Organizing Institutions

The 8th International Congress on Biotechniques for Air Pollution Control is co-organized by the National University of Ireland Galway, (Ireland) and the Environmental Engineering group of the University of La Coruña (Spain).

Scientific committee

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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, their complete affiliation (address, fax, e-mail), and clear results and conclusions to allow the scientific committee to judge on the quality of the work. Abstracts should be submitted by e-mail, as an attached file, to Prof Piet Lens, before 29th March 2019. Registration is a prerequisite for an abstract to be included in the final programme.

Information

Important deadlines:

Submission of oral or poster abstracts:
March 29th 2019
Notification of acceptance: April 19th 2019
Full papers: July 1st 2019
Early registration: July 1st 2019

Location:

National University of Ireland, Galway
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Contact:

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EUROPEAN FEDERATION OF BIOTECHNOLOGY

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Call for Papers

8th International Congress

Biotechniques for Air Pollution Control

August 28-30th, 2019

Galway, Ireland

Scope of the Congress

In recent years, energy and feedstock materials for the chemical industry are in increasing demand. With constraints related to availability and use of oil, the energy and chemical industry is undergoing considerable changes. The need for the use of cheaper and widely available feedstocks, and the development of sustainable and environmentally friendly chemical processes is rapidly growing under both economical and public pressure.

Therefore, waste gas treatment has gradually been integrated into process design. Instead of discharging their waste gases into the atmosphere, industries increasingly attempt to become self-sufficient and recover compounds from their own wastestreams or use (upgraded) wastestreams of neighbouring industries as raw material.

Sustainable gas treatment concepts are under development, and can lead to the recovery of useful by-products like energy in the form of biogas, hydrogen or electricity, and chemicals in the form of e.g. fertilizers (ammonia, phosphates) or raw materials (elemental sulfur, sulfuric acid,...). Obviously, adding value to waste gas by upgrading the recovered compounds will only be a reality if it is demonstrated that there is a fundamental basis and a tangible advantage in using these recovered compounds rather than buying raw materials and feedstock.

The 8th International Symposium on Biotechniques for Air Pollution Control will overview innovative biotechnology based processes for treatment of waste gasses. This symposium will represent an opportunity for discussion about various innovative research aspects of environmental chemistry, environmental engineering and bioprocess technology amongst professionals as well as young researchers and Ph.D. students.

Topics of the Congress

Analytics

- Novel analytical techniques to study bioconversions of gaseous pollutants, e.g. NMR.
- Biomarkers for air pollution.
- Modelling, monitoring and control.

Waste gas treatment - process fundamentals

- Chemistry of gaseous pollutants, including gas hydrate formation, atmospheric chemistry and gas-solid interactions.
- Biodegradation of volatile compounds and air pollutants, including organic and inorganic pollutants, odours, N and S compounds.
- Microbiological aspects of wastegas treatment: physiology and metabolism, new species, microbial populations in bioreactors, application of novel microbiology approaches.

Waste gas treatment - process engineering

- Biotechniques to treat emerging pollutants, e.g. NO_x, SO_x, CO, siloxanes and selenium.
- Development of new biocatalysts and innovative operating strategies.
- Phytoremediation and wetlands for air pollution, e.g. plants to absorb nitrogen compounds or CO_2.
- Integration of non-biological processes.
- Performance and optimization of conventional and innovative bioreactors, including biofilters, biotrickling filters, bioscrubbers, membrane bioreactors, rotating biological contactors, air diffusion into suspended growth reactors, two-liquid phase systems, fluidized bed reactors, as well as alternative bioreactor configurations like microbial fuel cells.
- Industrial, pilot and full-scale applications.

Biofuels

- Biological gas purification and upgrading of gas quality, e.g. fuels and biogas biodesulfurisation and synthesis gas purification.
- Biofuels, e.g. hydrogen production by anaerobic or nonsulfur bacteria; and biodiesel production.
- LNG production and transport.

Emerging areas

- Odour and corrosion measurement and control.
- Indoor air treatment in buildings and space crafts.
- Landfill emissions, landfill gas capture and methane oxidation in covers.
- Climate change and emission trading.

Registration Form

(Please fill in capitals)

8th International Congress 'Biotechniques for Air Pollution Control', Galway, August 28-30th, 2019.

Name:

Title:

Company/Organization:

Department:

Address:

E-mail:

I wish to give an oral presentation O YES / O NO

I wish to present a poster O YES / O NO

Title of presentation:

The registration fee is:

Full registration:
Before July 1st 2019: 350 €
After July 1st 2019: 400 €

Students:*
Before July 1st 2019: 200 €
After 1st July 2019: 300 €
(*) Students must include a letter of their institution or supervisor.

Return application form by e-mail to:
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e-mail: collette.mulkeen@nuigalway.ie