ABOUT G16 CONFERENCE

"CHALCOGENS" are elements belonging to periodic table Group 16 (G16) and include the elements oxygen, sulfur, selenium and tellurium. These elements, their bio-geological cycles and interactions with metals have many unrevealed scientific curiosities and technological potentials. The 4th International Conference on Research Frontiers in Chalcogen Cycle Science & Technology serves as an open forum for the presentation and discussion of latest research results on varied topics of chalcogens in living systems, industry and the environment. The conference will discuss results from lab to field-scale studies in a diverse range of research areas including biogeochemical cycles, microbial transformations of chalcogens and the role of environmental microbiology and biotechnology in the removal and recovery of chalcogens from wastewaters, waste gas and solid waste. The G16 will be a platform for academicians, researchers, scientists, plant managers, and industrial experts to discuss and exchange the latest scientific and technological advancements in Chalcogen-based research.

The MARIE Skłodowska-CURIE ACTIONS (MSCA) of the EU (ec.europa.eu/research/mariecurieactions) support researchers at all stages of their careers, irrespective of nationality. Researchers working across all disciplines, from life-saving healthcare to ‘blue-sky’ science, are eligible for funding. The MSCA also support joint doctorates, combining academic research in different countries, and other innovative training that enhances employability and career development.

COST is a framework for European cooperation in scientific and technological research (www.cost.eu). The COST Action European Network on Ecological Functions of Trace Metals in Anaerobic Biotechnologies (anaerobicmetals.eu) aims to grow a critical mass of stakeholders interested in understanding trace metal bioavailability and microbial interactions in anaerobic environments and soils. The work of the COST action is centered along five working groups, i.e. chemical speciation and bioavailability, microbiology, engineering, fate of trace metals in the environment and modelling.

APPLICATIONS:

All participants should pay the conference registration fee before attending the conference.

<table>
<thead>
<tr>
<th>Category</th>
<th>Before May 1, 2015</th>
<th>After May 1, 2015</th>
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<tbody>
<tr>
<td>Full (2 days) registration</td>
<td>150 Euros</td>
<td>200 Euros</td>
</tr>
<tr>
<td>One day registration</td>
<td>75 Euros</td>
<td>75 Euros</td>
</tr>
<tr>
<td>Students, NBF members, participants from developing countries</td>
<td>75 Euros</td>
<td>125 Euros</td>
</tr>
</tbody>
</table>

The registration fee includes access to conference session, conference materials, coffee and lunch. Registration does not include accommodation. No refund of registration fee will be entertained.

REGISTRATION AND PAYMENTS:

All participants are kindly recommended to register by completing and submitting the Registration Form with the appropriate fees. "PAYPAL" is our preferred method of payment. Payments can be done online through the link provided in the conference website.
COLORFUL POLYMERIC SUBSTANCES ON FATE OF CHALCOGENES

Further information: Prof. Niels-Ulrik Frigaard (nuf@bio.ku.dk) before March 31, 2015. Registration is a prerequisite for an abstract to be included in the final programme.

Abstracts should be submitted by e-mail, as an attached file, to g16@unesco-ihe.org, before March 31st, 2015. Registration is a prerequisite for an abstract to be included in the final programme.

PUBLICATIONS

Selected original research papers from the conference will be published as a special issue in a peer reviewed journal. The organizers expect the special issue to make a significant contribution to Chalcogen Science & Technology, and other inter-disciplinary research areas. Prospective authors are welcome to submit short communications, research papers, and critical review articles, as deemed appropriate by the editors of this special issue. Authors willing to contribute to this special issue should submit their full paper by June 1st, 2015.

INFORMATION ON BOOK DISCOUNTS

All G16 participants are entitled to 25% discount on the book “Environmental Technologies to Treat Sulfur Pollution”, edited by Piet Lens & Hulshof Pol, published by IWA Publishing (www.iwapublishing.com). The book can be ordered directly from sales@portland-services.com (Key code: ZWQIWA365a).

ACCOMPANYING EVENTS

I. Working group 3 meeting of COST action 1302: “Engineering of trace metal dosing to anaerobic bioreactors”
Date: May 27, 2015
Venue: UNESCO-IHE, Delft, The Netherlands
Further information: Prof. Cynthia Carliell (c.m.carliell@bham.ac.uk)

II. Workshop: Microbial Sulfur Metabolism 2015
Dates: April 12-15, 2015
Venue: Elsinore, Denmark
Further information: Prof. Niels-Ulrik Frigaard (nuf@bio.ku.dk)
Website: www1.bio.ku.dk/mars/microbial_sulfur_metabolism

III. Short Course: Nanotechnology for Water and Wastewater Treatment
Course dates: March 30 - April 10, 2015
Venue: UNESCO-IHE, Delft, The Netherlands
Further information: Prof. P.N.L. Lens

The 4th International Conference on Research Frontiers in Chalcogen Science & Technology covers the theoretical, analytical and experimental developments, multi-disciplinary aspects and practical applications of chalcogens. The broad range of chalcogen-related research topics covered in this conference includes the following:

- Advanced analytical tools for characterization of chalcogen-bacterial interactions
- Anaerobic methane oxidation coupled to sulfate reduction
- Applications of biorecovered selenium from wastewaters
- Biogeochemical cycles of sulfur, selenium and tellurium
- Biogenic production and characterization of chalcogen and chalcogenide nanomaterials
- Biofilm - chalcogen interactions
- Biological treatment of wastewaters containing S, S and Te
- Biological recovery of Se and Te from wastewaters
- Bioreduction and biomineralization mechanisms
- Bioremidiation of soils and aquifers contaminated with S, Se and Te compounds
- Chalcogens in environment and industry
- Chalcogens in health care and disease control
- Environmental fate and toxicity of chalcogen and chalcogenide nanomaterials
- Influence of metals and chalcogens on biodegradation
- Isotope fractionation studies in biogeochemical cycles of chalcogens
- Microbial transformations of sulfur, selenium and tellurium
- Microbial detoxification of S, Se and Te oxyanions
- Novel bioreactors for acid mine drainage, flue gas desulfurization and agriculture irrigation wastewater treatment
- Role of extracellular polymeric substances in bioreduction and biomineralization
- Role of extracellular polymeric substances on fate of chalcogen and chalcogenide nanomaterials in the environment
- Organochalcogen compounds and biovolatalization of chalcogens
- Speciation of chalcogen, chalcogen-metal and chalcogen-chalcogen interactions in bioconverters
- Trace element (i.e. Selenium) supplementation in anaerobic digestion
- Trophic transfer and bioaccumulation of chalcogens

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INFORMATION

SUBMISSION OF SCIENTIFIC CONTRIBUTIONS

Authors interested in giving a presentation are invited to submit an abstract in English, preferably as a word-file. It should not exceed 1000 words. If it contains figures or tables, it should not exceed 2 pages. The abstract must include a comprehensive title, the name of all authors, and their complete affiliation (address, fax, e-mail). The body of abstract should briefly state the purpose of research, the principle results and major conclusions to allow the scientific committee to judge on the quality of the work. The abstract must be prepared according to the format specifications available in the template.

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