The Fifth International Symposium of Interactions of Soil Minerals with Organic Components and Microorganisms of Commission 2.5 Soil Interfacial Reactions of the International Union of Soil Sciences Soil-Root-Microbe Interactions and the Impact on the Transformation and Fate of Nutrients and Pollutants in the Ecosystem

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ISMOM 2008 5th International Symposium of Interactions of Soil Minerals with Organic Components and Microorganisms of Commission 2.5 Soil Interfacial Reactions of the International Union of Soil Science

Soil-Root-Microbe Interactions and the Impact on the Transformations and Fate of Nutrients and Pollutants in the Ecosystem

24 – 29 November 2008 Pucón, Chile

Second Announcement



Welcome to ISMOM 2008

We are very pleased to invite you to attend the 5th ISMOM and 2nd Interconference Commission 2.5 IUSS - 2008 organized by the Working Group MO "Interactions of Soil Minerals with Organic Components and Microorganisms" of the International Union of Soil Sciences, now Commission 2.5:Soil Physical/Chemical/Biological Interfacial Interactions. The meeting is to be held in Pucón, Southern Chile , on November 24-28, 2008, in spring time.

Objective

The objective of this symposium is to provide a forum for the interactions of environmental chemists and mineralogists, environmental microbiologists, ecologists, toxicologists and soil scientists to address the current state-of-the-art and identify gaps in knowledge on physicochemical and biological interfacial interactions at the molecular level at the soil-root interface (the rhizosphere) pertaining to the dynamics, transformations, bioavailability, and toxicity of metals, metalloids, anthropogenic organics, and vital elements.

This activity should lead to the advancement of frontiers of knowledge on environmental chemistry on soil interfacial reactions in the rhizosphere and the subsequent development of innovative management strategies to sustain environmental quality, ensure food security and safety, and ecosystem health on a global scale.

Topics

The main topics of the scientific program of the proposed Congress were selected to facilitate the interactions of soil chemists, soil biochemists, soil mineralogists, microbiologists and environmental scientists with the intention of promoting discussions and exchanging information on the ecological significance of the interactions among clay minerals, organic matter and soil biota. The close association and interactions between abiotic and biotic entities in soil environments, particularly at the soil-root interface, govern (i) the dynamics and transformations of nutrients, pollutants, and natural and anthropogenic organics, and metabolic processes, growth and ecology of microbes and (ii) the impact on agricultural production, environmental protection, and ecosystem integrity.

Conference site

The Conference and exhibitions will be held at the Convention Center of Hotel del Lago, Pucón. The Hotel provides comfortable halls equipped with advanced technology, specially designed for congresses, conventions, seminars, banquettes and social events.



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PROGRAM

Monday, November 24, 2008

Registration and Welcome cocktail

Tuesday, November 25, 2008

Opening ceremony

Chairperson: Dra. María de la Luz Mora Prof. Sergio Bravo, Rector, Universidad de La Frontera Dr. Jaques Berthelin, Chair, Comission 2.5, IUSS Dr. Erick Zagal, Chair, Chilean Soil Science Society

Inaugural Plenary Session

Physicochemical and biological interfacial interactions in the rhizosphere and the impact on food safety and biodiversity *Keynote lecture: Dr. P.M. Huang. University of Saskatchewan, Canada.*

<u>Session 1. Ecological Significance of Interactions among Clay minerals, Organic Matter</u> <u>and Biota</u>

Lectures

The cycling and chemical composition of organic matter in soil aggregates, nanocomposites and soluble pools in the rhizosphere. *Invited lecture: Carlos Monreal, Agriculture and Agri-Food Canada, Ontario, Canada.*

Adsorption of proteins at solid surfaces and protein complexation with humic acid. *Invited lecture: Willen Norde, University of Wageningen, The Netherlands.*

8 Oral presentations

Poster presentations

Chilean Folklore Show



ember 24 -29

Wednesday, November 26, 2008

Plenary session Solute interactions in soils in relation to bioavailability and remediation of the environment Keynote lecture: Dr. N.S. Bolan. University of Massey, New Zealand

Session 2. Soil-Root-Microbe Interaction & their Effects on the Transformation & Bioavailability of Nutrients

Lectures

Soil-root-microbe in the rhizosphere - a key to understanding and predictions of nutrient bioavailability to plants Invited lecture: Philippe Hinsinger, INRA-ENSA. M-UMR, France.

Bioavailability of Phosphorus and Micronutrients in the soil-plant-microbe continuum. Invited lecture: Zed Rengel, Soil Science & Plant Nutrition. University of Western Australia.

8 Oral presentations

Poster presentations

Gala Dinner



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24 - 29

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Thursday, November 27, 2008

Plenary session

Shedding Light on Plant/Soil Interfacial Reaction Mechanisms: Impacts on Metal Cycling in the Earth's Critical Zone.

Keynote lecture: Donald Sparks, Department of Plant and Soil Sciences. University of Delaware, USA.

<u>Session 3. Soil-Root Microbe Interaction & Their Effects on Biophysical</u> <u>Transformation, Fate, and Toxicity of Metal and Metalloids</u>

Lectures:

Trace Elements in the Environmental.

Invited lecture: Domy C. Adriano, Savannah River Ecology Laboratory, University of Giorgia, USA.

Contaminant Fate, Dynamics and Bioavailability: Biochemical and Molecular Mechanism at the Soil: Root interface.

Invited lecture: Ravi Naidu, Centre for Environmental Risk Assessment and Remediation, University of South Australia.

8 Oral presentations

Poster presentations

Conference Tour



ember 24 - 29

Friday, November 28, 2008

Plenary session

Enzymes of Significance to the Restoration of Polluted Systems: Traditional and Advanced Approaches.

Keynote lecture: Liliana Gianfreda, Dipartimento di Scienze del Suolo, della Pianta e dell' Ambiente, University of Napoli, Italy.

<u>Session 4: Dynamics and Transformations of Natural and Xenobiotic Compounds in Soil</u> <u>Environments</u>

Lectures:

The Fate of Anthropogenic Organic Pollutants in Soil: Adsorption of Pesticides Possessing Endocrine Disruptor Activity by Natural Organic Matter (Humic Substances).

Invited lecture: Nicola Senesi, Dipartimento di Biologia e Chimica Agroforestale e Ambientale. University of Bari, Italy.

Use of nanoparticles in soil-water bioremediation processes. Invited lecture: Nelson Duran, Instituto de Química, University Estadual de Campinas S.P, Brasil.

4 Oral presentations

<u>Session 5: Environmental Biotechnology: Biochemical and Molecular Mechanisms of</u> <u>Microbe-Plant–Root Interactions & Their Genomic & Proteomic Advances Pertaining</u> <u>to Restoration of Contaminated Soils.</u>

Microbe-Soil-Root Interactions: Communication and bioremediation. Invited lecture: Richard Burns, School of Land and Food Sciences, The University of Queesland, Australia.

Inter action with soil constituents deter mines the environmental impact of proteins. *Invited lecture:* Hervé Quiquampoix, UMR Rhizosphère et Symbiose, INRA-ENSAM, Mompellier, France.

4 Oral presentations

Poster presentations



Saturday, November 29, 2008

Closing Symposium Ceremony

Post- Conference Tour

Travel Agency:



Contact: Mr. Jorge Clavel

jclavel@cocha.com www.cocha.com

El Bosque Norte 0430 Las Condes, Santiago - Chile Tel:(56 2) 4641000



Chile

CALL FOR PAPERS

We are pleased to invite you to actively participate in the Fifth International Symposium of Interactions of Soil Minerals with Organic Components and Microorganisms of Commission 2.5 Soil Interfacial Reactions of the International Union of Soil Science and to present the most recent findings of your research on Soil-Root-Microbe Interactions and the Impact on the Transformations and Fate of Nutrients and Pollutants in the Ecosystem. All authors, oral and poster presenters, are requested to fill out the abstract form directly in the symposium web site <u>www.ismom2008ufro.cl</u>. Please follow carefully the instructions and submit your abstract not later than May 1st, 2008 (oral presentations) and 30th June (poster presentations). Notifications of authors chosen for oral and poster presentations will be soon after August 30th, 2008.

REGISTRATION FEE

The registration fee includes welcome cocktail, Chilean folklore show, gala dinner, all scientific sessions, four symposium lunches, coffee breaks and book and CD abstracts. The registration fee for accompanying persons includes welcome cocktail, Chilean folklore show, gala dinner, lunches and coffee breaks at the Symposium Venue.

Registration Fee

Participant fee includes: welcome cocktail, Chilean folklore show, gala dinner, all scientific

sessions, four symposium lunches, coffee breaks and book and CD abstracts.

Accompanying persons includes: welcome cocktail, Chilean folklore show, gala dinner,

lunches and coffee breaks at the Symposium Venue

	Early Registration (by October 1 st)	Late registration (after October 1 ^s	t)
Scientist participants	US 450	US 500	
Students/Younger scientists	US 300	US 350	
Scientists from developing countri	ies US 300	US 350	
Accompanying person fee	US 200	US 220	
TOTAL =	US	US	



Please register by the web-site www.ismom2008ufro.cl

PRE-REGISTRATION FORM

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(Please submit a separate form for each participant)

Please complete the Pre-registration form and send it through the conference web-site: <u>www.ismom2008ufro.cl</u>

First Name				
Last Name				
	Ms Mr			
Phone	Fax			
e-mail				
Tentative title of the presentation				
Name(s) and last name of accompanying person(s)				
1				



SOCIAL PROGRAM

Date

- November 25 Chilean Folklore Show
- November 26 Gala Diner
- November 27 Conference Tour
- November 29 Post-Conference Tour*

* Not include in the registration fee



IMPORTANT DEADLINE

Pre-registration	January 30 th 2008	
Submission of abstracts along with complete form for volunteered oral	April 30 th 2008	
Submission of abstracts along with complete form for volunteered poster	June 30 th 2008	
Applications form Young Scientists from South America (download	May 30 th 2008	
application form from symposium web-site www.ismom2008ufro.cl)		
Notifications of authors chosen for oral and poster presentations	August 30 th 2008	
Final announcement	Before September 30 th 2008	

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