



## Green Chemistry PhD wins Excellence Award

### Jesús Esteban Serrano takes 2018 EFCE Chemical Reaction Engineering award



Dr. Jesús Esteban Serrano will receive the **2018 EFCE Excellence Award in Chemical Reaction Engineering** for his PhD thesis "Green processes for the production of glycerol carbonate and solketal".

The award recognizes an outstanding PhD

thesis and is judged on the breadth and depth of study, industrial relevance, innovation, dissemination of the results and the European dimension.

Serrano, who completed his PhD between 2010 and 2015 at the Complutense University of Madrid in Spain under the supervision of Professor Miguel Ladero, impressed the judges with its broad range and its wide dissemination – the work has already been published in nine journals and 12 presentations. Currently, he holds the position of a postdoctoral researcher at the Max Planck Institute for Chemical Energy Conversion in Mülheim an der Ruhr, Germany

The selection committee stated: "This thesis constitutes an exemplary application of CRE methods (phase equilibria, chemical kinetics, model discrimination) to green chemistry processes."

The committee also noted that Serrano's work encompasses experimental work and modelling, spanning from phase equilibrium measurement to reaction kinetics and using an interesting range of techniques. The focus on typical "biorefinery type" reactions using glycerol and a reactant under conditions of limited miscibility for production of glycerol carbonate and solketal makes the research highly applicable to anyone with an interest in green chemistry. Moreover, while the process is difficult, it is also industrially attractive. The judges noted in particular that Serrano proposed new theories to model the observations made during his PhD work.

The prize consists of a EUR 1500 cash award and a travel grant to attend the 25th International Symposium on Chemical Reaction Engineering in Florence – ISCRE25, Italy, ([www.aidic.it/iscre25/](http://www.aidic.it/iscre25/)) on 21 May, where the prize will be awarded.

The Award is kindly sponsored by **BP International Ltd.**



BP is a global energy company with wide reach across the world's energy system. The energy we produce serves to power economic growth and lift people out of poverty. In the future, the way heat, light and mobility are delivered will change. We aim to anchor our business in these changing patterns of demand, rather than in the quest for supply. We have a real contribution to make the world's ambition of a low carbon future. We have operations in Europe, North and South America, Australasia, Asia and Africa, and employ around 75,000 people.

Welcome to the second 2018 issue of the EFCE News. If you have any comments on the newsletter please get in touch.

*Hermann Feise*  
EFCE President

#### In this issue:

- Green Chemistry PhD wins Excellence Award
- Call for Nominations
- Working Party and Section News
- New EFCE 1-day Event Series
- EFCE Event Reports
- EFCE Events 2018 – 2019

# EFCE Event Reports

## 11th European Symposium on Electrochemical Engineering *Prague, Czech Republic, 4-8 June 2017* (EFCE Event No. 740)

This traditional event is organised by the EFCE Working Party on Electrochemical Engineering. For more than 30 years it has served the engineering community by providing a specialized discussion forum for specialists in this field. From June 4 to 8, 2017 it returned to the city of Prague for the third time under the main motto "Today's research for tomorrow's technologies".

This time, too, the Symposium offered several highlights which are summarized in four main points:

- (i) Presentation of the Award of the EFCE Working Party on Electrochemical Engineering for Lifetime Achievements in Electrochemical Engineering and Applied Electrochemistry;
- (ii) Carl Wagner Medal of Excellence in Electrochemical Engineering;
- (iii) Plenary and keynote presentations;
- (iv) Technical and cultural excursions.

The event was attended by participants from 23

countries, 13 of them European and 10 from other continents. There were 105 registered participants. The Symposium was organized with the support not only of the EFCE, but also of the International Society of Electrochemistry (ISE) and the University of Chemistry and Technology Prague (UCTP). Material sponsorship was provided by the main exhibitors, namely Metrohm, Princeton Applied Research, BioLogic and last, but not least, Springer. The last-named sponsor additionally offered the possibility to publish a special issue of the Journal of Applied Electrochemistry based on the contributions presented during the event. Thus, we were able to maintain the traditional collaboration between the Symposium and this Journal which is dedicated to the field of applied electrochemistry.

During the opening ceremony of the Symposium, two award presentations took place. Professor Anthony A. Wragg was presented with the Award for Lifetime Achievements. Tony Wragg played an extremely important role in the development of electrochemical engineering as an independent discipline. His contribution was twofold. On the one hand, he made a major contribution to research, mainly in the area of mass transfer in systems with complex geometry. At the same time, on the other hand, he was Editor-in-Chief of the Journal of Applied Electrochemistry, a journal which, for a long time, was the unique forum for the publication and promulgation of results achieved in the field of electrochemical engineering and applied electrochemistry.

The second award presentation was to the winners of the Carl Wagner Medal of Excellence. The selection committee decided to confer this prestigious award on two young scientists: João Tedim (University of Aveiro) and Carlo Santoro (University of New Mexico). All award-winning colleagues delivered a plenary presentation related to their achievements. Of the remaining plenary and keynote presentations The plenary lectures

## Call for Nominations

### Lifetime Recognition Award in Mixing

The Lifetime Recognition Award is a triennial award, given to a person belonging to one of the EFCE member countries, in recognition of an outstanding contribution to mixing science and technology.

The award is presented by the EFCE Working Party on Mixing and is kindly sponsored by Unilever.

It comprises a certificate and a cash prize of EUR 1000. The award will be presented during the Gala Dinner of the 16th European Conference on Mixing which will be held in Toulouse, France, on 9-12 September 2018.

**Deadline for submission of nominations: 30 May 2018. For further information and online nomination, please refer to the EFCE website:**

<http://www.efce.info/LRAmixing.html>



Professor Anthony Wragg (left) receives the Lifetime Achievement Award



Visit to Strahov Monastery by Symposium participants

focused on three different topics. The first talk on *Electrokinetic Separations to Increase the Percent Solids of the Effluent from a Phosphate Mine* was delivered by Professor Mark Orazem (University of Florida, USA). Professor Takayuki Homma (Waseda University, Japan) informed the participants about *Electrochemical nano/micro Fabrication and Processing for Functional Structures, Devices and Materials - Process Development and Mechanistic Understanding*. The electrochemical industry was represented by Dr. Jürgen Kintrup (Covestro Deutschland AG), who reported on *Gas Diffusion Electrodes in Electrolysis – from Chlorine Manufacturing Today to Production of other Chemicals Tomorrow*. Although it is difficult to cover the complex subject matter of recent trends and developments, these contributions presented an interesting combination of traditional fields of research with new trends, achievements and future perspectives.

The last point concerns the traditional industrial excursion and the cultural event. This time the main target of the industrial excursion was the Skoda Car company in Mlada Boleslav. This modern and progressive car-producing factory offered attendees the possibility to visit selected production lines and to experience a modern company utilizing, among other things, electrochemical technology. The cultural excursion was combined with the traditional Congress Dinner which took place in Strahov Monastery, one of the historical and cultural sites of the Czech Republic. During the dinner it was possible to visit the library which houses more than three hundred thousand books, including some over a thousand years old.

At this point, on behalf of the organizing committee, I would like to thank all participants for making this event so interesting and fruitful. We sincerely thank all the sponsors for their continuous help and promotion. And finally I would like to thank our partners for their financial support and for making our event even more interesting through their exhibits.

*Karel Bouzek*  
Chairman of the Organizing Committee

## EFCE Working Party and Section News

### 8th European Summer School on Electrochemical Engineering – ESSEE2018

*Toulouse, France,  
27–31 August 2018*

The 8th ESSEE is organised by the EFCE Working Party on Electrochemical Engineering and the University of Toulouse III - Paul Sabatier. It promotes the sharing of knowledge and the networking in the field of electrochemical engineering and applied electrochemistry, specifically the application of chemical engineering concepts and methodologies to electrochemical processes and related technologies.

**Early registration rates will be available until 30 June 2018. For further information, please visit:**

<https://8essee2018.sciencesconf.org>

### 7th PhD-Student Workshop on Polymer Reaction Engineering *Prague, Czech Republic, 31 August – 2 September 2018*

The EFCE Working Party on Polymer Reaction Engineering (PRE) offers a possibility for PhD students from all around the world to deepen and intensify the exchange in the research area of polymer chemistry and polymer reaction engineering. Therefore, we would like to invite you to the 7th PhD-Student Workshop on Polymer Reaction Engineering. It is going to take place as a direct follow-up event to the CHISA 2018 at Novotného lávka in the city center of Prague, Czech Republic, from 31 August to 2 September 2018.

This workshop is especially designed for PhD students, seeking contact to fellow students as well as polymer industry. They are encouraged to present their PhD topic to a professional audience and simultaneously meet industry representatives and potential employers personally. The course fee for PhD students is EUR 100 (deadline: 15 July 2018) and covers attendance and course material as well as the participation in the social activities.

**Abstract submission deadline: 18 June 2018; Registration deadline: 30 June 2018**

**For further information, please visit:**  
[http://efce.info/PhDStudent\\_Workshop\\_WPPRE](http://efce.info/PhDStudent_Workshop_WPPRE)

## **15th European Symposium on Comminution and Classification – ESCC 2017**

**Izmir, Turkey, 11-14 September  
2017 (EFCE Event No. 747)**

**The 15th European  
Symposium on  
Comminution and  
Classification (ESCC  
2017)** was held from 11  
to 14 September 2017  
at Euphoria Aegean  
Resort hotel in Izmir.

Izmir is the third largest city in Turkey, located near the Aegean Sea and has historic significance. Izmir is a unique city that has a combination of historical and modern features to create a unique atmosphere for anyone visiting the city.

The symposium attracted a range of sponsors with LOESCHE as platinum sponsors and LABRIS as a gold sponsor. Weir Minerals, MTM Makina, Derrick Corp., Ecutec S.L® and MEI acted as media liaison partner.

The Symposium and its associated proceedings, consisted of five themes, with papers arranged in 11 technical sessions: on material characterization, stirred milling, high pressure comminution, crushing, classification, computational and numerical modelling in comminution (CFD, DEM), plant operations, ultra-fine grinding and food processing. The

technical themes were well balanced with the social programme exhibiting Turkish hospitality at its best.

On Monday,  
11 September  
2017, **Prof. A.  
Hakan Benzer**,  
chairman of ESCC  
2017 head of the  
Mining Engineering  
Department,  
Hacettepe  
University,  
welcomed the  
112 delegates of  
the Symposium.  
In his welcoming  
speech he indicated



Melis Orakci (left), ESCC conference secretariat and Margarita Mezzetti, TU Bergakademie Freiberg, Germany, in front of the 15th ESCC banner showing the sponsors of the conference



that this international event attracted people from more than 26 different institutions and companies from 15 countries. Participants covered different industries which included cement, minerals, pharmaceutical, food processing to mention a few.

Session chairs **Agnus J. Morrison** and **Katalin Bohacs** opened the first technical session. After a lively discussion in the first session, the welcome reception introduced the delegates to the warm atmosphere of Turkish hospitality. It set the scene for a warm conference atmosphere where scientists, researchers and industrial practitioners deliberated on technologies and processes that would move the comminution and classification technology and science forward for all industries.

The conference was well supported by the local industries, which has worked in close collaboration with the comminution researchers within Turkey. The symposium also highlighted how Turkish researchers and industrial practitioners are working together in resolving challenges in comminution and classification. There is a lot of work happening locally in the areas of dry and wet comminution in all industries as well as innovation in stirred milling devices for various applications.

The second day began with a keynote on "*Innovations in grinding technology in cement industry*" by **Osman Nemli**, General Manager of Bursa Cement, Turkey. He emphasized the importance of continuous innovations in cement business. In this session, researchers presented the studies on high compression milling technologies including vertical roller mills and HPGRs, both used in cement and minerals.

A virtual reality satellite event hosted by Loesche attracted nearly all delegates. This involved taking a walk in an operational VRM and observe grinding and transport of particles. This was a breathtaking experiment for several people and was the highlight of day for many.





*İbrahim Göktaş (ETİ Copper Corp.), Daniel Strohmeyer (Loesche), Merve Yüksel (MNG Gold Corp.), Ramazan Ayhan (MNG Gold Corp.), Max Hesse (TU Bergakademie Freiberg)*

designs of these systems were presented.

**Matthias Mersman's** keynote on "*Innovations for ore processing – Why we need them why we do not materialize them*" challenged the industry to adopt project management principles with models that allow both the operating companies and suppliers to share the risk.

The second day ended with the symposium dinner hosted by Labris. The four course menu put on display the rich culture of dishes selected from various regions of Turkey.

The third day keynote on "*Flour Milling Technology and Recent Developments*" by **Prof. Dr. Hamit Köksel**, Hacettepe University Department of Food Engineering showed that

Stirred milling technology was also one of the main topics of ESCC 2017. Because of ores becoming more complex, the interest in fine grinding increases day by day. Papers discussing factors that influence their performance and how this technology can be used to address demands for better energy efficiency in fine grinding of complex, low grade ores and advancement in the



*Emrah Şenol (Ecutec s.l.), Hari Ünal (Ecutec s.l.), Muhterem Köse (Turkish Gold Miners Association), Cumhur Şahin (Akçansa Cement)*

the issues in comminution and classification are the same in all the industries, whether minerals, cement or food processing. Researchers from different fields discussed how to transpose knowledge between different industries to solve common problems in grinding & classification applications.

**Prof. Malcolm Powell**, Chair in Comminution - Julius Kruttschnitt Mineral Research Centre (JKMRC), gave the afternoon keynote address on "*Addressing Challenges of Mechanistic Mill Modelling*". This set the scene for discussions centered around Computational Fluid Dynamics, Discrete Element Methods and dynamic modelling which were an integral part of the interesting topics for ESCC 2017. The keynote and subsequent presentations introduced modelling and the role of computational tools as topics for tea time discussions.

The last keynote, by **Prof. Aubrey Mainza**, was themed "impact of classification on circuit design". It was a thoughtprovoking discourse and stimulated discussions on designing and operating plants in an integrated manner. High frequency screening which is a recent technology in classification was emphasized by **David Perkins** with its advantage on capacity improvement and recovery increase. Discussions on classification modelling including use of computational tools such as CFD and Smooth Particle hydrodynamics and granular flow approach formed the core of the presentations given by Professors Govender, Mainza and Narasimha in the last two sessions of the conference.

The successful event was closed by **Prof. Hakan Benzer** by acknowledging the participant, sponsors and the exhibitors. There is no doubt in the minds of all those in attendance that this was a beautifully organized event.



*Turkish industry practitioners in deep conversation: Osman Nemli (Bursa Cement), Levent Onat (Bursa Cement), Cumhur Şahin (Akçansa Cement), Sadri Çakır (Koza Gold Corp.) and an academic Kemal Bilir (Osmangazi University)*

# Events organised by or on behalf of EFCE

## ISCRE 25 – 25th International Symposium on Chemical Reaction Engineering Florence, Italy, 20-23 May 2018 (EFCE Event No. 743)

**Theme:** *Engineering the chemical transformation by bridging science and technology*

The Conference will cover both the latest methodological developments as well as the many emerging applications of CRE to crucial technologies for energy conversion, environmental protection and sustainable chemicals production. Furthermore, the 2018 EFCE Excellence Award in Chemical Reaction Engineering will be presented.

**Plenary Speakers:** Dr. Domenico Elefante, Eni, Italy; Prof. Micheal P. Harold, University of Houston, USA; Prof. Guy Marin, Universiteit Gent, Belgium; Prof. Katharina Kohse-Höinghaus, Universität Bielefeld, Germany; Prof. Ning Yang, Chinese Academy of Sciences, PR China; Dr. Ted Calverley, Dow Chemicals, USA.

**Conference programme:** The preliminary programme is available online at <http://www.aidic.it/iscre25/programme.php>. It also includes the presentation of the 2018 EFCE Excellence Award in Chemical Reaction Engineering, sponsored by BP, and the Gianni Astarita Young Investigator Award.

**Register now!**

<http://www.aidic.it/iscre25>

## 28th European Symposium on Computer Aided Process Engineering - ESCAPE-28 Graz, Austria, 10-13 June 2018 (EFCE Event No. 745)

Practitioners and academics working in the field of Computer Aided Process Engineering are invited to present up-to-date original research and developments to the 28th Edition of the European Symposium on Computer Aided Process Engineering (ESCAPE-28). The ESCAPE series is organised every year by the EFCE Working Party on Computer Aided Process Engineering (CAPE). During ESCAPE28, the biennial EFCE Excellence Award to recognise outstanding PhDs will be presented.

**Conference themes:** Model Development and Simulation; Methods, Software and Tools; Open Science Movement and Education;

Process Synthesis, Process Design and Life Cycle Modelling; Process Operation and Control; Bioresources, Bioprocesses and Biomedical Systems; Environment and Energy; Food, (Bio-) Pharma, and Fine Chemicals.

**Plenary speakers:** Concepción (Conchita) Jiménez-González, GSK & N.C. State University, USA; Andreas Klamt, COSMO-RS & University of Regensburg, Germany; Stratos Pistikopoulos, Texas A&M University, USA; Fengqi You, Cornell University, USA.

**Register now!**

<https://www.tugraz.at/events/escape28>

## International Conference & parallel exhibition area "Corrosion Prevention Balkans"

### Plovdiv, Bulgaria, 28–29 June 2018 (EFCE Event No. 756)

The importance of corrosion prevention in South-East Europe and particularly in Bulgaria is increasing due to many factors. The gas transmission network in Bulgaria is developing and the country is a factor on the Balkans with the possibilities of its transport system (80% of the compensatory stations in the Region are located in Bulgaria, 16,7 billion cubic meters transit gas pass through the country). Most of the corrosion protection systems in different industry branches need to be modernized or replaced by new technologies. Specialists, working in this field, will have to get acquainted with the new criteria, methods and international trends.

### Why participate in Corrosion Prevention Balkans 2018?

- You will present your products and services to potential customers and partners.
- You will meet leading companies that use these systems to prevent their facilities.
- You will have the opportunity for professional dialogue and new business contacts with managers, engineers, investors, designers, cathodic protection experts and specialists from various industry sectors.

Participation with a presentation will help you sharing your experience with potential customers, investors and partners.

**Conference Topics:** The necessity for actions and prevention of corrosion; New technologies

for cathodic protection. Systems and methods for corrosion protection; Presentation of real-sized projects around the world; Advanced criteria and methods for control and verification of cathodic protection systems; Leading international design criteria for cathodic protection systems; Current international standards and regulations for cathodic protection; Certification of personnel that builds, designs, controls, and maintains cathodic protection systems.

**Parallel Exhibition area** will be held alongside the Conference - direct business contacts and creation of new partnerships will be enabled.

**Exhibitor Branches:** Modern technologies and tools for corrosion protection; Insulating and protective materials; Surface treatment equipment; Covering equipment; Instruments and appliances for determining the quality of insulation and protective coatings; non-destructive testing and technical diagnostic tools; Electrochemical protective equipment and technologies for ground and underwater facilities; Modern anti-corrosion materials; Maintenance and re-pair; Technical regulation.

<https://viaexpo.com/en/pages/corrosion-prevention-balkans>

## CHISA and PRES 2018 Prague, Czech Republic, 25-29 August 2018

The 23rd International Congress of Chemical and Process Engineering - CHISA 2018 Prague and the 21st Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction - PRES 2018 will be jointly held in Prague on 25-29 August 2018, organised by the Czech Society of Chemical Engineering and the EFCE.

Both the Congress CHISA and PRES Conference address the full spectrum of chemical and process engineering practice including current trends and future challenges.

The programme covers invited plenary lectures and keynote lectures, parallel lecture sessions, and poster sessions. Some symposia will be co-organised with the corresponding EFCE Working Parties and/or other recognised international bodies.

**CHISA 2018 Topics:** Reaction engineering, catalysis and kinetics; Distillation and absorption; Extraction and leaching; Membrane separations; Solid-liquid separations; Fluid flow and multiphase systems; Mixing; Computer aided process engineering; Particulate solids; Pharmaceutical engineering; Chemical engineering education; and a number of



## New EFCE 1-day Event Series

### 1st European Forum on New Technologies – Chemical Engineering and 3D Printing Paris, France, 7 September 2018 (EFCE Event No. 755)

This is the start of a new series of 1-day events of the EFCE. The series is dedicated to hot topics

The first event on "Chemical Engineering and 3D Printing" is organised by SFGP under the auspices of the EFCE. It will be held on 7 September 2018 at Espace Bellechasse in Paris, France.

**3D printing** offers a new and large field of exciting applications to the process industries.

Chemical engineering is involved at multiple levels as the printer could be considered as a mini-plant, central to the preparation of the raw materials, which require special properties; the design of the printer (considering energy, pollutants, recycle, gas emission capture ...); and the determination of the optimal operating conditions.

3D printing offers the possibility of manufacturing products and objects (heat exchanger, miniaturized reactors, impellers, packing elements ...) with innovative and special designs that cannot be easily made with current manufacturing techniques.

All of these aspects will be dealt with during the 1st European Forum on New Technologies.

**Topics:** Chemical Engineering for the conception of 3D printers; Chemical Engineering for the end-use of additive manufactured objects; Chemical Engineering for manufactured products in pharmaceuticals; Chemical Engineering for the formulation of materials; Chemical Engineering for the implementation of 3D printers into the 4.0 factory.

**Register now! Registration fee: EUR 180 (incl. coffee and lunch)**

[http://efce.info/European\\_Forum.html](http://efce.info/European_Forum.html)

specialised symposia

**PRES 2018 Topics:** Process Integration for sustainable development; Process analysis, modelling and optimisation; Total Site Integration; Heat transfer and heat exchangers; Energy saving and clean technologies; Sustainable processing and production; Renewable and high efficiency utility systems; Footprint minimisation and mitigation; Operations and supply chain management; Waste minimisation, processing and management; Batch process analysis and integration; Process network dynamics, flexibility and control; Industrial implementation and optimisation; Numerical fluid flow and heat transfer simulation; Sustainability and Process Integration teaching, learning and knowledge tools; and a number of special sessions.

**Plenary Lectures:** Prof. Stefanie Hellweg, ETH Zurich, Switzerland "Environmental opportunities and limits of material recycling and energy recovery from waste"; Prof. Raymond R. Tan, De La Salle University, Manila, Philippines "Process Integration and Climate Change"; Prof. Aoife Foley, Queen's University Belfast, Northern Ireland "Renewable energy - myth and reality and moving forward"; Prof. Fernando Bresme, Imperial College London, UK "Thermal transport at the nanoscale: new ideas for energy harvesting?".

**Programme:** At the congress website you will find the list of accepted papers.

**CHISA 2018 special issue:** CHISA 2018 offers to all participants publishing their contributions as full papers in Chemical Engineering and Technology (Wiley). This CHISA 2018 special issue is understood as the Congress profile journal. It is expected that presenters of 80 to 120 CHISA lectures and posters will be approached after the congress closure (before 14 September 2018) with the pre-nomination appeal. The gate for submissions of manuscripts will be open since 14 September 2018 for the next five weeks. About 35 outstanding papers will be then selected from pre-nominations on the basis of standard peer review process. Editor of this special issue will be Barbara Böck (Editor-in-chief, Wiley, DE) and Lucie Obalova (Guest Editor, TUO, CR).

**Accommodation:** Special offer for Congress participants in the Congress Hotel Clarion (Congress venue): price for single/double room per night with breakfast – 95/105 EUR. Accommodation can be booked via your user pages.

**Register now! The deadline for standard registration for participation has been**

**prolonged until 20 May 2018.**

<http://2018.chisa.cz>

## **1st European Forum on New Technologies – Chemical Engineering and 3D Printing Paris, France, 7 September 2018 (EFCE Event No. 755)**

**For details see item "NEW EFCE 1-DAY EVENT SERIES"**

## **16th European Conference on Mixing – MIXING16**

**Toulouse, France, 9-12 September 2018 (EFCE Event No. 746)**

The successful series of European Conferences on Mixing, which is organised by the EFCE Working Party on Mixing, has been running since 1974 and attracts academics and industrialists from all over the world to discuss progress on mixing technology, research and applications in the process industries. During the conference the Young Researcher Award and the Lifetime Recognition Award in Mixing will be presented

**Topics:** Single phase mixing, from turbulent to laminar flow; Analysis of mixing using advanced measurement techniques; Gas-liquid mixing applications; Solid-liquid mixing; Liquid-liquid mixing; Mixing of products high viscosity and complex rheology; Mixing in reactive flows; Mixing in novel equipment type; Simulations and Computational Fluid Dynamics; Heat transfer and mixing.

**Keynote speakers:** Prof. Giuseppina Montante, University of Bologna, Italy; Dr. Andrea Ducci, University College London, UK; Dr. Richard Grenville, Philadelphia Mixing Solutions Ltd., USA; Prof. Matthias Kraume, Technical University of Berlin, Germany; Prof. François Bertrand, École Polytechnique de Montréal, Canada.

**MIXING16 is supported by:** LaVision, CEA, Siemens, Syngenta, Sulzer, Boccard, Total, Tridiagonal Solutions, MIXEL, and DrM.

**Register now! Deadline for early**

**registration: 9 July 2018**

<http://inact.inp-toulouse.fr/MIXING16>

## **Distillation & Absorption 2018**

**Florence, Italy, 16-19 September 2018 (EFCE Event No. 737)**

The international conference Distillation & Absorption 2018, to be held in Florence, Italy, will showcase the newest and best in distillation

& absorption technology and will cover a broad range of fundamental and applied aspects. The conference series is the leading international forum for research, development, standards and applications related to this domain. The event is organised by AIDIC, in close collaboration with the EFCE Working Party on Fluid Separations. The conference will include plenary contributions by outstanding speakers from both industry and academia, oral and poster presentations. Other special events include vendor exhibits, the DA2018 poster award and the presentation of the EFCE Fluid Separations Excellence Award.

**Topics:** Basic data and fundamental principles; Carbon capture and absorption; Conceptual process design and Life Cycle Analysis; Modelling and simulation; Control, operation, troubleshooting and manufacturing excellence; Reactive and hybrid separations; Emerging separations and technologies; Fine chemicals, pharma and bio based processes; Equipment design; Energy efficiency and technology.

**Plenary Speakers:** Dr. Regina Benfer, BASF SE, Germany; Dr. Izak Nieuwoudt, Koch-Glitsch, USA; - Dr. Michele Viglianisi, ENI, Italy; Prof. Andrzej Gorak, University of Dortmund, Germany; Prof. Hanna Knuutila, NTNU, Norway.

**Key dates:** Tentative programme: 15 May 2018; Registration deadline for authors: 30 June 2018

<http://www.aidic.it/da2018>

## International Sustainable Production and Consumption Conference

**Manchester, United Kingdom, 4-5 October 2018 (EFCE Event No. 754)**

The International Sustainable Production and Consumption Conference is a new international conference whose subject matter is more important than ever. What was once 'nice to have' is now vital to the future of the planet. Awareness of the need for sustainable production and consumption has made dramatic progress in the last few years. However, there is so much more that we can do and so much more that needs to be done. Organised in collaboration with the Sustainable Production and Consumption journal, this inaugural international conference will provide a platform for high-quality papers related to sustainable production and consumption. It aims to explore multidimensional interactions between technology, society and policy.

**Topics:** Circular economy; Sustainable

technologies, products and services; Energy, food, water and waste nexus; Life cycle sustainability assessment and management; Consumer engagement and communication; Sustainable lifestyles; Sustainable policy development.

Papers are invited from engineers, natural and social scientists and those at the interface between these disciplines. Papers should include some elements of life cycle thinking and should clearly demonstrate that they are addressing topics related to sustainable production and consumption.

**The call for papers is open! Deadline for submission of abstracts: 14 May 2018**

<http://www.icheme.org/ispcc>

## XXIII International Conference on Chemical Reactors - CHEMREACTOR-23

**Ghent, Belgium, 5-9 November 2018 (EFCE Event No. 748)**

Traditionally, the CHEMREACTOR conference program focuses on the fundamental aspects and practical application of the catalytic processes and chemical reactors, as well as to the development of the novel highly-efficient technologies. It has been held in different countries and cities where there are major research centers, whose activities are related to the development of innovative chemical engineering.

The four-day CHEMREACTOR scientific programme will comprise plenary invited lectures (1 hour), keynote lectures (30 minutes), oral presentations (20 minutes) and posters.

**Topics:** Advances in Chemical Reactor Fundamentals; Chemical Reaction Engineering and Reactor Design – Novel Experimental Approaches, Modeling, Scale-Up and Optimization; Chemical Reactors and Technologies for Targeted Applications; Advanced Processing of Conventional and Unconventional Hydrocarbon Feedstocks.

**Plenary speakers:** Prof. Jens Kehlet Nørskov, Stanford University, USA (A Professor Mikhail Slin'ko Honorary Lecture); Professor Vemuri Balakotaiah, University of Houston, USA; Prof. Dionisios G. Vlachos, University of Delaware, USA; Prof. Kai Sundmacher, Max Planck Institute for Dynamics of Complex Technical Systems, Magdeburg, Germany.

**The registration will open at the end of May 2018. Deadline for early registration: end of July 2018**

<http://www.chemreactor23.org>

# EFCE Events in 2019

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

## Loss Prevention 2019 - 16th International Symposium on Loss Prevention and Safety Promotion in the Process Industries and accompanying exhibition

**Delft, The Netherlands, 16-19 June 2019 (EFCE Event No. 750)**

Welcome to Loss Prevention 2019! After 45 years, this most prestigious conference in the world in the field of risk and safety related to the chemical and process industries, organised by the EFCE Working Party on Loss Prevention, has returned to the Delft University of Technology in the Netherlands.

Exchanging information, disseminating data and stimulating the development of new methods to reduce the risk of incidents/accidents in the process industries, is indeed a must and a need. Transfer to practice is as important as development of know-how, and many challenges are still to be addressed in order to make further progress in safety, and process safety in particular. To foster new ideas, the fourth EFCE Excellence Award in Process Safety for outstanding PhD research work will be presented at this conference.

**Topics:** Risk assessment and safety management; Human and organisational factors of risk and safety; Process safety engineering and technological innovations; Fires, explosions, and toxic releases; Simulation and modelling for safer processes; Physical security and cyber security in process plants; Learning from accidents and process safety education; Communication of risk and process safety information; Leadership, risk governance, and regulatory issues.

**Information to authors on abstract acceptance: 31 May 2018. Registration will open soon.**

<http://www.lp2019.org>

## 23rd Polish Conference of Chemical & Process Engineering

**Serock, Poland, 2-5 June 2019 (EFCE Event No. 753)**

<http://ichip2019.pl>

Save the date!

## ECCE12/ECAB5 – 12th European Congress of Chemical Engineering & 5th European Congress on Applied

## Biotechnology

**Florence, Italy, 15-19 September 2019 (EFCE Event No. 744)**

**Theme:** Bridging Science with Technology: a Renaissance in Science

The Italian Association of Chemical Engineering,- AIDIC has the pleasure of welcoming you to ECCE12 & ECAB5 that will be held from 15 to 19 September 2019 in the city of Florence, Italy. The Congresses will take place in an ideal context in place and time: Firenze Fiera Congress and Exhibition Center. Florence is the perfect setting for the congresses, home of several ancient cultures has always represented the essence of art, culture and progress In Italy and in the World.

The Scientific Programme will bring innovative solutions to respond to major societal challenges. Plenary, Keynote, Invited and Contributed lectures will bring you up to date in all topical areas of modern Chemical and Biochemical Engineering to address Solutions to Global Challenges.

**The call for papers will open in summer 2018.**  
<http://ecce12-ecab5.org>

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