-release in soil and humified soil organic matter

Chemical composition of soil humic acids studied by DRIFT spectroscopy
Presenters: Indira Doudil, K. J. J. J.