

03 - 07 September 2023

Frankfurt am Main (Germany) & Online



AREA E:

ENERGY AND
TRANSPORTATION

E: ENERGY AND TRANSPORTATION

Until recently, the development of civilization has been pursued without foresight, in the illusion that natural resources were infinite and that the environment could absorb easily all the waste products of human activities. These assumptions proved wrong, and humankind is currently striving to change radically the paradigm of development towards a sustainable future. Energy is a major player in shaping our society since it is a key enabler of most technologies, with a particular reference to transportation, a major consumer of energy both in production and use. As of today, major efforts are devoted at the global level to radically change the energy system. A traditional scenario where energy is mostly obtained from non-renewable fossil fuels, triggering massive emissions of greenhouse gases and leading to catastrophic global warming, is progressively being superseded by a completely new paradigm. In this latter, energy is obtained from renewable sources, and the spatial/temporal gaps between energy availability and use are closed effectively by a variety of approaches, including the implementation of the "hydrogen economy" and the development of "smart grids".

This Area is meant to provide a cross-section of the completely new and diverse set of technologies that are currently under development to realize such an "energy transition". The perspective is thus primarily on applications rather than individual classes of materials or processes. The electrical energy obtained from renewable sources, e.g., the sun is distributed in "smart grids", wherein it can be stored through a variety of technologies, including secondary batteries and redox flow batteries. The "hydrogen economy" exploits hydrogen as the vector for renewable energy and can be integrated seamlessly into "smart grids"; its cornerstones are fuel cells and electrolyzers that typically adopt either acidic or alkaline chemistries. Finally, renewable electricity is used to power a variety of innovative vehicles (e.g., cars, trucks, boats, airplanes and even spacecrafts) running on secondary batteries or fuel cells. Such vehicles must be designed implementing completely new materials able to satisfy the unique requirements prompted by the use of radically new electric power plants while at the same time maintaining and furthering standards in lightweight design as a secondary means to limit energy needs.

AREA COORDINATORS



Prof. Dr.

Vito Di Noto*University of Padova (IT)*

Dr.

Dirk Lehmus*Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM (DE)*

SYMPOSIA

- E01:** Advanced Materials for Transport Applications
- E02:** Photovoltaics: Materials Science and Perspectives
- E03:** Materials for Space Applications and Extreme Environments
- E04:** Redox Flow Batteries
- E05:** Lithium Batteries
- E06:** Beyond Lithium Batteries
- E07:** Anion Exchange Membrane Fuel Cells and Symposium
- E08:** Proton Exchange Membrane Fuel Cells and Symposium
- E09:** Energy Materials - Characterization and Modeling

DEADLINE FOR ABSTRACT SUBMISSION**31 January 2023**EUROMAT2023.com

MATERIALS SCIENCE AND TECHNOLOGY IN EUROPE

FEMS EUROMAT 23

03 - 07 September 2023

Frankfurt am Main (Germany) & Online

EUROMAT2023.com

DEAR MATERIALS SCIENCE AND ENGINEERING COMMUNITY, DEAR COLLEAGUES,

We cordially invite you to join the 17th European Congress and Exhibition on Advanced Materials and Processes - FEMS EUROMAT 2023, which will be held in Frankfurt am Main, Germany, 03 - 07 September 2023. The congress venue will be the Frankfurt Goethe-University's new Westend Campus with its park-like ambiance and beautiful travertine-faced buildings, one of Germany's most attractive ones.

Our ambition is to organize a memorable and successful congress in the tradition of previous FEMS EUROMAT congress to offer delegates many opportunities to engage in discussions, build new and strengthen existing partnerships and collaborations within and outside Europe.

Germany has a long tradition in Material Science and Engineering. The German Materials Society - DGM - was founded in 1919 and is one of the founding members of FEMS.

DGM's proprietary congress platform will serve as a proven interface allowing delegates to participate on-site or connect from another location via internet. As the first hybrid FEMS EUROMAT, we will offer the best of both worlds – physical and virtual.

We hope that you'll participate in the congress to share with us your experience and views in the field of Materials Science and Engineering.

On behalf of the Scientific Committee



Prof. Dr. Ehrenfried Zschech

deepXscan GmbH, Dresden, Germany

Chair of FEMS EUROMAT 2023

EUROMAT2023.com



Congress Office

Deutsche Gesellschaft für Materialkunde e.V.

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ABOUT FRANKFURT AM MAIN

Frankfurt's skyline is truly unique. From the Main Tower's rooftop observation platform, situated some 200 meters above the city streets, one has a spectacular view of the surrounding region. Nearby, in the historical old town, Römer City Hall, the Frankfurt Cathedral and St Paul's Church are all must-sees.

Old town flair in the heart of the big city: A old part of Frankfurt has been brought back to life. Completed in 2018, the New Frankfurt Old Town consists of 15 faithfully reconstructed buildings and 20 brand-new dwellings connected by a series of winding laneways. Many of the buildings feature structural ornaments dating back to the Middle Ages – thankfully saved from the destruction of World War II and now returned to their places of origin. A series of museums, restaurants, bars and shops combine to breathe new life into the old quarter, nestled between Frankfurt Cathedral and the Römerberg, turning it into a lively new urban space.

CONGRESS VENUE

Goethe University was founded in 1914 as a unique "citizens' university," financed by wealthy citizens in Frankfurt, Germany. Named in 1932 after one of the city's most famous natives, Johann Wolfgang von Goethe, today the university has over 48,000 students. Goethe University is the third largest university in Germany.

Goethe University

Westend Campus

Seminar Building

Theodor-W.-Adorno-Platz 5

60323 Frankfurt, Germany



Campus Westend, Goethe University, Frankfurt, Germany

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Area E: Energy and Transportation

E01: Advanced Materials for Transport Applications

Transport applications remain a major driving force specifically for structural material development, where weight reduction must be achieved in parallel to fulfillment of further requirements such as noise, vibration, and harshness (NVH), crashworthiness, or material efficiency, but more and also sustainability. Here, besides the advent of trends such as electric drive based on either batteries or hydrogen fuel cells, the need to increase energy efficiency in production and close material cycles changes boundary conditions in material selection and extends the requirements to be met by viable lightweight design solutions. Beyond the choice of materials, these new demands affect decisions on manufacturing and assembly technologies. The planned symposium will highlight lightweight design as a common denominator and focus on the vehicle, not on infrastructure – the term vehicle including the road, rail, air, space, and maritime sector. Beyond this general scope, specific topics are highlighted to provide focal points for contributions and realize dedicated sessions covering the respective areas. Such suggested session topics include

- Additive Manufacturing for Transport Applications
- Advanced Casting Technology for Transport Applications
- Advanced Composite Materials for Transport Applications
- Hybrid Engineering Materials & Structures and Multi-Material Design
- Intelligent Materials, Structures, and Systems for Condition and Structural Health Monitoring (SHM) and Product Life Cycle Management (PLM)
- Simulation, Modeling, Optimization, including AI and Big Data applications for Process Discovery, Characterization, Monitoring, and Control
- Design, Material, Production, and Assembly Concepts supporting Re-Use, Re-Cycling, and Circular Economy Approaches

Further session topics may emerge from the submissions received. The intention is to provide a thematically wide forum allowing design, materials, and process engineers active in various subsectors of the transport industry to exchange research ideas and trends in their respective fields for their mutual benefit. Contributors will be offered the possibility of submitting their work to a dedicated special issue of a high-ranking scientific journal (still to be selected). In the past, such special issues have e. g. been offered with Advanced Engineering Materials, Steel Research International, Journal of Intelligent Material Systems and Structures, Materials & Design, and Materials. Depending on the submissions received, organization of multiple special issues is also an option.

Symposium Organizer



Dr. René C. Alderliesten
Delft University of Technology



Prof. Dr. Joachim M. Hausmann
Leibniz-Inst. für Verbundwerkstoffe GmbH



Dr. Jörg Hohe
Fraunhofer Institute IWM



Kambiz Kayvantash
CADLM



Dr. Dirk Lehmkus
Fraunhofer Institute IFAM



Prof. Dr.-Ing. Axel von Hehl
University of Siegen



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Area E: Energy and Transportation

E02: Photovoltaics: Materials Science and Perspectives

This symposium will provide an excellent platform for photovoltaic's scientists and engineers around the world to showcase and discuss the latest developments in solar photovoltaic technologies, with particular emphasis on emerging PVs, such as halide perovskite, organic, and dye sensitized. In the past decade, such III generation PV have shown remarkable advances in terms of performance and stability, and they are already finding initial commercial applications. As such, they present both fascinating opportunities and challenges for scientific research and technological development.

The program of symposium E02 will cover the full spectrum of PV topics, including material design and synthesis, fabrication, characterization, and simulation of PV materials and emerging solar cells, modules, and panels and their reliability assessment. The symposium can be divided into three main areas. The first will be dedicated to materials research, discussing the challenges in active cell materials and interlayers, including absorbers, carrier selective buffers, and interconnection layers for tandems. The second area will focus on the solar cells' development, paying special attention to new strategies for improving device efficiencies and extending their lifetimes, such as multijunction and tandem configurations. The third and final area will be devoted to the industrialization of emerging PV technologies, covering the upscaling of PVs through high-throughput printing techniques and related field tests. Submissions are also encouraged on fundamental aspects, such as the theoretical description of the electronic structure of perovskites, modeling of their optoelectronic properties, and advanced characterization techniques.

Topics:

- Perovskite PVs
- Organic PV
- Dye Sensitized PV
- Tandem silicon/perovskite, organic/perovskite, or other tandems
- Theory, modeling, and simulations of PV materials and devices
- Device Physics, Photophysics, and Materials Properties
- Degradation mechanisms
- Large area fabrication
- Advanced device and materials characterization
- Sustainability and deployment
- High-throughput material and solar cell screening

Symposium Organizer



Prof. Dr. Aldo Di Carlo
University of Roma Tor Vergata



Prof. Dr. Emmanuel Kymakis
Hellenic Mediterranean University



Dr. Pedro Salomé
INL - International Iberian Nanotechnology ...



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Area E: Energy and Transportation

E03: Materials for Space Applications and Extreme Environments

This symposium will offer an opportunity for scientists to present and discuss the results of their research through oral and/or poster presentations exchanging knowledge, ideas, and opinions between participants. It also will be a good opportunity for early career researchers and students to learn about the current state of research from experts in the field. Highly demanding applications include the design, development, and testing of new materials having long-term stability in the harsh environment of space and in other extreme conditions such as those of high-temperature corrosion. Concerning Materials for Space Applications, the International Space Station (ISS) allows testing of material properties and control of experimental conditions to an extent impossible on Earth. Since 2018, The Materials International Space Station Experiments Flight Facility (MISSE-FF) has enabled the integrated testing of materials' behavior under extreme conditions such as those in low Earth orbit, including ultraviolet, electromagnetic and ionizing radiations, thermal cycles, ultrahigh vacuum, charged particles, impacts, etc. Moreover, the forthcoming space missions aiming to create new habits on the Moon and into deep space, as well as the Mars exploration program, are opening new challenges for materials scientists in enabling in-situ efficient power generation, manufacturing, and repairing, water recycling, food and energy storage facilities. The symposium will include experimental and theoretical contributions related to scientific and technological subjects interesting for Space and extreme environments applications. Beyond this general scope, specific topics are highlighted in the following to provide focal points for contributions and realize dedicated sessions covering the respective areas. Such suggested session topics include:

- Ultra Light-weight materials for space exploration (Mg-based, Polymers, etc.)
- Advanced structural materials for space environments and human protection
- Advanced materials for space exploration: Metal- and Ceramic-matrix composites (MMCs, CMCs), New metal-based systems (Superalloys, HEAs, BMGs, etc.), and innovative coating systems as thermal and corrosive barriers
- Self-healing and self-repairing materials
- Liquid-assisted processes (infiltration, brazing, soldering, casting, etc.), Additive Manufacturing, Catalysis, Powder Metallurgy, Assessment of Extraction Processes under non-Terrestrial conditions, etc.
- Space exploration: Thermophysical properties measurements under microgravity, In-situ resource utilization, and ground-based supports

Symposium Organizer



Dr. Donatella Giuranno
National Research Council



Dr. Rada Novakovic
National Research Council



Prof. Dr.-Ing. Ilya Okulov
Leibniz Institute IWT



Dr. Wojciech Polkowski
Łukasiewicz - Krakow Institute of Technology



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Area E: Energy and Transportation

E04: Redox Flow Batteries

Redox flow batteries have been recognized as an important perspective technology for stationary energy storage, including grid-scale energy storage thanks to their high power performance, flexible design, and ease of scaling up. The present state of the art is mostly represented by the all-vanadium redox flow batteries, even though many inorganic and organic electroactive systems have recently been proposed as alternatives. In all-liquid systems, the active species are dissolved in solvents. On the other hand, hybrid systems, in which the active species exist in distinct phases (e.g., liquid, solid, or gas), can operate in three subcategories: solid/liquid, semi-solid, and liquid/gas. Mechanisms of operation and approaches to the optimization of their performance obviously differ. The symposium will highlight a need to develop or identify robust organic, inorganic, or hybrid compounds that could function as reversible redox species in a rechargeable battery under flow conditions. Special attention will be paid to synthesis, modification, characterization, and deep understanding of the operation of novel redox-active compounds of potential utility to redox flow rechargeable batteries. The symposium will include invited presentations, reviews, tutorial papers, and contributed papers; the following is a list of possible topics addressing all types of redox flow batteries, including aqueous and non-aqueous systems:

- Design of cathode and anode materials
- New anolytes and catholytes
- New preparative and processing approaches
- Fabrication of advanced materials and electrode characterization, including in-situ and ex-situ methods
- Electrochemical properties and performance
- Electrode-electrolyte interfacial chemistry
- Computational modeling and redox processes
- Ionic transport and reaction mechanisms
- Performance and durability studies

Further session topics may emerge from the submissions received. This symposium aims to bring together researchers working in different areas of fundamental physical and analytical electrochemistry as well as electrochemical science and technology. Both experimental and theoretical papers are welcomed in an effort to forge a stronger link between the experiential parameters and resulting properties of systems of interest to the area.

Symposium Organizer



Prof. Dr. Vito Di Noto
University of Padova



Dr. rer.nat. Peter Fischer
Fraunhofer Institute ICT



Prof. Dr. Anthony Kucernak
Imperial College London



Prof. Dr. Pawel J. Kulesza
University of Warsaw



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Area E: Energy and Transportation

E05: Lithium Batteries

Since their commercialization in the last decade of the last century, rechargeable lithium-ion batteries (LIBs) have changed our lives. The availability of portable power sources with the characteristics of LIBs has enabled the widespread diffusion of portable electronic devices and fostered the digital revolution. LIBs have undergone such technological improvements that nowadays, they are at the heart of the new technological revolution related to the electrification of mobility. One of the unique aspects of LIBs is that despite their widespread commercialization, there are still technological problems that need to be addressed at every level of technological development, from the full understanding of scientific aspects to proof-of-concepts of new approaches and/or materials, to the preparation of new cell formats and the development of new production lines. The research regarding LIBs is so articulated that it includes even perspective approaches, with substantial efforts to develop an efficient reuse and recycling strategy of spent devices. This symposium aims to cover transversely all these aspects; the following is a list of specific topics that could be addressed:

- Lithium-ion battery materials, including new smart functionalities
- Advanced modeling of battery materials
- Integration, control, and modeling of battery packs
- Second life and recycling
- Next generations lithium batteries
- Advanced characterization techniques

The symposium is therefore devoted to recent advances in understanding, analyzing, and designing energy storage technologies from materials to full cell formats. The inclusive symposium will accept contributions from theoreticians, material scientists, surface and operando analysis scientists, and engineers with the aim of getting an overall view on the materials, the interfacial processes, and structure-performance relationships to boost future development.

Symposium Organizer



Prof. Dr. Chiara Ferrara
University of Milano-Bicocca



Dr. Gioele Pagot
University of Padova



Prof. Dr. Riccardo Ruffo
University of Milano-Bicocca



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Area E: Energy and Transportation

E06: Beyond Lithium Batteries

The current leading technology in electrochemical storage is the lithium ion battery (LIB). However, the high demand for Li-ion batteries leads to challenges and risks, especially with regard to the availability of the materials used. For this reason, research has been going on for some time into alternatives, the so-called "post-lithium batteries", in which Li is to be replaced by Na, K, Zn, Ca, Mg, or Al, among others. Recently, the sodium-ion battery (SIB) has shown the potential to develop into an alternative storage medium for both mobile and stationary applications. SIBs contain neither lithium nor rare and/or toxic transition metals but are based on commonly occurring metals such as aluminum, magnesium, manganese, and iron in addition to sodium. The decisive disadvantage so far is the lower gravimetric and volumetric storage capacity of SIBs and the lower cycle stability compared to LIBs. On the other hand, in addition to the more sustainable composition, there are also a series of advantages, including price, faster loading and higher residual capacity at low temperatures, and manufacturing technology, which is very similar to that for LIBs.

In several multivalent systems, safe metal anodes can be used, which enable high volumetric capacities. Several breakthroughs were achieved, and important progress has been made in the last years, in particular in the development of electrolytes with mild chemistry and high efficiency and in the development of first conversion and intercalation-type cathodes. Fundamental studies have elucidated mechanisms of multivalent intercalation or chemical interaction of the electrolyte with the electrodes.

This symposium aims to cover all the above-mentioned aspects for post-lithium batteries, which are summarized in the following list of topics:

- Sodium- and potassium-ion materials and cells
- Materials for multivalent systems
- Electrolytes for mono- and multivalent systems
- Insertion and conversion mechanisms in post-Li electrodes
- Advanced modeling of battery materials
- Integration, control, and modeling of battery packs
- Advanced characterization techniques
- Recycling

The symposium is devoted to recent advances in understanding, analyzing, and designing energy storage technologies based on mono- and multivalent charge transfer ions beyond lithium. The symposium will accept contributions from theoreticians, material scientists, surface and operando analytical scientists, and engineers with the aim of getting an overall view on the materials, the interfacial processes, and structure-performance relationships to boost future development.

Symposium Organizer



Prof. Vito Di Noto
University of Padova



Prof. Dr. Maximilian Fichtner
Karlsruhe Institute of Technology (KIT)



Prof. Dr. Stefano Passerini
Helmholtz Institute Ulm (HIU)



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Area E: Energy and Transportation

E07: Anion Exchange Membrane Fuel Cells and Electrolyzers

Anion-exchange membrane fuel cells (AEMFCs) and anion-exchange membrane water electrolyzers (AEMWEs) are attracting increasing attention as promising electrochemical devices for power generation and hydrogen production. Much of the recent progress is due to improvements in materials chemistry, MEAs design, cell modeling, and optimization of the operating conditions of both electrochemical systems. Beyond this short description, the following specific topics must highlight the importance of the subject-matter.

- PGM and PGM-free electrocatalysts for hydrogen and other fuels' oxidation reaction
- PGM and PGM-free electrocatalysts for ORR
- PGM and PGM-free electrocatalysts for OER and HER
- AEMFC and AEMWE modeling
- Polymer electrolyte membranes and ionomers
- CO₂ effects on AEMFCs and AEMWEs
- Durability studies of low and high-temperature AEMFCs and AEMWEs
- Degradation mechanisms, aging, and stability of membranes
- Anion-exchange membranes
- Catalyst supports
- Catalyst stability
- AEMFCs, HT-AEMFCs, AEMWE performance

Symposium Organizer



Prof. Dr. Nicolas Alonso-Vante
Université de Poitiers



Prof. Dr. Dario Dekel
Technion - Israel Institute of Technology



Prof. Vito Di Noto
University of Padova



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Area E: Energy and Transportation

E08: Proton Exchange Membrane Fuel Cells and Electrolyzers

The hydrogen economy will help the revolution towards the complete decarbonization of the existing society and the ecological transition. The two major pillars of the hydrogen economy are the production of "green hydrogen" through water electrolysis and the utilization of hydrogen within fuel cells for its direct use to produce electricity. To push forward the technology towards a widespread rollout, important efforts must be dedicated towards a drastic reduction of costs and an improvement in the stability and durability of the devices. One of the most promising routes to achieve these goals is the substitution of platinum group metals (PGMs) with more abundant elements that are not "critical raw materials". The symposium is devoted to recent advances in understanding, analyzing, and designing fuel cells and electrolyzers from functional materials to stacks. The focus of this symposium will be placed on systems exploiting acidic electrolytes (e.g., proton exchange membrane fuel cells, PEMFCs; direct alcohol fuel cells, DAFCs; high-temperature proton exchange membrane fuel cells, HT-PEMFCs). This highly inclusive symposium will accept contributions from theoreticians, material scientists, surface and operando analysis scientists, modelers, and engineers with the aim to achieve a multiscale view on the processes taking place in electrodes, membranes, and cells concerning structure-performance relationships to foster future developments. Specific topics are as follows:

- novel electrocatalysts and materials development
- novel membranes
- advanced in-situ, ex-situ and operando and model-based analysis on all levels
- novel synthesis routes and reactor concepts and design
- effective transport and operational influences
- structure/design-performance relationships
- insights into degradation via experiment and modeling

Further session topics may emerge from the submissions received. The intention is to provide a thematically wide forum allowing design, materials, and process engineers active in various subsectors of the hydrogen value chain to exchange research ideas and trends in their respective fields for their mutual benefit. Contributors will be offered the possibility of submitting their work to a dedicated special issue of a high-ranking scientific journal (still to be selected).

Symposium Organizer



Prof. Dr. Piercarlo Mustarelli
University of Milano-Bicocca



Prof. Dr. Enrico Negro
University of Padova



Prof. Dr. Carlo Santoro
University of Milano-Bicocca



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Area E: Energy and Transportation

E09: Energy Materials - Characterization and Modeling

[Joint symposium with symposium D05 in area "Characterization and Modeling"](#)

Symposium Organizer



Prof. Dr. Daniel Brandell
Uppsala University



Prof. Dr. Leeor Kronik
Weizmann Institute of Science



Prof. Dr. Ellen Moons
Karlstad University



Prof. Dr. Eva Unger
Helmholtz-Zentrum Berlin



AREAS



A: Functional Materials

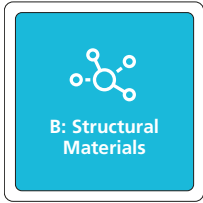
A: Functional Materials

Bernhard Bayer-Skoff

TU Wien, Austria

Luis Pereira

UNINOVA, Portugal



B: Structural Materials

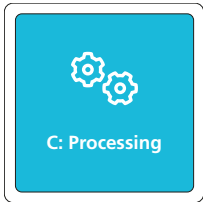
B: Structural Materials

Francisca Caballero

Spanish National Research Council, Spain

Pawel Zieba

Polish Academy of Sciences, Poland



C: Processing

C: Processing

Eduard Hryha

Chalmers University of Technology, Sweden

Ioanna Zergioti

National Technical University of Athens, Greece



D: Characterization and Modeling

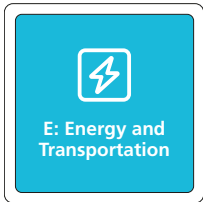
D: Characterization and Modeling

Eva Olsson

Chalmers University of Technology, Sweden

Christophe Pinna

The University of Sheffield, UK



E: Energy and Transportation

E: Energy and Transportation

Vito Di Noto

University of Padova, Italy

Dirk Lehmus

Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM, Germany



F: Materials for Healthcare

F: Materials for Healthcare

Aldo R. Boccaccini

Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany

Sandra Van Vlierberghe

Gent University, Belgium



G: Education, Strategy and Technology Transfer

G: Education, Strategy and Technology Transfer

Marco Falzetti

APRE - Agenzia per la Promozione della Ricerca Europea, Italy

Paloma Fernández Sánchez

Universidad Complutense de Madrid, Spain



H: Materials for Circularity and Sustainability

H: Materials for Circularity and Sustainability

Gesa Beck

SRH Berlin University of Applied Sciences, Germany

Artur Braun

Swiss Federal Laboratories for Materials Science and Technology (EMPA), Switzerland

KEYDATES & DEADLINES

31 JANUARY 2023

DEADLINE FOR ABSTRACT SUBMISSION

31 JANUARY 2023

DEADLINE EARLY BIRD TICKETS

MAY 2023

AUTHORS CONFIRMATION

JUNE 2023

PRELIMINARY PROGRAM

03 SEPTEMBER 2023

START OF EUROMAT 2023

EARLY BIRD TICKETS

ON-SITE TICKETS*

These tickets cannot be booked separately without a catering package!

FEMS MEMBER - FULL CONGRESS 805€

FEMS MEMBER - HALF CONGRESS 515€

REGULAR - FULL CONGRESS 950€

REGULAR - HALF CONGRESS 610€

REGULAR - ONE DAY 380€

ON-SITE TICKETS - YOUNG SCIENTISTS*

Full Congress only. Bachelor, Master and PhD Students up to 30 years (proof required). These tickets cannot be booked separately without a catering package!

YOUNG SCIENTISTS - FEMS MEMBER 433€

YOUNG SCIENTISTS - REGULAR 510€

ONLINE TICKETS**

Full Congress only

FEMS MEMBER 325€

REGULAR 380€

**On-site tickets include:*

the possibility to watch all contributions on-demand for 14 days after the congress | catering package:

- Coffee breaks (Monday, Tuesday, Wednesday, Thursday)
- Lunchtime snacks
- Welcome reception

***Online tickets include:*

the online participation through a browserbased web congress platform and the possibility to watch all contributions on-demand for 14 days after the congress

Congress Office

Deutsche Gesellschaft für Materialkunde e.V.

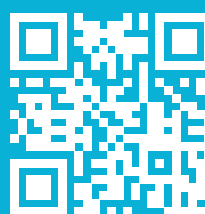
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DGM

*Deadline for abstract submission: 31 January 2023.
Contribution submissions from Young Scientists are welcome.*