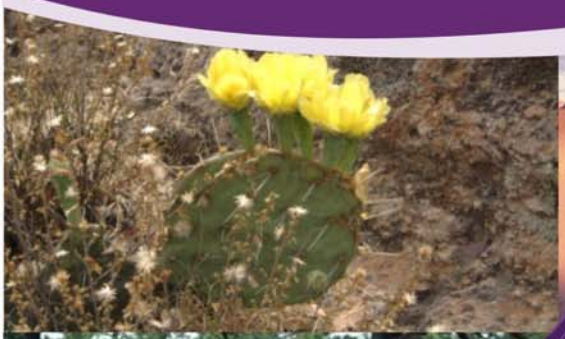
¡ah, Chihuahua
México

Frontiers in Trace Elements
Research and Education








10th International Conference on the Biogeochemistry of Trace Elements

Conference Program

13 - 18 July, 2009
Chihuahua, Chih. Mexico
http://icobte2009.cimav.edu.mx

CHIHUAHUA
Tierra de encuentro

General Information

Venue
Soberano Hotel, Chihuahua

Registration
The Registration Desk is located in the Lobby of the Diamante room from the Soberano Hotel and will be open from 15:30 to 18:30 on Monday 13 July, from 8:30 to 17:00 on Tuesday 14 (it will remain open throughout the entire conference).

Speaker Support Center
The Speaker Support Center is located in the Diamante room of the Soberano Hotel. The presentation file should be pre-loaded in the conference computer during your registration. It requested to all participants to deliver a copy of your oral presentations at the registration boot. If any situation arises that can compromise the delivery of your presentation, please contact Claudia Lopez at the registration desk.

Plenary and keynote speakers
Will be given one hour in total including 15 minutes for questions and discussions.

Oral presentation
Will be 20 minutes in total including 5 minutes for questions and discussions. (Please consider using Power Point for your presentations)

Poster Presentation
A display area will be provided. The poster must have the following dimensions: 120 cm high by 90 cm wide. The poster can be mounted with adhesive bands, which will be provided at the poster session room.

Important Message

1. To all participants of the congress who are already registered, we remind you that it is necessary to register upon your arrival at the lobby of the Diamond Room in the Soberano Hotel. We ask everyone to bring an invoice or receipt (Paypal, bank transfer or direct deposit). REGISTRATION will be Open since Monday 13th of July from 15:00 to 18:00 h.

2. Please send the confirmation of the activities in which you are going to participate (including companions) via email icobte2009@cimav.edu.mx. In other words, we need for you to confirm whether you are going to participate in the International seminar, if you are going to assist to the Welcoming cocktail, Gala Dinner, technical visit to Avalos and Naica.

3. Transportation will be provided from the Chihuahua City airport on Saturday 11th, Sunday 12th and Monday 13th of July. It is however necessary for you to send the following information to icobte2009@cimav.edu.mx:

- Airline, flight number, date and arrival hour
- Names of the companions (either registered in the congress or not)
- Hotel in which you are staying

In case that you arrive before or after the stated days or if arriving in another flight, there are always taxis available (under your own expenditures). You have to contact the taxi service of the airport, due to the fact that these taxis are regulated by the airport and therefore secure. There are no other means of transportation to the city from the airport.

4. To the speakers (oral presentations), you have to deliver your presentation at the time you register and pick up your material. Note: The file is supposed to be in Power Point formatting.

Plenary Speakers

Tara Sabo-Attwood (USA)

Sabo-Attwood, Tara L. is an Assistant Professor at the Department of Environmental Sciences in the University of South Carolina, USA. She graduated from the University of Connecticut in 1996 with a B.S. in Cytogenetics, and later she obtained her Ph.D. in Environmental Toxicology from the University of Florida in 2003. She has been the Coordinator of Genetic Research Programs in the Department of Pediatric Genetics of the University of Florida Cytogenetics Laboratory, Gainesville, FL. In 2004 she was an instructor of the Biology of Nutrition and Fitness in Champlain College, Burlington, VT. In 2005 she instructed Cell and Molecular Biology at Johnson State College, Johnson, VT. She has been, since 2006, an Assistant Professor for the Department of Environmental Sciences in the University of South Carolina.

Fang-Jie Zhao (United Kingdom)

Fangjie Zhao is a Principal Research Scientist in the Soil Science Department, Rothamsted Research, United Kingdom. He graduated from Nanjing Agricultural University, China (MSc, 1986) and University of Newcastle upon Tyne, UK (PhD, 1992). He has been working at Rothamsted since his initial appointment in 1992. He was promoted to Senior Research Scientist in 1996 and to Principal Research Scientist in 2002. In 2009, he was awarded an Individual Merit Promotion to Band 3 in recognition of his research achievements in several areas of soil, plant and environmental sciences, especially on crop sulphur nutrition, heavy metal hyperaccumulation and arsenic uptake mechanisms. He has published over 130 papers in peer-reviewed journals. These papers have been cited more than 4000 times. He is a guest Professor in Chinese Academy of Sciences, Chinese Academy of Agricultural Sciences and China Agricultural University. He serves as a Section Editor for Plant and Soil and as a member of the Editorial Board of Environmental Pollution. Fangjie Zhao has been an active member of ICOBTE since 1997, and has recently been elected as a member-at-large of the executive board of the International Society of Trace Element Biogeochemistry.

Erik Smolders (Belgium)

Erik Smolders is Professor at Department of Earth and Environmental Sciences at the Katholieke Universiteit Leuven, Belgium. He obtained a PhD in Agricultural Sciences in 1993 at the same institute and did post-doctoral studies at the Imperial College (U.K.), at the CSIRO, Div. of Soils, Adelaide, South Australia and at UW-Madison (WI, U.S.A.). The research focuses on bioavailability of soil contaminants, i.e. plant uptake of ^{137}Cs and Cd and toxicity of trace metals for plants and soil microbial processes in soil. This research is extended to environmental risk assessment. Current projects focus on dissolved organic matter in soil, metal speciation, soil transport processes, risk assessment and effects of metals on soil microbial processes. Erik Smolders is chair of the Scientific Committee of the Society of Toxicology and Chemistry (SETAC), is member of the International Committee of the International Society for Trace Element Biogeochemistry (ISTEB) and was Technical Editor of the Journal of Environmental Quality (2006-2008). Erik Smolders has been responsible for the risk assessment of Cd for the European Union and contributed to similar

documents for Pb, Ni, Cu, Zn, Co and Sb. In the Cd risk assessment, he was responsible for deriving soil, water and sediment limits. In addition, he contributed to the assessment of Cd exposure to man via the environment. Erik Smolders has been adviser for environmental risk assessment for the Flemish Government (OVAM), for the Federal Government (Health, Food Chain Safety and Environment) and for the European Commission (DG Environment and DG industry).

Esther Orozco (México)

Maria Esther Orozco was born in Chihuahua México. She received her bachelor's degree in Chemistry from the Autonomous University of Chihuahua and her doctorate's degree in Cell biology from the CINVESTAV, IPN, in Mexico. She is an internationally recognized biologist and researcher, winner of several awards and honors such as:

Member of the Sistema Nacional de Investigadores since 1984 (level 3), Award of the Cuban Academy of Science (1998), Medalla Pasteur 1997 (UNESCO and Pasteur Institute). International Fellow Howard Hughes Medical Institute (USA) 1991-1996 and 1997-2001, "Son de Carne y Hueso" Documentary Film with a sketch of Esther Orozco, Canal II del IPN: http://oncetv-ipn.net/invitro/biografias.htm, Award Dr. J. Rosenkranz 1991 (Syntex, México), J.S. Guggenhaim Foundation Fellowship 1988 (USA), Fogarty Fellowship 1987 (NIH, USA). National Prize of the Minister of Health in Mexico: "Miguel Otero" (1985). Award of the H. Consejo Universitario" Universidad Autónoma de Chihuahua (1997), "Distinguished Citizen" City Council of Chihuahua (1997), "Distinguished Citizen" City Council of Guerrero, Chihuahua, "Award to the Scientific Merit" Universidad Autónoma de Ciudad Juárez (1997), "Award to the Scientific Merit" Universidad Regional del Norte (1997). Consultant of the Minister of Health in Mexico City (1997-2000), Adviser-Consultant of the University of Mexico City (2000-a la fecha). Award for Excellence in the formation of human resource for science Award: "The Woman of the Year 2004" in the area of Health Sciencies (Master Card y Glamour). UNESCO-L'Oreal for Women in Science" 2006. Medal for Scientific Merit,2007 Congress of Mexico City (Asamblea Legislativa). Award "María Esther Orozco" to the women distinguished in science 2009,Congress of Chihuahua State.

Positions: School Teacher of elementary schools, high schools (1964-1971), Professor of CINVESTAV since 1981, Professor-Consultant of Centro de Investigación en Ciencia Aplicada y Tecnología Avanzada (1995-2001), Visitant Professor: National Cancer Institute, Amsterdam Holland (1985), Weizman Institute, Rehovot, Israel (191980,1983), Visitant Professor, Harvard School of Public Health, Boston, USA (1987-1990). Scientific Consultant of Universidad Autónoma de la Ciudad de México (2003-2005). She has supervised 24 Ph. D, 29 M. Sc. and 15 B.Sc. research projects. She published 155 articles in peer reviewed journals. She has also written such books as: "Si la mujer está" and "Así estamos hechos…¿Cómo somos? de la secuencia del DNA a la clonación". Ed. Fondo de Cultura Económico, México. 12 chapters in books, several articles of scientific divulgation, 10 scientific reports. She currently has three patents. Administration. Secretary of Planning at CINVESTAV IPN (1992-1994), Academia Coordinator of the Department of Genetics and Molecular Biology (1987), Director of the Multidisciplinary Program in Molecular Biomedicine at CICATA IPN. Coordinator of the Program of Genomic Sciences at the Universidad de la Ciudad de México. Since 2006 up to present time, she labors as the President of the Institute of Science and Technology of Mexico City.

Social Program

Monday , July 13	Tuesday , July 14	Wednesday, July 15
19:30 h.	20:00 h.	19:30 h.
Welcome & Ice Breaking reception	Light &Sound	Gala Dinner
Quinta Gameros	Cathedral of Chihuahua	Government Palace

Technical Program

Date	Event	Place
Tuesday 14 to Thursday 16 9:00 – 18:00 h	**Congress**	**El Soberano Hotel**
Tuesday 14 to Thursday 16 9:00 – 13:00 h	**Environmental Education Workshop** Children and youth (7 -18 Years)	**Colegio Palmore**
Monday 13 July 8:30 – 18:00 h	**International Seminar** Remediation of contaminated sites	**CIMAV**
Friday 17 9:00 – 13:00 h	**Technical Visit to Avalos** Smelting Site (group of 80 participants)	**Avalos**
Saturday 18 Sunday 19 9:00 – 16:00 h	**Technical Visit to Naica Mining site, (Crystals Cave)** (group of 50 participants)	**Naica Peñoles**

Special Symposia

Symposium 1:
Mercury: environment and health
Chair: Pablo Higueras (Spain), Rocio Millan (Spain)

Symposium 2:
Transport/dynamics of trace elements in the root zone
Chair: Rainer Schulin (Switzerland), Magdi Selim (USA)

Symposium 3:
Fate and transport of metals in contaminated sediments - new approaches in remediation
Chair: Danny D. Reible (USA), Domy Adriano (USA)

Symposium 4:
Bioavailability in the plant-soil system (rhizosphere)
Chair: Walter Wenzel (Austria) Markus Puschenreiter (Austria), Pavel Tlustos (Czech Republic)

Symposium 5:
Trace elements in plant nutrition
Chair: Enzo Lombi (Australia), Renato de Mello Prado (Brazil), Ronaldo Severiano Berton (Brazil)

Symposium 6:
Arsenic in the environment
Chair: Steve McGrath (U.K), Maria Armienta (Mexico), Martha Litter (Argentina), Fangjie Zhao (UK)

Symposium 7:
Advanced analytical techniques in metal & metalloid research
Chair: Jorge Gardea T. (USA), J. R. Peralta-Videa (USA), Felix Roman (Puerto Rico)

Symposium 8:
Sustainable management of metal & metalloid polluted, marginal soils
Chair: Alan Baker (Australia), Michel Mench (France), Jaco Vangronsveld (Belgium), Daniel van der Lelie (USA)

Technical Sessions

Technical Session 1:
Phytoremediation of metals/metalloids: uptake, transport and transformation

Technical Session 2:
Contamination by trace elements
- Air Pollution by metals and Metalloids
- Soil
- Water

Technical Session 3:
Advances in the use of wetlands and water treatment

Technical Session 4:
Advances in remediation technologies for trace elements contaminated sites

Technical Session 5:
Environmental Sustainability

Technical Session 6:
Arsenic and fluoride, water contamination and remediation processes

Technical Session 7:
New analytical techniques to study the fate of trace elements in the environment

Technical Session 8:
Metals Environmental Research Associations – MERA

Technical Session 9:
Biogeochemical cycles for trace element in serpentine environments

Program Timetable

Morning, Tuesday 14 July 2009

9:00-10:00	**Opening Ceremony**			
10:00-11:00	Plenary Speaker: Esther Orozco **Biological sagacity of virus, bacteria and protozoa: Threat and challenge to human intelligence: The AH1N1 virus in Mexico 2009**			
11:00-11:20	Coffee Break & Poster Session			
	Room 1	**Room 2**	**Room 3**	**Room 4**
	Symposium 1	**Symposium 5**	**Technical Session 2**	**Technical Session 1**
	Chairs: Pablo Higueras and Rocio Millán	**Chair:** Enzo Lombi	**Chairs:** Giancarlo Renella , Tatiana Zotina, Maria E. Montero	**Chairs:** Rufus Chaney, Nabanita Dasgupta, Paula Madejon, Alicia Melgoza
11:20-11:40	**Maria Greger** Water spinach forms methyl-Hg from inorganic Hg in new shoots	**Cynthia Grant** Effects of cropping sequence, phosphorus fertilization and tillage system on trace element concentration of durum wheat and soybean	**Maria Josefa Santos Yabe** Modeling competitive metal sorption in an organic soil applying Taylor-Series expansion	**Michel Mench** Phenotypic traits of metallicolous and non-metallicolous *Agrostis capillaris* exposed to Cu
11:40-12:00	**Myriam Moreno** Accumulation of Arsenic and Mercury in mojarra, catfish and carp fish species from three water reservoirs in Chihuahua State	**Henner Pascale** Internal phosphate fluxes are modulated by uranium contamination in *Arabidopsis thaliana* - a defensive mechanism in plants?	**Christina Siebe** Spatial and temporal variability of heavy metals in soils and crops irrigated with wastewater in Central Mexico	**Muhammad Ehsan** Zinc and cadmium uptake by *Lupinus uncinatus* S. grown in nutrient solution
12:00-12:20	**Kathryn Conko** Exposure potential of As and Hg to residents of Gorlovka, Ukraine	**Matthieu Bravin** Is copper uptake kinetic the rate-limiting process of copper bioavailability to durum wheat in contaminated soils?	**Giancarlo Renella** Greenhouse gas emission from Cu-contaminated soils subjected to phytoremediation	**Guadalupe de la Rosa** Phytomanagement of mine tailings in Guanajuato, México
12:20-12:40	**Rocío Millán Gomez** Study of safe crop production under controlled conditions using a soil from Almadén mercury mine area.	**Paul Williams** Characterizing selenium concentrations and partitioning in rice: Variation within China and the global perspective	**Evelina Brannvall** Spatial variability of topsoil contamination by trace elements on the territories of kindergartens in Vilnius, Lithuania	**Nabanita Dasgupta Schubert** The phytoextraction of copper by *Aldama dentata*: Plant biometrics and metal stress
12:40-13:00	**Ana Paulina Avila Forcada** Mercury pollution from mining waste disposal sites in Zacatecas	**Majeti Prasad** Acceleration of oxidative stress in Cd-treated sorghum seedlings exposed to phosphorus	**Florian Wittstock** Estimation of Ca and Zn uptake in barley using soil characteristics and differential Kd values	**Paula Madejón** Amendments to enhance phytoremediation: Single or repetitive applications in time?
13:00-14:00	Lunch			
14:00-14:20	Poster Session			

Afternoon, Tuesday 14 July 2009

	Room 1	Room 2	Room 3	Room 4
	Symposium 1	**Symposium 5**	**Technical Session 2**	**Technical Session 1**
	Chairs: Pablo Higueras and Rocio Millán	**Chair:** Enzo Lombi	**Chairs:** Giancarlo Renella , Tatiana Zotina, Maria E. Montero	**Chairs:** Rufus Chaney, Nabanita Dasgupta, Paula Madejon, Alicia Melgoza
14:20-14:40	**Pablo Higueras** Mercury presence in the atmosphere of a town devoted to gold production: El Callao (Venezuela)	**Maribel Ramírez Martínez** Influence of lanthanum on the length of stems in *Tulipa gesneriana*	**Maria E. Montero** Radionuclides present in surface water at the San Marcos Range, Chihuahua, Mexico	**Pavel Tlustos** Remediation ability of trees and hyperaccumulators for heavy metals at pot and field growing conditions
14:40-15:00	**Pablo Higueras** Gaseous mercury and its species in the surroundings of a decommissioned mercury mine	**Miroslav Puncochar** Possibilities of contaminated flax utilization for energetic purposes	**Tatiana Zotina** Compartmentalization of stable and radioactive isotopes of metals in the biomass of macrophytes of the Yenisei River	**Miriam Hernández Zamora** Capability of *asphodelus fistulosus L.* for accumulation of lead from mine tailings
15:00-15:20	**Gilberto Hernández Silva** Total mercury content in pre-hispanic skeletons, present mining workers and different land use at south of Sierra Gorda, Queretaro, Mexico	**Enzo Lombi** Arsenic and nutrients in rice grains	**Konstantin Choumiline** Authigenic uranium in the sediments in the La Paz Bay and La Paz Basin, South-western Gulf of California	**Julie Katrine Jensen** The potential of willow for remediation of heavy metal polluted calcareous urban soils
15:20-15:40	**Ángel Faz** Heavy metal pollution by mining activities in Rayo Rojo Mining District Apolobamba (Bolivia)	**Estevao Vicari Mellis** Sugar-cane response to micronurients	**Evgueni Shumilin** Lanthanides in the some organisms from two hydrothermal fields of the Northeast Pacific Ocean: Guaymas Basin (Gulf of California) and 9°50'N on the East Pacific Rise	**Asmaveth Solís Ibarra** Evaluation of *Acacia farnesiana* and *Asphodelus fistulosus* capability for their potential use in phytoremediation of Cd polluted soil
15:40-16:00	**Summary and Remarks: Pablo Higueras and Rocío Millán**	**Adalberto Benavides** Growth, minerals and heavy metals absorption in *Lilium sp.*	**Jean Philippe Bedell** Evaluation of the desorption predictability measures of Zn, Cu and Cd for rye grass in several sediments	**Rufus Chaney** Phytoextraction and phytomining of Ni using hyperaccumulator species
16:00-16:20	Coffee Break & Poster Session			

Afternoon Tuesday 14 July 2009

	Room 1	Room 2	Room 3	Room 4
	Symposium 4	**Technical Session 3**	**Technical Session 2**	**Technical Session 1**
	Chair: Walter Wenzel Pavel Tlustos and Markus Puschenreiter	**Chairs:** Alan Baker, and Ma. Eugenia García	**Chairs:** Giancarlo Renella , Tatiana Zotina, Maria E. Montero	**Chairs:** Rufus Chaney, Nabanita Dasgupta, Paula Madejon, Alicia Melgoza
16:20-16:40	**Matthieu Bravin** Root-mediated alteration of copper lability in wheat rhizosphere	**Vianey Ruiz Lopez** Removal of Cd and Zn in biological systems that simulate a constructed wetland	**Tepwitoon Thongsri** Heavy Metal Contamination of the Bang Pakong River, Thailand	**Akira Takeda** Aging effect on caesium phytoavailability in an Allophanic Andisol
16:40-17:00	**Solvita Ore** Assessment and modeling of copper toxicity in soil-less culture using a bioluminescent *nitrosomonas europaea* strain	**Maria Eugenia García** A comparative study of phytofiltration and bioremediation for metal removal from water in a mining area of Poopó Lake basin, Bolivia	**Mauricio Antonio Ramos Osuna** Cadmium levels in the edible portion of skipjack tuna Katsuwonus pelamis from the eastern Pacific Ocean: preliminary results	**Majeti Prasad** Phyto-products from *prosopis juliflora* (Velvet mesquite) applied in phytoremediation
17:00-17:20	**Eduardo Moreno Jiménez** Impact of root mineralization on As availability in soils	**Ma. Catalina Alfaro De La Torre** Evaluation of a constructed wetland of subsurface flow to remove toxic elements from solution	**Jennifer de Livera** Cadmium solubility in paddy soils: effects of variable redox conditions and competitive ions	**Rainer Rees** Boron interactions with poplars in deficient and contaminated soils
17:20-17:40	**Fien Degryse** Reported Michaelis Constants (KM) for Cd and Zn uptake by plants reflect diffusion limitations around roots, not the affinity of metal transporters	**Laura Marang** Determination of probabilistic Kd values for freshwater combining speciation code and Bayesian statistics	**Summary and Remarks: Giancarlo Renella, Tatiana Zotina and Maria E. Montero**	**Summary and Remarks: Rufus Chaney, Paula Madejon, Nabanita Dasgupta, and Alicia Melgoza**
17:40-18:00	**Monica Marchetti** Plant trace element uptake as affected by microorganisms: screening for the best players	**Summary and Remarks: Maria Eugenia García and Alan Baker**		

Morning, Wednesday 15 July 2009

	Room 1	Room 2		Room 4
	Technical Session 6	**Technical Session 9**		**Technical Session 5**
	Chairs: Margarita Gutierrez, Josefina Rodriguez, Lena Q. Ma	**Chairs:** Carlos Green , Robert Garrett		**Chairs:** Michel Mench and Giancarlo Renella
9:00-9:20	**Barry Rosen** Biogeochemical cycling of arsenic by a Yellowstone thermoacidophilic eukaryotic alga	**Carlos Green Ruiz** Cu and Pb geosorption by Ca-montmorillonite from aqueous solutions: Effect of salinity		**Amir Fotovat** Assessment of Ni and Zn contamination in polluted soil by kriging method in North East of Iran (Mashhad)
9:20-9:40	**Lucy Mar Camacho** Arsenic and fluoride removal from drinking water by adsorption on natural zeolite	**Robert Garrett** Macro-relationships between regional-scale field pea (*Pisum sativum*) chemistry and soil-type and eco-classification in western Canada		**Giancarlo Renella** Microbial community composition in trace element contaminated soils subjected to phytostabilization
9:40-10:00	**Hiram Castillo** Study of localization and chemical forms of arsenic in three species of the *Parkinsonia* plant genus using X-ray spectromicroscopy	**Moritz Bigalke** Isotopic fractionation of copper during soil genesis		**Gary Pierzynski** Influence of compost on microbial function and community structure when applied to heavy metal mine wastes

10:00-11:00	Keynote Speaker: Erik Smolders **Importance of Regulations, Critical Loads of Metals and Other Trace Elements to Terrestrial Environments**
11:00-11:20	Coffee Break & Poster Session

Morning, Wednesday 15 July 2009

	Room 1	Room 2	Room 3	Room 4
	Symposium 4	**Technical Session 3**	**Technical Session 6**	**Technical Session 5**
	Chairs: Walter Wenzel Pavel Tlustos and Markus Puschenreiter	**Chairs:** Lydia Hernández, Alejandra Martin D.	**Chairs:** Margarita Gutierrez and Ruth Alfaro	**Chair:** Michel Mench and Giancarlo Renella
11:20-11:40	**Helle Marcussen** Speciation analysis of phytosiderophores released from the roots of barley genotypes	**Teresa Moorillon** Biological treatment to reduce heavy metal content in wastewater by a packed column reactor	**Ruth Alfaro** Arsenic and fluoride in thermal springs at the Eastern zone of Cuitzeo basin (Araró), Michoacán, México	**Tiina Maileena Nieminen** Household biocompost and native woody plants in remediation of Cu-Ni polluted forest soil
11:40-12:00	**Olga Popovic** Bioavailability of trace metals in contaminated soils of western Balkan	**Lydia Hernández Rivera** Electrocoagulation with possible magnetic removal of water pollutants	**Cristo Omar Puente Valenzuela** Behavior of alfalfa (*Medicago Sativa*) cultivated in an organic soil with three different doses of arsenic	**Rafael Clemente** Evaluation of a composted and uncomposted solid olive mill waste and their water soluble extracts for remediation of a heavy metal polluted soil
12:00-12:20	**Jakob Santner** Ectomycorrhization decreases the ratio of Cd/Zn translocation from roots to leaves of *Populus tremula* plants	**Amir Fotovat** Sand–soil–organic matter filter column for removal of heavy metals from industrial waste water	**Deogracias Ortiz Pérez** Determination of total arsenic and fluoride in drinking water in San Luis Potosí State, México	**Paramsothy Jeyakumar** Comparative tolerance of poplar and microorganisms to copper and zinc toxicity in a biosolids-amended soil
12:20-12:40	**Markus Puschenreiter** Repeated extraction of Cd from contaminated soils – implications for phytoremediation	**Ismael Acosta** Removal of chromium (VI) in solution for shell of shrimp	**Lourdes Ballinas Casarrubias** Arsenic removal by ultrafiltration composite membrane	**Engracia Madejón** Arbuscular mycorrhizal fungi (AMF) and biosolids to enhance the growth of Australian native grasses on sulphidic mine tailings
12:40-13:00	**Summary and Remarks: Walter Wenzel Pavel Tlustos and Markus Puschenreiter**	**Onofre Monge Amaya** Copper biosorption in an aerobic bioreactor packed with zeolite	**Lourdes Villalba** Arsenic found in water supplied to rural communities of the Rosales county, Chihuahua	**Wolfgang Friesl Hanl** Application of soil amendments on seven smelting and mining affected european soils for immobilization of heavy metals
13:00-14:00	Lunch			
14:00-14:20	Poster Session			

Afternoon, Wednesday 15 July 2009

	Room 1	Room 2	Room 3	Room 4
	Symposium 3	**Symposium 7**	**Technical Session 6**	**Technical Session 5**
	Chairs: Danny D. Reible, Domy Adriano	**Chairs:** Jorge Gardea T. and J.R. Peralta Videa, Felix San Román	**Chair:** Margarita Gutierrez, and Gijs Du Laing	**Chair:** Michel Mench and Giancarlo Renella
14:20-14:40	**Danny D. Reible** Current practices for the assessment and remediation of contaminated sediments	**Víctor Cerdá** Trace determination by means of a combined use of flow techniques with chromatographies	**Jie Qin** Arsenic methylation by *cyanidoschyzon merolae* from Yellowstone Park	**Luis Roberto Gutierrez Espinoza** Sunflower (*Helianthus annuus L.*) germination response to metal concentrations
14:40-15:00	**Kirk Scheckel** Synchrotron analysis of metal immobilization in sediments	**Ganga M. Hettiarachchi** Subsurface transformations of trace elements in reduced multi metal-rich geo-materials using noninvasive x-ray spectroscopy techniques	**Magda Mateo** As(III) oxidation and scorodite precipitation in bioleaching solutions at 30°C and 70°C	**Jelle Mertens** Copper tolerance does not affect the sensitivity of nitrifying communities to additional stressors
15:00-15:20	**Caroline Vansimaeys** Ripening of contaminated sediments: effect on organic matter-bound and iron oxides-bound metals	**J. Viridiana García Meza** Evaluation of the biooxidation of reduced sulfur forms generated at the pyrite (FeS_2)-*Acidithiobacillus thiooxidans* interface	**María Aurora Armienta** Influence of mining wastes on the enrichment on arsenic and heavy metals in a Mexican river	**Cecilia Valles Aragón** Chemical stabilization of polluted soils with heavy metals
15:20-15:40	**Y. Meriah Arias Thode** Bacterial and benthic community response to apatite, acetate, and chitin amendments in marine sediment	**Luz Leal Quezada** Analytical methodologies for arsenic determination exploiting flow injection-based approaches	**Josefina Rodriguez Rosales** Overexploitation effects of Valle of Guadiana's aquifer	**Nazanin Roohani** Zinc nutrition in Iranian population
15:40-16:00	**Yongseok Hong** Experimental and mathematical investigations of metals release upon sediment resuspension	**Magda Mateo** Selective determination of As^{+3} in bioleaching solutions by differential pulse polarography	**Gijs Du Laing** Presence and mobility of arsenic in a wide region around a gold mine near the city of Oruro on the Bolivian altiplano	**Summary and Remarks: Michel Mench and Giancarlo Renella**
16:00-16:20	Coffee Break & Poster Session			

Afternoon, Wednesday 15 July 2009

	Room 1	Room 2	Room 3	Room 4
	Symposium 3	**Symposium 7**	**Technical Session 6**	**Technical Session 8**
	Chair: Danny D. Reible, Domy Adriano	**Chairs:** Jorge Gardea T. J.R. Peralta Videa and Felix San Roman	**Chair:** Margarita Gutierrez and Lena Q. Ma	**Chair:** Eric Van Genderen
16:20-16:40	**Joerg Rinklebe** Exploiting a new technique to study pollution control processes in flooded soils and sediments – a better understanding towards an adequate remediation	**Azam Ghorbani** Measurement uncertainty of Se and Cd determination in blood sample by graphite furnace atomic absorption spectroscopy	**Margarita Eugenia Gutiérrez Ruiz** Geochemical behavior of arsenic and heavy metals in semiarid contaminated soils	**Steve McGrath** Utilizing ecotoxicology data from the UK long-term sludge trials for environmental protection
16:40-17:00	**Danny D. Reible** Potential toxicity of amendments used for treating contaminated sediments	**Víctor Cerdá** Automatic MSFIA method for water monitoring in an energy co-generation system from a MW incinerator	**J. Viridiana García Meza** Acidophilic microorganisms from a mine-heap: could they live and operate under high As concentration?	**Adam Ryan** Evaluation and refinement of the freshwater biotic ligand model for lead
17:00-17:20	**Anna Sophia Knox** Active caps for the remediation of mixtures of contaminants and resistance to erosion	**Corina Solís Rosales** Analysis of trace metals in environmental samples by PIXE. Applications to the Mezquital Valley, Mexico	**Gabriela Sánchez Viveros** Toxicity and accumulation of arsenic in the *Azolla-Anabaena* symbiosis	**Amanda Black** Changes in soil solution speciation and wheat uptake of Ni in a sandy soil treated with biosolids and metal salts
17:20-17:40	**Summary and Remarks: Danny D. Reible and Domy Adriano**	**Katie L. Moore** NanoSIMS analysis of trace elements in cereal grain	**Summary and Remarks: Margarita Gutierrez, Lena Q. Ma, Gijs Du Laing, Josefina Rodriguez, Lucy Mar Camacho, Maria Aurora Armienta, Luly Ballinas, Jie Qin, J. Viridiana, Ruth Alfaro, Cristo Omar, Lourdes Villalba**	**Stefan Ruyters** Substrate addition enhances the adaptation rate of nitrifying and denitrifying communities in zinc contaminated soils
17:40-18:00		**Summary and Remarks: Felix Roman and J. R. Peralta, Jorge Gardea**		**Summary and Remarks: Eric Van Genderen**

Morning, Thursday 16 July 2009

	Room 1	Room 2	Room 3	Room 4
	Symposium 6	**Symposium 2**	**Technical Session 2**	**Technical Session 9**
	Chair: Steve McGrath Maria Armienta, Martha Litter, Fangjie Zhao	**Chairs:** Rainer Schulin and Magdi Selim	**Chair:** Alex Itzkandar and Eduardo Herrera	**Chairs:** Carlos Green , Robert Garrett
9:00-9:20	**Doris Vetterlein** Arsenite efflux by plant roots comparison of hypropinc and soil grow plants	**Liesbeth Van Laer** The soil Fe/C ratio explains the mobilization of Zn upon waterlogging	**Eduardo Herrera** Isotopic content of particulate matter in two campaigns in Chihuahua Valley	**Guillaume Echevarria** Assessment of chromate availability by isotopic exchange kinetics in tropical ultramafic Ferralsols
9:20-9:40	**Marta Litter** Low-cost technologies based on heterogeneous photocatalysis and zerovalent iron for arsenic removal in the Chacopampean Plain, Argentina	**Suzanne Beauchemin** Mobilization and attenuation of antimony at an inactive gold mine	**Massimo Pizzol** Impact pathway approach on lead (Pb) emissions from a municipal waste combustion plant	**Guillaume Echevarria** Control of nickel availability by pedogenesis and transfer to hyperaccumulators in an ultramafic toposequence (Albania)
9:40-10:00	**Mario Alberto Olmos Márquez** Use of *eleocharis macrostachya* in constructed wetlands for arsenic removal	**Veronika Gyuricza** Do arbuscular mycorrhizal fungi transport radiocesium between plants?	**Alfredo Campos Trujillo** Source category identification of trace elements in PM10 from Chihuahua City (Northern Mexico)	**Guillaume Echevarria** Uptake and hyperaccumulation of Ni by ultramafic flora as a function of soil type and Ni availability (Barro Alto, GO, Brazil)

10:00-11:00	Keynote Speaker: FangJie Zhao **Arsenic in Food and Water: a Global Problem**

11:00-11:20	Coffee Break & Poster Session

Morning, Thursday 16 July 2009

	Room 1	Room 2	Room 3	Room 4
	Symposium 6	**Symposium 2**	**Technical Session 4**	**Technical Session 7**
	Chair: Steve McGrath Maria Armienta, Martha Litter, Fangjie Zhao	**Chairs:** Rainer Schulin and Magdi Selim	**Chairs:** Gary Pierzynski, D. Chidambaram, Peter Engelund Holm	**Chair:** Victor Cerdá, André Rosa, Jose Peralta Videa
11:20-11:40	**Lena Q. Ma.** Field-scale phytoremediation of arsenic-contaminated groundwater using Chinese brake fern (Pteris vittata)	**Jean Martins** Role of bacteria transport in the accelerated transfer of heavy metals in natural and urban soils	**Gary Pierzynski** Influence of P on the speciation of Pb and Zn in a Pb/Zn smelter-contaminated soil	**André Rosa** Development of a new analytical approach based in ultrafiltration system for in situ characterization of the interaction between metallic species and organic matter in aquatic systems
11:40-12:00	**Jurate Kumpiene** X-Ray spectroscopic analyses of As contaminated mining spoils 10 years after chemical stabilization	**Lixia Liao** Competitive sorption of nickel and cadmium in soils	**Grega E. Voglar** Stabilization / Solidification of metal contaminated soil with cement	**Jan Groenenberg** Are we able to predict trace metal binding to DOM? Validation and uncertainty analysis of the NICA-Donnan model
12:00-12:20	**Shaw-Wei Su** Food safety of root and vegetable crops harvested from high As-contaminated soils in Guandu Plain, Taipei, Taiwan	**Majid Afyuni** Effect of temporal variability in soil hydraulic properties on solute transport modeling	**Cristina Souza Freire Nordi** Algal extracellular polysaccharides immobilized in nanostructured thin films used for heavy metal removal from aqueous solutions	**Douglas Beak** Cobalt distribution and speciation in soils exposed to altered redox conditions through submergence
12:20-12:40	**Paul Williams** Arsenic uptake by and speciation in macrophytes	**Summary and Remarks: Rainer Schulin and Magdi Selim**	**Felix Roman Velazquez** New nanocomposites to remove heavy metals in aqueous solutions	**Arturo Aguirre Gomez** A voltammetric method for determining free metal activities and the diffusion/kinetic effects on the lability of Cd, Cu, Pb and Zn complexes in aqueous solutions
12:40-13:00	**Abdul Khaliq** Arsenic dispersion in arid high mountains of Hindu Kush Ranges, Northern Pakistan		**Dev Chidambaram** Palladium (0) nanoparticle formation by *clostridium sp.* BC1 provides an effective biocatalyst for hexavalent chromium remediation	**Jessica Adelman** Change in oxidation rate of stibnite as affected by the addition of varying amounts of pyrite in a flow-through system

13:00-14:00	Lunch
14:00-14:20	Poster Session

Afternoon, Thursday 16 July 2009

	Room 1	Room 2	Room 3	Room 4
	Symposium 6	**Symposium 8**	**Technical Session 4**	**Technical Session 7**
	Chair: Steve McGrath Maria Armienta, Martha Litter, Fangjie Zhao	**Chair:** Alan Baker, Jaco Vangronsveld, Edmundo Castellanos	**Chairs:** Gary Pierzynski, D. Chidambaram, Peter Engelund Holm	**Chair:** Victor Cerdá, André Rosa, Jose Peralta Videa
14:20-14:40	**Elke Suess** XAS-based characterization of thioarsenates and their transformation to thioarsenites in acidic synthetic solutions	**Nicholas W. Lepp** Woodland development on contaminated soils in N.W. England –benefits and risks	**Irena Twardowska** Potential for sustainable use of biowaste in non-point applications	**Fernando Maya Alejandro** Implementation of in-line pre- and post-column sample treatments in Multi-Syringe Chromatography and their applicability to the determination of trace pollutants in environmental samples
14:40-15:00	**Mauricio Ormachea Muñoz** Arsenic in shallow wells around Poopó Lake in the Bolivian Altiplano	**Theo Thewys** Is the introduction of phytoremediation crops economically viable?	**Peter Engelund Holm** Comparison of EDTA, NTA and soluble humic substances as washing agents for Cd and Cu polluted soil	**Wolfgang Wilcke** Stable isotope ratios of Cu and Zn to distinguish anthropogenic from native Cu and Zn in soil
15:00-15:20	**Summary and Remarks: Steve McGrath Maria Armienta, Martha Litter, Fangjie Zhao**	**Alan Baker** Phytostabilization of saline and arsenic contaminated gold mine tailings using native grass species redgrass (*Bothriochloa macra* (Steudel) S.T.Blake) Lazarides in the Victorian Goldfields, Australia	**Masafumi Yoshinaga** Biotransformation of methylarsenicals at a Florida golf course: Role of soil bacteria and abiotic factors	**Antonio Serra** MSFIA system for selenium determination using a C18 membrane disk
15:20-15:40		**Nadia Waegeneers** Intake of lead through the consumption of home-produced eggs	**Amir Fotovat** Effect of copper and organic matter on copper distribution in two calcareous soils	**Jean Martins** Heavy metal sorption onto Gram-negative bacteria: a combined approach of solution chemistry, MET-EDX and EXAFS
15:40-16:00		**Engracia Madejón** Restoration strategies in the guadiamar area of South Spain: Evaluation of success after ten years after the aznalcollar accident	**Miquel Vidal** Use of Non-hazardous waste materials and clays for the in-situ remediation of a heavy-metal contaminated soil	**Roberto Ramirez Leal** Morphological, size and chemical characterization of inorganic particles atmospheric by scanning electron microscopy with EDS

16:00-16:20	Coffee Break & Cultural Event			

	Room 1	Room 2	Room 3	Room 4
		Symposium 8	**Technical Session 4**	**Technical Session 7**
		Chair: Alan Baker, Jaco Vangronsveld, Edmundo Castellanos	**Chairs:** Gary Pierzynski, D. Chidambaram, Peter Engelund Holm	**Chair:** Victor Cerdá, André Rosa, Jose Peralta Videa
16:20-16:40	**Presentations of Winners of the Environmental Education Contest**	**Jaco Vangronsveld** Metal accumulation in plants with added economical value grown on metal contaminated soils: sustainable use of these soils for bio-energy production and possibilities for phytoextraction	**Metka Udovic** The impact of earthworms (Lumbricus terrestris) on the fractionation and bioavailability of Cu in soil remediated by EDTA leaching	**José Ángel Hernandez-Viezcas** Application of Laser Ablation Inductively Coupled Plasma Mass Spectroscopy for Lead, Copper, and Nickel Quantification in Mesquite (Prosopis) Tissues
16:40-17:00		**Michel Mench** Phytoremediation of Cu-contaminated soils at a timber impregnation site	**Ines Ahumada** Heavy metals extractability in mollisol and inceptisol soils of central Chile amended with Biosolids	**Summary and Remarks: Victor Cerdá, André Rosa, Jose Peralta Videa**
17:00-17:20		**Summary and Remarks: Alan Baker, Jaco Vangronsveld and Edmundo Castellanos**	**Summary and Remarks: Gary Pierzynski, Peter Engelund and D. Chirambaram**	
17:20-18:00	Keynote Speaker: Tara Sabo Attwood **The toxic effects and environmental impacts of nanoparticles**			
18:00 - 19:00	**Closing Ceremony**			

Poster Sessions

All posters will be displayed for one day. All posters are to be placed on the boards in the poster viewing area on the entrance of the Diamante Room in the Soberano Hotel. Posters have been allocated a poster number as listed in the Poster Index. Poster authors must be present in order to attend their poster and answer questions at the nominated times.

Date	Hour	Session of Poster Presentation	Code of Poster
Tuesday 14 July 2009	11:00 - 17:00	Symposium 1	S-1, P: 1-7
		Symposium 5	S-5, P: 1-21
		Technical Session 1	TS-1, P: 1-8
		Technical Session 2	TS-2, P: 1-24
Wednesday 15 July 2009	11:00 - 17:00	Symposium 3	S-3, P: 1-3
		Symposium 4	S-4, P: 1-10
		Symposium 7	S-7, P: 1-4
		Technical Session 3	TS-3, P: 1-3
		Technical Session 5	TS-5, P: 1-18
		Technical Session 6	TS-6, P: 1-16
Thursday 16 July 2009	11:00 - 17:00	Symposium 2	S-2, P: 1-4
		Symposium 8	S-8, P: 1-13
		Technical Session 2	TS-2, P: 1-2
		Technical Session 4	TS-4, P: 1-8
		Technical Session 7	TS-7, P: 1-7
Example: S-1, P: 1-7 = Symposium 1, Number of Poster from 1 to 7			

Poster Index

Tuesday 14 July 2009

Symposium 1: Mercury: environment and health

Poster Titles	Poster Number
Preliminary study of a Mediterranean oak forest in the vicinity of the Almadén mercury mine M. Villadóniga, T. Schmid, R. Gamarra, R. Millán	S-1, P-1
Study of safe crop production under controlled conditions using a soil from Almadén mercury mine area M.J. Sierra, E. Esteban, R. Millán	S-1, P-2
Distribution of mercury and other heavy metals in the Almadenejos decommissioned mercury metallurgical precinct A. Martínez-Coronado, W. Llanos, R. Oyarzun, P. Higueras, J.M. Esbrí, E.M. García-Noguero	S-1, P-3
Evaluation of lichens as bioindicators in the Almadén mercury mining district P. Higueras, A. Crespo, J.M. Esbrí, M.A. López-Berdonces	S-1, P-4
Differences in accumulation and physiological response to mercury in white lupin, chickpea and spring wheat plants P. Zornoza, R. Millán, C. Rodríguez, P. Blanco, B. Sánchez-Pardo, E. Esteban	S-1, P-5
Mercury bioconcentration potential of Bay Bolete *Xerocomus badius* J.Falandysz, A.Wacko, A.Zakrzewska, L.Bielawski, M.Rompa, A. Sąpór	S-1, P-6
Mercury concentrations in urine and blood and health problems related to occupational exposure in small-scale gold washing and extraction Sardar Khan, Abdul Khaliq, Muhammad T. Shah, Shafiqur Rehman	S-1, P-7

Symposium 5: Trace elements in plant nutrition

Poster Titles	Poster Number
Dynamic of nickel accumulation and chemical compounds in coffee plants during fruits development due to nitrogen fertilizer. A.R. Reis, J.L. Favarin, E. Furlani Jr.	S-5, P-1
Behaviour of Zinc and Copper in a Soil amended With Organic Wastes in Corn Plant A.Z. Abtahi, M. J. Afun, A.Z. Nasr-e-Azadani	S-5, P-2
Applicability of top plant and root tissues to Cu and Ni phytotoxicity assessment: a case study of white mustard (*Sinapis alba*) Ewa Stanislawska-Glubiak, Jolanta Korzeniowska, Janusz Igras	S-5, P-3
Zinc and Boron Fertilization on the concentration and total uptake of zinc, manganese and iron in corn grain Farshid Aref	S-5, P-4
Zinc in an Oxisol treated with sewage sludge in a long-term field experiment F. G. Macedo, L. C. Souza, W. J. Melo, G. M. P. Melo, A. C. T. P. Guedes, L. S. Torres, M. H. Ribeiro, V.P.Melo	S-5, P-5

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Tuesday 14 July 2009

Symposium 5: Trace elements in plant nutrition

Poster Titles	Poster Number
Availability of cadmium and zinc as affected by the use of reactive phosphate rock, lime, and chicken manure on an Indonesian acid upland soil S. Rochayati, G. Du Laing, M. Verloo	S-5, P-6
Effect of Potassium Sources and Cobalt on Growth, Yield, Macronutrients, Trace Elements and Quality of Sugar-beet Nadia Gad, Hala Kandil	S-5, P-7
Biochemical and Nutritional Changes in Rhizosphere of Maize – Mycorrhizal System K.S. Subramanian, V. Tenshia, C. Bharathy, M. Gomathy, K. Jayalashmi	S-5, P-8
Manganese status in vine leaf on calcareous soils after Mn foliar fertilization M. Herak Ćustić, D. Gluhić, M. Petek, L. Čoga, S Slunjski, B. Lacković	S-5, P-9
Ratios Between Leaf Mn Concentration and Mn Concentration in Must and Pomace of GrapeVine (*Vitis vinifera* L.) L. Čoga, S. Slunjski, M. Herak Ćustić, M. Petek, A. Biško, M. Šuste	S-5, P-10
Red Beet Iron and Manganese Content at Harvest and after Storage as Influenced by Different Fertilization M. Petek, M. Herak Ćustić, S. Slunjski, L. Čoga, N. Toth, T. Karažija, L. Leko	S-5, P-11
Root-induced alkalization of an acidic, copper-contaminated soil controls copper depletion in wheat rhizosphere M.N. Bravin, P. Hinsinger	S-5, P-12
Effect of Humic Acid Chelated Zinc Application on Ashwagandha growth, yield and Zn nutrition in Coastal Sandy Soil R. Singaravel, G. Vembu, S. Kamaraj, V.Prasath	S-5, P-13
Effects of manganese (Mn2+) on efficiency of PSII in Highbush blueberry cultivars R. Millaleo, M. Reyes-Díaz, M. Alberdi, M.L. Mora	S-5, P-14
Effect of phosphorous and soil zinc application on biochemical indices and some growth parameters of pistachio R. Shahriaripour, A.Tajabadipour	S-5, P-15
Effects of boron fertilization of winter cereals depending on application methods S.Wrobel	S-5, P-16
Effects of Organic Fertilization on Iron Content in Grapevine Leaf T. Karažija, T. Ćosić, M. Petek, S. Slunjski, I. Pavlović, T. Horvat, B. Lazarević	S-5, P-17
Characterization of sludge generated in water treatment plants: prospects for agricultural application W.G. Botero, L.C. Oliveira, A. Santos, J.C. Rocha, A.G.R. Mendonça	S-5, P-18
Comparative cDNA-AFLP analysis of cadmium hyperaccumulating and non-hyperaccumulating ecotypes of *Sedum alfredii* Hance Xiao-e Yang, Min Zhang, Yue-en Chao, Ying Feng	S-5, P-19
Can phosphorus fertilizer and arbuscular mycorrhizal fungi affect cadmium concentration in crops? Xiaopeng Gao, Fardausi Akhter, Mario Tenuta, Don Flaten, Cynthia Grant	S-5, P-20
The Fluctuation of Micronutrients Content in Oilseed Rape Plants (Brassica napus L.) after the Application of Sulphur Fertilisers J. Balík, D. Pavlíková, M. Kulhánek, J. Černý, P. Tlustoš, V. Nedvěd	S-5, P-21

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Tuesday 14 July 2009

Technical Session 1: Phytoremediation of metals/metalloids: uptake, transport and transformation

Poster Titles	Poster Number
Absorption of heavy metals and boron bymycorrhized jackbean (*Canavalia ensiformis*) in contaminated soil treated with EDTA Ana Lúcia de Lima; Adriana Parada Dias da Silveira	TS-1, P-1
Germination of two different Grasses *Buchloe dactyloides* and *Cynodon dactylon* in contaminated soil with metals y metalloids Mª del Rosario Delgado-Caballero, Mª Teresa Alarcón-Herrera	TS-1, P-2
Phytoextraction of Caesium -137 from contaminated soil –Caesium-137 Bioaccumulation in the shoots of four plant species S.Meena , P.Senthilvalavan , A.Vadivel	TS-1, P-3
The Role of Low Molecular Weight Organic Acids of Rhizosphere on the Remediation of Cadmium Contaminated Soil by Millet (*Setaria italica L. Beauv.*) P.N. Chiang, C.Y. Chiu, M.K. Wang, B.T. Chen	TS-1, P-4
The potential of Baccharis linearis (R. et P.) Pers. for phytostabilization of mine tailings storage facilities (TSF) under semiarid Mediterranean climate type conditions Rosanna Ginocchio, Elena Bustamante, Yasna Silva, Luz María de la Fuente, Jaime Cuevas, Ismael Jiménez, Pedro León-Lobos	TS-1, P-5
Effects of phytoextraction on the bioavailability of heavy metals and the chemical properties of biosolids T. T. Huynh, W. S. Laidlaw, B. Singh, H. Zhang, A. J. M. Baker.	TS-1, P-6
Phytoremediation assisted by microorganisms. Characterization of fluorescent pseudomonads strains from samples of soil and roots Guillermo Carrillo Castañeda, Guillermo D. Tijerina Castro	TS-1, P-7
Exposure of the semiarid grass Bouteloua gracilis to cadmium, evaluation of its remediation potential in polluted soils R. Y Perez Rodriguez, A. Martinez Salazar, J. T. Aredondo Moreno, E. Huber-Sannwald	TS-1, P-8

Technical Session 2: Contamination by trace elements Air Pollution by metals and Metalloids, Soil and Water

Poster Titles	Poster Number
Pet-coke fly ash: A potential reactive material in PRBs A. González, N.Moreno, R.Navia.	TS-2, P-1
Spatial Variability of Cadmium Concentration in Wheat Farm Soils of Khuzestan Province, Iran A.R. Jafarnejadi, M. Homaee, G. Sayyad, M. Bybordi.	TS-2, P-2
Ecotoxicity tests in the environmental analysis of mine sediments and their leachates: Case study in Portman Bay (SE, Spain) C. Pérez-Sirvent, M.J. Martínez-Sánchez, M.L. García-Lorenzo, J. Molina, M.L. Tudela, M. Hernández-Córdoba.	TS-2, P3
The toxicity of sediment samples from mining sites evaluated by the direct contact tests Phytotoxkit® and Ostracodtoxkit® M.J. Martínez-Sánchez, C. Pérez-Sirvent, M.L. García-Lorenzo, J. Molina, M.L. Tudela, M. Hernández-Córdoba.	TS-2, P-4

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Tuesday 14 July 2009

Technical Session 2: Contamination by trace elements Air Pollution by metals and Metalloids, Soil and Water

Poster Titles	Poster Number
Cadmium and Lead contents in Some Commercial Fertilizers in Brazil E.M.Andre, L.S. de Medeiros, W. Vieira.	TS-2, P-5
Preliminary study on heavy metals' effect on the development of maize plants (Zea mays L), grown in soils polluted by mining activities in Taxco, Mexico. Esther Aurora Ruiz Huerta, Ma. Aurora Armienta Hernández.	TS-2, P-6
The effect of zinc and boron on residual available zinc in the soil after corn harvest André H.Rosa, Adriana P. de Oliveira), Leonardo Fernandes Fraceto	TS-2, P-7
Geospatial Evaluation of Trace Elements Pollutants Derived from Asarco smelting plant in Cd. Juarez, Chihuahua, Mexico. Fermin Esteban Porras Hernandez, Maria Teresa Alarcón Herrera, Alfredo Granados Olivas	TS-2, P-8
Mercury in Soil and in Alfalfa as Affected by Metal Contamination and Sewage Sludge G.M.P. Melo, W.J. Melo, L.M.A. Bertipaglia, V.P. Melo, V.S. Ribeirinho, V.E. Soares.	TS-2, P-9
Trace Elements Deposition in Radish Plants Grown in Salt-Affected and Cd-Contaminated Organic Soil G. Ondrasek, D. Romic, Z. Rengel.	TS-2, P-10
Cadmium sorption in Agricultural Soils in the Araucania Region of Chile J. Mejías, J. Peralta, S. González, F. Tapia, H. Pauchard, J. Roa, C. Borquez, V. Peña.	TS-2, P-11
The use of energy crops for lands contaminated with heavy metals Jolanta Korzeniowska, Ewa Stanislawska-Glubiak, Janusz Igras	TS-2, P-12
Lead Accumulation in Eucalyptus Plants Cropped in Soil Contaminated with Lead L.M.A. Bertipaglia, W.J. Melo, G.M.P. Melo, V.P. Melo, L. Nalon, V.E. Soares	TS-2, P-13
As accumulation in wild plants growing over mine tailings Luis G. Torres, Geovanni Rodriguez, José E. Santos, Alejandrina Castro, Diana Santa, José Huezo.	TS-2, P-14
Zinc Status in Paddy Soils and Rice in Central and Southwest Iran for Human Health M. Pirzadeh, M. Afyuni, A. H. Khoshgoftarmanesh, R. Schulin	TS-2, P-15
An integrated colloidal migration approach of arsenic and antimony in a old mine tailing E.Joussein, M. Soubrand-Colin, H. Clément, N. Wanat.	TS-2, P-16
Identifying potential contaminant sources using sediment geochemical data sets Melida Gutierrez, Enriquen Carreon, Hector Rubio Arias, M. Teresa Alarcón Herrera.	TS-2, P-17
Heavy Metal Contaminated Stream Sediments in Bistritei mts. (Eastern Carpathians-Romania) Titus Murariu.	TS-2, P-18
Sr and Se in soil of East Siberia and manifestation of Uron disease V.V.Ermakov	TS-2, P-19

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Technical Session 2: Contamination by trace elements Air Pollution by metals and Metalloids, Soil and Water

Poster Index

Wednesday 15 July 2009

Symposium 3: Fate and transport of metals in contaminated sediments - new approaches in remediation

Poster Titles	Poster Number
The 226Ra/228Ra activity ratio as a indicative value for evaluation of river bottom sediment contamination due to uranium mining (Czech Republic) E.Hanslík,D. Ivanovová.	S-3, P-1
Stochastic Modeling for Transport and Fate of Metals in Subtropical River Sediments M. J. Santos Yabe, M. Z. Corazza, S. N. Gimenez, T. Abrão	S-3, P-2
Influence of Organic wastes on the Mobility of Heavy Metals in a Saudi Arabian Sandy M.I. Al - Wabel,S.E El- Maghraby	S-3, P-3

Symposium 4: Bioavailability in the plant-soil system (rhizosphere)

Poster Titles	Poster Number
Root Exudates Based Assessment of Plant-available Metals in Soils Bon-jun Koo, Andrew C. Chang, Albert L. Page, Thomas C. Granato, Robert E. Dowdy	S-4, P-1
Zinc, Manganese, and Copper Availability in Irrigated Saline Soils of Uzbekistan D. Egamberdieva, L. Gafurova, S. Abdullaev	S-4, P-2
Screening wheat genotypes for zinc and iron efficiency using stress tolerance index (STI) under field condition Sadrarhami, A., A.H. Khoshgoftarmanesh, R. Schulin	S-4, P-3
Growth Response of Maize (*ZEA MAYS L.*) in pyrene-cadmium Co-contaminated soil and the Fate of Pollutants Hui Zhang , Zhi Dang , Liu Chun Zheng , Xiao Yun Yi .	S-4, P-4
Influence of soil organic status on the dynamics and impact of copper on microbial communities in a vineyard soil Aline Navel, Jean M.F. Martins, David P.H. Lejon, Isabelle Lamy, Lionel Ranjard, Jean Lévêque, Lorenzo Spadini	S-4, P-5
Development and evaluation of micro push-pull tests to investigate rhizosphere processes K. Knecht, B. Nowack, M.H. Schroth, R. Schulin	S-4, P-6
Impacts of barley root exudates and rhizosphere soil conditions on copper bioavailability as determined by whole-cell bacterial biosensors complemented by chemical analysis Kristian K. Brandt, Ole Nybroe, Soren Husted, Thomas H. Hansen, Peter E. Holm	S-4, P-7
Plant trace element uptake as affected by microorganisms: screening for the best players M. Marchetti ,BH. Robinson ,MWH. Evangelou , A.Vachey , JP. Schwitzguebel , R. Bernier-Latmani, R. Schulin	S-4, P-8
Comparation between bioavailable metal micronutrient contents in rhizosphere and bulk forest soils P. Marcet Miramontes , S. González Pimentel	S-4, P-9
Cd transition by rice plant grown at the contaminated paddy fields near closed mines Won-Il Kim, Hong-Shik Nam, Jin-Kyoung Kim, Sang-Won Park, Goo-Bok Jung, Ki-Sang Lee, Oh-Kyung Kwon, Jae E. Yang	S-4, P-10

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Wednesday 15 July 2009

Symposium 7: Advanced analytical techniques in metal & metalloid research

Poster Titles	Poster Number
Evaluation of microwave-assisted enzymatic extraction procedure for arsenic speciation in rice and fish tissues J.L. Guzmán Mar, L. Hinojosa Reyes, A. Hernández-Ramírez, J.M.Peralta-Hernández, G.M.M. Rahman, H. M. Skip Kingston.	S-7, P-1
Development and validation of an analytical method for the determination of lead isotopic composition using ICP-QMS María Teresa Rodríguez Salazar, Ofelia Morton Bermea, Elizabeth Hernández Álvarez, María Elena García, Maria Teresa Ortuño.	S-7, P-2
A comparative study of activated charcoal and raw charcoal of *Meloccana baccifera* Roxburgh for the removal of Lead(II) from aqueous solutions H. Lalhruaitluanga, M.N.V. Prasad.	S-7, P-3
Employment of Factorial Design for Cd, Cu, Ni and Pb determination in Biodiesel by Graphite Furnace Atomic Absorption Spectrometry Fabiana A. Loboa, Danielle Goveia, Edenir R. Pereira-Filhoc, André H.Rosab, Adriana P. de Oliveirad, Leonardo Fernandes Fraceto	S-7, P-4

Technical Session 3:

Advances in the use of wetlands and water treatment

Poster Titles	Poster Number
Bioremediation of Cadmium by Bacterial Resistance to Heavy Metals in Contaminated Industrial Wastewater A.Nasr-e-Azadani, A. Tahmourespour, M. Hoodaji, A. Abtahi	TS-3, P-1
Corn Stalk Grafted with Acrylonitrile for Adsorption of Cadmium (II) from Mining Wastewater Liuchun Zheng, Zhi Dang , Xiaoyun Yi, Bichun Huang	TS-3, P-2
Effects Assessment of Molybdenum in the Aquatic Environment D.H. Heijerick, L. Regoli, S. Carey	TS-3, P-3

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Wednesday 15 July 2009

Technical Session 5:

Environmental Sustainability

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