

# 13th MEDITERRANEAN CONGRESS OF CHEMICAL ENGINEERING

CHEMICAL ENGINEERING IN THE 21st CENTURY  
BARCELONA. GRAN VIA VENUE. 30 SEPTEMBER - 3 OCTOBER, 2014



13th Mediterranean Congress in Chemical Engineering (13MCCE) will take place in Barcelona, Spain, in the frame of the international fair of the Chemical Industry EXPOQUIMIA from 30th September to 3rd October, 2014. The Congress will cover all aspects and results related to Chemical Engineering, from application in areas as Sustainable Development and Environmental Engineering,

Food and Biochemical Engineering and Process and Product Engineering and in classic areas as Separation Technologies, Chemical Reactors and Processes. Besides, present and future of the academic and professional career will be considered as main discussion subject, regarding to the new education and economic paradigms the sector is facing in Europe and all over the world.

## CONGRESS COMMITTEES

### ORGANIZING COMMITTEE

#### Chairpersons

Soley, Jaume  
Esplugas, Santiago

SEQUI  
Universitat de Barcelona

#### Vocals

Costa López, José  
Mouriño, Josep

Col·legi de Químics - ANQUE  
Col·legi Oficial d'Enginyers Industrials de Catalunya  
Expoquímia  
IQS - Universitat Ramon Llull  
Expoquímia

Navarro, Pilar  
Nomen, Rosa  
Serrano, Luis

### SCIENTIFIC COMMITTEE

#### Chairpersons

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Romero, Arturo

Universitat de Barcelona  
Universidad Complutense de Madrid

#### Vocals

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Bilbao Elorriaga, Javier  
Carrasco, Félix  
Cordero, Tomás  
de Lucas, Antonio  
Delgado, Sebastián  
Díaz, Mario  
Escudero, Juan Carlos  
Fabregat, Azael  
Feyo de Azevedo, Sebastião  
Galán, Miguel Angel  
García-Ochoa, Félix  
Giménez, Jaume  
Gódia, Francesc  
González Velasco, Juan Ramón  
Grossmann, Ignacio

Universidad de Castellón  
ABENGOA  
Universidad de Extremadura  
Universidad de Zaragoza  
Universidad del País Vasco  
Universitat de Girona  
Universidad de Málaga  
Universidad de Castilla y la Mancha  
Universidad de La Laguna  
Universidad de Oviedo  
Lipotec  
Universitat Rovira i Virgili  
University of Porto  
Universidad de Salamanca  
Universidad Complutense de Madrid  
Universitat de Barcelona  
Universitat Autònoma de Barcelona  
Universidad del País Vasco  
University Carnegie Mellon

Irabien, Ángel  
Lema, Juan  
Lora, Jaime  
Marcilla, Antonio  
Martín Belloso, Olga  
Martín del Valle, Eva  
Ortiz, Inmaculada  
Plesu, Valentín  
Puigjaner, Luís  
Rodrigo Rodrigo, Manuel Andrés  
Rodríguez, Juan José  
Sales, Diego  
Santamaría, Jesús  
Santos, Aurora  
Sastre, Ana María  
Sotelo, Jose Luis  
Van Grieken, Rafael  
Vicente, Manuel

Universidad de Cantabria  
Universidad de Santiago de Compostela  
Universidad Politécnica de Valencia  
Universidad de Alicante  
Universitat de Lleida  
Universidad de Salamanca  
Universidad de Cantabria  
University Politehnica of Bucharest  
Universitat Politècnica de Catalunya  
Universidad de Castilla-La Mancha  
Universidad Autónoma de Madrid  
Universidad de Cádiz  
Universidad de Zaragoza  
Universidad Complutense de Madrid  
Universitat Politècnica de Catalunya  
Universidad Complutense de Madrid  
ANECA  
SEQUI

## SCIENTIFIC PROGRAM

### INAUGURAL LECTURE

**Achieving more sustainable solutions through process intensification**  
Rafiqul Gani (Technical University of Denmark)

### PLENARY LECTURES

**Process Systems Engineering: Current and Future Contributions to Chemical Engineering**  
Gintaras V. Reklaitis (Purdue University)

**Iron as an electron acceptor for biogeochemical transformations of pollutants in groundwater and soils**  
Peter Jaffe (Princeton University)

**Nanoparticle-Stabilized Emulsions for Catalytic upgrading of bio-oil**  
Daniel Resasco (University of Oklahoma)

**La ingeniería del futuro**  
José Antonio Garrido (Bilbao Metropoli-30)

**Chemical Engineering and Sustainable Development: Shaping our Future**  
Adisa Azapagic (University of Manchester)

### ROUND TABLES

**El Papel de la Ingeniería Química en el Modelo Productivo**  
Chairperson: Eva Martín del Valle (Universidad de Salamanca)  
Participants: Ricardo Bravo (Aerisnet)  
Jesús Arauzo (Abengoa)  
José Antonio Garrido (Bilbao Metropoli-30)

**Sustainable Chemical Engineering: Resources Optimization**  
Chairperson: Juan José Rodríguez (Universidad Autónoma de Madrid)  
Ángel Irabien (Universidad de Cantabria)  
Participants: Adisa Azapagic (University of Manchester)  
Acciona Representative (Resource Water)  
Sener Representative (Resource Energy)

**Situation of Chemical Engineering Education**  
Chairperson: Jaume Giménez (Universidad de Barcelona)  
Arturo Romero (Universidad Complutense de Madrid)  
Participants: Rafael Van Grieken (ANECA)  
Juan Andrés Legarreta (UNIBASQ)  
Rosa Nomen (IQS)



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www.up.edu/congmedit

# PRESENTATION OF THE COMMUNICATIONS

The communications will be presented mainly as poster. Around 200 communications will be selected to be presented in oral form as 12 minutes keynotes. The classification of communications will be accordingly the congress topics.

## TOPICS

### 1. Chemical Engineering Fundamentals

- 1.1 Applied Thermodynamics, Fluid Dynamics, Heat Transfer
  - Thermodynamics and Transport Properties
  - Mixing, Rheology, Multiphase Flow and Fluid Flow Modelling
- 1.2 Separation Techniques
  - Distillation, Absorption, Extraction
  - Membrane Separation, Molecular Separation, Chromatography
- 1.3 Chemical Reaction Engineering
  - Kinetics
  - Catalysis
  - Chemical Reactors

### 2. Chemical Engineering for Sustainable Development

- 2.1 Natural Resources Sustainability
  - Energy, water and materials
  - Green Chemistry and Engineering
  - Life Cycle Assessment
  - Renewable Raw Materials and Waste Valorization
- 2.2 Environmental Technology and Risk Analysis
  - Process Safety Management
  - Waste Minimization and Treatment
  - Advanced Techniques for Effluent Treatment
  - Hazardous wastes and Soil Remediation

### 3. Applied Chemical Engineering

- 3.1. Food Engineering
  - Food Technologies. Innovations in Food Processing
  - Food Packaging Technologies and Food Storage
  - Food Safety
- 3.2 Process and Product Engineering
  - Molecular and Process Modelling, Simulation and Optimization, CAPE
  - Process Intensification
  - Supply chain management & business decision support
  - Product Design and Development
  - Polymer and Solid Processing
- 3.3. Chemical Engineering Education
  - New competences demanded from chemical engineers
  - Education for entrepreneurship
  - New Tools in Chemical Engineering Education

### 4. Emerging Technologies in Chemical Engineering

- 4.1 Materials and Particle Technology
  - Carbon Materials Ceramics and Composites
  - Emulsions
  - Encapsulation. Materials for Packaging
- 4.2. Biotechnology and Biochemical Engineering
  - Applied Biocatalysis
  - Bioreactors, Separation Processes, Integrated Bioprocesses
  - Biomedical Applications, Bioinformatics, Biomolecular
- 4.3. Biomedical and Pharmaceutical Engineering
  - Design of Pharmaceutical Products and Processes
  - Personal care products
- 4.1 Materials and Particle Technology
  - Nanomaterials processing
  - Nanomedicine and drug delivery
  - Microdevices and microreactors
  - Plant on a chip

## ABSTRACT INSTRUCTIONS

The selection of the submitted communications will be made as a basis of the DIN A4 one-page abstract of the work. We strongly recommend submitting the abstract in English.

Each abstract has to be sent in electronic format as a separated file, in Microsoft Word format, before 30th April 2014, through the Congress website <http://www.ub.edu/congmedit>.

Authors interested in presenting their works are asked to strictly observe the presentation deadlines in order to lighten the program selection and elaboration tasks of the Scientific Committee.

All authors presenting papers should register when submitting the abstract via internet through the Congress website.

## GUIDELINES

The abstract must follow the guidelines:

- Abstract title in bold capital letters - Times New Roman, 12 points.
- Line feed (single space).
- Name of authors and address, including telephone, fax and e-mail of the author presenting the communication - Times New Roman, 12 points.
- Line feed (single space).
- Scientific topic of the work, according to the Scientific Programme – Times New Roman, 12 points.
- Line feed (single space).
- Text allowing the evaluation of the scientific and technical interest of the communication. The abstract may contain figures and bibliography. Graphical resolution for figures may not exceed 300 dpi with captions in Times New Roman, 10 points.

# PRACTICAL INFORMATION

## CONGRESS SCIENTIFIC SECRETARIAT

All requests concerning to the scientific program or organization will be addressed to:  
Ms. Núria Basset, Ms. Mireia Marcé or Ms. Ana Justo

13th Mediterranean Congress on Chemical Engineering  
Chemical Engineering Department  
Faculty of Chemistry -University of Barcelona-  
Martí i Franquès 1, planta 6  
08028 Barcelona, Spain  
Tel +34 600 045 629; +34 600 045 637  
Fax +34 93 402 1291  
E-mail [congmedit@ub.edu](mailto:congmedit@ub.edu)

NOTE: During EXPOQUIMIA, the secretariat office will be located in the Gran Via M2 premises, where the congress will take place. Contact telephone will remain the same.

## RECEPTION AND INFORMATION

The Congress will take place at Gran Via Venue, Pavillion 3. These facilities are part of Fira Bcn and are located at L'Hospitalet de Llobregat, connected to Barcelona in a few minutes by FGC trains.  
In order to get the access card to EXPOQUIMIA and to the Congress premises (Gran Via 2, Pavilion 3), participants should enter Gran Via Venue by Europa Entrance, just next to FGC Station. Your name and the payment receipt will be required. Congress documentation will be delivered at Pavilion 3, were a specific desk of the Organizing Committee will be set next to conference rooms.

## INSTRUCTIONS FOR REGISTRATION

**Presenting authors** should register before 1st June 2014 by filling the form available at the Congress website <http://www.ub.edu/congmedit>. The payment could be by bank transfer accordingly to the instructions that will be provided at this Congress website (paying deadline for presenting authors 1st September 2014).

**Regular registration** should be paid before 26th September 2014 by bank transfer, like in the previous case.

For further information concerning registration, you can address your questions to Ms. Núria Basset; Ms. Mireia Marcé or Ms. Ana Justo (Tel: +34 600 045 629; +34 600 045 637; email: [congmedit@ub.edu](mailto:congmedit@ub.edu))

All authors presenting papers should register when submitting the abstract via internet through the Congress website. Each registered author may present a maximum of two abstracts. Full registration for presenting authors must be paid before **1st September 2014**.

## REGISTRATION FEES\*

	Until 31/07/14	01/08/14
General Rate	525 €	600 €
SEQUI Associates and Expoquimia Exhibitors	395 €	475 €
Students (Reduced Rate)**	195 €	235 €

The inscription fee includes:

- Access to Congress Sessions: conferences, communications, posters
- Congress Documentation: Book of Proceedings, final program and list of participants
- Cold meals for days 1st and 2nd October 2014 (available vegetarian menu, please, contact organization committee)
- Closure cocktail
- Free admission to EXPOQUIMIA

The inscription fees do not include:

Gala Dinner **50€** (inscription through the Congress registration procedure)

\* VAT included

\*\* The reduced rate is addressed to the PhD Students and young researchers. To benefit from it, they should submit by fax (+34 93 402 1291) or ordinary email ([congmedit@ub.edu](mailto:congmedit@ub.edu)) a Certification issued by the Department Head indicating the student's situation.

## PAYMENT OPTIONS

**Bank transfer:** Payments can be made by bank transfer according to this data.

Bank name: Banc Sabadell  
Account Number 0081 0900 81 0003775686  
SWIFT / BIC: BSABESBB  
IBAN: ES27 0081 0900 8100 0377 5686  
Reference: Congmedit - name and last name

**Any transaction cost should be covered by the attendant.**

A scanned payment proof by e-mail to [congmedit@ub.edu](mailto:congmedit@ub.edu) or by Fax +34 93 402 1291 is required.

## NEW INFORMATION

Any new and change will be immediately updated in the Congress website:  
**<http://www.ub.edu/congmedit>**

## CONGRESS LANGUAGES

The official Congress Languages are Spanish, Catalan and English. Translation support will be not available.

## CONGRESS PROCEEDINGS

Digital Proceedings will be published and distributed to the registered participants in a flash memory stick.

## IMPORTANT DEADLINES

**30/04/2014**

Abstract submission through the Congress website <http://www.ub.edu/congmedit>

**01/06/2014**

End of registration period for authors presenting communications

**15/07/2014**

Communication of the abstract acceptance to the authors

**31/07/2014**

End of reduced registration fees period

**01/09/2014**

Payment deadline (only presenting authors)

**26/09/2014**

Registration and payment deadline

**30/09/2014 – 3/10/2014**

13<sup>th</sup> Mediterranean Congress of Chemical Engineering

