

ECCE  
AB23

17 - 21 September 2023, Berlin/Germany



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



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

17 - 21 September 2023,  
Berlin, Germany

## Call for abstracts for poster presentations and final call for abstracts for oral presentations

ECCE&ECAB2023 will showcase cutting-edge solutions: sustainable processes and products, new materials, solutions for energy storage, novel therapeutics and other most urgently needed innovations.

Organised by DECHEMA e.V. in cooperation with the European Federation of Chemical Engineering (EFCE) and the European Society of Biochemical Engineering Sciences (ESBES), the conference unites chemical and process engineers, biotechnologists, bioprocess experts, chemists, material scientists and related disciplines with a focus on applied research and development.

### Plenary lectures:

- *Catalysis for a better world*  
Prof. Dr. Benjamin List, Director of the Max Planck Institute for Coal Research and Nobel Laureate in Chemistry, Mülheim an der Ruhr/DE

Dear Readers,

Welcome you to the first 2023 issue of EFCE News! This issue contains much information about recent and upcoming EFCE Awards, activities and events. If you have any comments/suggestions, please contact us.

With kind regards

*Giorgio Veronesi*  
EFCE President

### In this issue:

- ECCE14 & ECAB7 – Call for Papers
- EFCE Awards – Calls for nominations and applications: Process Intensification, Crystallization, Mixing; Student Mobility Award
- Obituary Prof. Alvin Nienow
- Working Party and Section News in brief: Food, Education
- News from the Executive Board
- News about the official EFCE Journals
- EFCE Events in 2022/2023

- *Process Engineering in Food: Food security and Nutrition for all*  
Christoph Hartmann, Head of Academic Alliances & Expertise Development, Société des Produits Nestlé S.A., Vevey/CH
- *(Bio)chemical engineers of the 21st century - Are we preparing well them for their professional future?*  
Prof. Jarka Glassey, Newcastle University, Newcastle upon Tyne/UK
- Plenary Lecture of the Early Career Chemical Engineers  
*A systems engineering approach for novel and sustainable value chains in life sciences*  
Dr. Maria Papathanasiou, Imperial College London/UK
- *We change the world and the world changes us: the Anthropocene through the lenses of evolution*  
Prof. Telmo Pievani, University of Padua/I

**The Call for Papers is still open!**

The Organizing Committee invites you to [submit abstracts of lectures and posters](https://ecce-ecab2023.eu/topics) to nine main topics. For details see <https://ecce-ecab2023.eu/topics>)

**Final deadline for submission of abstracts for oral presentations: 12 February 2023**

**Deadline for submission of abstracts for poster presentations: 15 March 2023**

**Exhibition and Sponsorship:**

The exhibition is an integral part of ECCE & ECAB 2023 and offers a unique opportunity to promote your technologies, products and services in the broad field of chemical engineering. We offer a range of sponsorship and exhibition options that can be tailored to your requirements and to suit your budget. For details, please consult the [Exhibition and sponsorship brochure](#)

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

## Working Party and Section News in Brief

### 16th European PhD Workshop on Food Engineering and Technology

The EFCE Section on Food is pleased to announce its 16th European PhD Workshop on Food Engineering and Technology which will take place on 9-10 May 2023 in Copenhagen, Denmark.

Organised every year, the Workshop is a unique opportunity for your highly qualified PhD students and recently graduated Postdocs to present and discuss their projects and to strengthen their network in academia and industry.

**The call for nominations is open.**

Original research papers on innovative topics at the interface between food and engineering are welcome, particularly those of relevance to industry.

**Deadline for submission of the relevant documents via the Workshop website: 28 February 2023.**

More information about the event and the application procedure can be found on the website: <https://european-phd-workshop.com/>

### Reminder: Engineering Ethics Good Practice Exchange – Questionnaire of the Working Party on Education

The rapidly evolving chemical engineering (CE) practice led to a number of professional competencies gaining more prominence in various accreditation requirements. Engineering ethics is particularly challenging for the education community to effectively implement in the existing curricula. EFCE Working Party on Education wishes to support the educators by creating a 'good practice for sharing' resource. Thus, we would like to find out what approaches are used in your institution to support important ethical considerations in the curriculum.

[Go to questionnaire](#)

*All your responses will be treated in confidence, and we will share all the outcomes through the WPE website. We are also happy to discuss these topics with you individually, if you wish to provide your contact details. This short questionnaire should take no more than 10-15 min of your time.*

HAVE YOU STUDIED  
CHEMICAL ENGINEERING  
IN MORE THAN  
ONE COUNTRY?



**YES? THEN BE LIKE PAULINA**

**AND WIN THE  
EFCE STUDENT MOBILITY AWARD!**



## EFCE Awards – Calls for nominations and applications

### Still open for applications: Student Mobility Award 2023

The prestigious **EFCE Student Mobility Award** is presented to the best European chemical engineering students who have studied in different countries. It will be awarded at ECCE14 & ECAB7 (website: <http://www.ecce-ecab2023.eu/>) to be held in Berlin, Germany, from 17 to 21 September 2023.

**Deadline for submission of applications: 1 March 2023.**

For details on the application procedure, supporting documentation and download of the application form, please visit the EFCE website at: [https://www.efce.info/Student\\_Mobility\\_Award.html](https://www.efce.info/Student_Mobility_Award.html)

**Be inspired!** Watch the video at <https://youtu.be/Jyq3sh9foXY>

**The 2023 EFCE Student Mobility Award is generously sponsored by BASF SE.**

## The following calls for EFCE Excellence Awards for Young Researchers are still open:

### EFCE Excellence Award in Process Intensification 2023

This biennial award recognises an outstanding PhD thesis in the field of process intensification and will be presented at the European Process Intensification Conference – EPIC8 (Conference website: <https://epic2023.pw.edu.pl>), which will be held in Warsaw, Poland, on 31 May - 2 June 2023.

**The deadline for submission of nominations is 28 February 2022.**

Further information about the nomination procedure, eligibility, and supporting documentation can be obtained at: <http://www.efce.info/ExcellenceAwardProcessIntensification.html>

**The Award is generously sponsored by Microinnova Engineering GmbH.**

### EFCE Young Researcher Award in Mixing 2023

The **Young Researcher Award in Mixing** recognises the work of a young researcher in his/her early career, which demonstrates an outstanding contribution to research and/or practice in mixing. It will be presented at the 17th European Conference on Mixing to be held in Porto, Portugal on 2-5 July 2023 (Conference website: <http://mixing17.eu/>). Any young researcher (less than 35 years old) who has

completed his/her PhD in the field of mixing at a European university and is currently active in the mixing research is eligible for nomination.

### **Closing date for nominations: 1 March 2023**

For further information about the nomination procedure, eligibility, supporting documentation, etc., please refer to the EFCE website at:

[https://www.efce.info/YoungResearcherAward\\_Mixing](https://www.efce.info/YoungResearcherAward_Mixing)

**The Award is generously sponsored by EKATO.**

## **EFCE Excellence Award in Crystallization 2023**

This triennial award has been instituted to recognise a PhD thesis or paper(s) of a scientist in an early stage of his/her career, who has made excellent contributions to the understanding or the industrial application of crystallization. It will be presented at the 22nd International Symposium on Industrial Crystallization – ISIC 2023 (Conference website: <https://www.isic2023.com/>) to be held in Glasgow, UK, from 5 to 8 September 2023.

### **Closing date for nominations: 30 May 2023**

For further information about the nomination procedure, eligibility, supporting documentation, and the online submission form, please visit the EFCE website at:

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

## **The following calls for EFCE Awards for Senior Scientists and Industrial application are still open:**

### **EFCE Process Intensification Award for Industrial Innovation 2023**

The Award recognises an outstanding industrial application in the field of process intensification and will be presented at the 8th European Process Intensification Conference - EPIC 8 (Conference website: <https://epic2023.pw.edu.pl>), which will be held in Warsaw, Poland, on 31 May - 2 June 2023.

Any employee or a team of employees of

a company with operations in an EFCE Member Country is eligible for nomination.

The nominated industrial innovation must be either stage of pilot-scale or full-scale industrial operation and it must have been implemented between 1 January 2019 and 31 December 2022.

### **The deadline for submission of nominations is 28 February 2022.**

For further information about the nomination procedure, eligibility, and supporting documentation, visit:

[https://www.efce.info/PI\\_Award\\_Industrial\\_Innovation.html](https://www.efce.info/PI_Award_Industrial_Innovation.html)

**The Award is generously sponsored by the European Process Intensification Centre – EUROPIIC.**

## **Alvin and Helen Nienow Lifetime Recognition Award in Mixing 2023**

The Lifetime Recognition Award is presented to a senior researcher or industrial engineer belonging to one of the EFCE member countries in recognition of his/her outstanding contribution to mixing research and practice throughout his/her career. The Award will be presented at the 17th European Conference on Mixing to be held in Porto, Portugal on 2-5 July 2023 (conference website: <http://mixing17.eu/>).

### **Closing date for nominations: 1 March 2023**

For further information about the nomination procedure, eligibility, supporting documentation, etc., please refer to the EFCE website at:

[https://efce.info/Alvin\\_and\\_Helen\\_Nienow\\_LifetimeRecognitionAward\\_Mixing](https://efce.info/Alvin_and_Helen_Nienow_LifetimeRecognitionAward_Mixing)

**The Award is generously sponsored by Alvin and Helen Nienow.**

Professor Alvin W Nienow, DSc, FICChemE, FREng 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 are sponsoring this prize starting from the 2021 edition 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.

# Professor Alvin W Nienow FREng, BSC(Eng), PhD, DSc, Dhc, CEng, CSci, MAIche, FICheme, FHEA, HonMCzSChE 1937-2022

## An Obituary and Memorial by Arthur W. Etchells DuPont Fellow emeritus

Our friend and colleague Alvin Nienow passed away in October. He had been doing poorly for about a year, but when my wife and I visited him about two weeks before his death he was in good spirits. We spent a pleasant Sunday afternoon chatting on the balcony of his flat overlooking the Thames. During the pandemic he kept some communications going by Zoom particularly with his North American mixing friends.

He was a giant in the field of fluid mixing and his contributions to the whole field were immense. We have attached the write up from the University of Birmingham UK to give one an idea of the breadth of the person we have lost.

A good place to begin in understanding any aspect of fluid mixing is with the papers of Nienow et al. in a specific sub-field such as solids suspension, gas dispersion, liquid dispersion, micro-mixing etc. In these papers one will find some of the most significant work in the field of fluid mixing. In his later years Alvin began working in the field of bioprocessing and there also transformed especially the understanding of cell damage and scale up.

Alvin enjoyed industrial feedback and recognition of his work. His interest was understanding the phenomenon by careful and often clever experimentation. He was not particularly interested in application and left that to others. Since its founding about thirty years, he consulted with the Fluid Mixing Process consortium now part of FramatoneBHR. His jovial banter in the morning at morning steering committee meetings, always seemed to get those sessions off to a good start. He asked revealing and guiding questions always getting to the core of the topic. He was frequently



*Alvin Nienow in 2019 winning the Peter Dunnill Award in recognition of his outstanding achievements in the field of bioprocessing*

puzzled by how long it took a piece of his work to become a popular topic in the broader mixing community discussions. He would often mutter "we did that years ago" which was always true.

I became deeply involved with Alvin when he asked me to join him and Professor John M. Smith in a series of industrially oriented courses they taught in Sweden and soon after we received similar proposal for a series of courses for industry from Center for Professional Advancement. These courses lasted several decades until Professor Smith's retirement and death and then Alvin and I

continued the courses for about a decade more. I was to bring in the industrial angle versus the two academics.

Together we went through the eras of 35 mm slides that did not always fit, and film reels that did not always wind correctly to Mylar® overheads and VHS videos, to computers and PowerPoint slides. Initially we did live experiments with equipment supplied by friends at Lightnin. Our styles of lecturing were very different. Ever dedicated to his work during the breaks for the lectures Alvin would be in his room proofing a thesis or a forthcoming paper. Alvin was a quiet but forceful speaker. His slides were complete often consisting only of figures from his papers. Alvin was kind, funny, and always ready to talk and help.

Our courses in Sweden were in the months of February and March when the Scandinavians had nothing better to do than attend courses and in November in Florida which the professors found delightful. Our wives attended a number of these events and became good friends as well.

Alvin was an experimentalist. He loved analyzing data. His remarkable output was due to the teams he put together with his capable lieutenants who ran, the teams of graduates, under-graduates and technicians who did the work. He brought in students from around the world, from the UK, the USA, China, Japan, Poland, Italy, Germany, France, Malaysia and many other places.

He himself also travelled around the world often with his wife Helen, who he affectionally called Sparks. If any related conference needed a keynote speaker Alvin was sure to be there and if any new journal needed a special article he was there.

Alvin particularly enjoyed the North American Mixing Forum (NAMF) conferences with their combination of technical discussion and fun. Several decades ago, NAMF gave Professor Nienow an award for his outstanding contribution to the science and technology of mixing.

Alvin loved life sports, music, and dancing. On our teaching jaunts he would drag us through the snow-covered old town of Stockholm or the warm winter streets of Fort Lauderdale, hunting for elusive jazz cafes. Alvin was proud of his family, children and grand children and their accomplishments. He enjoyed trips with his family to Cornwall,



*In recognition of his outstanding contribution to Mixing Science and Technology in Europe, Nienow was the Lifetime Recognition Award Winner in 2003. Award winners 2000-2006 pictured (from left to right): John Smith, Alvin Nienow, John Bourne, Ivan Fort*

skiing in France and other remote places.

To many Alvin appeared and acted like a typical beer and cricket Englishman. He was actually half American as his father had moved to the United Kingdom after World War I and married an English girl and lived in London. Alvin was such a good athlete that he considered being a professional cricketer but decided on chemical engineering. This was Chemical Engineering's gain. He considered claiming American citizenship but decided staying in the United Kingdom. After University he tried industry but quickly went back to education and research.

To many Americans Alvin looked and acted like an Englishman with a continental dash because of the moustache and goatee.

An example of this joy in life were the blue alligator shoes. While visiting us in Philadelphia Alvin and I passed by a men's clothing store window and a pair of blue alligator shoes caught Alvin's eye. We passed on to dinner but when his retirement came up later that year I got his shoe size from Helen, Alvin's wife, and purchased them. At the rather formal retirement party I gave Alvin the shoes and he was delighted. They went on immediately along with an appropriately wild pair of socks supplied by Richard Grenville. On many occasions after that the shoes were produced if there was to be music or dancing.

# News from the Executive Board

## EFCE donates surplus to humanitarian efforts in Ukraine

EFCE's Executive Board last year decided to help support the humanitarian efforts in Ukraine with a donation to the Red Cross/ Red Crescent Movement's Ukraine Appeal.

The €10,412 donation consisted of the previous year's surplus, plus the 2022 membership fee of the Boreskov Institute for Catalysis - EFCE's sole current membership organization from Russia.

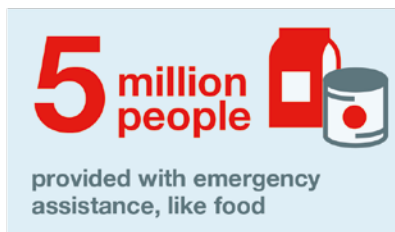
"We also encouraged our member societies to support the Ukrainian chemical engineering community and in general the Ukrainian population in such dramatic times. One year has passed since Russian invasion started and unfortunately we do not see signs to let us hope in an imminent start of negotiations, while people are suffering under unbearable conditions. Our thoughts are with the families of those killed, injured or displaced from their homes" said Giorgio Veronesi, President of EFCE.

EFCE has now received a report from the Red

Cross to detail how its donation has helped the humanitarian efforts in the warzone. So far, 5 million people have been provided with vital assistance, such as food; 8 million people have been given improved access to clean water; 718,000 people have been reached with healthcare; and 367,000 people have received mental health and psychosocial support.

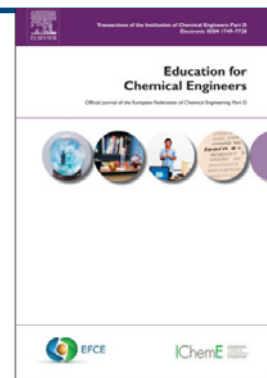
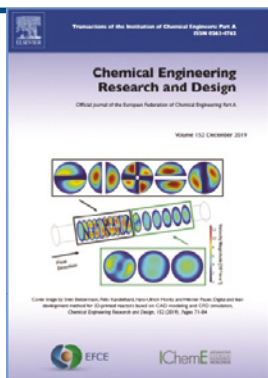
The effects of the conflict are continuing unabated. Not only was the work of the Red Cross and Red Crescent teams more needed than ever during the cold Ukrainian winter months. There are also knock on effects around the world due to the effect on energy supplies and food - before the conflict, Ukraine and Russia together exported around 73% of the world's sunflower oil, 34% of the world's wheat, and 27% of the world's barley (Observatory of Economic Complexity). Millions around the world are impacted by the price rises and food shortages.

You can access the full report [here](#)



British Red Cross

Sodel Vladyslav / Shutterstock.com



## 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:

### **Chemical Engineering Research and Design**

<https://twitter.com/ChemEngResDes>

### **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**

<https://twitter.com/FBPJournal>

### **Sustainable Production and Consumption**

<https://twitter.com/SustProdCons>

### Read journal papers for free

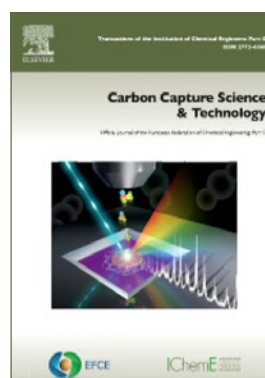
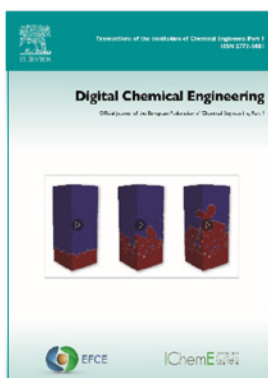
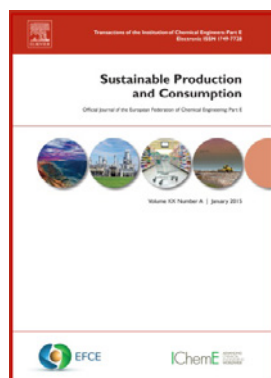
The following articles / issues are set for free access periods. In addition to these, articles that are published via the open access route in the journal are also freely available to all. These are identified in ScienceDirect by a green dot. It is possible sign up to an RSS alert specifically to inform when a new open access article is published in the journal – see individual journal pages to set this up.

### **Chemical Engineering Research and Design**

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

Freely available content:

- January 2023 issue (Volume 189)  
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/vol/189/suppl/C>
- **NEW** Chemical Engineering in Latin American: Challenges and Opportunities  
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/10PCGTWCLR1>





- 100 years of IChemE  
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/10QRQR0JV67>
- Intelligent Green Oil and Gas Engineering  
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/103K9002JMT>
- Emerging Stars  
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/107XHL7S4S2>

### **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>
- **NEW** Aqueous Emerging Pollutants and Treatment  
<https://www.sciencedirect.com/journal/process-safety-and-environmental-protection/special-issue/10V8TN67W17>

### **Food and Bioproducts Processing**

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

Freely available content:

- January 2023 issue (Volume 137)  
<https://www.sciencedirect.com/journal/food-and-bioproducts-processing/vol/137/suppl/C>
- **NEW** Fouling and Cleaning in Food Processing 2022  
<https://www.sciencedirect.com/journal/food-and-bioproducts-processing/special-issue/104185R62Q6>

### **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>

<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>

Freely available content:

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

### **Digital Chemical Engineering**

**Gold Open Access – APC (Author Processing Charge) fully waived on all submissions received before 29 May 2023**

Freely available content:

- **NEW** All content freely available at:  
<https://www.sciencedirect.com/journal/digital-chemical-engineering>
- **NEW** Special Issue - Process Systems Engineering Brazil - PSE-BR – 2022  
<https://www.sciencedirect.com/journal/digital-chemical-engineering/special-issue/10CH29DRG47>
- **NEW** Special Issue - Modeling, Control and Monitoring of Process Systems in the Era of Big Data  
<https://www.sciencedirect.com/journal/digital-chemical-engineering/special-issue/10B8F6PFXLX>
- Special Issue - Machine Learning for Chemical Processes  
<https://www.sciencedirect.com/journal/digital-chemical-engineering/special-issue/10JTPTKD9LS>

### **Carbon Capture Science & Technology**

**Gold Open Access – APC (Author Processing Charge) fully waived on all submissions received before 30 June 2023**

Freely available content:

- **NEW** All content freely available at:  
<https://www.sciencedirect.com/journal/carbon-capture-science-and-technology>

## 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](mailto: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: Heterogeneous Catalysts for Sustainable Energy Production and Environmental Applications (Manuscript submission deadline **31 May 2023**)

### ***Process Safety and Environmental Protection***

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

Special Issue: Physics-based machine learning application to process safety (Manuscript submission deadline **28 February 2023**)

Special issue: Resilience Assessment and Management (Manuscript submission deadline **31 March 2023**)

### ***Education for Chemical Engineers***

<https://www.sciencedirect.com/journal/education-for-chemical-engineers/about/call-for-papers>

Special issue: Latest pedagogical developments in chemical engineering education in Latin America: innovative approaches inside and outside the classroom (Manuscript submission deadline **31 March 2023**)

Special issue: Accreditation (Manuscript submission deadline **31 May 2023**)

### ***Sustainable Production and Consumption***

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

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

Special issue: The Road to Net-Zero: Transition Challenges and Solutions (Manuscript submission deadline **28 February 2023**)

### ***Digital Chemical Engineering***

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

**NEW** Special issue: Ethics and Responsible Technology (Manuscript submission deadline **15 May 2023**)

Special issue: AI for intelligent decision making of process and energy systems (Manuscript submission deadline **28 February 2023**)

### ***Carbon Capture Science & Technology***

<https://www.sciencedirect.com/journal/carbon-capture-science-and-technology/about/call-for-papers>

Special issue: Accounts of Carbon Capture Research (Manuscript submission deadline **30 April 2023**)

Special issue: Biomass-related Carbon Capture (Manuscript submission deadline **31 March 2023**)

# Events organised by or on behalf of EFCE in 2023

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

## VIII International Congress "Engineering, Environment and Materials in Process Industry 20–23 March 2023, Mountain of Jahorina, Bosnia and Herzegovina (EFCE Event No. 789)

The biannual event, organised by the Faculty of Technology Zvornik, traditionally combines great scientific content with stimulating lectures, networking opportunities and rich social programme. The purpose of the event is to discuss the current issues of the processing industry in a comprehensive and multidisciplinary manner, concerning sustainable development and environment protection. The congress seeks to provide a platform for researchers, scholars, PhD students and engineers working in the field of chemical engineering and technology, food engineering, environmental engineering, materials, chemistry, and biochemistry, which would allow a discussion of fundamental and applied research and facilitate international communication and collaboration between academia and industry.

**Topics:** Chemical and Electrochemical Engineering; Food Engineering and Biotechnology; Environmental Engineering; Materials and Material Characterization; Nanotechnology; Inorganic Chemistry and Technology; Organic Chemistry and Technology, Polymers; Plasma Technology; Energy Efficiency and Renewable Energy Sources; Textile Engineering; Corrosion and Protection of Materials and Thermal Power Plants; Metallurgy; Management in the Process Industry; General Sections.

**Special Session:** Aluminosilicate Materials and Technology

**Plenary speakers:** George Dedoussis, Harokopio University, Athens, Greece; Dr. Suzana Apostolov, University of Novi Sad, Serbia; Dr. Srećko Stopić, RWTH Aachen University, Germany; Dr. Maria Loizidou, National Technical University of Athens, Greece; Dr. Constantinos Georgiou, Agricultural University of Athens, Greece; Dr. Mariya Shamzhy, Charles University, Prague, Czech Republic; Dr. Rui Costa, Polytechnic Institute of Coimbra, Portugal.

**Programme:** The proceedings and book of

abstract are available online at: <https://eem.tfzv.ues.rs.ba/index.php/proceedings/>

**Register NOW!**

**Website:** <https://eem.tfzv.ues.rs.ba/>

## 15th Mediterranean Congress of Chemical Engineering - MECCE

**Barcelona, Spain, 29 May – 2 June  
2023 (EFCE Event No. 788)**

The MECCE is organised by the SEQUI (SOCIEDAD ESPAÑOLA DE QUIMICA INDUSTRIAL E INGENIERIA QUIMICA) in conjunction with Expoquimia 2023 (<http://www.expoquimia.com/en/home>).

The congress unites science and industry, being a unique bridge for the scientific and business communities to come together in an incomparable setting.

Innovations, solutions, discussions, and challenges will make up this edition of the chemical engineering congress.

**Topics:** The topic matrix is available at <https://www.mecce.org/index.php/programme/program>

**Plenary speakers:** Prof. Dr. Elazer R. Edelman, MIT, Institute of Medical Engineering and Science, USA; Prof. Dr. Javier García, University of Alicante (UA), Spain; Prof. Dr. Alec Groysman, Honor President of Israeli Association of Chemical Engineers and Chemists, Israel; Prof. Dr. Angel Irabien, UC, Santander, Spain; Prof. Dr. Lourdes Vega, RICH Center, Khalifa University, Abu Dhabi, United Arab Emirates.

**Register NOW! Deadline for early-bird registration: 14 April 2023**

**Website:** <https://www.mecce.org>

## 8th European Process Intensification Conference – EPIC 8

**Warsaw, Poland, 31 May – 2 June  
2023 (EFCE Event No. 795)**

EPIC2023 is organised by Warsaw University of Technology, Faculty of Chemical and Process Engineering in cooperation with the EFCE Working

Party on Process Intensification.

The Conference will present an excellent opportunity to learn about recent implementations of PI in industry, the latest advances in research, and new developments at technology providers. Furthermore, discussions on the state of the art and future perspectives of process intensification will keep you updated on future trends.

**Topics:** Batch to Continuous and Flow Chemistry-Based Processes; Microreactors and microfluidics; Intensified Activation, Mass and Heat Transfer; PI in Electricity- and Solar Energy-Based Manufacturing; Multifunctional Reactors and Hybrid Separations; Intensified Reactors for Energy and Environmental Applications; PI in Solids Processing; PI in Manufacturing of Advanced Materials; Advanced Materials for Process Intensification; Novel Process and Equipment Concepts; Dynamics and Control of Intensified Processes; PI and Digitalization; PI in Retrofitting; New Industrial Applications.

**Plenary speakers:** Prof. Prodromos Dapoutidis, University of Minnesota; USA; Dr. Manfred Nagel, Evonik Industries AG, Germany; Prof. Enrico Tronconi, Politecnico di Milano, Italy; Prof. Tom Van Gerven, KU Leuven, Belgium; Prof. Mirko Skiborowski, Hamburg University of Technology, Germany.

**For the industry:** (1) Industrial "Share Experiences" session; Partnership opportunities through various sponsorship and exhibition packages (see [Invitation to Partnership - EPIC2023](#))

**Awards:** The 2023 EFCE Excellence Award in Process Intensification and the EFCE Process Intensification Award for Industrial Innovation are planned to be presented during EPIC 8. **Deadline for nominations: 28 February** (details see above)

**Register NOW! Deadline for early-bird registration: 31 March 2023**

**Website:** <https://epic2023.pw.edu.pl>

## **11th World Congress of Chemical Engineering - WCCE11** **Buenos Aires, Argentina, 4–8 June 2023**

**Motto: The global chemical engineering working for a better future world**

WCCE11 is organized by the Argentinian Association of Chemical Engineers and is promoted and supported by the World Chemical

Engineering Council (WCEC) and the Inter-American Confederation of Chemical Engineering.

This Congress will take place in conjunction with the XXX INTERAMERICAN CONGRESS OF CHEMICAL ENGINEERING, the 2nd IBEROAMERICAN CONGRESS OF CHEMICAL ENGINEERING (CIBIQ 2023), and the ARGENTINIAN CONGRESS OF CHEMICAL ENGINEERING (CAIQ 2023).

The Congress aims to provide a platform for researchers, engineers, academicians, and industrial professionals to present their research results and development activities in Chemical Engineering. At the same time, it is a great opportunity for all the delegates to exchange new ideas and application experiences, establish business and research connections and find global partners for future cooperation.

**Topics:** Chemical Engineering Science; Chemical Reaction Engineering and Catalysis; Process Systems Engineering; Biotechnology, Bio-economy, Bio-industry; Food Engineering; Renewable and Non-renewable Energy; Materials and Nanotechnology; Process Industries, Innovative Processes and Process Intensification; Industry 4.0 Smart factory, Big data; Education in Chemical Engineering; Process Safety; Sustainability and Environment; Business and Project management. There will also be various co-located Joint Events and a Special Event on Process Systems Engineering (PSE) Methods and Tools.

**Register NOW! Deadline for early-bird registration: 15 March 2023**

**Website:** <https://www.wcce11.org/>

## **33rd European Symposium on Computer-Aided Process Engineering (ESCAPE-33)** **Athens, Greece, 18-21 June 2023** **(EFCE Event No. 794)**

The ESCAPE-33 event is organized under the auspices of the [European Federation of Chemical Engineering](#), its [CAPE Working Party](#) (CAPE-WP), the [Technical Chamber of Greece](#), the Pan Hellenic Association of Chemical Engineers, and the [National Technical University of Athens](#). ESCAPE-33 will host free training sessions in data modelling, simulation and commercial optimization software for conference participants.

**Topics:** Modelling and optimization for multi-scale integration; Control, scheduling, and operability at the process and enterprise-level; Safe and

sustainable products by design; Green and sustainable processes for the circular economy; Systems methods in industrial biotechnology and biomedical applications; Multi-scale energy systems engineering (organized by the EFCE energy section); Sustainable supply chains and ecosystems; Education and knowledge transfer.

**Programme:** The scientific program will include plenary and invited presentations, as well as oral and poster presentations, and a Special Session to honour the legacy of late Prof. Christodoulos Floudas. The program will also include special sessions and additional workshops in thematic areas of systems engineering applications for Industrial Biotechnology, data models and AI applications (embedded models, deep learning, multi-scale integration).

**Awards:** Special awards and winners are reserved for the best papers and posters of the conference. Each award consists of certificate and cash prizes. Furthermore, a new EFCE Award in Process Systems Engineering is planned to be presented in collaboration with the AIChE.

**Register now! Deadline for early bird registration: 23 March 2023**

**Website:** <https://escape33-ath.gr/>

### **13th European Symposium on Electrochemical Engineering – 13thESEE2023**

**Toulouse, France, 26–29 June 2023 (EFCE Event No. 793).**

The 13th ESEE 2023 is organised by the Université de Toulouse III Paul Sabatier, Laboratoire de Génie Chimique in cooperation with the EFCE Working Party on Electrochemical Engineering.

This symposium expects: to enable to you to share the advances of research in the field of the electrochemical engineering and the electrochemistry; to strongly promote fascinating discussions and fruitful exchanges on any electrochemical field, to stimulate the required synergy for the generation of multilateral research collaborations, between academic and/or industrial researchers, junior and/or senior, on any research and/or research and development related to electrochemistry and/or electrochemical processes. The scientific programme will focus on Electrochemical Engineering as the key enabling overcoming current societal problematics: ENERGY - ENVIRONMENT - LIFE...

**Topics:** New' Challenges: Societal -Economic

-Environmental Impacts, recycling and valorization, life cycle assessment ...; Reduced scale and 3-D electrochemical Engineering; Energy conversion and storage; Electrochemical degradation of wastes-pollution abatement, Water treatment electrochemistry, CO2 electromanagement,...; All areas of electrosyntheses, photoelectrochemistry.; Electro-separations; Electrodeposition-Electro-crystallization-Electrochemical machining and applications; Design modelling and simulation of electrochemical devices; New materials for electrochemical reactors and peripherals; Corrosion and Biocorrosion engineering; Industrial problematics - Speakers from industry highly solicited.

**The call for papers is open. Deadline: 31 March 2023**

Contributions from PhD students are strongly encouraged.

**Special Issue:** Following the symposium, a Special Issue is planned at the journal Electrochimical Acta. The issue is expected to contain 20-25 papers, selected between oral and/or poster presentations given during the symposium. Researchers are invited to indicate (during their registration or later/before the end of the symposium) if they wish to submit an extended manuscript as publication in the special issue.

**Sponsor: Université Toulouse III – Paul Sabatier**

**Award:** The 2023 Carl Wagner Medal of Excellence in Electrochemical Engineering will be presented during the Symposium.

**Website:** <https://13thesee2023.sciencesconf.org/>

### **17th European Conference on Mixing Porto, Portugal, 2–5 July 2023 (EFCE Event No. 773)**

Mixing 17 is organised by the University of Porto on behalf of the EFCE Working Party on Mixing.

Mixing is at the heart of most chemical processes, and it is generally the cornerstone when moving from lab to industrial processes. The widespread of CFD, and advanced fluid mechanics experimental techniques led to great evolutions on this field of chemical engineering over the last decades. The European Conferences on Mixing have been

a privileged forum attracting academics and industrialists from all over the world to discuss progress on mixing technology, research, and applications in the process industries. Mixing 17 will run under the unifying theme **“Mixing as a solution for fundamental problems of modern societies”**.

**Topics:** Mixing in Turbulent Flows; Mixing in Laminar Flows; Mixing in Multiphase Flows; Mixing and Complex Rheology; Mixing Reactive Systems and Product Development; Mixing Equipment and Technology; Mixing Modelling, Simulation and Theory; Mixing in Biotechnology Applications.

**Special Issue:** Following Mixing17, selected contributions will be given the opportunity to submit a full paper to Chemical Engineering Research & Design journal (Elsevier) for publication in a special issue dedicated to the conference.

**Award:** The 2023 Young Researcher Award in Mixing and the 2023 Alvin and Helen Nienow Lifetime Recognition Award in Mixing are planned to be presented during the Symposium (details see above). **Deadline for nominations: 1 March 2023**

**Register NOW! Deadline for early bird registration: 23 March 2023**

**Website:** <http://mixing17.eu>

## **8th European Drying Conference – EuroDrying '2023** **Łódź, Poland, 5–7 July 2023 (EFCE Event No. 791)**

The Lodz University of Technology, Poznan University of Technology and EFCE Working Party on Drying are proud to invite you to the 8th European Drying Conference in Łódź, Poland.

Welcome to the fascinating city of four cultures in which technology is intertwined with culture and modernity with history. In Łódź, the city of manufacturers, everyone will find something for themselves.

**Topics:** Fundamentals, modelling and simulation; Physical properties and product quality; Industrial processes and equipment; Measurement and process control; Environmental issues; Process intensification; Drying of gases and liquids; Drying of powdered solids; Drying of biomass for energy applications; Drying of food and agricultural materials; Drying of biological and pharmaceutical materials; Drying of chemicals

and polymers; Drying of wood, pulp and paper and forest products.

After receiving a recommendation by the Scientific Committee, conference participants will have the opportunity to publish selected papers in Special Issue of Drying Technology journal.

**Register NOW! Deadline for early bird registration: 28 February 2023**

**Website:** <https://www.eurodrying2023.p.lodz.pl/>

## **ECCE14 & ECAB8 - 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. ECCE&ECAB2023 will showcase cutting-edge solutions: sustainable processes and products, new materials, solutions for energy storage, novel therapeutics and other most urgently needed innovations.

**Topics:** A Green Deal – a common task for chemical and biochemical engineers (A1. Climate and energy / A2. Sustainability and circular (bio) economy / A3. Water / A4. Food in the focus / A5. Wastes); B Chemical and Biochemical Engineering in Medicine (B1. Bioprocess Engineering: Technologies for new drugs, vaccines, disinfectants and diagnostics / B2. Healthcare and Hygiene / B3. Pharmaceuticals and diagnostics / B4. New materials for medicine); C Acting Together - Biochemical and Chemical Engineering Integration (C1. Advanced technologies in bioproduction.../C2....and biomass processing / C3. Biomaterials, biochemicals and bioproducts); D Matter in Motion (D1. Continuous processes / D2. Process intensification and miniaturisation / D3. Mixing); E Faster and More Selective (E1. Reaction engineering and reaction kinetics / E2. Homogeneous, heterogenous and enzymatic catalysis / E3. Catalytic processes and technologies / E4. Catalytic and biocatalytic reactors ); F Solid Matter (F1. Advanced functional materials / F2. Biomaterials (see C3) / F3. Thin films and nanomaterials / F4. Polymers / F5. Characterisation of solids); G

Tools and Toolkits for Chemical and biochemical reactors (G1. Transport phenomena, separation / G2. Thermodynamics and diffusion / G4. Electrochemistry and photo-electrochemistry / G5. Computations); H Digital transformation (H1. Digital transformation); I Education / Early career programme (I1 Education of (bio-)chemical engineers / I2. Motivating high school students for STEM courses).

**Detailed topics list:** <https://ecce-ecab2023.eu/topics>

**The call for papers is open. Deadline for submission of abstracts for oral presentations: 12 February 2023**

**Website:** <https://ecce-ecab2023.eu/>

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

The conference aims at bringing together researchers, engineers, executives, representatives of the institutions to map the transition towards net zero carbon and fully renewable energy, driven by the recognition that global CO<sub>2</sub> emissions must be drastically reduced to keep global warming below the 1.5 °C target.

The objective is to provide up-to-date evidence on positive and negative environmental effects of the energy transition and on new technologies to drive/accelerate it.

The energy and environmental evolution will be enabled by policy frameworks and market instruments, accelerated by digitalization. Digital technologies will in fact make energy systems more connected, intelligent, efficient, reliable and sustainable. Conversely, digitalization is also changing markets, businesses and employment: new models are emerging, and conventional ones are phasing out.

The Conference will be structured in Plenary lectures by invited speakers, in selected Lecture presentations and in the Poster sessions.

**Topics:** I – Energy and other resources from the sea; II – Methanol as energy vector; III – Hydrogen: production, storage and utilization; IV – Carbon capture and storage technology; V – Production of chemicals, fuels and energy from biomass and waste; VI – How industry is adapting to the new challenges; VII – Sustainability in

hard to abate sectors; VIII – Sustainable energy production and storage; IX – Applications of digitalization to energy transition; X – Energy transition and risk management.

**The call for papers is open. Current deadline for abstract submission: 15 February 2023**

The full set of final selected papers will be published into Chemical Engineering Transactions Journal, indexed by SCOPUS and SCHOLAR

**Website:** <https://www.aidic.it/e2dt2023>

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