



Jean-Noël Jaubert to receive EFCE Michael L. Michelsen Award

Jean-Noël Jaubert has been named as the recipient of the prestigious **Michael L. Michelsen Award** for thermodynamics by the European Federation of Chemical Engineering (EFCE).

Jaubert is a pioneer of applied thermodynamics and professor of chemical engineering and thermodynamics at the *École Nationale Supérieure des Industries Chimiques (ENSIC)*, an elite school of chemical engineering at the University of Lorraine.

The Michael L Michelsen Award honours a senior member of the thermodynamics community and is presented by the EFCE Working Party on Thermodynamics and Transport Properties (https://efce.info/WP_TTP).

Prof Grazia de Angelis, chair of the Working Party, said: "Prof. Jaubert has contributed from the very beginning to the activities of the Working Party on Thermodynamics and Transport Properties. He has been the inspirator of the thermodynamic community in France, by founding and leading the French working party since 2009. As such, he has organized several national workshops as well as international conferences. He is a very active member of the International Scientific Committee of the European Symposium on Applied Thermodynamics (ESAT),



Dear Readers,

Welcome to the 2024 spring issue of the EFCE News. This issue remembers Sauro Pierucci and contains information about forthcoming EFCE events, EFCE awards in the field of CAPE/PSE and membrane engineering, Working Party and Section news, and journal news. If you have any comments/suggestions, please contact us.

With kind regards

Giorgio Veronesi
EFCE President

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and was the lead organizer of ESAT in 1997 and 2008.”

Jaubert is cited among the world’s top 2% of scientists in the 2020 Stanford-Elsevier list of the world’s most-cited scholars. His research centres on developing accurate cubic equations of state, which remain a highly used set of models in many industries. Jaubert’s work includes measuring and correlating vapour liquid equilibria at high pressures, developing mixing rules and articulating the concept of entropy scaling to correlate transport properties. His recent work to understand the temperature dependency of the models, with proposed criteria for investigating this, has already received significant attention. He has also been working on complex algorithms to compute global phase diagrams, particularly with regards to stability analysis – an area directly linked to the work of Professor Michelsen.

He has mentored several researchers who are now leading researchers in the field and organised national workshops and international conferences.

Jaubert promotes the application of his work in industry and his analysis and improvement of cubic equations of state, both for pure components and mixtures, are now used in several industrial process simulators. His work finds applications in energy and carbon capture and storage.

The 2024 Michael L. Michelsen Awardee is supported by Elsevier and its journal *Fluid Phase Equilibria*.

Jean- Noël Jaubert has been invited to present the Award lecture on 9 June 2024 at the 33rd European Symposium on Applied Thermodynamics - ESAT 2024 (website: <https://www.esat2024.eng.ed.ac.uk/>) which will be held in Edinburgh, United Kingdom, on 9-12 June 2024.

The **Michael L. Michelsen Award** - previously called Distinguished Lecture on Thermodynamics and Transport Properties and re-named in recognition of its second laureate, the

distinguished Professor Michael L. Michelsen (Denmark) - aims to honour a senior member of the community that is active in a European institution. The award is presented every two years by the EFCE Working Party on Thermodynamics and Transport Properties.



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Fluid Phase Equilibria publishes high-quality papers dealing with experimental, theoretical, and applied research related to equilibrium and transport properties of fluids, solids, and interfaces. Subjects of interest include physical/phase and chemical equilibria; equilibrium and nonequilibrium thermophysical properties; fundamental thermodynamic relations; and stability. <https://www.sciencedirect.com/journal/fluid-phase-equilibria>

EFCE Awards – Calls for Nominations

Inaugural George Stephanopoulos Award in Process Systems Engineering

EFCE and its Working Party on Computer Aided Process Engineering (CAPE) are pleased to announce the call for nominations for the first **George Stephanopoulos Award in Process Systems Engineering**.

The George Stephanopoulos Award is presented in recognition of outstanding achievements in Process Systems Engineering. The Award is co-sponsored by the National Technical University of Athens, Greece, the EFCE Working Party on Computer Aided Process Engineering, and the AIChE-CAST Division.

The Award includes a medal and plaque, a cash award of 3.500 EUR and 500/1000 EUR of travel fund, depending on the continental/intercontinental nature of travel of the recipient to collect the prize. The Award will be presented to the winner by a representative of NTUA.

Documents to be submitted with the nomination:

- List of nominators and their signature

- Scope & significance of the contribution in PSE (provide a short description highlighting the scope & significance of the contributions, etc.) of the candidate. Scope in terms of application range, problems solved, etc. of the contribution; and significance of the contribution in terms of the value of the contribution, state of the art, etc.; max 4 pages
- References and citations (related to the listed contributions) – minimum 3
- Short CV

Deadline for submission of nominations: 22 April 2024

The nominations should be sent to the Chair of the EFCE Working Party on CAPE, Prof. Flavio Manenti.

Further information: <https://www.wp-cape.eu/index.php/Ita-award>

CAPE-WP Award for Long Term Achievements (LTA Award) 2024

The Working Party on Computer Aided Process Engineering (CAPE) is pleased to announce the call for nominations for its LTA Award.

The LTA Award is given in recognition of a collection of outstanding achievements over an extended period of time (> 10 years) to the CAPE community (and specifically to the EFCE CAPE-WP) and to CAPE methods, tools and/or applications for the advancement of science, engineering and technology. The winner will have the opportunity to present a keynote talk at an ESCAPE conference. The cost of the award winner's ESCAPE conference participation will be covered by the local ESCAPE organisers.

Documents to be submitted with the nomination:

- description of the contributions and achievements of the candidate

- Citations – minimum 3
- CV (if available, otherwise, a collection of the publicly available information in terms of the current job, experience, publications, citations, etc.)

Deadline for submission of nominations: 22 April 2024

The nominations should be sent to the Chair of the CAPE-awards committee Prof. Edwin Zondervan, with copy to the Chair of the Working Party, Prof. Flavio Manenti.

Further information: <https://www.wp-cape.eu/index.php/Ita-award>

EFCE Awards – Calls for Nominations

The following calls for nomination are still open:

2024 EFCE-EMS Joint Excellence Award in Membrane Engineering



The Award has been established to recognise a PhD thesis or paper(s) of a young researcher which demonstrates the most outstanding contribution to research and/or practice in membrane engineering in the process industries.

In 2024, for the third time the Award is jointly presented by the EFCE and the **European Membrane Society (EMS)**.

The award comprises a certificate, a travel grant of up to EUR 500 and complimentary registration to attend the International Conference EuroMembrane 2024 (conference website: <https://euromembrane2024.cz/>) which will be held in Prague, Czech Republic, on 8-12 September 2024. The award will be presented during a special session, where the winner will also be invited to present the research.

Nominations may be submitted by any PhD supervisor at a PhD-awarding institution in an EFCE Member Country or by an individual member of a Member Society of EFCE/EMS. Only PhD theses or papers published between 1 January 2021 and 31 December 2023 are eligible for nomination. A nominated PhD thesis must have been completed and published and the PhD degree examined and awarded.

Closing date for nominations extended to 30 April 2024

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

<http://www.efce.info/ExcellenceAwardMembraneEngineering>

Working Party and Section News

Summer school on Crystallization

Seminars on Fundamentals and Applications

26-28 June 2024, hosted by GSK in Stevenage, United Kingdom

Would you like to explore the fundamentals and practical applications of crystallization?

Join our summer school to connect with experts in the field and fellow emerging professionals.

The Summer School is dedicated to Early Career Professionals from academia (£250) and industry (£500).

The Summer School is organised by the EFCE Working Party on Crystallization.

Lecturers: Dr. Kevin Beck (Pfizer), Prof. Heiko Briesen (TU Munich), Dr. Mei Lee (GSK), Prof. Daniele Marchisio (Politecnico di Torino), Prof. Wim Noorduyn (AMOLF), Dr. Ashwin Rajagopalan (U. Manchester), Prof. Gabriele Sadowski (TU Dortmund), Leif-Thore Deck (ETHZ), Dr. Kerstin Wohlgemuth (TU Dortmund).

For details see the [Programme Flyer](#)

[Sign up for pre-registration to stay informed!](#)

In Memoriam of Sauro Pierucci (1946-2024)

The Italian Association of Chemical Engineering (AIDIC), EFCE and the whole chemical engineering community were shocked in receiving the sad news of the unexpected loss of Sauro Pierucci on March 23, 2024.

Sauro was for many years a key representative of AIDIC and its main figure in organising international scientific conferences, which he managed from 1987 until the last day of his life. This year he was very active in the organization of several conferences, in particular ESCAPE 34/PSE 24 in Florence in June. Many people around the world reacted in disbelief to the news, as they had just talked or exchanged mails with him that same week.

In AIDIC, Sauro was also an important reference on many strategic matters, as he had always an "out of the box" view of things and could give creative and unconventional proposals to the works of AIDIC executive committee. The AIDIC President, Giuseppe Ricci, wrote: "AIDIC has lost his most authoritative pillar".



Sauro graduated in chemical engineering at the Politecnico di Milano with a thesis on ethylene catalytic oxydation and then entered the research team of Prof. Mario Dente at the Institute of Industrial Chemistry and Chemical Engineering of the Politecnico, to work on logical analysis of the networks of units in chemical processes. He devoted a lot of enthusiasm and energy to general simulators and optimizers. A few years later Prof. Dente wrote: "The ability of Sauro in performing and handling original applied computing programs in the environment of mathematical modelling constituted an outstanding basis for his success in our scientific world... Sauro became a protagonist of the online reconciliation of experimental data and optimization". At his funeral in Milan Prof. Davide Manca, who was his first PhD researcher, remembered his incredible skills as a Fortran programmer, capable of developing new programs alone, while dozens of capable professional programmers worked on other software in the same field.

His teaching career started in 1971 with contributions to practical classes on unit operations and industrial chemistry. In 1978 he was asked to deliver he courses on chemical reaction engineering and chemical engineering systems analysis. In 1985 he became associate professor and in 1999 full professor of unit operations.

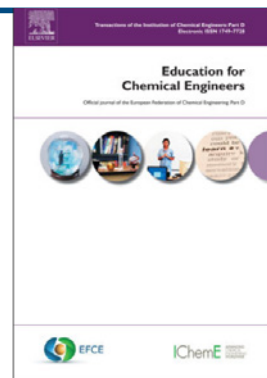
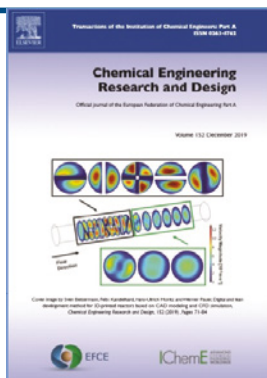
Concerning his international scientific relations, Sauro was the real doyen of the EFCE Computer Aided Process Engineering (CAPE) Working Party (WP). He was in fact its longest serving member, the last person who dealt with its founders, Professors Brusset, Bignon and Depeyre. His dedication, drive and input over four decades of activity were key to the success of CAPE, the largest WP in EFCE.

CAPE colleagues and members of the scientific community all over the world have sent us many messages of condolence and expression of affection to him, as well as of gratitude for his guidance, support and vision.

Finally, I would like to remember him as a truly good person, always ready to help anyone, without expecting anything in return. This was not always obvious to people who did not know Sauro personally, as he could come across as quite direct and occasionally rough, but below this apparent skin of toughness, he was a very generous and helpful person, always happy to enjoy quality time with family and friends.

To his wife Raffaella, his family, his colleagues and friends, the deepest and heartfelt condolences.

Giorgio Veronesi
President, EFCE



News about the official EFCE journals

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

LinkedIn

Chemical Engineering Research and Design

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

Food and Bioproducts Processing is now on LinkedIn. Follow the journal at <https://www.linkedin.com/company/food-and-bioproducts-processing>

Sustainable Production and Consumption

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

Education for Chemical Engineers

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

Twitter

Chemical Engineering Research and Design

<https://twitter.com/ChemEngResDes>

Digital Chemical Engineering

<https://twitter.com/DChEJournal>

Carbon Capture Science & Technology

<https://twitter.com/CCSTJournal>

Education for Chemical Engineers

<https://twitter.com/ECEJournal>

Process Safety and Environmental Protection

<https://twitter.com/PSEPJournal>

Food and Bioproducts Processing

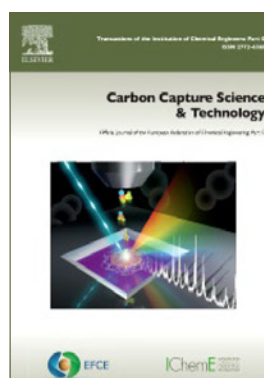
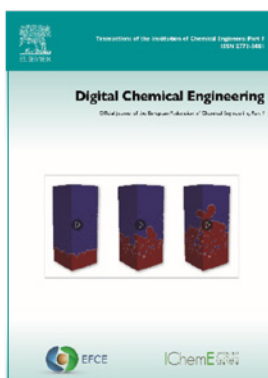
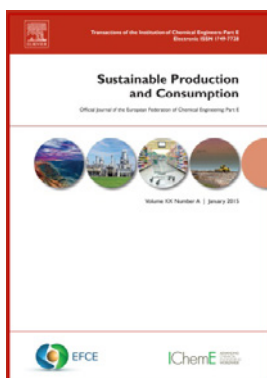
<https://twitter.com/FBPJournal>

Sustainable Production and Consumption

<https://twitter.com/SustProdCons>

Read journal papers for free

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



Chemical Engineering Research and Design

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

Freely available content:

- **NEW** Sustainable Chemical Engineering for Circular Economy - SCE3 2023
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/10SMR480GM4>
- **NEW** Heterogeneous Catalysts for Sustainable Energy Production and Environmental Applications
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/10MP00CDLP7>
- **NEW** 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/vol/201/suppl/C>
- Enabling Technologies for Biopharmaceutical Process Development and Manufacturing
<https://www.sciencedirect.com/journal/chemical-engineering-research-and-design/special-issue/104RHBHZ21X>

Process Safety and Environmental Protection

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

Freely available content:

- **NEW** 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:

- **NEW** 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:

- Latest pedagogical developments in chemical engineering education in Latin America: innovative approaches inside and outside the classroom
<https://www.sciencedirect.com/journal/education-for-chemical-engineers/special-issue/10G9D5NTTWS>
- 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 – APC (Author Processing Charge) fully waived on all submissions received before 30 June 2024

Freely available content:

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

Including the following special issues:

- 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 **Gold Open Access – APC (Author Processing Charge) fully waived on all submissions received before 30 June 2024**

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 for submission. Submissions from all welcome! Details as follows:

Chemical Engineering Research and Design

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

Special Issue: Chemical Engineering in the Middle East – Challenges and Opportunities (Manuscript submission deadline **30 April 2024**)

Process Safety and Environmental Protection

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

NEW Special Issue: Smart energy storage systems for better resilience, safety, and the environment (Manuscript submission deadline **1 October 2024**)

Special Issue: Explosion mechanism and its impact in engineering systems (Manuscript submission deadline **31 August 2024**)

Food and Bioproducts Processing

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

Special Issue: Microbe-assisted food and bioproducts processing: Emerging approach for Sustainable food production and security (Manuscript submission deadline **30 June 2024**)

Sustainable Production and Consumption

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

Special issue: Complex Systems Modelling Approaches to Sustainable Production and Consumption (Manuscript submission deadline **31 May 2024**)

Special issue: Sustainable Economic and Financial Solutions to Climate Change: The Role of Artificial Intelligence, Big Data and Machine Learning (Manuscript submission deadline **31 May 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>

17th European PhD Workshop on Food Engineering and Technology **Aachen, Germany, 23-24 April 2024**

The EFCE Section on Food is pleased to announce the **17th European PhD Workshop on Food Engineering and Technology**. The annual Workshop is a unique opportunity for your highly qualified PhD students and recently graduated Postdocs to present and discuss their projects and to strengthen their network in academia and industry.

Website: <https://european-phd-workshop.com>

International conference on BIOMASS - ICONBM2024 **Palermo, Italy, 19-22 May 2024 (EFCE Event No. 804)**

IconBM2024, organised by AIDIC, 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 on Biomass.

Topics: BIOMASS RESOURCES (Residue from agriculture and harvesting; Algae cultivation and supply chain; Biomasses from dedicated bioenergy crops; Agricultural global planning and intensification; Innovative use of municipal and industrial wastes); BIOFUELS PRODUCTION PROCESSES (Technologies for feedstock supply: chipping, pelletising, briquetting; Production of solid biofuels and feedstock characterization; Biodiesel, jet fuels production from oil-based fuels and chemicals from Syngas; Innovative processes from waste); BIOMASS CONVERSION FOR BIOENERGY AND BIO-BASED PRODUCTS (Solid biofuel Combustion; Bioliquids combustion; Biofuel kinetics and pollutant formation; Anaerobic digestion for biogas and biomethane production; Gasification for Syngas production and Power; Biomass conversion to intermediate bioenergy carriers, sustainable biofuels and bio-based products; Torrefaction, Carbonisation, Pyrolysis and Char production; Lignocellulosic ethanol, biomass fermentation; Biorefineries; Biobased chemicals and materials); SUSTAINABLE BIOMASS PRODUCTION AND UTILIZATION: IMPACTS AND POLICIES: Environmental impacts; Climate impacts

and GHG performances; Life cycle assessment and carbon footprint; Circular bioeconomy and cascading use of biomass; Support programmes and strategic goals); BIOENERGY INTEGRATION INTO ENERGY SYSTEMS (Energy Storage System; Wind Energy and Photovoltaic Energy; Engines and Fuel Cells; Alternative renewable fuels and hydrogen).

Exhibition and Sponsorship: IConBM2024 is expected to be organized under the auspices of different sponsors and exhibitors. If you wish to participate to the Sponsorship Programme of the Congress, please contact the Secretariat for details.

Registration NOW!

Website: <https://www.aidic.it/iconbm2024>

One-day Scientific Conference: ChemE-Med 2024 - Chemical Engineering as Applied to Medicine **Salerno, Italy, 20 May 2024 (EFCE Event No. 806)**

The one-day event is organised by the EFCE Section on Chemical Engineering as Applied to Medicine. The main goal of the conference is to provide a forum for discussing the use of the scientific basis and methods of chemical and process engineering to solve various problems in physiology, medical diagnosis and therapy, health care, toxicology, etc.

Four oral sections are scheduled during the full-day event. In addition, there will be an opportunity for poster presentations.

Registration will open in April.

Website: <https://www.aidic.it/cheme24/index.php>

8th International Congress on High-Pressure Technologies in conjunction with the 20th European Meeting on Supercritical Fluids **Maribor, Slovenia, 26-29 May 2024 (EFCE Event No.**

The EMSF 2024 is a joint meeting of International Society for the Advancement of Supercritical Fluids and the Working Party High-Pressure Process Technology of a series of symposia

organised by the European Federation of Chemical Engineering, but the first to be jointly held by the two organisations.

This symposium will provide an excellent opportunity for engineers, chemists, physicists, food technologists, and biologists to meet and discuss new ideas, review continuing challenges, present potential solutions, and identify future issues related to high-pressure technologies and supercritical fluids.

The target objective of the meeting will be to deepen links between researchers, make new contacts, and promote synergy, and partnerships among researchers, and enterprises engaged in the development of sustainable processes using high-pressure technologies.

The symposium will present all the most recent progress in high-pressure process technologies that can contribute to the advancement of the field.

Topics: Fundamentals: Thermodynamics & High-Pressure Equilibria, Transport Properties & Other Physico-Chemical Properties, Surface Phenomena; Processing: Extraction & Fractionation, Ultra-high pressure, Chemical and Biochemical Reactions, Particle formation, Novel materials, Polymerisation, High pressure pasteurisation/sterilization, Scale Up & Economics, Safety; Applications: Fossil Fuels & Biofuels, Foods & Functional Food Ingredients, Natural Products and Biomaterials, Environment, Cosmetics and Pharmaceuticals, Biotechnology, Wastes, Polymers, Powders, Functional materials.

Sponsors and exhibitors: see <https://emsf2024.com/index.php/our-sponsors-and-exhibitors/>

Agenda:

Sunday 26.5.2024 - Welcome reception

Monday 27.5.2024 to Wednesday 29.5.2024 - Conferences

Tuesday 28.5.2024 - City Guided tour and Gala Dinner

From Thursday 30.5.2024 : Post Conference One-Day Trips

Awards:

- Prof. Erdogan Kiran Graduate Student Support
- ISASF Ph. D. Award

Deadline for submission of applications for both awards: 19 April 2024

Further information: <https://emsf2024.com/index.php/awards/>

Register NOW!

Website: <https://emsf2024.com>

ESCAPE 34 - PSE24

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

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

Topics: Modelling and simulation; Synthesis and Design; Process control and operations; CAPE in sustainable energy applications; Bioresources, bioprocesses and biomedical systems; Digitalization and machine learning; Concepts, methods and tools; Education in CAPE and knowledge transfer. See details on the conference website.

Plenary speakers: Professor Selen Cremaschi (Auburn University, US), Professor Antonio Florez Tlacuahuac (Instituto Tecnológico de Estudios Superiores de Monterrey, Mexico); Professor Rajagopalan Srinivasan (Indian Institute of Technology Madras, India); Professor Fabrizio Bezzo (Chemical Engineering at University of Padova, Italy); Professor Claire Adjiman (Chemical Engineering from Imperial College London); Professor Gürkan Sin (Chemical and Biochemical Engineering, Technical University of Denmark); Viola Becattini and Marco Mazzotti (ETH Zürich, Switzerland).

Exhibition and sponsorship: ESCAPE34-PSE24 is expected to be organised under the auspices of different sponsors and exhibitors. Spaces are available for exhibition desks. A maximum surface that can be assigned to each booth is 3x2=6 m². [Download here the Sponsorship Guide](#) with sponsorship packages description and exhibition solutions.

Special workshops on 2 June 2024:

[Advanced Optimization and Modeling Tools Workshop](#)

[Digital design of pharmaceutical processes using PharmaPy](#)

[Model-based Design of Experiments in the Digitalization Era](#)

[Practical workshop on Quantum Computing for](#)

Optimization for Process Systems Engineering

Registrations Start: 30 March 2024; Deadline: 27 May 2024.

Website: <https://www.aidic.it/escape34-pse24>

ACHEMA 2024

**Frankfurt, Germany, 10-14 June 2024
(EFCE Event No. 496)**

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

Join AICHEMA 2024 as an exhibitor and/or lecturer.

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

Register NOW for the trade show and congress!

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

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

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

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

Plenary speakers (confirmed November 1st, 2023): Professor Vemuri Balakotaiah (University of Houston TX); Professor Lady Lynn Gladden (University of Cambridge UK); Dr Carlo Perego (IT;

Professor Andreas Seidel-Morgenstern (Otto-von-Guericke Universität Magdeburg, Max-Planck-Institut für Dynamik komplexer technischer Systeme, Magdeburg DE.

Register NOW! Early bird registration deadline: 1 May 2024

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

18th European Symposium on Comminution and Classification – ESCC 2024

**Miskolc, Hungary, 24-26 June 2024
(EFCE Event No. 798)**

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

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

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

including automation, machine learning, in line sensors, etc.

Plenary & Keynote Speakers: Magnus Evertsson, Chalmers University of Technology; Sanjay Kumar, CSIR-National Metallurgical Laboratory; Malcolm Powell, University of Queensland; Fabio Montagnaro, University of Naples Federico II; Peter Baláž, Institute of Geotechnics, Slovak Academy of Sciences, Košice, Slovakia; Ádám Rácz, Institute of Raw Material Preparation and Environmental Processing, University of Miskolc, Hungary

Register NOW! Early bird registration deadline: 3 May 2024

Website: <https://esc2024.mke.org.hu>

International Conference on Industrial Biotechnology – IBIC **Bologna, Italy, 30 June – 3 July 2024** **(EFCE Event No. 802)**

IBIC 2024, organised by AIDIC, offers a platform for presenting new ideas and discussing the latest advances in applied biotechnology supported by sound science leading to novel industrial developments.

In this context, IBIC 2024 covers topical issues in bio-production, bio-separation, and bio-detection. The latest research topics will be presented, including nano-biotechnology, biorefinery and biofuels, biocatalysis, biomaterials, and microbial fuel cells. Microbes will be discussed as cell factories, and fermenters will be investigated as integrated systems in recovery operations.

Topics: Innovative technologies in fermentation, bioseparation, biodetection (biosensor); Biocatalysis, novel enzymes and advances in cell immobilisation; Novel processing (e.g. Biorefinery, Microbial fuel cells); Plastics degradation (pre-treatment, microbial, enzymatic, combined); New horizons in biological communication and potential applications (microbial, plant, animal, and cross kingdom communication); Nanobiotechnology for manufacturing; Controlled and targeted drug release (matrices, modelling); Bioprocess scale up/scale down strategies for improved production; Bio-composites (production, application); Biofilms in Industry and medicine (designed production, degradation); Environmental biotechnology and biotech processes for circular economy; Microalgal Biotechnology; Food Biotechnology; Bioresources.

Exhibition and Sponsorship: IBIC2024 is expected to be organized under the auspices of different sponsors and exhibitors. Spaces are available in the exhibition areas. A maximum surface that

can be assigned to each booth is 3x2=6 m². If you wish to participate in the Sponsorship Programme of the Congress, please contact the Secretariat for details.

Register NOW! Early bird registration deadline: 15 April 2024

Website: <https://www.aidic.it/ibic2024>

CHISA 2024 – the 27th International Congress of Chemical and Process Engineering Prague, Czech Republic, 25-29 August 2024 (EFCE Event No. 800)

CHISA 2024 is organised by the Czech Society of Chemical Engineering (CSCHE) in the very beautiful city of Prague. The society celebrates 62 years of CHISA Congresses under the motto "The place, where people meet people and science meets culture"

Researchers, academics, professionals, and enthusiasts in the field of chemical and process engineering are invited to contribute their expertise and share their insights at the upcoming congress. This is a unique opportunity to showcase your research, engage with peers, and contribute to the advancement of our field.

The call for posters is still open. Submission deadline: 31 May 2024

Submission Guidelines: <https://2024.chisa.cz/general-information/#paper-submission>

Topics: I. GLOBAL THOUGHTS: Low to zero emission technologies; Carbon dioxide economy; Water supply, management, reuse, purification; Food in the focus; Sustainability and circularity; Healthcare, hygiene, medicine and pharmacology;

II. ENERGY: Energy to carbon footprint ratio; Low energy cost processes; Renewable energy and energy storage, hydrogen as a fuel; Energy self-sufficiency; Clean energy; Photochemistry, solar cells and solar powered technologies, fuel cells; Energy saving processes and technologies; Batteries;

III. MATTER IN MOTION: Continuous process design and optimization (batch to continuous, flow chemistry); Process intensification and miniaturisation; Fluid flow and microfluidics, multiphase flow; Microreactors for real-life products and scaled-up technologies; Mixing; Separation processes; Scale up of electrified reactors;

IV. NOT ONLY FASTER: Reaction engineering and kinetics; Homogeneous and heterogeneous catalysis; Catalytic processes; Design, preparation and characterisation of catalysts; Catalytic reactors;

V. PARTICLES: Advanced functional materials; Designed, printed, integrated, used materials, 3D printing; Particulate and microporous solids, low-risk advanced materials; Biomimetics; Functional films and nanostructures; Sensors and sensing objects and nano-objects; Hierarchical structures and nanoparticles; Polymers and polymer technologies, conductive polymers;

VI. GREEN ISSUES: No waste technologies and zero waste plants; Production-trade-customer zero waste chains; Urban mining, waste management; Microplastics and endocrine disruptors; Biotechnologies, biomass and biomass processing; Membrane processes, adsorption; Air, soil and water pollution, pollution control; Green and supercritical chemistry

VOC reduction, ionic liquids; Processes for environment;

VII. YOU MUST KNOW: Chemical reactors – all aspects; Transport phenomena; Distillation, extraction, SCF extraction, S-L separation, crystallisation; Thermodynamics, phase equilibria, multiphase processes; Chemical engineering computations and modelling, molecular dynamics, ab-initio calculations, mathematical predictions, neural networks; New and improved technologies; Chemical engineering and safety, prevention and loss control; Elimination of health and environmental hazards;

VIII. COLLEGE: Educated chemical engineers; Teaching chemical engineering, new strategies, opportunities; Jobs in chemical engineering; Choosing chemical engineering as the field of studies – right or wrong?; Competitiveness of chemical engineers on the job market;

XI. Poster Session.

Plenary speakers: Prof. Ayofe M. Foley, Queen's University Belfast, UK; Prof. Markus Gahleitner, Borealis Polyolefine GmbH, Linz, AU; Prof. Raffaella Ocone, Heriot-Watt University, Edinburgh, UK; Prof. Bert M. Weckhuysen, Utrecht University, Utrecht, NL.

For details see <https://2024.chisa.cz/scientific-program/#main-topics>

Publication Opportunity Highlights:

- Chemical Engineering Research and Design (IF 3.9) Special Issue covering a broad spectrum of chemical engineering disciplines.
- Separation and Purification Technology (IF 8.6) Special Issue dedicated to novel methods for separation and purification in chemical and environmental engineering.

Express Your Interest: Upon completing your

CHISA 2024 registration at www.chisa.cz/2024, you will be prompted to express your intention to submit a contribution for consideration in these special issues.

Don't miss the chance to be part of CHISA 2024, where innovative ideas converge, and collaborations thrive. Share your expertise and contribute to the collective knowledge of our community.

Register NOW! Early bird registration deadline: 30 April 2024

Website: <https://2024.chisa.cz/>

International Conference on Environmental Monitoring of Odours and VOCs - NOSE2024

Naples, Italy, 15-18 September 2024 (EFCE Event No. 805)

NOSE2024 is organized by AIDIC, The Italian Association of Chemical Engineering. The field of odour measurement and assessment is of growing interest in many sectors. The NOSE conference series, since its first edition in 2008, focuses on the most recent developments regarding environmental odour monitoring and control. However, in recent years, the conference has widened its scope by including also other fields in which odour evaluation and measurement by means of different, sensorial and/or instrumental techniques, is becoming particularly interesting, such as product development, medical diagnosis, indoor air quality.

The aim of the NOSE conference series is to give the opportunity to the scientific and industrial community members from all over the world to meet, exchange experiences and ideas, as well as discuss the main innovations related to odours, thereby including a wide range of different topics in order to give an all-embracing point of view on this continuously progressing issue. NOSE2024 will take a series of presentation and discussion in invited plenary lectures, lecture presentations and poster sessions.

Topics: Odour regulation & relevant standards; Sources sampling and characterization; Chemical characterization of odours; Sensorial measurements; Odour & gas sensing; Community participation; Toxicity and health; Dispersion modelling; Odour emission control.

Exhibition and Sponsorship: NOSE2024 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 for details.

Registration will open on 1 June 2024

Website: <https://www.aidic.it/nose2024>

International Conference on Safety & Environment in Process & Power Industry - CISAP11

**Naples, Italy, 15-19 September 2024
(EFCE Event No. 803)**

The main aim of CISAP 11 is to provide an extensive international panorama of the latest contributions concerning Process and Environmental Safety. The technical programme is structured into parallel sessions, which will be held over three days. The Conference topics will be discussed across invited plenary lectures, selected lecture presentations and poster sessions. Posters will stay on display for the entire duration of the Conference, promoting the Authors' work and spontaneous discussion.

Topics: Risk governance and safety management; Multi-risk assessment and resilience of complex systems; Human factors and safety culture; Safety 4.0 and digitalization; Chemical and process hazards; Fires, explosions and toxic releases; Safety of hydrogen and decarbonization technologies; Safety and security of energy and transportation systems; Atypical scenarios and high events; Physical and cyber-security of industrial processes; Environmental safety and climate-related risks

Exhibition and Sponsorship: CISAP 11 is expected to be organized under the auspices of different Sponsors and Exhibitors. Spaces are available in the exhibition areas. A maximum surface that can be assigned to 120x80 cm. If you wish to participate to the Sponsorship Programme of the Congress, please contact the Secretariat for details.

Registration will open on 1 May 2024

Website: <https://www.aidic.it/cisap11/>

Global Congress of Chemical Engineering 2024

**Cape Town, South Africa,
6-11 October 2024**

The Global Congress of Chemical Engineering 2024 is an intermediate Congress of the World Chemical Engineering Council (WCEC), organised by the South African Institution of Chemical Engineers (SAIChE), a member of the WCEC and Institutional Member of EFCE.

Motto: To sustainability and beyond

Save the date!

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

To stay up-to-date subscribe to the event newsletter.

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

The Global Congress of Chemical Engineering is a platform for individuals, groups, governments and companies to showcase their sustainability and regenerative initiatives, and where they can talk about, how they are moving away from "business as usual" by thinking more smartly and differently about processes, products, energy and water consumption, along with waste generation.

Individuals can also earn continuous professional development points (CPD) through Congress participation and workshop attendance contributing to Environment, Social and Governance (ESG) skills development for company employees and individuals.

Topics: <https://gcce2024.co.za/topics/>

Register NOW! Early bird registration deadline: 30 June 2024

Website: <https://www.gcce2024.co.za>

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