



Call for Papers

15th European Congress of Chemical Engineering (ECCE) & 8th European Congress of Applied Biotechnology (ECAB) and 3rd CIBIQ - Iberoamerican Congress on Chemical Engineering

8–10 September 2025, Lisbon, Portugal

The European Federation of Chemical Engineering (EFCE) and the European Society of Biochemical Engineering Sciences (ESBES), together with the Ordem dos Engenheiros/Colégio de Engenharia and the Portuguese Society of Biotechnology (SPBT) are excited to invite experts from academia and industry to ECCE & ECAB 2025 in Lisbon/

Portugal. This exceptional event will be held in partnership with the 3rd CIBIQ - Iberoamerican Congress on Chemical Engineering, providing a unique platform to foster collaboration and innovation within the Ibero-American chemical engineering community.

Prepare for a comprehensive scientific

Dear Readers,

Welcome to the year-end 2024 issue of EFCE News! This issue contains information about the ECCE&ECAB 2025, other recent and forthcoming EFCE events, EFCE awards, EFCE Working Party/Section news and the journal update. If you have any comments/suggestions, please contact us.

With kind regards and season greetings

Giorgio Veronesi
EFCE President

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- EFCE Awards: Awards in TTP and PI, Student Mobility Award. Reminder: Excellence Awards in Process Safety, Travel Grant 2024
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programme and a lot of opportunities to discuss the latest research and development across all areas of biotechnology, process engineering, and related disciplines. Attendees will gain insights into cutting-edge solutions for sustainable processes, innovative products, new materials, energy storage, healthcare advancements, and other urgently needed innovations that are shaping the future.

“Engineering for a Sustainable World: Summit for Clean Technologies & Brighter Legacy,” the core theme of the event, resonates with the United Nations’ Sustainable Development Goals (SDGs), highlighting the critical role of chemical and biochemical engineering in promoting sustainability.

Topics: Digital Transition, Artificial Intelligence – Applications, Impacts and Implications on Biochemical and Chemical Engineering; Education and Training next Generations (ESBES & EFCE legacy for Climate Neutrality); Energy Transition and Circular (Bio-)Economy; Health and (Bio-)Pharma; Novel Foods and Food Processing; Towards Net Zero and Climate Neutrality; Plus CIBIQ topics. For details, please visit see: <https://ecce-ecab2025.eu/Topics.html>

Plenary Speakers: Maria da Graça Carvalho, Portuguese Minister for Environment and Energy, Lisbon/P; Lino Dias, Bayer AG, Monheim/D, Emanuele Moioli, Politecnico di Milano/I and Paul Scherrer Institut PSI, Villigen PSI/CH (Early Career Plenary Lecture); Bojana Rosic, University of Twente, Enschede/NL

The call for papers is open.

Seize this opportunity to share your research and insights with leaders in the field.

**Deadline for a abstract submission:
14 February 2025**

[Submit your abstract here](#)

We look forward to your contribution!

Sponsoring and exhibition opportunities:

The exhibition is an integral part of ECCE & ECAB 2025 and offers a unique opportunity to promote your technologies, products and services in the broad field of chemical engineering and biotechnology. We offer a range of sponsorship and exhibition options that can be tailored to your requirements and to suit your budget. See [Sponsoring and Exhibition Opportunities](#)

Sponsors: BASF SE, Fluitec mixing + reaction solutions AG (Silver sponsors); Novo Nordisk, VentilAQUA (Bronze sponsors); BONDALTI, Turismo de Lisboa (further sponsors).

Stay Informed: For the latest updates and information about the conference, please check our official conference website regularly.

Congress website: <https://ecce-ecab2025.eu>

LinkedIn: [#EcceEcab25](#)

EFCE Travel Grant 2025 for ECCE15 & ECAB8

The EFCE Travel Grant provides support to early career members of EFCE or member societies to enable them to present their work at various EFCE events and to develop important networks to further their careers.

The call for applications for the Travel Grant of up to 600 EUR is open.

Applications should include an application form and a 2 min (max!) video from the applicants, telling in a few words why he/she should be selected.

Deadline for submission of applications: **June 2025**

For eligibility details and the application form, visit the EFCE website at: <https://efce.info/EarlyCareerCE.html#AwardsandGrants>

EFCE Awards – Calls for nominations and applications

Excellence Award in Thermodynamics and Transport Properties 2025

The European Federation of Chemical Engineering (EFCE) and its Working Party on Thermodynamics and Transport Properties (website: https://efce.info/WP_TTP) are pleased to announce the call for nominations for the **2025 EFCE Excellence Award in Thermodynamics and Transport Properties**. The Award recognises a PhD thesis and associated papers published in the preceding two-year period, which demonstrate an outstanding contribution to research and/or practice in thermodynamics and/or transport properties.

The award consists of a certificate, a cash prize and a travel grant and fee waiver to attend the **International Conference on Properties and Phase Equilibria for Product and Process Design – PPEPPD 2025** which will be held in Munich, Germany, on **11-15 May 2025**, where the award will be presented.

Nominations may be submitted by any PhD supervisor at a PhD-awarding institution in an EFCE Member Country or by a member of a national or regional member association of EFCE.

The nominated PhD thesis and publication(s) must address a topic relevant to the field of thermodynamics and/or transport properties. The thesis must have been completed and published and the PhD degree examined and awarded between 1 January 2023 and 31 December 2024.

Closing date for nominations: 15 January 2025

Further information about the nomination procedure, selection of candidates, eligibility, and supporting documentation, can be obtained from the EFCE website at: <https://efce.info/ExcellenceAwardTTP.html>.



The Excellence Award is generously sponsored by IFPEN.

IFP Energies nouvelles (IFPEN) is a major research and training player in the fields of energy, transport and the environment. From scientific concepts within the framework of fundamental research, through to technological solutions in the context of applied research, innovation is central to its activities, hinged around four strategic directions: climate, environment and circular economy – renewable energies – sustainable mobility – responsible oil and gas.

As part of the public-interest mission with which it has been tasked by the public authorities, IFPEN focuses its efforts on bringing solutions to the challenges facing society and industry in terms of energy and the climate, to support the ecological transition. An integral part of IFPEN, IFP School, its graduate engineering school, prepares future generations to take up these challenges.

Applied research programs are structured around four strategic priorities:

- climate, environment and circular economy: reducing the impact of human and industrial activities on the climate and the environment;*
- renewable energies: producing energy, fuels and chemical intermediates from renewable sources;*
- sustainable mobility: developing efficient, environmentally-friendly solutions for the transport sector;*
- responsible oil and gas: meeting the demand for energy and chemical products in a more environmentally-friendly manner.*

IFPEN thereby contributes to the creation of value by supporting French and European economic activity and the competitiveness of industrial sectors related to mobility, energy, and eco-industry.

See <https://www.ifpenergiesnouvelles.com/>

Industrial Innovation Award in Process Intensification 2025

The Federation and its Working Party on Process Intensification (website: http://www.efce.info/WP_PI) are pleased to announce the **2025 EFCE Process Intensification Award for Industrial Innovation** to be awarded for an outstanding industrial application in the field of process intensification.

The award comprises of a dedicated plaque and certificate, and the successful candidate or team will be invited to make a presentation at a special session during the **9th European Process Intensification Conference -EPIC 9**, which will be held in Athens Greece, on 4-6 June 2025. 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 2023 and 31 December 2024.

The deadline for submission of nominations is 31 January 2025.

For further information about the nomination procedure, eligibility, and supporting documentation, visit: https://www.efce.info/PI_Award_Industrial_Innovation.html

Student Mobility Award 2025

The European Federation of Chemical Engineering (EFCE) is pleased to announce its prestigious **Student Mobility Award**.

The objective of the award is to promote mobility among European chemical engineering students. The award is presented every two years to the best European students of chemical engineering who have spent one or more semesters studying abroad.

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

The EFCE Student Mobility Award 2025 will consist of three prizes:

1st Prize: EUR 2,000; 2nd Prize: EUR 1,500; 3rd Prize: EUR 1,000.

The prizes will be awarded during the 15th European Congress of Chemical Engineering (ECCE15) (website: <https://www.ecce-ecab2025>).



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

EUROPIC is a unique, industry-driven platform set up by a coalition of leading European companies. Our mission is to support members by structurally addressing the global trends and challenges facing the process/chemical industry. We do so by accelerating knowledge and technology transfer in the field of process intensification (PI). To support and integrate the entire value chain, EUROPIC actively connects science and business in innovative application-driven research. We create interfaces between academia, end users (manufacturers), engineering companies and technology providers.

See <https://europic-centre.eu/>

<https://www.ecce-ecab2025>), held in conjunction with the 8th European Congress of Applied Biotechnology (ECAB8) in Lisbon, Portugal, from 8 to 10 September 2025. The Student Mobility Award also includes an invitation to the Congress and a travel grant of up to EUR 500.

All students who are citizens of a European country in which EFCE is represented can apply for the EFCE Student Mobility Award if they have successfully studied for at least one semester (≥ 30 ECTU) in first or second cycle (e.g. bachelor, master) study programmes in chemical engineering in each of two or more different countries.

All documents should be submitted in **English** no later than 2 years after graduation.

Deadline for submission of applications: 1 March 2025.

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



The 2025 EFCE Student Mobility Award is generously sponsored by BONDALTI.

Bondalti is committed to contributing to a better world by creating innovative and sustainable chemistry, in which the energy transition plays an important role in its growth strategy. Bondalti is

in the Top 1% of the most sustainable companies in the sector worldwide, according to the EcoVadis global ranking.

Bondalti is the largest Portuguese company in the field of industrial chemistry, the largest Iberian producer of Chlorine, the European leader in Aniline sales and the export engine of the Iberian industry throughout the world. Bondalti also operates in the water treatment and recycling sector. It has industrial facilities in Estarreja and Sintra (Portugal), Cantabria and La Rioja (Spain), logistics facilities in Aveiro, Barreiro (Portugal) and Vigo (Spain), operations in Luanda (Angola), and offices in Lisboa (Headquarters, Portugal), Barcelona, Madrid, Pontevedra and Logroño (Spain).

Bondalti employs around 750 people and in 2023 had a turnover volume of more than 500 million euros. See <https://www.bondalti.com/>

Still open for nominations/applications

2025 Excellence Award in Process Safety

The triennial Excellence Award in Process Safety recognises a PhD thesis published in the preceding three-year period, which demonstrates an outstanding contribution to research and/or practice in the field.

**Closing date for nominations:
31 December 2024**

For further information about the nomination procedure, eligibility, and supporting documentation and the online submission form visit the EFCE website at <https://www.efce.info/ExcellenceAwardProcessSafety.html>

The Excellence Award is generously sponsored by the **European Process Safety Centre – EPSC** and will be presented at Loss Prevention 2025 which will be held in Bologna, Italy, on 6-11 June 2025 (website: <https://www.aidic.it/lp2025/>).

EFCE Travel Grant 2024

The call for applications 2024 for the Travel Grant of up to 600 EUR each is still open (for EFCE events held until the end of July 2025).

**Deadline for submission of applications:
10 December 2024** for participation in:

[5th European Forum on New Technologies: Artificial Intelligence in Chemical Engineering](#)

[Loss Prevention 2025](#)

[17th Chemical and Process Engineering Conference - ICheaP17](#)

[Eurodrying 2025](#)

For eligibility details and the application form, visit the EFCE website <https://efce.info/EarlyCareerCE.html#AwardsandGrants>

EFCE SpotLight Talks

5-14
November
2024

by the Working Parties
and Sections

12 webinars

Recordings of Spotlight Talks Series!

From 5 to 14 November the seventh series of virtual Spotlight Talks was organised by the EFCE Working Parties and Sections as an important means for sharing and disseminating the latest knowledge in chemical engineering science and offer a valuable opportunity to learn more about very specific topics, without having to travel.

This series featured 12 webinars, some of which were dedicated to the theme of sustainability, and involved the Working Parties on Agglomeration, Education, Electrochemical Engineering, High Pressure Technology, Loss Prevention and Safety Promotion in the Process Industries, Mixing, Multiphase Fluid Flow, Polymer Reaction Engineering, Static Electricity in Industry, and Thermodynamics and Transport Properties, the Sections on Food and Sustainability and the Early

Career Chemical Engineers Section. With an average of 92 participants per webinar, the series was again very successful in terms of quality of the presentations and the level of participation.

The recordings of the 7th Spotlight Talks are now available on EFCE's YouTube Channel or via https://efce.info/Spotlight_Talks.html

Recordings of previous Spotlight Talks are also available on our YouTube Channel.

We consider these Spotlight Talks as a low-barrier opportunity to get involved (or stay involved) in EFCE activities and they complement the in-person activities such as the ECCE&ECAB conferences that are organised in odd years. The next Spotlight Talks series is planned for spring 2025.

Wanted: Danckwerts Lecturer 2025

The 2025 Danckwerts Lecture is now open to nominations. Established in 1985, the Danckwerts Lecture recognises leading scholars in chemical engineering.

Nominees are expected to have made very strong contributions to research and its application in practice, and to be recognised as an international authority in their field. They should be able to give a lecture that is appropriate to the aim and scope of the journal Chemical Engineering Science.

The 2025 Danckwerts Lecture will be a highlight of ECCE&ECAB 2025, to be held in Lisbon, Portugal, in September next year.

For more information or to nominate, visit <https://www.icheme.org/sustainable-world/medals-and-prizes/services-to-the-profession/danckwerts-lecture/>.

Deadline for nominations is 31 January 2025.

The Danckwerts Lecture was established in 1985 to honour Professor Peter V. Danckwerts as a leading scholar in the field of chemical engineering and for his contributions as an Executive Editor of Chemical Engineering Science. Danckwerts was the second Shell Professor of Chemical Engineering at the University of Cambridge, and past president of the IChemE. The Danckwerts Lecture is co-sponsored by EFCE, Chemical Engineering Science, IChemE, and the American Institute of Chemical Engineers (AIChE). It is held in Europe as part of the European Congress of Chemical Engineering in odd years and in the US during the AIChE Annual Meeting in even years.



Working Party and Section News

In Memoriam Professor Enrico Drioli

We are deeply sorry to announce that Prof. Enrico Drioli passed away on October 31, 2024. Known to all as a tireless "Ambassador" of membrane science and technology at a global level, he was co-founder (in 1982) and Honorary President of the European Membrane Society (EMS) and contributed to the establishment of prestigious scientific journals, such as the Journal of Membrane Science.

He also co-founded the Institute on Membrane Technology (ITM) located in Rende (CS) Italy, in collaboration with the National Research Council

of Italy (CNR), one of the first institutes in the world entirely dedicated to the development and promotion of membrane technologies. During his directorship and in the years that followed, he guided and supervised researchers and students, worthy to mention PhD students of the European project "Erasmus Mundus Doctorate in Membrane Engineering (EUDIME)," which he coordinated. Among the many roles he held, Prof. Drioli served as Chair of the EFCE Working Party on Membranes, founded in 1986 and transformed into the EFCE Section on Membrane Engineering in 2007, promoting European cooperation and organising conferences/events on the subject. His vision, passion, enthusiasm, and determination will be missed. May he rest in peace.



Successful Summer School

From June 26th to June 28th the WP on Crystallization organized its biennial Summer School. The summer school was hosted by GSK and held in the Stevenage site (UK). The list of lecturers included: Dr. Kevin Back, Leif-Thore Deck, Prof. Heiko Briesen, Prof. Wim Noorduyn, Prof. Gabriele Sadowski, Prof. Daniele Marchisio, Dr. Kerstin Wohlgemuth, Dr. Ashwin Kumar Rajagopalan, Dr. Mei Lee and Dr. Nick Henley. The lectures covered different topics from fundamentals to applications: crystal forms and thermal characterization, nucleation, growth, aggregation and breakage, population balance modelling, thermodynamics, crystallization equipment, process design and control and industrial case studies. On the very last day, thanks to the help of professional GSK

facilitators, the students worked on some simple practical crystallization challenges. Informal exchanges were eased by numerous coffee breaks, common lunches and dinners and one social event (bowling night!)

The school was attended by 29 participants both from academia and industry. The WP is particularly grateful to Dr. Mei Lee from GSK for hosting the school, to Dr. Ashwin Rajagopalan, Dr. Thomas Vetter, Dr. Simon Schiele for the organization and to all the lecturers. Stay tuned for the next summer school to be held in 2025!

Photo caption: Group photo of the participants in the Summer School on Crystallization (photo: private)

EFCE Event Report

8th International Congress "Engineering, Environment and Materials in Process Industry" (EFCE event no. 789)

The Faculty of Technology Zvornik (University of East Sarajevo), Bosnia and Herzegovina, hosted the 8th International Congress on "Engineering, Environment and Materials in Process Industry" (EEM2023) at the Olympic ski resort of Jahorina from 20 to 23 March 2023. The EEM2023 gathered eminent researchers and professionals from over 27 countries. A total of 195 papers were submitted. The congress program was organised through plenary lectures, invited lectures and poster presentations. This year's event was supported by Hemijska industrija, Journal of Engineering & Processing Management, Journal of Chemists, Technologists and Environmentalists, Molecules | Special Issue "Conventional and Emerging Extraction Techniques for Compounds from Natural Source and Food", Molecules | Special Issue "Modeling Adsorption Properties of Molecular and Nanostructured Systems for Environmental Applications, Materials Protection. Since all congress events were streamed live on YouTube, those who were not able to attend EEM2023 online can watch the whole event here:

<https://www.youtube.com/live/oQ7vQvJC5Bs?feature=share>

<https://www.youtube.com/live/RQoeUYpnWBo?feature=share>

<https://www.youtube.com/live/B5z4ToEluP8?feature=share>

<https://www.youtube.com/live/qOSP8JG9F3Q?feature=share>

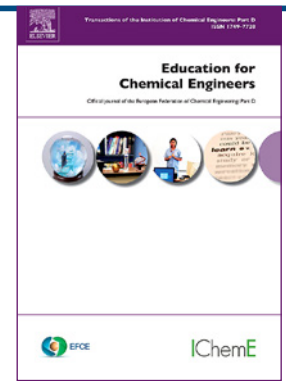
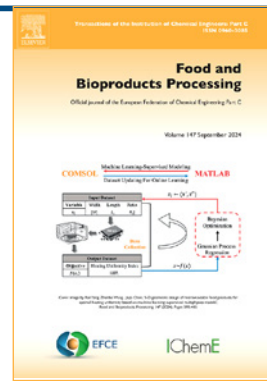
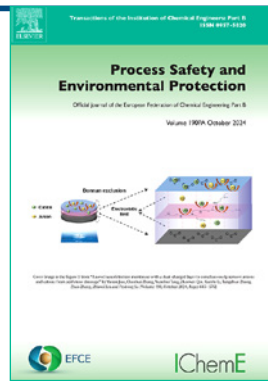
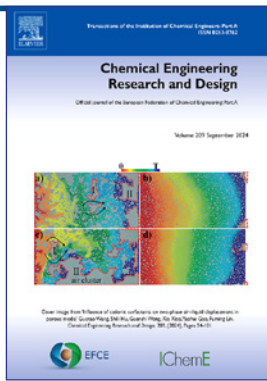


The EEM2023 featured Business-to-Business (B2B) meetings, allowing industry representatives to share ideas with Congress participants. The advancement of society increasingly relies on technology, industry, and economic development, making research and knowledge exchange vital. Effective communication is essential for successful collaboration between industry and academia, enabling the identification of real-world challenges and informing academia about industry needs. EEM2023 offered a unique platform for such exchanges, fostering cooperation that could lead to new projects and publications, thus promoting regional and international industrial development.

Additionally, the Congress dedicated a full day to the topic of Aluminosilicate Materials and Technology, highlighting its rapid growth and diverse applications. Participants engaged in discussions, had opportunities to publish manuscripts, and attended insightful plenary talks on this important area of research and development. The congress successfully facilitated both in-person and online participation, meeting its established goals, leading to the overall conclusion that it was a significant success.

Photos courtesy of University of East Sarajevo, Faculty of Technology Zvornik





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 LinkedIn:

Chemical Engineering Research and Design
<https://www.linkedin.com/company/chemical-engineering-research-and-design/>

Food and Bioproducts Processing
<https://www.linkedin.com/company/food-and-bioproducts-processing>

Education for Chemical Engineers
<https://www.linkedin.com/company/education-for-chemical-engineers/>

Sustainable Production and Consumption
<https://www.linkedin.com/company/sustainable-production-and-consumption/>

Carbon Capture Science & Technology
<https://www.linkedin.com/in/ccst-journal-a084a9212/>

Digital Chemical Engineering is now on LinkedIn. Follow the journal at <https://www.linkedin.com/company/digital-chemical-engineering>

Process Safety and Environmental Protection is now on LinkedIn. Follow the journal at <https://www.linkedin.com/company/process-safety-and-environmental-protection>

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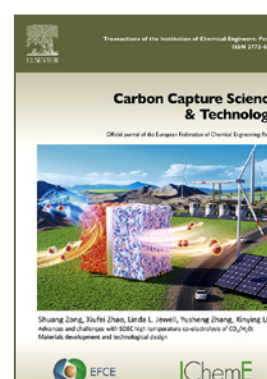
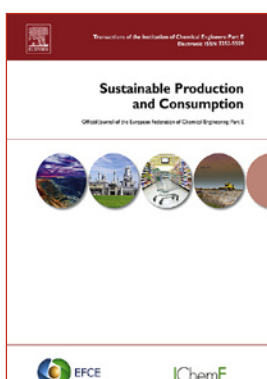
The following articles / issues are set for free access periods. In addition to these, articles that are published via the open access route in the journal are also freely available to all. These are identified in ScienceDirect by a green dot. It is possible sign up to an RSS alert specifically to inform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

- **NEW** Most Downloaded Papers of 2023/2024:
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/about/highlighted-articles/most-downloaded-papers-of-2023-24>
- 17th European Conference on Mixing
<https://www.sciencedirect.com/special-issue/10JKS01K6WT>
- 10th International Granulation Workshop
<https://www.sciencedirect.com/special-issue/10F8492ZP8Z>



- Challenges and Opportunities in Advanced Processes based on Distillation for Sustainable Processes
<https://www.sciencedirect.com/special-issue/107KGGG3059>
- 10 highly cited ChERD articles from 2022/2023:
- Recent advances in hydrochar application for the adsorptive removal of wastewater pollutants
- Current perspective of nano-engineered metal oxide based photocatalysts in advanced oxidation processes for degradation of organic pollutants in wastewater
- Progress of artificial neural networks applications in hydrogen production
- Updated review on emerging technologies for PFAS contaminated water treatment
- Exploring the potential of time-series transformers for process modeling and control in chemical systems: An inevitable paradigm shift?
- Biosorption of Congo Red dye from aqueous solutions using pristine biochar and ZnO biochar from green pea peels
- Physics-informed neural networks for hybrid modeling of lab-scale batch fermentation for β -carotene production using *Saccharomyces cerevisiae*
- Process intensification from conventional to advanced distillations: Past, present, and future
- A comprehensive review of recent advances in nanofiltration membranes for heavy metal removal from wastewater
- NaY zeolite-polyethersulfone-modified membranes for the removal of cesium-137 from liquid radioactive waste
- The article providing the winning ChERD cover image of the year, 2023 "Harnessing *Prunella vulgaris* L. residues for enhanced biosorption of dyes in wastewater"
<https://doi.org/10.1016/j.cherd.2023.10.053>
- January 2024 issue (volume 201)
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/>

Process Safety and Environmental Protection

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

Freely available content:

- Safety of Energy Storage including Lithium Batteries (3rd International Symposium on Lithium Battery Fire Safety)
<https://www.sciencedirect.com/special-issue/10LR09Z8D5H>
- The article providing the winning PSEP cover image of 2023 "Study on flame propagation of

H₂/LPG premixed gas in a tube"
<https://doi.org/10.1016/j.psep.2022.11.078>

- January 2024 issue (Volume 181)
<https://www.sciencedirect.com/journal/process-safety-and-environmental-protection/vol/181/suppl/C>

Food and Bioproducts Processing

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

Freely available content:

- The article providing the winning FBP cover image of 2023 "Numerical calculation of sugarcane crushing process based on Smooth Particle Hydrodynamics"
<https://doi.org/10.1016/j.fbp.2023.07.008>
- January 2024 issue (Volume 143)
<https://www.sciencedirect.com/journal/food-and-bioproducts-processing/vol/143/suppl/C>

Education for Chemical Engineers

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

Freely available content:

- January 2024 issue (Volume 46)
<https://www.sciencedirect.com/journal/education-for-chemical-engineers/vol/46/suppl/C>

Sustainable Production and Consumption

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

Freely available content:

- NEW** Circular Economy as a Driver for Achieving Sustainable Production and Consumption (II)
<https://www.sciencedirect.com/special-issue/10MJM7VFMCR>
- January 2024 issue (Volume 44)
<https://www.sciencedirect.com/journal/sustainable-production-and-consumption/vol/44/suppl/C>

Digital Chemical Engineering

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<https://www.sciencedirect.com/journal/digital-chemical-engineering>

Including the following special issues:

- **In progress:** PSE-BR 2024 - Next Generation of Models and Tools for a Sustainable Process Industry
<https://www.sciencedirect.com/special-issue/10K4GPXH64G>
- **In progress:** Pioneering Digital Chemical Engineering
<https://www.sciencedirect.com/special-issue/10CK7SWVTNN>
- **In progress:** Emerging Stars in Digital Chemical Engineering II
<https://www.sciencedirect.com/special-issue/10XBND734XC>
- **In progress:** Role of Digitalization in Chemical Engineering
<https://www.sciencedirect.com/special-issue/100T2QF9KP2>

Carbon Capture Science & Technology

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ICChemE members also receive a 20% discount on all ICChemE journal APCs (Corresponding author must be a member of ICChemE when article is accepted).

Freely available content:

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

Including the following special issues:

- The 12th Trondheim Conference on CO₂ Capture, Transport and Storage
<https://www.sciencedirect.com/journal/carbon-capture-science-and-technology/special-issue/10XQQ59GVBR>
- Accounts of Carbon Capture Research
<https://www.sciencedirect.com/journal/carbon-capture-science-and-technology/special-issue/10Q72SV6132>

- Solid Sorbents for Carbon Capture
<https://www.sciencedirect.com/journal/carbon-capture-science-and-technology/special-issue/109X8MPMPLL>
- Nanomaterials Tailored for CO₂ Science
<https://www.sciencedirect.com/journal/carbon-capture-science-and-technology/special-issue/105Q772XQ5P>

Invitation to submit papers

We have a number of special issues planned that are currently open to all for submissions.

If you require any further information then please contact Managing Editor Pippa Wright pwright@icheme.org

Process Safety and Environmental Protection

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

NEW Special Issue: Techno-Economic Analysis of Emerging Energy Generation Processes and Technologies for Climate Change Mitigation (Manuscript submission deadline **15 February 2025**)

Artificial Intelligence in Safety (Manuscript submission deadline **30 June 2025**)

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 Africa: innovative approaches inside and outside the classroom. (Corresponding authors must be affiliated to an African University, Manuscript submission deadline **31 March 2025**)

Sustainable Production and Consumption

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

Special Issue: Circular Economy Models for Sustainable Production and Consumption (Manuscript submission deadline **31 March 2025**)

Special Issue: Circular Bioeconomy in the Global South: Sustainable Solutions for Socioeconomic Development (Manuscript submission deadline extended to **28 February 2025**)

Special Issue: Planetary boundaries in sustainable production and consumption systems (Manuscript submission deadline extended to **28 February 2025**)

EFCE Events in 2024/26

Organised by or on behalf of EFCE

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

European Forum on New Technologies: Artificial Intelligence in Chemical Engineering

Paris, France, 13 December 2024

Artificial Intelligence and Machine Learning have had in the recent past a tremendous impact on chemical engineering. On the long run they can radically change the way in which we perform research on chemical processes, we design, scale-up and optimize chemical reactors and pieces of equipment and they can potentially introduce new paradigms on chemical process control and operation.

Many are the challenges ahead for our community that can be addressed by the EFCE and its Working Parties and Sections. These can a successful journey only if the European Chemical Engineering community, both academic and industrial, is fully engaged.

In this meeting we will bring together some visionary speakers to set out the potential and the challenges. There will be the opportunity to discuss the fundamentals of artificial intelligence, deep learning and machine learning, as well as their applications to process modelling, control and the building of digital twins.

Preliminary Programme

The event is organised on behalf of the Federation by SFGP.

Early career members of EFCE or member societies may apply for a travel grant to participate in the Forum and to develop important networks to further their careers. Deadline for applications: 10 December 2024 (see also above)

Website: [https://efce.info/5th European Forum on New Technologies.html](https://efce.info/5th_European_Forum_on_New_Technologies.html)

9th Process Intensification Conference – EPIC9

Athens, Greece, 4-6 June 2025

EPIC9 is organised by the EFCE Working Party on Process Intensification in cooperation with the National technical University of Athens, School of

Chemical Engineering

Motto: Process Intensification for safer climate and beyond

Process Intensification (PI) is a key driver of innovation and sustainability in the process industries, offering significant improvements in resource and energy efficiency, process economics, and environmental performance. The chemical process industry, long a cornerstone of progress, now faces even greater significance as we confront global challenges like the climate crisis, pandemics, international conflicts, and the need for secure food and water supplies. As scientists in the field of Process Intensification, our task is to harness renewable energy and resources, delivering cutting-edge research and insights to manufacturers so they can embrace the ethos of doing more with less- a principle that may well be essential to saving our planet.

As in previous years, the 9th EPIC promises to be a platform for the dissemination of new knowledge, the exchange of ideas, concerns, and experiences, as well as the celebration of research achievements. With a rich program featuring the latest advancements in PI, cutting-edge technological developments, and a vibrant social agenda, these three days in Athens are sure to be both intellectually stimulating and enjoyable.

Topics: Process intensification in chemical and biochemical processes, Process intensification in energy and environmental applications, Process intensification in food and pharmaceutical applications, 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: Dimitris Collias, University of Pennsylvania, USA; Hannsjörg Freund, Technical

University of Dortmund, DE; Adam Harvey, Newcastle University, UK.

The call for papers is open. Deadline for abstract submission: 19 January 2025

Authors presenting at EPIC 2025 will be given an opportunity to publish their works in a Special Issue of the Chemical Engineering and Processing: Process Intensification (CEP:PI – Elsevier)

Website: <https://epic-2025.com/>

**18th EFCE International Symposium on Loss Prevention and Safety Promotion in the Process Industries – Loss Prevention 2025
Bologna, Italy, 8-11 June 2025
(EFCE Event No. 809)**

Loss Prevention 2025 is organised by the EFCE Working Party on Loss Prevention and Safety Promotion in the Process Industries in cooperation with AIDIC.

This event is an opportunity to exchange up-to-the-minute information on industrial needs, new technology developments, and research opportunities. The previous events attracted leading Industrialists and Academics from all over the world and provided a state-of-the-art chemical and process engineering.

Topics: Safety 4.0, AI and digital transformation of industrial processes; Safety in relation to sustainability and resilience in process industry; Safety of decarbonization and energy transition processes; Safety of new materials and technologies; Safety and security of chemical and energy infrastructures; Conventional risk assessment and management approaches; Other process safety topics.

Special Sessions: The following Special Sessions complete the Loss Prevention 2025 Symposium. Safety and Sustainability of Green and Alternative Fuels in Port Areas; Ammonia Safety; Innovations in the Management of Reactive Chemical Hazards; Cybersecurity in the Digital Era of the Chemical and Process Industry; Integration of Process Systems Engineering & Machine Learning for Improved Process Safety; Safety of Liquid Hydrogen (details see: <https://www.aidic.it/lp2025/page.php?pipe=testospecialsessions>) Each session includes oral presentations followed by an expert panel discussion with invited panellists. [Abstract submission is open](#). All

accepted papers will be considered for publication either in the Chemical Engineering Transactions Journal or in the Book of Abstracts.

Keynote speakers: Genserik Reniers, Prof. of Safety of Hazardous Materials, TU Delft; Ana Maria Cruz, Prof. Disaster Prevention Research Institute (DPRI), Kyoto University; Luca Decarli, Senior Knowledge Owner Process Safety | Eni Global Natural Resources & IOGP Process Safety sub-committee Chair.

Exhibition and Sponsorship: Loss Prevention is expected to be organised under the auspices of different sponsors and exhibitors. If you wish to participate to the Sponsorship Programme of the Congress, please contact the Secretariat: lp2025@aidic.it Sponsor: ITELYUM

The Early Career Chemical Engineers Section of the EFCE offers travel grants for Early Career participants of Loss Prevention 2025. For more information, visit the EFCE website

Website: <https://www.aidic.it/lp2025/>

**17th International Conference on Chemical and Process Engineering – ICheaP17
Florence, Italy, 29 June -2 July 2025 (EFCE Event No. 812)**

ICheaP17 is as an opportunity to exchange up-to-the minute information on industrial needs, new technology developments and research opportunities. The previous events attracted leading Industrialists and Academics from all over the world and provided a state of the art on Chemical and Process Engineering. The Conference will be structured in Plenary lectures by invited speakers, in selected Lecture presentations and in the Poster sessions.

Topics: Biomass and bioprocess engineering; environment, quality and management of natural resources; energy, safety, and process intensification; electrochemical engineering; particle technology; reaction engineering; separation technology and thermodynamics; fluid mechanics and transport phenomena; product design and materials; process systems engineering and digitalization; pharmaceutical engineering and chemical engineering applied to medicine; education and public perception

The call for papers is still open. Deadline

for abstract submission extended to 30 November 2024

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

Plenary speakers: Prof. Chiara Galletti, University of Pisa, Italy; Ing. Vincenzo Guida P&G R&D department, Belgium; prof. Maria Papathanasiou, Imperial College London, UK.

The Early Career Chemical Engineers Section of the EFCE offers travel grants for Early Career participants of ICheaP17. For more information, visit the EFCE website

Website: <https://www.aidic.it/icheap17>

**9th European Drying Conference – Eurodrying 2025
Wageningen, The Netherlands, 6-9 July 2025 (EFCE Event No. 810)**

Wageningen University & Research and the EFCE Working Party on Drying are proud to announce that the 9th European Drying conference. Already being the 9th edition, Eurodrying aims to expand on the positive interaction within the drying community and continue the dialogue between drying experts in academia, as well as industry. Together we can advance knowledge, solve problems, and innovate solutions for drying and dewatering applications.

Topics: New dewatering & drying technologies; Industrial processes and equipment; Sensing and process control; Data-driven strategies; Environmental assessment of dewatering & drying processes; Air & gas dehumidification; Fluidized bed & Spray drying; Drying of biobased materials & foods; Drying of pharmaceutical & biological materials; Drying of chemicals, wood & paper; Mathematical modelling of drying processes; Characterisation of physical properties & product quality.

Keynote speakers: Prof. Grzegorz Musielak, Institute of Technology and Chemical Engineering, Poznan University of Technology; Dr. Jewe Schröder, Danone; Prof. Maike Baltussen, Eindhoven University of Technology; Prof. Séverine Vessot Crastes, University of Claude Bernard Lyon 1; Prof. Stefan Heinrich, Hamburg University of Technology.

Sponsors: Dutch Working Group on Drying (NWGD) – gold sponsor; Andritz, Danone, JOA

Air Solutions – silver sponsors; Büchi, Delft Solids Solutions – bronze sponsors

The call for papers is open. Deadline for abstract submission: 30 December 2024

The Early Career Chemical Engineers Section of the EFCE offers travel grants for Early Career participants of Eurodrying 2025. For more information, visit the EFCE website.

Outstanding oral and poster presentations at the Eurodrying 2025 conference will be awarded a prize. For details see: <https://www.eurodrying2025.nl/awards>

Website: <https://www.eurodrying2025.nl/home>

**12th World Congress of Chemical Engineering and 21st Asian Pacific Confederation of Chemical Engineering congress 2025 (WCCE12 & APCCChE 2025)
Beijing, PR China, 14-18 July 2025**

Motto: Paradigm Shifting in Chemical Engineering for Global Challenges

WCCE12 & APCCChE 2025 is organised under the auspices of World Chemical Engineering Council (WCEC) and Asian Pacific Confederation of Chemical Engineering (APCCChE). The conference is hosted by The Chemical Industry and Engineering Society of China (CIESC), and jointly organised by the China National Petroleum Corporation, China Petrochemical Corporation, and Beijing University of Chemical Technology, guided by the China Association for Science and Technology (CAST), the Chinese Academy of Engineering (CAE), and the Chinese Academy of Sciences (CAS).

The World Congress of Chemical Engineering (WCCE) is the most important academic conference organised by WCEC, held every four years and rotating between Europe, Asia, and the Americas.

The WCCE's comprehensive program includes keynote speeches, technical sessions, panel discussions, and numerous networking opportunities, making it a cornerstone event for anyone involved in chemical engineering.

Main topics: Education and Training; Fundamental infrastructure redevelopment; Strategic and emerging industries; Future chemical engineering and smart innovation.

For the detailed list of topics, see <https://www.wcce12.com/en/95/list.html>

Plenary speakers (as of July 2024): Bernard L. Feringa, University of Groningen, NL, 2016 Nobel Prize Laureate; Benjamin List, Max Planck Institute for Coal Research, DE, 2021 Nobel Prize Laureate; Raffaella Ocone, Heriot-Watt University, UK, Fellow of the Royal Academy of Engineering.

The authors' registration and call for papers are open. Deadline for abstract submission: 31 December 2024.

Website: <https://www.wcce12.com/en>

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

Lisbon, Portugal, 8-10 September 2025 (EFCE Event No. 783)

Motto: Engineering for a Sustainable World: Summit for Clean Technologies & Brighter Legacy

Chemical engineering, biotechnology and bioprocessing are the key to providing innovative solutions for food supply, mobility, energy, health and well-being while striving for a sustainable economy. At ECCE15 & ECAB8, scientists from industry, universities and research institutions from Europe and beyond will discuss the latest research and industrial applications in all fields of chemistry, process engineering, biotechnology and related fields.

The congress will include high-profile international plenary and keynote speakers, an industry exhibition, poster exhibition and plenty of networking opportunities. The congress language is English.

The call for papers is open. Deadline: 14 February 2025. Details see above

Website: <https://ECCE-ECAB2025.eu>

5th International Conference on Engineering Future Foods – EFF2025 Bologna, Italy, 14-17 September 2025

The 5th International Conference on Engineering Future Foods – EFF2025 is organised by AIDIC.

This conference addresses the challenge of responsible food production by providing a hub for advanced academic and industrial research. The

focus is on Sustainable Optimization, Quantitative Approaches, and Digital Technologies.

Topics: I. Sustainable Solutions for Digital Food manufacturing: Exploring how automation and digital technologies contribute to the sustainable and circular transition of the food manufacturing sector; II. Design Thinking for Food Techno-Functionality: Using product engineering and food design methods to meet consumer needs—convenience, health, and well-being—while ensuring technical feasibility; III. The Role of Packaging in the Food Supply Chain: Delving into the complexities and impacts of packaging in the evolving landscape of food production and distribution; IV. Quality Data Analysis: Quantitative methods for monitoring and improving product quality, including the design and application of digital sensors and tools for managing food quality.

Exhibition and sponsorship: [Download here the Sponsorship Guide with sponsorship packages description and exhibition solutions.](#) For any further information, please contact sponsorship@aidic.it for details.

The call for papers is open. Abstract submission deadline: 15 December 2024

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

Website: <https://aidic.it/eff2025>

NINETEENTH 2025 - Nanotechnology based INnovation for the EnvironmenT, EnErgy, aNd Health Salerno, Italy, 28-30 September 2025 (EFCE Event No. 813)

NINETEENTH 2025 - Nanotechnology based INnovation for the EnvironmenT, EnErgy, aNd Health is organised by AIDIC in collaboration with the EFCE Section "Chemical Engineering Applied to Medicine", the Italian Chemical Society (SCI), the University of Salerno, and the NANOMATES Center and the Narrando SME.

NINETEENTH aims at presenting recent scientific and technical advances in the field of nanotechnology application to the environment protection and sustainable energy production, agriculture and food industry, health and safety applications, from materials to devices, to processes.

Topics: NANOMATERIALS: synthesis, characteri-

zation and production technologies; NANOMEDICINE; ENERGY: Advanced devices for sustainable energy production; Nanotechnology in automotive industry; ENVIRONMENT: Advanced processes for environmental protection and remediation; Green Nanotechnology; Modeling the swarming and aggregation in dispersed systems; Nanotechnology in agriculture and food industry

The call for papers is open. Abstract submission deadline: 30 December 2024

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

Website: <https://aidic.it/nineteenth25/>

3rd International Conference on Energy, Environment & Digital Transition - E2DT 2025 Palermo, Italy, 12-15 October 2025 (EFCE Event No. 811)

E2DT aims to 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 CO₂ 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.

Topics: energy and other resources from the sea (offshore wind projects, utilization of saline gradients, utilization of sea waves and tides, etc.); Alternative energy vectors for marine use (methanol, ammonia, etc.); hydrogen: production, storage and utilization; carbon capture, storage and utilization technologies; production of chemicals, fuels and energy from biomass and waste; sustainability in hard to abate sectors (cement, steel, ceramic industries, etc.); Energy storage from renewable sources; digitalization and process system engineering (pse) applications; climate change

and risk management

The call for papers is open. Deadline for abstract submission: 30 November 2024

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

Plenary speakers: Rosalinda Inguanta, University of Palermo, Italy; Emma Rombaut, Yara International; Mattia Vallerio, Politecnico di Milano, Italy; Patrick Schuele, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany.

All participants are invited to the EFCE Forum on 15 October 2025 in the morning (details will follow).

Website: <https://www.aidic.it/e2dt2025>

International Conference on Electrostatics – Electrostatics 2025 Bologna, Italy, 9-12 November 2025 (EFCE Event No. 8)

Electrostatics 2025 is organised by the EFCE Working Party on Static Electricity in Industry in cooperation with AIDIC.

The objective of the conference is to encourage interaction between academic and industrial workers and to provide an opportunity for discussions of the various topics at all levels of interest. The conference will also provide a forum for the exchange of latest knowledge and new ideas in the science and technology of electrostatics, as well as for discussion of electrostatics hazards and problems.

The conference has been collaborating with the Journal of Electrostatics (Elsevier) for publication of the proceedings since 1981.

The Conference topics will be treated in invited plenary lectures, selected lecture presentations and poster sessions. Posters will stay on for the whole Conference promoting Author presentation and spontaneous discussion.

Topics: Applications and Industry; ESD; Fundamentals; Hazards; Liquids; Solid and Powders; Gases; Measuring Techniques; Standard; History of Electrostatics

For details see <https://www.aidic.it/electrostatics2025/page.php?pipe=testotopics>

The call for papers is open. Deadline for abstract submission: 15 January 2025

The proceedings of the conference will be published in a Special Issue of the Journal of Electrostatics (an Elsevier publication). Authors whose abstracts have been accepted for Electrostatics 2025 are encouraged to submit a full paper for inclusion in these proceedings. All submitted papers will undergo a peer review process before the conference, to ensure they meet the high standards required for publication in the Journal of Electrostatics.

More information on preparing your full paper can be found using the journal link: (<https://www.sciencedirect.com/journal/journal-of-electrostatics>).

Successful papers will be made available to conference attendees and journal subscribers.

Website: <https://www.aidic.it/electrostatics2025/>

Save the Date!

**16th Mediterranean Congress of Chemical Engineering (MeCCE)
Barcelona, Spain, 2-4 June 2026
(EFCE Event No. 817)**

The event is organised by the Spanish EFCE Member Society SEQUI in conjunction with EXPOQUIMIA.

Website: tba

**XIX European Symposium on Comminution & Classification
Naples, Italy, 27-20 September 2026 (EFCE Event No. 816)**

The event is organised by the EFCE Working Party on Comminution and Classification in cooperation with the Italian EFCE Member Society AIDIC.

Website: tba



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