



Welcome to the Seventh Spotlight Talks Series November 2024

This autumn, a total of **twelve sessions** of spotlight talks will be organized with involvement from **thirteen of the working parties and sections** of the EFCE. These sessions offer a valuable opportunity to learn more about very specific topics, without having to travel. 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. Next year, ECCE-ECAB will be in Lisbon, but this year we do not have the ECCE-ECAB, and therefore we have next to the annual Spring Spotlight Talk Sessions, also a Fall Series.

Covering a wide range of working parties and sections, there will likely be one or more sessions with topics of your interest.

We hope that you enjoy some of this year's Fall Sessions of the Spotlight Talks!

Dear Readers,

Welcome to the Autumn 2024 issue of the EFCE News. In this issue you will find information about the 7th Spotlight Talks series, the ECCE&ECAB 2025 Call for Papers, various other upcoming EFCE events, news about EFCE awards, EFCE Working Party/Section and Member Society news, and the journal update. If you have any comments/suggestions, please contact us.

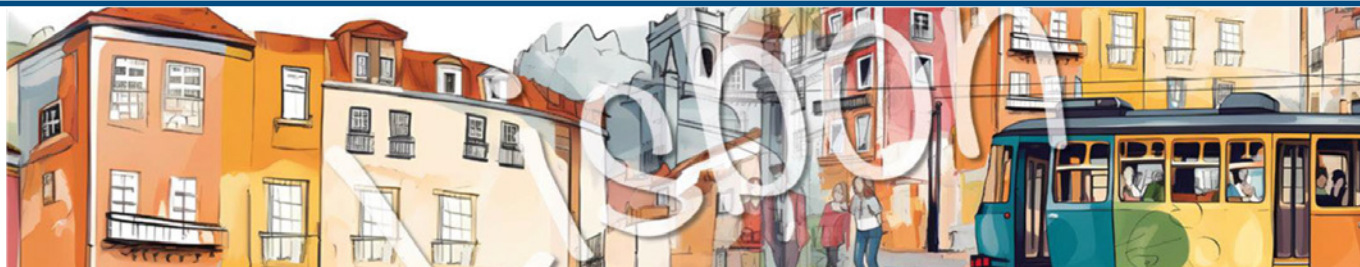
Giorgio Veronesi
EFCE President

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- ECCE15 & ECAB8 2025 – Call for Papers
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- EFCE Events in 2024/25

Programme

Date	Topic / Programme	Registration (mandatory but free of charge)
5 November 2024 14:00–16:00 CET	Sustainable production and recycling of plastics: process, product and technological innovations <i>Section on Sustainability</i>	Registration
6 November 2024 9:20–11:00 CET	Reduced order modelling for mixing processes <i>Section on Sustainability</i> <i>Working Party on Mixing</i>	Registration
6 November 2024 13:00–15:30 CET	Electrifying the chemical industry: challenges and perspectives in green hydrogen and electrochemical CO ₂ conversion <i>Working Party on Electrochemical Engineering</i>	Registration
7 November 2024 9:30–11:10 CET	High pressure technologies for a sustainable energy sector <i>Working Party on High Pressure Technology</i>	Registration
7 November 2024 14:00–16:00 CET	Innovative insect solutions: breeding, processing, and sustainability for future food and feed <i>Section on Food</i>	Registration
8 November 2024 14:00–16:30 CET	Safety challenges in the era of energy and digital transition <i>Working Party on Loss Prevention and Safety Promotion in the Process Industries</i>	Registration
12 November 2024 9:30–12:00 CET	Multiphase flows in gases and liquids - similarities and differences of particles and bubbles in gases and liquids. Can we utilise synergies? <i>Working Parties on Agglomeration and Multiphase Fluid Flow</i>	Registration
12 November 2024 14:00–16:00 CET	Electrostatic charging of particles in flows <i>Working Party on Static Electricity in Industry</i>	Registration
13 November 2024 9:00–11:15 CET	How to teach sustainabil(it)y <i>Working Party on Education and Section on Sustainability</i>	Registration
13 November 2024 14:00–17:00 CET	Circularity and sustainability in the light of polymer reaction engineering <i>Working Party on Polymer Reaction Engineering</i>	Registration
14 November 2024 10:00–12:00 CET	Role of applied thermodynamics in a changing world (sustainability, energy transition, circularity) <i>Working Party on Thermodynamics and Transport Properties</i>	Registration
14 November 2024 14:00–16:15 CET	Elevating your career: essential skills for professional growth <i>Early Career Chemical Engineers Section</i>	Registration



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

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.

You are cordially invited to contribute to the scientific programme with a lecture or poster. Please prepare an abstract with 1-2 pages (incl. figures, max. size 1 MB, max. 2 pages). The abstract should explicitly mention objectives, new results and conclusions or significance of the work. Before submitting a contribution, please check which topic (see below and at: <https://ecce-ecab2025.eu/Topics.html>) it fits best.

**Deadline for paper submission:
14 February 2025**

SUBMIT YOUR ABSTRACT HERE

The selection of the contributions will be based

on the review of the abstracts by the scientific committee.

We look forward to your contribution!

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 see: <https://ecce-ecab2025.eu/Topics.html>

ECCE15 & ECAB8 & CIBIQ3 is organized by **DECHEMA e.V.** in cooperation with **EFCE**, **ESBES**, the **Portuguese Society of Biotechnology (SPBT)** and the **Ordem dos Engenheiros/Colégio de Engenharia**.

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**

Website: <https://ecce-ecab2025.eu>

EFCE and EMS present joint Membrane Engineering Excellence Award to Dr. Zhiwei Jiang for research work on ultrathin films for molecular sieving



Dr. Zhiwei Jiang has been named this year's winner of the **EFCE-EMS Joint Excellence Award in Membrane Engineering** for his outstanding work published in two seminal research papers. The studies, titled "Aligned Macrocyclic Pores in Ultrathin Films for Accurate Molecular

Sieving" by Zhiwei Jiang (*Nature* (2022) 609 p58-64), and "A Smart and Responsive Crystalline Porous Organic Cage Membrane with Switchable Pore Apertures for Graded Molecular Sieving" co-authored by Ai He and Zhiwei Jiang (*Nature Materials* (2022) 21, 4, p 463-470), represent significant advancements in our understanding and application of membrane technologies. His research contributions, which began with making and characterising extremely thin polymer films (sub 10 nm) that could be used as the separating layer in composite membranes for separating mixtures of solutes in organic solvents, have led to the development of a new field in molecular separation – ultrathin, interfacially formed polymer films which enable creation of high permeance, high selectivity membranes.

The research detailed in these two papers is at the forefront of innovation in membrane technology, employing aligned macrocycles and crystalline porous organic cages (POCs) to create membrane pores with rigid and defined cavities.

The advancements have wide-ranging implications in membrane engineering, particularly in the areas of cascade processes and membrane chromatography which allows not only to enhance the product quality but also to increase the yield, making the extraction process more economically viable and environmentally friendly.

Zhiwei Jiang obtained his Master in chemical engineering (MEng) from University College London, United Kingdom, in 2012 and in 2017 he completed his PhD in chemical engineering at Imperial College London under the supervision of Prof. Andrew Livingston. This was followed by research associate positions at Imperial College London and the Queen Mary University of London.

In August 2022 he joined the start-up company Exactmer Ltd. which is developing a molecular separation platform to produce defined monomer sequence polymers. At Exactmer he has started a successful membrane research team that feeds innovative materials through to the manufacturing function. Currently, he holds the position of Head of the Department of Membrane Research which comprises postdoctoral researchers to develop the next generation membranes for manufacturing oligonucleotide therapeutical drugs. He co-supervised PhD students and postdoctoral researchers as an industrial advisor



Presentation of the certificate at the award ceremony (from left to right): Elena Tocci (EMS President) Zhiwei Zhang (Award winner), Karel Friess (EFCE Section and EMS Council Member) (photo: EMS)

through collaborations with universities in EPSRC Programme grant to produce highly selective membranes.

Awarded by the EFCE Section on Membrane Engineering (https://efce.info/Section_Membrane_Engineering.html) and the European Membrane Society, the 2024 EFCE-EMS Joint Excellence Award in Membrane Engineering was presented to Zhiwei Jiang during a Special Session of EuroMembrane 2024 (conference website: <https://euromembrane2024.cz/>), which was held in Prague, Czech Republic, on 8-12 September 2024.

Nominating him for the Award Prof. Livingston wrote: "Zhiwei Jiang is outstanding in all ways – as a scientist and as an engineer, as a builder and leader of collaborative teams, as an educator and mentor, and as a colleague. He has made major contributions to the field of chemical engineering through his university-based research; and he

has moved now to industry where he leads a research team as part of a large, multidisciplinary collaboration with a commercial objective."



The Excellence Award is generously co-organised and supported by The

European Membrane Society (EMS).

The European Membrane Society (<https://www.emsoc.eu>), founded in 1982, is an international non-profit organization whose aim is to promote cooperation between scientists and engineers involved in Research and Development in the field of synthetic membranes and membrane processes.

EMS media centre (<https://www.emsoc.eu/ems-news/>); (<https://www.linkedin.com/groups/13512451/>); (<https://x.com/EUMembraneSoc>); (<https://www.youtube.com/c/EuropeanMembraneSocietyEMS>)

Working Party and Section News

Working Party on Multiphase Fluid Flow (WP MFF) presents best oral presentation awards to young scientists

Tereza Semlerová (University of Chemistry and Technology Prague, Czech Republic) and Christian Weiland (Hamburg University of Technology, Germany) were honoured with an award for the best presentation for their outstanding oral presentations at the International Congress of Chemical Engineering - CHISA 2024 in Prague in August 2024. Tereza Semlerová gave a lecture on the 'Deformation and break-up of bubbles interacting with vortices in the presence of different

surfactants' and Christian Weiland reported on the 'Development and implementation of a Lagrangian model for estimating bubble break-up in bubbling flows'. The award was announced by the Working Party on Multiphase Fluid Flow at the special session 'Multiphase Flows in Bubble Columns'.

Congratulations to Tereza and Christian!

(left to right): Sandra Orvalho (WP MFF member), Christian Weiland (award winner), Maria Zednikova (WP MFF member), Tereza Semlerová (award winner), Martin Obligado (WP MFF guest member), Alain Liné (WP MFF member) (photo: CHISA 2024)



EFCE Awards – calls for nominations and applications

- **OPEN SOON** Student Mobility Award, see https://efce.info/Student_Mobility_Award.html
- Process Intensification Award for Industrial Innovation 2025, see https://efce.info/PI_Award_Industrial_Innovation.html
- Travel Grant for ECCE&ECAB 2025, see <https://efce.info/EarlyCareerCE.html#AwardsandGrants>

Still open for nomination and application EFCE Travel Grant 2024

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 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

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.

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

Awards in Process Safety

The calls for nominations for the **2025 Excellence Award in Process Safety** and the **3rd Lifetime Recognition LPS Award** are still open. Both awards 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/>).

- **Lifetime Recognition LPS (Loss Prevention Symposium) Award**

The Award recognises an outstanding contribution to safety and loss prevention research and practice to a senior researcher, academic or industrial engineer belonging to one of the EFCE member countries throughout his/her career. The closing date for nominations: **30 November 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/LifetimeRecognitionLPSAward.html>

- **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.

The 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.



Member Society News

IChemE invites early career researchers to apply for the Andrew Fellowship

IChemE has launched the next **Andrew Fellowship**, supporting early career researchers in the field of heterogeneous catalysis. The award covers the Fellow's salary costs for one year, as well as research-related expenses of up to £15,000. Successful applicants will be researchers working in heterogeneous catalysis whose research is relevant to industrial challenges.

The Andrew Fellowship is open to members of IChemE worldwide who will undertake their research while employed by a university or research institute, and engage significantly with an industrial partner.

Deadline for applications: 1 December 2024

Further information: <https://www.icheme.org/education-career/fellowships/andrew-legacy-scheme/andrew-fellowship/>

Call for nominations - Excellence Award in Thermodynamics and Transport Properties 2025

The European Federation of Chemical Engineering (EFCE) and its Working Party on Thermodynamics and Transport Properties 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.

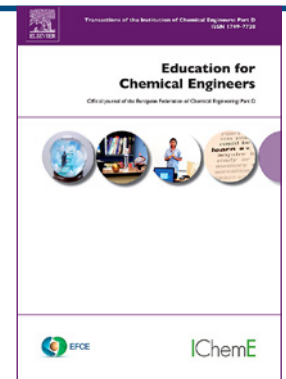
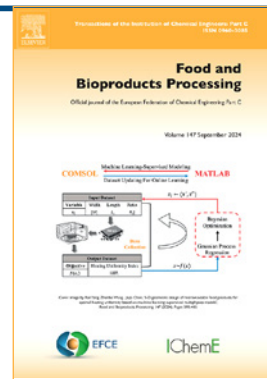
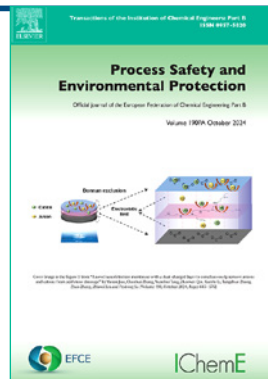
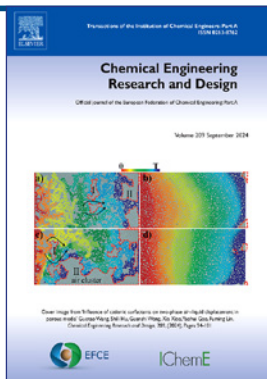
The nominated PhD thesis and publication(s) must address a topic relevant to the field of thermodynamics and/or transport properties. The thesis must have been completed and published and the PhD degree examined and awarded between 1 January 2023 and 31 December 2024.

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.





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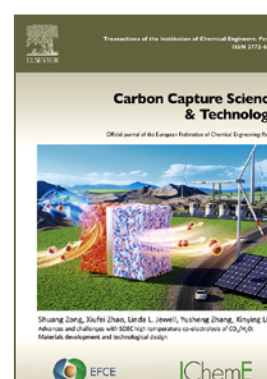
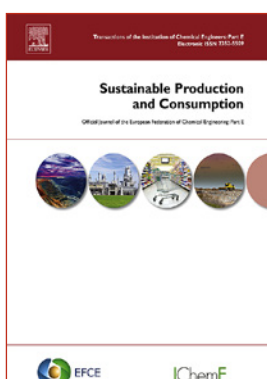
The following articles / issues are set for free access periods. In addition to these, articles that are published via the open access route in the journal are also freely available to all. These are identified in ScienceDirect by a green dot. It is possible sign up to an RSS alert specifically to inform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



- 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:

- **NEW** 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:

- January 2024 issue (Volume 44)
<https://www.sciencedirect.com/journal/sustainable-production-and-consumption/vol/44/suppl/C>

Digital Chemical Engineering

Gold Open Access – Our publishing partner, Elsevier, has established open access agreements with a large number of institutions across the globe supporting authors affiliated with participating institutions to publish open access without having to pay an article processing charge (APC). See <https://www.elsevier.com/open-access/agreements> for details.

Freely available content:

- **NEW** All content freely available at:
<https://www.sciencedirect.com/journal/digital-chemical-engineering>

Including the following special issues:

- **NEW In progress:** Pioneering Digital Chemical Engineering

- <https://www.sciencedirect.com/special-issue/10CK7SWVTNN>
- **NEW In progress:** Emerging Stars in Digital Chemical Engineering II
<https://www.sciencedirect.com/special-issue/10XBN734XC>
 - **NEW In progress:** Role of Digitalization in Chemical Engineering
<https://www.sciencedirect.com/special-issue/100T2QF9KP2>
 - Emerging Stars in Digital Chemical Engineering
<https://www.sciencedirect.com/journal/digital-chemical-engineering/special-issue/1045SC7FJ9L>
 - AI for intelligent decision making of process and energy systems
<https://www.sciencedirect.com/journal/digital-chemical-engineering/special-issue/10P8R7DS3GC>
 - Modeling, Control and Monitoring of Process Systems in the Era of Big Data
<https://www.sciencedirect.com/journal/digital-chemical-engineering/special-issue/10B8F6PFXLX>
 - Machine Learning for Chemical Processes
<https://www.sciencedirect.com/journal/digital-chemical-engineering/special-issue/10JTPTKD9LS>
 - Autonomy, Safety, and Security for Cyber-Physical Systems in the Process Industries
<https://www.sciencedirect.com/journal/digital-chemical-engineering/special-issue/10SFQ3846W0>

Carbon Capture Science & Technology

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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: 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>

NEW 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 December 2024**)

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 **30 November 2024**)

Special Issue: Planetary boundaries in sustainable production and consumption systems (Manuscript submission deadline **31 October 2024**)

EFCE Events in 2024/25

Organised by or on behalf of EFCE

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

12th PhD-Student Workshop on Polymer Reaction Engineering Lyon, France, 30-31 October 2024 (EFCE Student event)

The workshop is specifically designed for Ph.D. students seeking contact with fellow students and the polymer industry. They are encouraged to present their Ph.D. topic to a professional audience and at the same time meet industry representatives and potential employers in person.

Website: https://efce.info/WP_PRE.html

7th Spotlight Talks Series Online, 5-8 and 12-14 November 2024

Website: https://efce.info/Spotlight_Talks.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.

Listen & interact: Listen to the invited speakers and interact in discussions related the artificial intelligence and chemical engineering.

Take part in the round table: Share your point of view on 'What are the industrialists expectations on AI and how could academia help develop in this direction?' and 'What should be taught at academia?'

Detailed Programme

Venue: Hotel MERCURE Montparnasse, 40 rue du Commandant Mouchotte, 75014 Paris, France (Metro 4, 6, 12, 13 - Stop : Montparnasse-Bienvenue)

Register NOW!

Registration fees: 160 €

Registration fees (SFGP members): 120 €

Lunch and coffee breaks are included.

Click here to register

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

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.

The call for papers is open. Deadline for full paper submission: 15 October 2024

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

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 31 October 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.

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

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

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

Motto: Paradigm Shifting in Chemical Engineering for Global Challenges

WCCE12 & APCCHE 2025 is organised under the auspices of World Chemical Engineering Council (WCEC) and Asian Pacific Con-

federation of Chemical Engineering (APCCHE). 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

The call for papers is open.

Details see above

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

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, characterization 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: 31 October 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, LNG, 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 October 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 will open soon. Deadline for abstract submission: 1 December 2024

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/>

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