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

NEWS AND EVENTS AUGUST 2023

David Bogle wins prestigious EFCE Jacques Villermaux Medal

Professor David Bogle of University College London in the United Kingdom is the laureate of the **Jacques Villermaux Medal 2023** by the European Federation of Chemical Engineering (EFCE).

He has been conferred the medal in recognition of his outstanding achievements within the remit of EFCE's science policy, in particular in his role as EFCE's Scientific Vice-President from 2018 to 2021. This includes his commitment to chemical engineering education and training, especially the development and publication of a report on The European Chemical Engineering Skills Pipeline.

The project sought to understand the health of chemical engineering education across Europe by analysing the number of students and teaching staff in chemical engineering across a broad range of European countries. The data showed trends and the great variation between European countries in the number of students, student/staff ratio, the number of graduates per 100k population, and the number of graduates relative to the local chemical industry workforce. Particularly useful was the data on the average age of staff, highlighting a lack of investment in new academic staff in some countries.

Furthermore, the award acknowledges his research in the fields of process systems engineering and systems biology and his services to the related EFCE Working Party on CAPE and the new Section on Chemical Engineering as Applied to Medicine. He developed new methodologies in the design of very large complex systems, developing controllable systems, in finding globally optimal solutions, and in identifying and exploring model sensitivities.

David Bogle is Professor at the Department of Chemical Engineering at University College London (UCL), UK, and currently holds the position of Pro-Vice Provost of the Doctoral School and Early Career Researchers. His role is to develop strategy

Dear Readers,

Welcome you to summer 2023 issue of EFCE News! This issue contains information about EFCE awards, ECCE&ECAB, forthcoming EFCE events and journal news. If you have any comments/ suggestions, please contact us.

With kind regards

Giorgio Veronesi
EFCE President

In this issue:

for doctoral education and early career research staff at UCL, to provide training and support for researchers beyond their disciplinary boundaries, and to oversee the standards and regulations of research degree qualifications. He is the chair of the League of European Research Universities Doctoral Studies Policy Group. Furthermore, he is past president of the Institution of Chemical Engineers, Deputy Director of the Centre for Process Systems Engineering (a joint Centre with Imperial College London) and a member the Board of SusChem, the European Platform for Sustainable Chemistry.

David Bogle said: "It is a huge honour to be awarded this medal. I met Prof. Villermaux briefly a couple of times. He made a big impression!"
The Jacques Villermaux Medal (https://efce.info/Jacques+Villermaux+Medal.html) is presented every four years in recognition of Professor Jacques Villermaux, Membre de l'Institut Universitaire de France, 1935-1997, Pioneer in Chemical Process Engineering and EFCE's first Scientific Vice-President (1996-1998). It recognises achievements by a scientist within the context of the Federation's science policy, working parties, conference programme or other related activities.

The medal will be presented on 18 September 2023 during opening of the 14th European Congress of Chemical Engineering (http://ecce-ecab2023.eu) which will be held in Berlin, Germany, on 17-21 September 2023. He is invited to give a plenary lecture on Thursday, 21 September 2023.

EFCE presents the Lifetime Achievement Award to Alberto Brucato

Professor Alberto Brucato of the University of Palermo, Italy, has been named as the laureate of **EFCE's Lifetime Achievement Award**.

This Award is made in recognition of his continuous and outstanding contribution to the progress of mixing research, modelling and application, chemical plant design and biochemical engineering in Italy and internationally for more than 40 years.

The award acknowledges in particular his substantial contribution to raising the profile of the field, of the Italian Association of Chemical Engineering (AIDIC), and the Federation through his research of high quality, international collaborations, education and training of engineers and students, and his commitment to the EFCE Working Party on Mixing.

Alberto Brucato was Professor of Chemical Plant Design at the University of Palermo, Italy, from 2001 until his retirement in September 2022. Furthermore, during his academic career he visited the University of Bath and Universidad Nacional del Litoral in Santa Fé in Argentina and participated in a number of international collaborations, including a stay as visiting professor at Addis Ababa University, Ethiopia.

He was President (2016-2019) of GRICU, the Italian Scientific Association of Chemical Engineering Academics, he is co-founder of the Italian Association for the Study and the Application of Microalgae (AISAM), and Italian delegate of EFCE Working Party on Mixing since 2010, and he was a member of the EFCE Working Party on Education for several years.

In 2005 he won IChemE's Senior Moulton Medal, a recognition to the author(s) of the best paper published in the reference year in the scientific journals of the Institution, and in 2021 he received the "Nienow Lifetime Recognition Award in Mixing 2021", a recognition awarded by the EFCE Working Party on Mixing for the lifetime contribution to the advancement of mixing science and technology.
His research activities include: industrial mixing tanks (he developed several original experimental techniques and set up a variety of models, with varying degrees of complexity up to fully predictive computational fluid dynamics simulations); photocatalytic reactors (experimental investigations aimed at assessing photocatalytic reactions and developing suitable photo-reactors; several models for the radiation field distribution were also set up); heavy cloud and jet dispersions in the environment (CFD modelling work in this area that was awarded with the Senior Moulton Medal); bioreactors for selected applications; development of photobioreactors for industrial microalgae production; supercritical water gasification and oxidation; Omega-3 fats separation by supercritical CO_2 extraction.

The EFCE Lifetime Achievement Award is given to an individual in recognition of her/his sustained and outstanding contribution to the progress of chemical engineering in general and on specific topics covered by the EFCE working parties (WPs) and sections in particular, over a period of at least 20 years. The Award acknowledges the candidates' substantial dedication to raising the profile of the field of chemical engineering and the EFCE through research and teaching, organisation of conferences and workshops, effort towards the auspicious prospect of the community, and commitment to the WPs and/or Sections of the EFCE.

The award will be presented on 18 September 2023 during the opening of the 14th European Congress of Chemical Engineering which will be held in Berlin, Germany, on 17-21 September 2023

EFCE presents Carl Wagner Medal of Excellence in Electrochemical Engineering

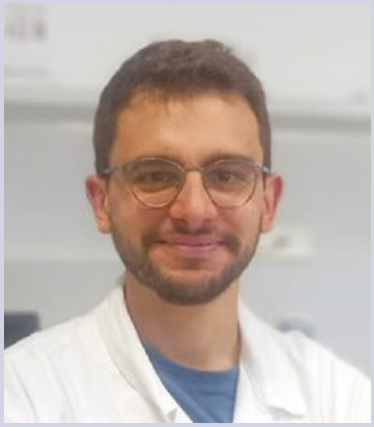
Dr. Davide Clematis has been named as the winner of the **Carl Wagner Medal of Excellence in Electrochemical Engineering** of the European Federation of Chemical Engineering (EFCE).

He is being recognised for his outstanding contributions to research and application of electrochemistry and electrochemical engineering in the socially relevant fields of energy conversion and water treatment.

The Award jury of the EFCE Working Party on Electrochemical Engineering (https://efce.info/WP_EE.html) emphasized Dr. Clematis' impressive work on electrochemical engineering and technologies as well as material science. This was documented by a number of fellowships, awards and research projects he coordinated. Besides his editorial activities in the field, he has been very active in reviewing articles for many scientific journals and he holds memberships of several chemical engineering and electrochemistry-related associations. Furthermore, the jury underlined his significant activity in education and training.

Davide Clematis graduated at the University of Genoa, Italy (2015) and obtained his PhD in Chemical, Materials and Processing Engineering "Among old materials and different approaches to enhance stability and electrochemical activity of Solid Oxide Cells" in 2018.

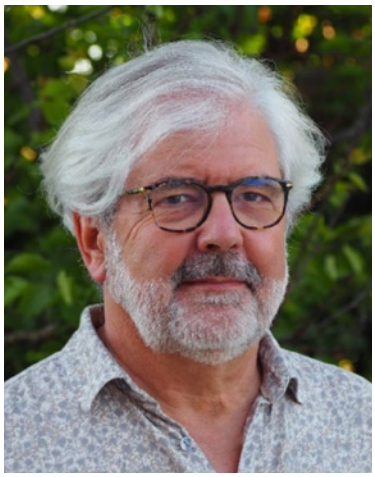
The contribution of Dr. Clematis covers two main and distinct research topics: electrochemical water treatment and solid oxide cells. In the former, he has focused on the study of electrochemical systems suitable for treating low conductive solutions (solid polymer electrolyte-based systems). He has investigated the interactions between electrode materials, water matrix composition and cell layout. He was also interested in developing a model based on a machine learning algorithm for optimizing power management from renewable energy sources in water treatment. In the field of energy, he has investigated electrode materials for high-temperature electrochemical applications such as solid oxide fuel cells and solid oxide electrolyser cells, focusing on their composition and geometrical structure. He also studied a user-friendly tool for evaluating the distribution of relaxation times from electrochemical impedance spectroscopy.



The Carl Wagner Medal of Excellence in Electrochemical Engineering consists of a dedicated medal, a cash prize and an invitation to attend the 13th European Symposium on Electrochemical Engineering (13th ESEE - website: https://13thesee2023.sciencesconf.org/), where the award was presented. The 13th ESEE was held in Toulouse, France, on 26 to 29 June 2023.

The Award is generously sponsored by thyssenkrupp nucera. thyssenkrupp nucera offers world-leading technologies for high-efficiency electrolysis plants. The company has extensive in-depth knowledge in the engineering, procurement, and construction of electrochemical plants and a strong track record of more than 600 projects with a total rating of over 10 gigawatts already successfully installed. With its water electrolysis technology to produce green hydrogen, the company offers an innovative solution on an industrial scale for green value chains and an industry fueled by clean energy – a major step towards a climate-neutrality. See www.thyssenkrupp-nucera.com

Prestigious Lifetime Recognition Award in Mixing presented to Alain Liné



Professor Alain Liné, France, has been named the laureate of the European Federation of Chemical Engineering's **2023 Helen and Alvin Nienow Lifetime Recognition Award in Mixing** for his outstanding contribution to the advancement of mixing science, to the recognition of the importance of mixing in the European chemical engineering community and to the appreciation of its industrial significance.

Alain Liné has been Professor of Fluid Mechanics in the Department Chemical Engineering & Environment at the National Institute of Applied Sciences of Toulouse (INSA Toulouse) in France since 1994. He has written 90 peer-reviewed articles, supervised 30 PhDs and refereed more than 80 PhDs in France and 25 PhDs abroad. He was involved in the direction teams of the LIPE (Laboratoire d'Ingénierie des Procédés pour l'Environnement) and LISBP (Laboratoire d'Ingénierie des Systèmes Biologiques et des Procédés) laboratories from 1999 to 2009. He was scientific advisor in the Sciences & Technology Research Department at the High Council for the Evaluation of Research and Higher Education in France from 2017 to 2022. In addition to his teaching activities at INSA Toulouse, where he focuses on transport phenomena, momentum transfer and turbulence, multiphase flow, applied mathematics and computational fluid dynamics, he was co-author of a book on transport phenomena with Jean-Pierre Couderc and Christophe Gourdon. He is a member of the EFCE Working Parties on Multiphase Fluid Flow and Mixing.

His main research activities include experimental research and modelling in mixing, (applications in bioreactors); experiments and two-phase flow modelling of gas-liquid reactors (mainly applied to Drinking Water Virtual Plant™); population balance modelling (mainly flocs and aggregates); and experiments and 1D modelling of multiphase flow in pipelines.

Nominating him for the award, Professor Jérome Morchain wrote: "In our research group, Alain Liné has contributed to and developed a rigorous culture in fluid mechanics applied to mixing, mass transfer and reaction. I have always seen him go to his library to extract reference studies, which he seems to know off by heart. His advanced knowledge of turbulence is incomparable when it comes to analyzing experimental measurements. Indeed, Alain Liné is above all a researcher with a passion for experiments, for which he has always devoted more than half of his working time. [He has a] little-known ability to laugh at himself, which I believe is a quality of great scientific minds, of those who know how to look at each question with the same freshness, marvel at the strange links that connect things together and then smile at so much mystery."

Alain Liné was invited to present a lecture at the 17th European Conference on Mixing (http://mixing17.eu/), which was held in Porto, Portugal, on 2-5 July 2023.

Since 2021, the Lifetime Recognition Award, a triennial award presented by the EFCE Working Party on Mixing (https://efce.info/WP_Mixing.html), is generously sponsored by Alvin and Helen Nienow. Professor Alvin W Nienow, DSc, FIChemE, FREng († 5 November 2022) was a member of the Organizing Committee of the First European Mixing Conference in 1974. Since that time, he was on the Organizing or Scientific Committee and contributed technically to the Conference series and to mixing research and practice as such. He was also a winner of the 2nd LRA in 2003 when it was sponsored by Ekato. He and his wife Helen count many people in Europe and world-wide working in mixing as their friends. Alvin and Helen has sponsored this prize since 2021 in recognition of the contribution that mixing in general and the European mixing community in particular has made to enhance the quality of their lives.

Mixing Award presented to Margarida Brito for advances in the know-how on 2D reactors

Dr. Margarida Brito, Portugal, is the winner of the Federation's **Young Researcher Award in Mixing 2023**.

She was selected by the jury of the EFCE Working Party on Mixing (https://efce.info/WP_Mixing.html) for her excellent PhD thesis on "Mixing Mechanisms in 2D reactors", for which she achieved the best evaluation results in terms of quality of the PhD thesis and significance to the field of mixing, outstanding publications in international journals, international activities and network, industrial significance of the scientific activity, and dissemination of results by mixing conference participation.

The thesis, completed at the University of Porto, Portugal, under the supervision of Dr. Ricardo Santos, Dr. Cláudio Fonte and Professor José Carlos Lopes, addressed mixing technologies of a plate-plate mixer used for rheometry, Confined Impinging Jets (CIJ) mixers, T-jets, and split-and-recombine (SR) mixers. The results of this work have a wide range of industrial applications. These static mixers are especially suited for applications where flow rates are too low (e.g. microfluidic applications) or viscosity is too large (such as food, coatings, cosmetic, polymer adhesive and detergent industries). Rotational devices are suggested as a methodology for screening the 2D mixing information generated in mesoreactors, particularly in industrial processes that involve fast polymerisation reactions (e.g. the production of polyurethanes in reaction injection moulding machines). Fundamental studies on mixing of dissimilar fluids in CIJs and T-Jets mixers reported in this PhD thesis enabled the generation of useful data to design experiments/processes in these devices. This work also shows that CIJ mixers can be used for other intensive mixing applications, such as continuous emulsification processes, by injecting the dispersed and continuous phases as two opposed jets. Finally, a new model is proposed to describe the non-homogeneous distribution of mixing scales in SR mixers. Results give an explicit and straightforward design expression to calculate the maximum striation thickness decay, which is the limiting step in mixing operation in this type of mixers.

Margarida Brito has published a total of 16 journal papers, 8 as first author, and presented 28 oral and poster communications in national and international conferences, including mixing conferences.

Margarida Brito obtained her PhD in Chemical and Biological Engineering from the University of Porto. Currently, she holds a Project Researcher position at the Laboratory of Separation and Reaction Engineering – Laboratory of Catalysis and Materials (LSRE-LCM) at the University of Porto, working on the project "BioShoes4All".

She was invited to present a lecture at the 17th European Conference on Mixing, (http://mixing17.eu/) which was held in Porto, Portugal, on 2-5 July 2023.

EKATO

The Award is generously sponsored by EKATO.

In the past 85 years EKATO has developed to world market leader in stirring and mixing technology for all process-oriented industries.

The EKATO GROUP companies offer optimized mixing technology, from molecular, robust and rapidly available industrial agitators over industrial solutions for reactor agitators on sophisticated mixing processes up to complete process plants including automation.

EKATO has been family-owend since its foundation in 1933 and is represented worldwide with subsidiaries in Europe, Asia, Australia, South America, South Africa and the USA as well as a network of trading partners. At the state-of-the-art research and development center in Schopfheim, EKATO offers engineering services from process development to process optimization to make customer processes and mixing procedures more reliable and efficient.

ECCE14 & ECAB7 News

14th European Congress of Chemical Engineering and 7th European Congress of Applied Biotechnology

Berlin, Germany, 17-21 September 2023

Motto: Chemical and Biochemical Engineering – Acting Together

Here is a brief update on the joint conference of EFCE and ESBES. The programme of ECCE14 & ECAB7 is available now! Last Minute Posters can be submitted until 16 August.

Comprising a total of 180 sessions, the lecture programme of the 14th European Congress of Chemical Engineering ECCE and the 7th European Congress of Applied Biotechnology ECAB features 15 parallel tracks each day. Almost 600 speakers, including renowned plenary speakers, will report latest results from R&D in biotechnology, chemical and process engineering and other fields relevant for the process industries. Full session tracks throughout the five days are devoted to the major themes digital transformation, sustainability/ circular (bio-)economy, and climate change each covering important topics such as computational modelling, process control, process engineering and intensification, continuous processes, biopharmaceutical production and (bio-)catalysis.

The programme also comprises special sessions organised by partners and working groups of the European Federation of Chemical Engineering (EFCE) and the European Society of Biochemical Engineering Sciences (ESBES). The diversity of topics is striking: Industrial biocatalysis, hydrogen economy, membrane technology, mathematics in (bio-)chemical engineering, digitalisation of algae cultivation, proteins and agglomerates in biotechnological processes, and chemical engineering for space exploration. Moreover, a rich programme on education and career options has been co-organized by young scientists and EFCE's Working Party on Education. This and a lot more interesting sessions and lectures can be found in the programme at: **https://ecce-ecab2023.eu/Programme.html**

Furthermore, you might be interested in the latest short interviews with the plenary speakers **Professor Telmo Pievani**, University of Padua, Italy, and **Professor Jarka Glassey**, Newcastle University, United Kingdom and EFCE Executive Vice-President, as well as **Dr Maria Papathanasiou**, Assistant Professor, Imperial College London, United Kingdom, who was selected by the EFCE Early Career Chemical Engineers Section for a plenary lecture.

Sponsors (as of 1 August 2023): BASF SE (Gold Sponsor)

Exhibitors (as of 1 August 2023): attocube, Berlin Catalysts, Berghof Products + Instruments GmbH; Bio-PAT; BlueSens; Bronkhorst; De Gruyter; DHCAE Tools; DyssolTEC GmbH; EFCE; ESBES; Fink Chem + Tec GmbH GmbH; Fluitec mixing + reaction solutions AG; Fraunhofer Chemistry Alliance; Getinge Deutschland GmbH; Hamilton Bonaduz AG; HNP Mikrosysteme GmbH; ILS-Integrated Lab Solutions GmbH; kjVI; Kreienbaum Neoscience GmbH; Kuhner Shaker GmbH; octapharma Handeslgesellschaft mbH; REACNOSTICS; Scientific Bioprocessing, Inc. (SBI); Siemens; SOPAT GmbH. Poster Award sponsor: Springer

Exhibition space is still available. Companies may consider taking part in the exhibition and having a look at the attractive packages and options.If you have any questions, you can contact Chereén from DECHEMA e.V. via e-mail: chereen.semrau@dechema.de

Please find more updated information on the conference website at https://ecce-ecab2023.eu/

The second AIDIC E2DT congress and EFCE Forum

Palermo, Italy, 22-25 October 2023

The Energy, Environment and Digital Transition - E2DT congress will be held at the Splendid Hotel La Torre di Mondello in Palermo from 22 to 25 October, on the topics of Energy, Environmental and Digital Transition, which are of interest to the whole of society and not just the scientific world.

This is the second event organized by AIDIC on these subjects, after the success of the one held in Milan in October 2022, which saw great attention and strong international participation.

The relevance of climate change, now unfortunately evident to everyone, and the awareness of the need to diversify energy supplies, increased after Russia's invasion of Ukraine and the related sanctions, have generated a new sensitivity in civil society towards these issues, in the past of almost exclusively treated by sector experts.

The purpose of the congress is to bring together researchers, engineers, executives, entrepreneurs, institutional representatives, and to present the results of the latest research and experiences in the energy and environment sectors and the positive and negative implications they have on our society, in order to have a picture as complete and balanced as possible, without preconceived visions.

The energy and environmental transition, i.e. the passage of energy production from fossil fuels to renewable resources, will take place within the framework of legislative changes which, as we have seen with the choices of the European Commission on internal combustion engines, will significantly influence the social and economic development of society. It is therefore important that correct and impartial technical-scientific information is made available to the competent authorities and general public, so that these legislative changes are not the result of partisan or ideological views.

Digitalization is also an important element in this transition process, as instrument of a significant acceleration of the transformation. Energy and production systems will be increasingly connected, intelligent and efficient, and equipped with self-learning possibilities, with major implications on jobs and consequently on society.

E2DT program

The congress will deal with various topics related to transition issues.

The presentations will take place during parallel sessions according to the **detailed program** that will be published on 15 September 2023 on the website: https://www.aidic.it/e2dt2023/

Posters will be available for the entire conference period.

The Plenary Speakers

The congress program includes four plenary sessions with very interesting speakers:

- **Francesca Scargiali**, Professor of Unit Operations and Design of Chemical and Biochemical Plants at the University of Palermo, with a lecture on: "Microalgae exploitation under an approach of circular economy."
- **Karen Scrivener**, Professor and Director of the Construction Materials Laboratory in the Materials department of EPFL (Ecole Polytechnique Federale de Lausanne), with a lecture on: "Practical solutions to reduce embodied CO2 in construction."
- **Elodie Le Cadre Loret**, Research &

Innovation Program Manager at ENGIE Research & Innovation, with a lecture on: "The Energy Transition: an integrated system of emerging sustainable technologies."

- **Marc-Olivier Coppens**, Ramsay Memorial Professor in Chemical Engineering at UCL (University College London), with a lecture on: "A nature-inspired chemical engineering (NICE) approach to accelerate the energy and environmental transition."

The EFCE Forum

On October 24, a parallel event organized by the EFCE will be held in plenary session, with participation of the three Officers of EFCE present, the Scientific Vice President, Mike Considine, the Executive Vice President, Jarka Glassey, and the EFCE President, Giorgio Veronesi, together with David Bogle, Pro Vice Provost of UCL, former President of IChemE, and Scientific Vice President of EFCE in the last two terms. The format of the EFCE Forum includes a lecture by a researcher selected by the Early Career Chemical Engineers Section of EFCE, **Maximilian Kohns**, Junior Professor at the University of Kaiserslautern, who will speak about "Electrolyte Thermodynamics for Analysis and Optimization of Energy Storage Systems and Sustainable Processes", followed by a round table on the evolution of the role of the chemical engineer in our society, which will also be attended by the sponsor companies of E2DT, such as ENI, Masol, Maire and Orim, bringing their vision on the engineer of the future.

AIDIC Giovani events

In parallel with the E2DT, the AIDIC Giovani group is organizing various events designed for young researchers and scholars: a pub quiz, which will allow participants to network even outside the congress environment, a "Meet your Idol" event, where they will have a dialog with the senior guests of the conference.

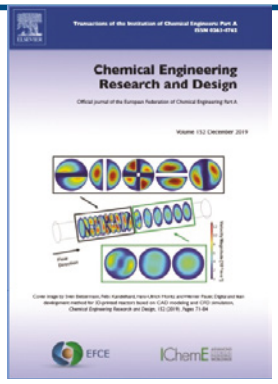
EFCE Event Report - 8th European Process Intensification Conference (EPIC)

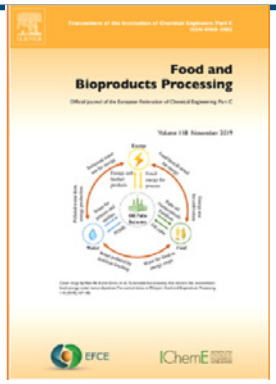
After a long break caused by the covid pandemic, the 8th European Process Intensification Conference (EPIC) was held between 31 May and 2 June 2023 in Warsaw, Poland. The conference, endorsed by the EFCE, gathered 125 participants from 24 countries, proving that process intensification was doing very well. The event included 4 plenary lectures, 59 oral and 36 poster presentations, all of high scientific quality. Six PhD students were awarded the best presentation and poster prizes.

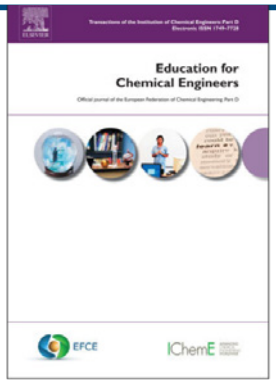
Also, the 2023 EFCE Excellence Award in Process Intensification and the EFCE Process Intensification Award for Industrial Innovation were presented, respectively, to Dr. Matteo N. Antognoli (University of Pisa), and to Croda International Plc.

Conference photos and more information can be found on the conference website: https://www.epic2023.pw.edu.pl/index/

The next European Process Intensification Conference, EPIC-9, will be held in Athens, Greece, between 4 and 6 June 2025. Save the date!







News about the official EFCE journals

For the latest updates on published papers, freely available content and editor and author interviews please follow the journals on Twitter and LinkedIn:

***NEW* Education for Chemical Engineers** is now on LinkedIn
Follow the journal at https://www.linkedin.com/company/education-for-chemical-engineers/

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Digital Chemical Engineering
https://twitter.com/DChEJournal

Carbon Capture Science & Technology
https://twitter.com/CCSTJournal

Education for Chemical Engineers
https://twitter.com/ECEJournal

Process Safety and Environmental Protection
https://twitter.com/PSEPJournal

Food and Bioproducts Processing
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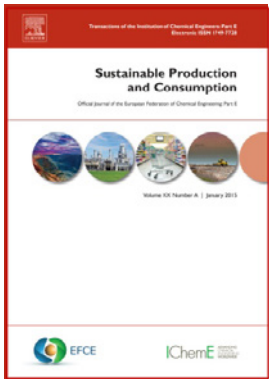
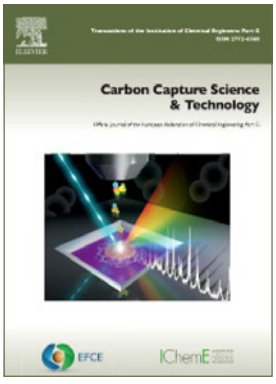
Chemical Engineering Research and Design

https://www.sciencedirect.com/journal/chemical-engineering-research-and-design





- **NEW** 7th International Conference on Population Balance Modelling 2022 https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/10B4LLSD0NC
- Extended Application of Biomass-based Activated Carbon in Water and Wastewater Treatment https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/103H61T5785
- January 2023 issue (Volume 189) https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/vol/189/suppl/C
- Women in Chemical Engineering https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/100DXCW7KVH
- 100 years of IChemE https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/10QRQR0JV67

Process Safety and Environmental Protection

https://www.sciencedirect.com/journal/process-safety-and-environmental-protection

Freely available content:

- January 2023 issue (volume 169) https://www.sciencedirect.com/journal/process-safety-and-environmental-protection/vol/169/suppl/C

Food and Bioproducts Processing

https://www.sciencedirect.com/journal/food-and-bioproducts-processing

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- January 2023 issue (Volume 137) https://www.sciencedirect.com/journal/food-and-bioproducts-processing/vol/137/suppl/C

Education for Chemical Engineers

https://www.sciencedirect.com/journal/education-for-chemical-engineers

Freely available content:

- January 2023 issue (Volume 42) https://www.sciencedirect.com/journal/education-for-chemical-engineers/vol/42/suppl/C

Sustainable Production and Consumption

https://www.sciencedirect.com/journal/sustainable-production-and-consumption

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- January 2023 issue (Volume 35) https://www.sciencedirect.com/journal/sustainable-production-and-consumption/vol/35/suppl/C

Digital Chemical Engineering

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Carbon Capture Science & Technology

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Invitation to submit papers

We have a number of special issues planned that are currently open for submission. Submissions from all welcome! If you require any further information then please contact Managing Editor Catherine Cliffe ccliffe@icheme.org

Details as follows:

Chemical Engineering Research and Design

https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/about/call-for-papers

Special Issue: Challenges and Opportunities in Advanced Processes based on Distillation for Sustainable Processes (Manuscript submission deadline **31 October 2023**)

Process Safety and Environmental Protection

https://www.sciencedirect.com/journal/process-safety-and-environmental-protection/about/call-for-papers

Special Issue: Progress and Critical Challenges in Biogas and Biohydrogen Production Processes (Manuscript submission deadline **15 February 2024**)

Food and Bioproducts Processing

https://www.sciencedirect.com/journal/food-and-bioproducts-processing/about/call-for-papers

Special Issue: Artificial Intelligence and Machine Learning in Food & Bioproducts Processing (Manuscript submission deadline **31 September 2023**)

Special Issue: Sustainable Biorefining and Biofractionation Technologies (Manuscript submission deadline **31 October 2023**)

Sustainable Production and Consumption

https://www.sciencedirect.com/journal/sustainable-production-and-consumption/about/call-for-papers

NEW Special issue: Systems Thinking for Carbon Neutrality (Manuscript submission deadline **30 December 2023**)

NEW Special issue: Circular Economy as a Driver for Achieving Sustainable Production and Consumption (II) (Manuscript submission deadline **31 December 2023**)

Special issue: Responding to the climate emergency: metrics and tools for rational action (Manuscript submission deadline **31 December 2023**)

Digital Chemical Engineering

https://www.sciencedirect.com/journal/digital-chemical-engineering/about/call-for-papers

Special issue: Ethics and Responsible Technology (Manuscript submission deadline **30 September 2023**)

EFCE Events in 2023/24
Organised by or on behalf of EFCE

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

11th PhD-Student Workshop on Polymer Reaction Engineering
Potsdam, Germany, 8–10 September 2023 (EFCE WP Student event)

The EFCE Working Party on Polymer Reaction Engineering is pleased to announce its 11th PhD-Student Workshop. It will be held as direct follow-up event to the 14th International Meeting on Polymer Reaction Engineering (PRE) on 5-10 September 2023 (conference website: https://dechema.de/en/PRE2023.html). The workshop is specifically designed for PhD students seeking contact with fellow students and the polymer industry. They are encouraged to present their PhD topic to a professional audience and at the same time meet industry representatives and potential employers in person.

For further information: https://www.chemie.tu-darmstadt.de/busch/forschung_akbusch/wppre/formular.en.jsp

Baldyga technical seminar "Mixing meets reality"
Berlin, Germany, 14-15 September 2023 (EFCE WP Student event)

The Department of Chemical and Process Engineering together with the EFCE Working Party on Mixing are organizing a seminar for PhD students in the field of mixing and stirring.

The seminar will be held at our experimental facility ACK in Berlin (location and directions).

The main focus will be on open and informal discussion of the following topics:

- Experimental techniques
- Computational techniques
- Data analysis & interpretation
- Scientific writing
- Problems and solutions

Interested PhD students can register here. Registration deadline: 17 August 2023. For further information, please contact Lena Hohl.

ECCE14 & ECAB7 - 14th European Congress of Chemical Engineering & 7th European Congress of Applied Biotechnology
Berlin, Germany, 17-21 September 2023 (EFCE Event No. 782)

Chemical and Biochemical Engineering Acting Together is the general theme reflecting that today's global challenges demand the joint efforts of the chemical and biochemical engineering communities. News see article above.

Website: https://ecce-ecab2023.eu/

2nd International Conference on ENERGY, ENVIRONMENT & DIGITAL TRANSITION – E2DT
Palermo, Italy, 22-25 October 2023(EFCE Event No. 797)

Details see article above.

Website: https://www.aidic.it/e2dt2023

ESCAPE 34 - PSE24
Florence, Italy, 2-6 June 2024 (EFCE Event No. 799)

The joint Symposium combining the 34th European Symposium on Computer -Aided Process Engineering and the 15th International Symposium on Process Systems Engineering (PSE) is organised by AIDIC. The keynotes, presentations and discussions will extend over 4 stimulating days and will cover the progress made in the broad range of the methodologies of the PSE toolkit, including AI, data analytics and digitalization, as well as impactful applications in the energy, food, healthcare, materials and sustainability domains. The venue in Florence, one of the premier cultural centers of Europe, will also provide the opportunity for participants to further enrich their understanding, appreciation and enjoyment of the fine arts and cuisine of Italy. **Topics:** Modelling and simulation;

Synthesis and Design; Process control and operations; CAPE in sustainable energy applications; Bioresources, bioprocesses and biomedical systems; Digitalization and machine learning; Concepts, methods and tools; Education in CAPE and knowledge transfer. **Exhibition:** ESCAPE34-PSE24 is expected to be organized under the auspices of different Sponsors and Exhibitors. Spaces are available for exhibition desks. A maximum surface that can be assigned to each booth is 3x2=6 m2. Download here the Sponsorship Guide with sponsorship packages description and exhibition solutions.

The call for papers is open. Deadline for abstract submission: 15 September 2023

Website: https://www.aidic.it/escape34-pse24/index.php

ACHEMA 2024
Frankfurt, Germany, 10-14 June 2024 (EFCE Event No. 796)

Modern, interactive and always up to date: With a unique range of topics, exciting innovations and new event formats, the world's leading trade show for the process industries brings together experts, decision makers and trendsetters from all over the world. he ACHEMA Innovation Themes take you on a deep-dive into key areas driving innovation in process industries. Each innovation theme brings you dedicated live stages, a scientific conference programme and visionary highlight sessions from the process industries.

Join ACHEMA 2024 as an exhibitor and/or lecturer.

ACHEMA Congress: From Research to application – the perfect stage to exchange ideas and discuss solutions.

The call for papers is open. Deadline for abstract submission: 6 October 2023

Website: https://www.achema.de/en/

ISCRE28 - International Symposium on Chemical Reaction Engineering
Turku/Abo, Finland, 16-19 June 2024 (EFCE Event No. 801)

ISCRE is the most prestigious conference in chemical reaction engineering. Around 400 participants are expected from all over the world. The event is organised by the EFCE Working Party of Chemical Reaction Engineering (WP CRE) and Åbo Akademi University.

Topics: Fundamentals of chemical reaction engineering; Bridging molecular modelling, thermodynamics and kinetics; Multiphase reactors and new reaction media; New reactor structures: from micro to milli and macro; Process dynamics and safety; Process intensification in reaction engineering; Reaction and bio-reaction engineering of renewables; Reaction engineering crossing the boundaries; Education session: what to teach in the future

The call for papers will open on 1st October 2023. Deadline for abstract submission: 15 January 2024

Website: https://www.iscre28.org/

18th European Symposium on Comminution and Classification – ESCC 2024
Miskolc, Hungary, 24-26 June 2024 (EFCE Event No. 798)

The Hungarian Chemical Society and the University of Miskolc will organise the 18th ESCC on behalf of the EFCE Working Party Comminution and Classification. This bi-annual conference has a long history of facilitating impactful discussions and networking and results dissemination among expert professionals from both academia and industry of the field since 1964.

This new event will further broaden the traditional scope of ESCC conferences of fundamentals of breakage, advanced modelling of fine- and coarse comminution and classification processes and applications for various industries, i.e. mineral processing, bio-refinery, food, pharmaceutical, chemical, electronic and materials industries with waste recycling and with mechanochemical-mechanofusion processes. The fundament of the circular economy is the recirculation of previously used materials (wastes) of which central elements

Save the date!

ECCE15 & ECAB8 - 15th European Congress of Chemical Engineering & 8th European Congress of Applied Biotechnology

Lisbon, Portugal, 7-11 September 2025

(EFCE Event No. 783)

are the first comminution and separation mechanical processes.

Topics: Fundamentals of particle breakage; Innovative methods for particulate characterization; Coarse grinding and classification processes, especially for minerals, ores, cement and other materials; Grinding, dispersing and classification of fine particles, micro- and nanomilling applied to pharmaceutical, chemical, material, and electronic industries. Cell disintegration and recovery of high value-added products in biorefinery, green processes, food industries; Comminution and separation in recycling industries and waste processing: plastic wastes, WEEE, MSW, construction and demolition wastes, agricultural wastes, used solar panels, used wind turbines, and other wastes; Mechanochemical and mechanofusion processes, mechanical bulk and surface transformations, mechanical alloying; Transport and process modelling across length scales (CFD, multiphase flow, DEM, PBM, …); Wear, erosion and product contamination; Plant operation, innovations in milling and classification technologies including automation, machine learning, in line sensors, etc.

Further information will follow.

Website: https://escc2024.mke.org.hu

Contact

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