

ECCE-4: 4th European Congress of Chemical Engineering

CALL for PAPERS

- Organisation: **EFCE (European federation of Chemical Engineering
ANQUE (Asociación Nacional de Químicos de España)**
- Collaborators: **AIQS (Asociación de Químicos e Ingenieros del Instituto químico de Sarriá)
COLEGIO de Químicos de España.
FEIQUE (Federación Empresarial de la Industria Química Española)
SEQUI (Sociedad Española de Química Industrial)**

INVITATION

The PARAMOUNT IMPORTANCE of CHEMICAL ENGINEERING as a KEY TECHNOLOGY SERVING MANKIND

The goals of a transition to sustainability are promoted by the to-day scientific interdisciplinary multiscale approach of chemical engineering. Indeed the mesoscale production of the chemical, petrochemical, pharmaceutical, cosmetics, food, bio and agrochemical products desired by the consumer implies a precise knowledge of the various processes occurring at different scales from the molecular scale processes up to the plant macroscale with environmental, societal and economics requirements. This involves as well nanotailoring of materials with controlled structure as manufacturing end-use properties for product-design or process intensification with the design of novel equipment or new methods of production based on scientific principles, modelling and simulation. This approach shows the paramount importance of the to-day chemical engineering as a multidisciplinary key-technology serving mankind in a context “market demands versus technological offers” as it will be emphasized at the ECCE 4 in Granada.

Jean-Claude Charpentier
Directeur de l’Ecole Supérieure de Chimie Physique Electronique Lyon/CNRS – FRANCE
President of EFCE

CHEMICAL ENGINEERING, a TOOL for PROGRESS

We want to kindly address an invitation to participate in the ECCE-4 in Granada, one of the most beautiful of the Spanish monumental and historical towns.

The Topics cover all the scientific and technical challenges that Chemical Engineering is ready to face and solve, thus contributing to the social development and the sustainable growth. Chemical Engineering forms part of the culture of the human beings and it is, and has always been, a Tool for Progress. Let us show it. ECCE-4 will be an open forum for fluent and mutual communication with society.

Baldomero Lopez
Emeritus Professor of Chemical Engineering in the Universidad Complutense de Madrid-SPAIN.
President of ANQUE

TOPICS

1. CHEMICAL ENGINEERING AND SOCIETY.

- 1.1. Education in Chemical Engineering.
- 1.2. Computers in Chemical Engineering Education.
- 1.3. Forensic Engineering.
- 1.4. Student Program.

2. CHEMICAL INDUSTRY STRATEGIES.

- 2.1. Structural Changes and Strategies in Industry.
- 2.2. Tools for Technology Assessment.
- 2.3. Quality Management & Environmental Standards

3. SUSTAINABLE DEVELOPMENT.

- 3.1. Chemical Engineering in Energy. Biomass & solar energies. Cell fuels, batteries, hydrogen tech.
- 3.2. Sustainable material resources: Renewable & secondary materials, derived products & processes
- 3.3. Pollution Prevention and Cleaner Technologies.

4. SAFETY, HEALTH & ENVIRONMENTAL ENGINEERING.

- 4.1. Process Safety, Hazard Assessment and Health.
- 4.2. Air Pollution Control.
- 4.3. Wastewater Treatments.
- 4.4. Domestic and Industrial Waste Management
- 4.5. Soil Remediation.

5. CHEMICAL ENGINEERING TOOLS.

- 5.1. Thermo-Physical Properties.
- 5.2. Interfacial and Transport Phenomena.
- 5.3. Rheology.
- 5.4. Applied Chemical Kinetics.

6. TRENDS IN CHEMICAL REACTORS.

- 6.1. Catalytic and Multiphase Reactors. Structured Catalysts
- 6.2. Polymerization Reactors.
- 6.3. Electrochemical Processes.
- 6.4. Process Intensification. Microreactors.

7. SEPARATION TECHNOLOGIES.

- 7.1. Advances in Unit Operations.
- 7.2. Membrane Technologies and Hybrid Processes.
- 7.3. Adsorption and Integrated Processes.

8. POWDER TECHNOLOGY.

- 8.1. Solids Handling.
- 8.2. Porous Solids.
- 8.3. Solid-Fluid Operations.
- 8.4. Drying.
- 8.5. Crystallisation.

9. PROCESS SYSTEM ENGINEERING & CAPE.

- 9.1. Process Dynamics and Control.
- 9.2. Computer Aided Modelling, Simulation & Optimisation.
- 9.3. Innovative Process Synthesis and Design.
- 9.4. Tools for Integration.

10. NOVEL PRODUCTS AND TECHNOLOGIES.

- 10.1. New Chemistry. Advanced Materials.
- 10.2. Fine Chemicals and Pharmaceuticals.
- 10.3. Nanotechnology.

11. BIOCHEMICAL AND FOOD ENGINEERING.

- 11.1. Bioprocess Engineering and Development.
- 11.2. Separation Processes in Biotechnology.
- 11.3. Food Engineering.

12. HIGH PRESSURE TECHNOLOGY.

- 12.1. Chemical Reactions under High Pressure.
- 12.2. Supercritical Fluid Technology.
- 12.3. Chemical Engineering in the Oceans.

13. FIRST EUROPEAN SYMPOSIUM ON PRODUCT ENGINEERING.

- 13.1. Product Design.
- 13.2. Product Engineering.

PLENARY LECTURES

Mr. Ezio Andreta (EU Directorate for Sustainable Growth, Brussels). To be confirmed.

Dr. Valentin Gonzalez (U. Autonoma Madrid, E). “**Social Communication of Chemical Engineering**”.

KEY NOTES

Prof. Michael Buback (Georg August U., Goettingen, D)
Chemical Processes at High Pressures

Prof. Richard C. Darton (U. Oxford, UK)
Metrics for Sustainability

Prof. J.T.F. Keurentjes (T. U. Eindhoven, NL)
Catalytic and Multiphase Reactors

Dr. Martin Molzahn (BASF AG, D)
Education in Chemical Engineering in Europe

Prof. Ernesto Reverchon (U. Salerno, I)
Particle Design using Supercritical Fluids

Prof. Jesús Santamaría (U. Zaragoza, E)
Zeolite Membrane Reactors

Dr. Jan Venselaar (Tertso Consult, NL)
Sustainable Growth and Chemical Engineering

Prof. Jose Coca (U. Oviedo, E)
Reactive Separation Processes

Mr. A. Green (Technical Director BHR Solutions, UK)
**Process Intensification: Reactor Technologies for Fine
 Chemical and Pharmaceutical Manufacturing**

Dr. Antonis D. Koussis (National Observatory, Athens, H)
Contaminants Transport in Soils and Groundwaters

Dr. Ljubisa R. Radovic (Pennsylvania State, US)
**Environmental Application of Carbon Materials: Success
 Stories and New Challenges**

Prof. Alirio Rodrigues (U. do Porto, P)
Advances in Cyclic Adsorption Processes

Prof. Helmar Schubert (U. Karlsruhe, D)
Product Design of Food Emulsions

COMMITTEES

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 Tomás Cordero (U. Málaga, E)
 Richard C. Darton (U. Oxford, UK)
 Bernard Delmon (U. Cath. Lovain, B)
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Nikolai N. Kulov (Russ. Acad. Sci., Kurnakov Inst., R)	Julià Sempere (U. Ramon Llull, E)
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Jan Novosad (Czech Soc. Chem. Eng., CZ)	Gerhard Wagner (F.Hoffmann-La Roche, CH)
Inmaculada Ortiz (U. Cantabria, E)	R. J. Wakeman (U. Loughborough, UK)
Hans J. Pasma (TNO Defence Research, NL)	Gabriel Wild (ENSIC-CNRS, F)
Joaquín Pérez Pariente (ICP-CSIC, Madrid, E)	Anthony A. Wragg (U. Exeter, UK)

LOCATION

The Congress will be held at the Congress Hall of Granada (Spain). Located in Andalucia, Granada is a monumental and historical town where many cultures lived together during centuries.

The Congress Hall has an Auditorium for more than 1500 people, and rooms with the adequate audiovisual media for the Congress presentations.

EXHIBITION

During the Congress will be a scientific and industrial exhibition covering the topics related to the congress. Industry, universities and research institutes, and official agencies are invited to present their know-how, facilities and products. Please return the reply form for detailed information.

SPECIAL EVENTS

1st European Symposium on Product Engineering

The potential development of Product Design and Engineering has moved to the organisation of this Symposium coordinated by Prof. Ulrich Bröeckel.

Biannual General Assembly of EFCE will be held during the Congress dates.

Round Table on Sustainability, it will be attended by senior industrialists, researchers, social representative, journalists, being open to other participations.

A **Press Office** will be opened during the Congress.

SUBMISSION of ABSTRACTS

The selection of the presentations will be based on the review of one-page abstract by the Scientific Committee. The abstracts (one page of A4 size, 1.5 spaced in Times New Roman 12 fonts, margins of 2.5 cm all around) should start with the communication title (14 fonts), followed by the names and affiliation of the authors. After a brief introduction and experimental part, the main results must be commented.

Conference language is English. The abstracts should be sent before **15 January 2003**, by mail to:

ANQUE
C/ Lagasca 27, 1º E
E-28001-MADRID/SPAIN

or as an attachment (Word 6.0 file or similar) to: ecce4@anque.es

SUBMISSION of MANUSCRIPTS

Authors of accepted contributions will be invited to prepare a two-page manuscript to be submitted in electronic form by **15 May 2003**.

PUBLICATIONS

Abstracts of accepted contributions will be published in a referred international Chemical Engineering journal. Manuscript will be published as conference proceedings in electronic form (CD) and will be distributed to the participants at the beginning of the Congress.

DEADLINES

15 January 2003	Receipt of one-page abstract
February 2003	Notification of acceptance
15 May 2003	Receipt of final manuscript
June 2003	Final programme distribution

INFORMATION

INTERNET INFORMATION

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