

European Federation of Chemical Engineering Europäische Föderation für Chemie-Ingenieur-Wesen Fédération Européenne de Génie Chimique

E-NEWSLETTER

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EDITORIAL

It is a special honour to lead Europe's pre-eminent body for chemical engineers and I plan to build on the good work of my predecessor, Richard Darton. I will use my term of office to strengthen relationships between chemical engineers in Europe and set some clear goals around which both national societies and specific technical communities can unite.

Rafiqul Gani

WHO'S WHO

Three new appointments

Professor Rafiqui Gani from the Technical University of Denmark (DTU), Lyngby, has taken office as President of the European Federation of Chemical Engineering (EFCE) for a two-year term with effect from 1 January 2014. Gani succeeds the outgoing President, Professor Richard Darton, who had occupied the post since 2010.

The acting dean at ENSIACET, Toulouse, France, **Professor Jean-Marc Le Lann**, is the new EFCE Vice-President with responsibility for scientific matters. Le Lann has pledged to work closely with Gani. He said, "I want to strengthen the role of EFCE's scientific groups by attracting more industrialists and young scientists and by introducing new working parties & sections, as well as new meetings on topics of major interest to industry and society."

Also in January 2014, **Professor Mike Considine**, United Kingdom, succeeded Akzo Nobel's Dr. Wridzer Bakker as EFCE's Executive Vice-President and Treasurer. He is Professor of Process Safety and Loss Prevention at Sheffield University, and founder and director of ChemRisk Ltd, which provides process safety consultancy services.

► more

EFCE AWARDS

Calls for Nominations

PhD supervisors at a PhD-awarding institution in an EFCE member country are invited to submit nominations for the following Excellence Awards to be presented in 2014:

• Excellence Award in Fluid Separations

Deadline for submission of nominations: **extended to 15 April 2014**Further information: http://www.efce.info/ExcellenceAwardFluidSeparations.html

• Excellence Award in Crystallization

Deadline for submission of nominations: extended to 15 April 2014

Further information: http://www.efce.info/ExcellenceAwardCrystallization.html

The EFCE Excellence Awards recognise PhD theses (or papers), which demonstrate an outstanding contribution to research and/or practice. Each award consists of a certificate, a cash prize of 1500 euros, a travel grant and fee waiver to attend the event where the award will be presented. The nominated PhD theses (or papers) must address a topic relevant to the respective field.

EFCE EVENTS

Report ECCE9/ECAB2

9th European Congress of Chemical Engineering and the 2nd European Congress of Applied Biotechnology including the 5th European Process Intensification Conference

The Hague, The Netherlands, 20-25 April 2013 (EFCE Event No. 709)

Under the motto Shaping a sustainable future - A partnership of Academia, Industry and Society, the chemical and biochemical engineering community met in The Hague in April 2013 for ECCE9/ECAB2. The joint Congress generated intense discussions and attracted strong interest across all disciplines. For four days, 1898 scientists from industry and academia, including 670 (PhD) students from 65 countries discussed a wide range of topics covering latest research developments as well as practical applications. The scientific programme included 427 oral presentations and 748 posters. The exhibition featured 36 booths, 12 networking stations, and the Holland Pavilion. Several awards and prizes for senior researchers and students were awarded at the Congress. The event followed the tremendous success of the first joint ECCE/ECAB held in Berlin in 2011.

Special emphasis was put on active participation of and interaction between representatives from industry, academia and society, including policy-makers, journalists and schools, to share ideas, ask questions, and discover how chemical engineers can improve our lives. New elements of the ECCE/ECAB conference series that were successfully implemented in The Hague included:

- Call for action and active community building, e.g. Dopper presentation, Mayor of Gussingen, network opportunities
- Innovation track
- Lectures, workshops
- Competitions
- Career Fair
- Company visits
- 2-minute pitches

The conference dinner was held at the Blue Lagoon, a beach club venue where, to celebrate its 60th anniversary, EFCE offered complimentary dinner tickets to students. More than 1,000 participants gathered at the beach to enjoy the dinner, witness the Poster Award and the Mobility Award Ceremonies and be treated to music from the Utrecht Student Big Band.

Feedback received from the delegates after the conference provided further evidence of the success of ECCE9/ECAB2. Delegates gave the conference an overall rating of 3.95 on a scale of 1 to 5 with some of the most highly rated features being the keynote lectures, conference themes and technical quality. 92% of delegates said they would recommend the conference series to their colleagues. The conference was well attended up to and including the last meeting and there was an overall feeling of enthusiasm. For more from the conference see https://www.facebook.com/pages/ECCE-2013/409432315821555

10th European Congress of Chemical Engineering (ECCE10)

3rd European Congress of Applied Biotechnology (ECAB3)

5th European Process Intensification Conference (EPIC5)

Nice, France, 26 September – 1 October 2015 EFCE Event No. 720



<u>Theme:</u> Chemical engineering and biochemical engineering for a new sustainable process industry in Europe"

Through four key scientific topics (Energy, Water management and treatment; Biotechnology and food; Industrial ecosystems) and the global theme, scientists and industrialists will present their contributions towards a new sustainable process industry.

EPIC 5

Process Intensification for safe and sustainable process reindustrialization of Europe EPIC5 is the fifth Conference in the series of European Process Intensification Conferences that are held under the auspices of the EFCE Working Party on Process Intensification (WP PI). The previous EPIC conferences were held in Copenhagen (2007), Venice (2009), Manchester (2011) and The Hague (2013). Integrated in ECCE10/ECAB3, EPIC5 provides an excellent opportunity for academics, industrialists and technology providers to present the latest developments on Process Intensification in the academic and industrial sphere and communicate their present views and vision for the future to the largest possible

Further information on the themes can be obtained from the EPIC website at http://www.ecce2015.eu/index.php/epic5

Save the date and register now for the Congress newsletter to obtain frequently updated news.

Website: http://www.ecce2015.eu

Note in your diary!

10thWorld Congress of Chemical Engineering – WCCE10 Barcelona, Spain, 1-5 October 2017

EFCE EVENTS AND HIGHLIGHTS 2014/2015:

GPE2014 - 4th International Congress on Green Process Engineering

Seville, Spain, 7-10 April 2014 (EFCE Event No. 715)

Scientists and experts from industry and academia are invited to join us for the fourth International Congress on Green Process Engineering in Sevilla, Spain.

Topics: Sustainable and clean technologies; New reaction media and green solvents; Process design, modeling and optimization; Biocatalytic processes; Biomass and biorefinery; Environment, safety and risk management; Sustainable energies; and Green chemical and engineering education.

Plenary speakers: Prof. Avelino CORMA, Spain; Prof. Walter LEITNER, Germany; Paul-Joel DERIAN, France; Prof. Eric J. BECKMAN, USA; and Prof. Krishna D.P. NIGAM, India.

The scientific programme is available for download.

Congress website: http://www.gpe2014.org

ESCAPE 24 - 24th European Symposium on Computer Aided Process Engineering

Budapest, Hungary, 15-18 June 2014 (EFCE Event No. 713)

ESCAPE 24 will create an inspiring forum where scientific and industrial contributions to computer-aided techniques will be presented with applications in process modelling and simulation, process synthesis and design, operation, and process optimization.

The programme includes:

ESCAPE 24 Core topics: Advances in synthesis and design, Numerical and optimisation methodology, Process and enterprise operations, Dynamics and control, and Informatics and knowledge management. **ESCAPE 24 Specific Topics:** CAPE contribution to Novel Computational & Numerical Methods, Sustainability and LCA, Efficiency in Resources and Production, Design and Optimisation, and Process

Integration.

Process Simulation and Modelling for Sustainability (session in honour of Prof. En Sup Yoon)

Efficient Energy Integrated Solutions for Manufacturing Industries (EFENIS)

The Symposium will be supplemented by pre- and post-conference workshops, where PSE technology transfer with advanced methodology and skills will be provided by speakers from both industry and academia.

Invited speakers: Subhas K. SIKDAR, USA; Farhang SHADMAN, USA; Zain A MANAN, Malaysia; Zdravko

KRAVANJA, Slovenia; David PULLAN, Hungary; and Sharul AZMAN, Malaysia.

Symposium website: http://www.escape24.mke.org.hu

ANQUE-ICCE-BIOTECH2014

Madrid, Spain, 1-4 July 2014 (EFCE Event No. 722)

ANQUE and SEBIOT have joined forces to organise an unprecedented event, the ANQUE ICCE BIOTEC 2014 Congresses on Chemistry, Chemical Engineering and Biotechnology, a meeting point for new scientific and technological trends in "Science, the key for a better life".

This joint venture intends to bring together researchers and practitioners from both academia and industry. Main targets of the Congress: Advanced research and technological applications of new raw materials; new processes; new materials for advanced chemical reactions and advanced catalysts; biotechnological advances in the production of energy and products, as well as in health, the environment, agriculture, food, bioinformatics and society.

The call for papers is open. Deadline for abstract submission: 28 March 2014

Congress website: http://www.anque-icce-biotec2014.org

CHISA 2014 /PRES 2014

Prague, Czech Republic, 23-27 August 2014

The Czech Society of Chemical Engineering (CSCHE) is pleased to invite you to the 21st International Congress of Chemical and Process Engineering CHISA 2014 and the 17th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction PRES 2014. The exhibition MARCHES 2014 – the MARket of CHemical Engineering and Services will take place in the premises of the CHISA 2014.

The scientific programme includes general topics of chemical and process engineering, specialised symposia, and the PRES 2014 topics. Some symposia will be co-organised with the corresponding EFCE Working Parties and/or other recognised international bodies.

<u> more</u>

Plenary speakers: Wei GE, Republic of China; Judith HACKITT, United Kingdom; Henrik LUND, Denmark; and Phillip R. WESTMORELAND, USA.

Congress websites: http://www.chisa.cz/2014 and http://www.conferencepres.com.

Distillation & Absorption 2014 - 10th International Conference on Distillation & Absorption

Friedrichshafen, Germany, 14-17 September 2014 (EFCE Event No. 705)

The German ProcessNet Subject Division Fluid Separations and the EFCE Working Party on Fluid Separations are pleased to invite you to Germany for the next Distillation & Absorption 2014. The conference will bring together scientists from all over Europe and beyond.

General topics: Basic Data; Modeling and Simulation; Control and Operation; Integrated, Hybrid and Novel Processes; Equipment Design and Revamps; Process Troubleshooting

Special topics for DA2014: Energy Efficiency and Technology; Mega Equipment; Applications in Fine, Pharma and Biochemical Processes.

Plenary speakers: Prof. Jerzy BUZEK, Member of the European Parliament, Dr. Peter NAGLER, Germany; and Dr. Eva SORENSEN, United Kingdom.

The EFCE Excellence Award in Fluid Separations will be awarded at the conference.

Online registration will open on 7 April 2014. Deadline for early registration: 30 June 2014

Conference website: http://www.da2014.de

ISIC19 – 19th International Symposium on Industrial Crystallization

Toulouse, France, 16-19 September 2014 (EFCE Event No. 716)

ISIC19 is organised by the EFCE Working Party on Crystallization (WPC). The ISIC series has traditionally provided a unique opportunity for international exchange between scientists and engineers of all disciplines, academia and industry, and between novices and experts. ISIC19, held in the conference centre of Toulouse, aims at honouring and continuing this tradition.

ISIC19 topics: Fundamentals of crystallization science; Characterization techniques of crystals and suspensions; Process design, scale-up, downstream processing; Product engineering: Industrial challenges.

The EFCE Excellence Award in Crystallization will also be awarded at the conference.

Registration will open on 15 April 2014. Symposium website: http://www.isic19.fr

ESEE - 10th European Symposium of Electrochemical Engineering

Chia, Domus de Maria (CA), Sardinia, Italy, 28 September - 2 October 2014 (EFCE Event No. 723) The 10th ESEE "CURRENT electrochemistry: the POTENTIAL for a challenging future", organised under the auspices of the EFCE Working Party on Electrochemical Engineering, aims to pinpoint the importance of Electrochemistry in offering solutions to current technological and environmental problems, to highlight its interdisciplinary character and to emphasize the links between fundamental and applied aspects. The main goal of the Conference is to provide a multinational platform where the latest CURRENT trends in Electrochemistry can be presented and discussed in a friendly environment with the aim of triggering all the POTENTIAL for new challenging ideas.

Topics: Electrochemical reactors; Industrial electrochemistry; Electrochemical engineering in environmental protection; Electrochemical energy conversion and storage; Corrosion protection engineering; Electrochemistry at nanoscale; General Sections; and Education in electrochemistry. The Carl Wagner Medal of Excellence in Electrochemical Engineering will be awarded at the conference. Symposium website: http://www.10thesee.it/

13th Mediterranean Congress of Chemical Engineering (13MCCE)

Barcelona, Spain, 30 September - 3 October 2014 (EFCE Event No. 725) in the frame of EXPOQUIMIA

The Congress will cover all aspects and new findings related to Chemical Engineering, to its application in areas such as Sustainable Development and Environmental Engineering, Food and Biochemical Engineering, Process and Product Engineering, and classical areas such as Separation Technologies, Chemical Reactors, and Processes. Additionally, present and future prospects for a career in academic and industry will be considered as a main discussion subject, regarding the new educational and economic paradigms the sector is facing in Europe and all over the world.

Inaugural Lecture: Achieving more sustainable solutions through process intensification, Rafiqul GANI, Denmark.

Plenary speakers: Gintaras V. (Rex) REKLAITIS, USA; Peter JAFFÉ, USA; Daniel RESASCO, USA; José Antonio GARRIDO, Spain; Adisa AZAPAGIC, United Kingdom.

Round Tables: El papel de la Ingeniería Química en el modelo productive; Sustainable Chemical Engineering: Resources optimization.

The call for papers is open. Deadline for abstract submission: 15 April 2014

Congress website: http://www.ub.edu/congmedit/

4th International Gas Processing Symposium

Doha, Qatar, 26-27 October 2014 (EFCE Event No. 724)

Main theme: Natural Gas and the World's Energy Mix

The symposium aims to bring together key academicians and industrial experts to address the various challenges related to accessing, utilizing and processing of natural gas. The symposium will include oral and poster presentations, keynote lectures, workshops and an exhibition.

Topics: Energy Mix; Environmental Challenges; Process Operations

Novel contributions are welcome with emphasis on the following areas: Environmental sustainability including greenhouse gases (GHGs), VOC emissions, Flaring; Clean production and efficient use of natural resources and energy applications; Sustainable technologies for carbon sequestration and utilization; Efficient utilization of natural resources (Feedstock, Energy, H2O, etc.); Assessment of sustainability and life cycle analysis.

The call for papers is open. Deadline for abstract submission: 31 March 2014

Symposium website: http://www.qu.edu.qa/gpc_symposium/

Note in your diary - EFCE Events in 2015 and 2016!

• 15th European Conference on Mixing

St. Petersburg, Russia, 28 June - 3 July 2015 (EFCE Event No. 726)

• PSE2015/ESCAPE-25

Copenhagen, Denmark, 31 May - 4 June 2015 (EFCE Event No. 727)

Symposium website: http://www.pse2015escape25.dk/

• European Symposium on Chemical Reaction Engineering - ESCRE 2015

Fuerstenfeldbruck, Germany, 27-30 October 2015 (EFCE Event No. 721)

Symposium website: http://events.dechema.de/escre2015.html

 15th International Symposium Loss Prevention and Safety Promotion in the Process Industries

Freiburg, Germany, 5-8 June 2016 (EFCE Event No. 718)

Symposium website: http://events.dechema.de/lossprevention2016

An extended list of events is available at http://www.efce.info/events.html

SCIENCE AND TECHNOLOGY

EFCE Working Party and Section activities:

The 8th European Workshop on Food Engineering and Technology

Quakenbrück, Germany, 1-2 April 2014

Presentations by selected PhD students in Food Engineering and Technology at European level The successful Workshop series is organised every year by the Section on Food of the European Federation of Chemical Engineering (EFCE) in cooperation with the European Federation of Food Science and Technology (EFFoST) and the host. A valuable reward will be offered to the very best paper, selected from the PhD students' presentations.

Programme

Workshop: Energy Supply for Intensified Processes

Gleisdorf, Austria, 25 June, 2014

Invitation and Registration: The EFCE Working Party on Process Intensification (http://www.efce.info/WP_PI) and the IEA Task 49/IV (http://task49.iea-shc.org) cordially invite you to

their joint workshop to exchange views on the effect of intensified processes on the industrial energy supply.

The workshop will be organised in the framework of <u>"Gleisdorf Solar 2014"</u>, an international conference on solar heating and cooling.

Please follow this <u>link</u> to register for the workshop:

The workshop aims at bringing together experts working in process intensification to exchange views and relevant studies on the questions:

- Will intensifed processes change the landscape of industrial energy requirements?
- To which extent can these changes be expected within the near (2020) and longer-term future (2050)?
- Which effect on renewable energy integration can be expected?

Preliminary Programme (download here)

PhD-Workshop of the WPPRE

The PhD-workshop of the Working Party on Polymer Reaction Engineering (WPPRE) represents a platform where young academics in the field of Polymer Reaction Engineering can build up valuable networks. It is an opportunity to meet fellow researchers and to make contact with representatives from industry.

In 2012 Professor Markus Busch from the Technical University of Darmstadt took over the Chair of the WPPRE. Since then two workshops have been organised ('12 in Lyon and '13 in Hamburg). They have been primarily directed to PhD-students from universities all over Europe, giving them a chance to talk about the latest results of their work by means of short oral and poster presentations. In return they were able to benefit from helpful feedback and suggestions of the audience.

The upcoming WPPRE workshop is scheduled from 12 to 14 September 2014 and takes place in San Sebastian, Spain.

Registration

The registration deadline is 13 July 2014.

more

NEW Books:

Product Design and Engineering: Formulation of Gels and Pastes

Edited by Ulrich Bröckel, Willi Meier and Gerhard Wagner

Content: This book focuses on the formulation of gels and pastes, a subject with a great impact on many different sectors, such as the pharmaceutical and food industries, and highlights rheological fundamentals as well as industrial applications. For process, pharma and chemical engineers, chemists in industry, and those working in the pharmaceutical, food, cosmetics, dyes and pigments industries, this is an invaluable source of knowledge and field-tested examples. The editors and the majority of the authors are members of the EFCE Section on Product Design & Engineering, and they describe here the best practices in product design and production.

Published by Wiley-VCH Verlag GmbH & Co. KGaA, 25 September 2013, Hardcover, 372 pp, ISBN-13: 978-3-527-332205

Modern Drying Technology - Volume 5: Process Intensification

Edited by Evangelos Tsotsas and Arun S. Mujumdar

The five-volume series provides a comprehensive overview of all important aspects of drying technology like computational tools at different scales (Volume 1), modern experimental and analytical techniques (Volume 2), product quality and formulation (Volume 3), energy savings (Volume 4) and process intensification (Volume 5). Many chapter authors of the series are members of the EFCE Working Party on Drying.

Volume 5 is dedicated to process intensification by more efficient distribution and flow of the drying medium, foaming, controlled freezing, and the application of superheated steam, infrared radiation, microwaves, power ultrasound and pulsed electric fields. Process efficiency is treated in conjunction with the quality of sensitive products, such as foods, for a variety of hybrid and combined drying processes. Published by Wiley-VCH Verlag GmbH & Co. KGaA, January 2014, Hardcover, 406 pp, ISBN-13: 978-3-527-315604

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