MATERIALS MISE SCIENCE SCIENCE ENGINEERING

EUROPEAN CONGRESS AND EXHIBITION ON ADVANCED MATERIALS AND PROCESSES

SEPTEMBER 26TH - 28TH, 2018 DARMSTADT, GERMANY

CALL FOR ABSTRACTS

DEADLINE FEBRUARY 28TH, 2018

WWW.MSE-CONGRESS.DE





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WELCOME ADDRESS



Prof. Dr.-Ing. Frank MücklichSaarland University, Germany
Speaker of MSE Scientific Committee

10 years of successful and constantly growing MSE congresses in Germany – this is a thrilling key moment and the time to sharpen the profile of such an interdisciplinary "broadband" conference of Materials Science and Engineering. It is also the key moment for stopping and assessing the feedback from participants of all MSE conferences so far. Therefore, we have established a constantly renewing organization with a conference board and an international advisory board. Our goal is to present every two years and right between the well-established Euromat conferences an attractive event with a unique atmosphere and

brand for the manifold European materials community and beyond. It should be a kind of marketplace to discover the pioneering spirit of new and emerging trends and at the same time the chance to see beyond the own immediate task and to think out of the box. This may tighten our community and inspire new insights for all of us. Your constructive feedback is always welcome.

On behalf of the Scientific

Committee, I am looking forward to seeing all of you at the MSE2018 in Darmstadt.

MSE SCIENTIFIC COMMITTEE



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Erlangen-Nürnberg (FAU),
Germany



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Germany



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Eckhard QuandtKiel University (KU), Germany



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Germany



Ralf RiedelDarmstadt University of Technology,
Germany



Anke Kaysser-Pyzalla
Braunschweig University of
Technology, Germany



Jürgen RödelDarmstadt University of Technology,
Germany



Oliver Kraft
Karlsruhe Institute of Technology,
Germany



Hans Jürgen SeifertKarlsruhe Institute of Technology,
Germany

CONFIRMED PLENARY SPEAKERS



Mirta Inés Aranguren
Universidad Nacional de Mar del Plata,
Institute of Research in Materials Science and
Technology, Argentina



Hans-Jürgen Christ Universität Siegen, Institute for Materials Engineering, Germany



Oliver GutfleischDarmstadt University of Technology, Materials
Science Division - Fuctional Materials, Germany



Lars Hultman Linköping University, Department of Physics, Sweden



Dierk RaabeMax-Planck-Institut für Eisenforschung GmbH,
Germany

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Swiss Federal Institute of Technology, Switzerland

Xiaoli Tan

Iowa State University, USA

Manfred Wuttig

University of Maryland, USA

Sybrand van der Zwaag

Delft University of Technology, The Netherlands

KEYDATES & DEADLINES

Deadline Call for Abstracts	28 th Feburary 2018
Authors Confirmation	April 2018
Final Program	August 2018
MSE Congress	26 th - 28 th September 2018

Abstract submission options:

Lecture: 15 minutesOral Poster: 3 minutes

Posters

HOW TO SUBMIT AN ABSTRACT

We prepared a short and illustrated manual how to register and submit an abstract for MSE 2018. You can find the instruction at: www.mse-congress.com/your-abstract

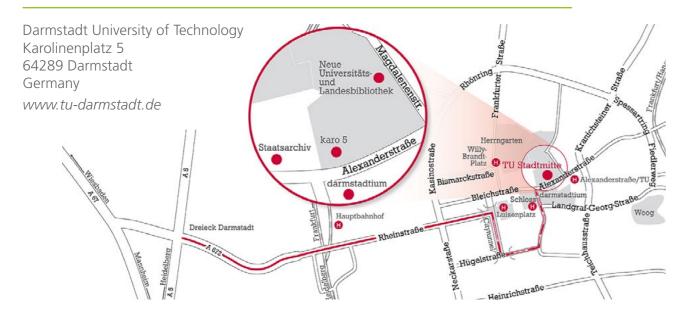
REGISTRATION FEES

	Young Researchers up to 30 years (incl.)			Industry
DGM-member	275 €	400 €	550 €	780 €
Non-member	325€	500 €	650 €	880 €

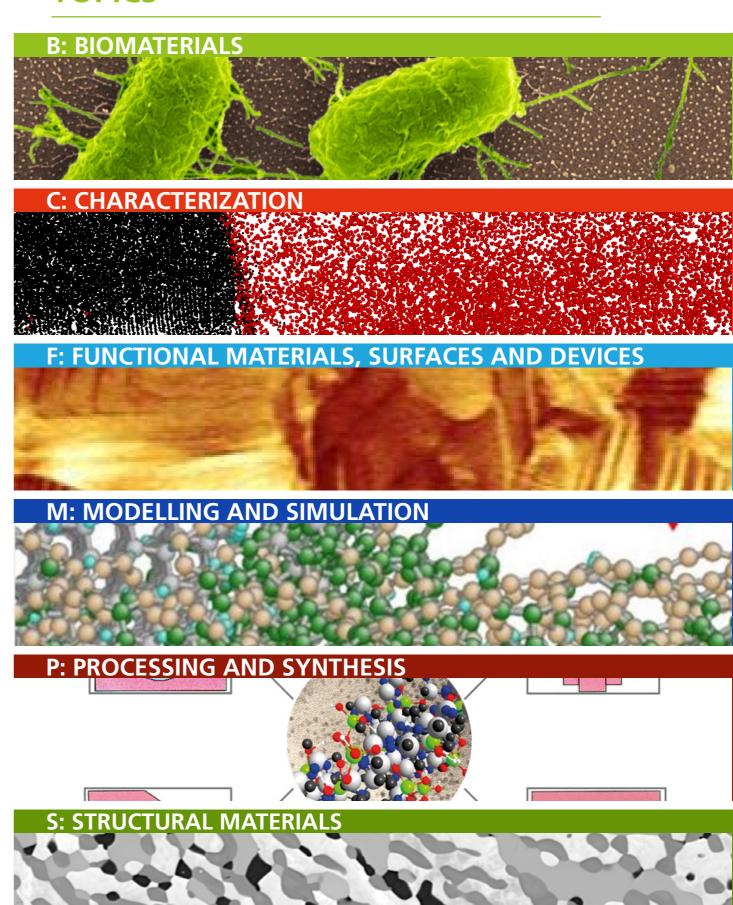
Your full-meeting registration badge includes:

- Access to all scientific, oral and poster sessions
- Access to the MSE exhibition
- Access to the MSE Side Events
- Access to the MSE Party
- Refreshments during the Coffee Breaks

CONGRESS LOCATION



TOPICS



BIOMATERIALS

TOPIC COORDINATORS







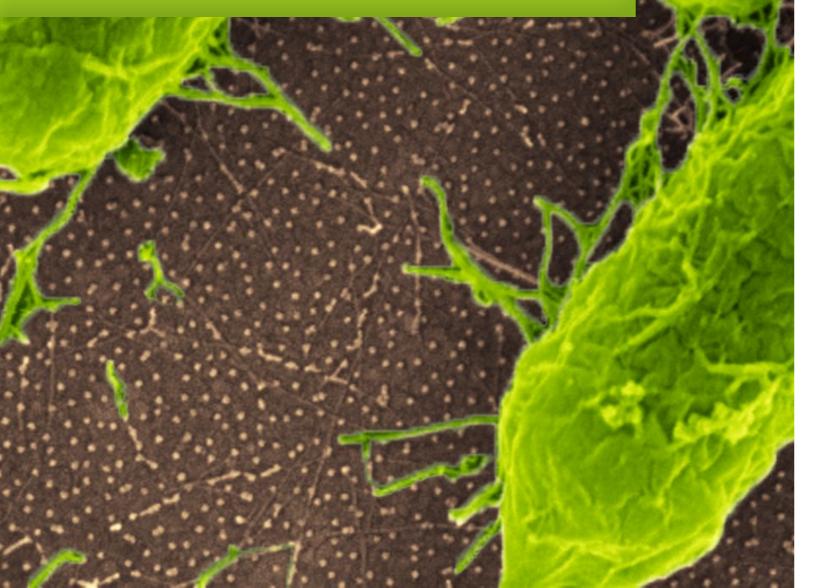
KLAUS D. ENRICA
JANDT VERNE





This topic addresses the growing interest of science and industry in the synthesis, characterization, testing, and application of biomaterials, as well as their closely related areas of medical devices, drug delivery, and tissue engineering. The motivation is not only the recent scientific progress in biomedical materials but also challenges on this exciting and strongly interdisciplinary field of science and engineering.

Materials scientists, physicists, chemists, and biologists in industrial R&D, as well as medical professionals are increasingly facing situations where materials are confronted with high performance requirements and a challenging biological environment at the same time.



SYMPOSIA

B01: Biomaterials for 3D Printing

Hermann Seitz - University of Rostock, Chair of Fluid Technology and Mikrofluidics, Germany **Juergen Stampfl** - TU Wien, Institute of Materials Science and Technology, Austria

B02: Bioinstructive Hydrogels

Cornelia Lee-Thedieck - Karlsruhe Institute of Technology, Institute of Functional Interfaces, Germany **Christine Selhuber-Unkel** - Kiel University (CAU), Institute for Materials Science, Germany **Patrick van Rijn** - University of Groningen, Faculty of Medical Sciences, The Netherlands

B03: Degradation Mechanisms and Characterization of Biodegradable Materials

Daniela Zander - RWTH Aachen University, Corrosion and Corrosion Protection, Germany **Frank Feyerabend** - Helmholtz-Zentrum Geesthacht, Institute of Materials Research, Germany **Bert Müller** - University of Basel, Medical Faculty, Switzerland

B04: From Old Creatures to New Concepts: Bioinspired Material Designs and Processing Strategies

Stephan E. Wolf - Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Institute of Glass and Ceramics, Germany

Fabio Nudelman - The University of Edinburgh, School of Chemistry, Great Britain **David Kisailus** - University of California at Riverside, Department of Chemical and Environmental Engineering, Materials Science & Engineering, USA

B05: Biomaterials Applications



Viviana Mourino - University of Buenos Aires, Pharmaceutical Technology, Argentina **Jonny Blaker** - University of Manchester, School of Materials, Great Britain

B06: Biomaterials for Bone Substitution and Regeneration

Thomas Hanke - TU Dresden, Max Bergmann Center of Biomaterials, Germany

Christian Heiß - Universitätsklinikum Gießen, Germany

Anna Tampieri - National Research Council of Italy, Institue of Science and Technology for Ceramics, Italy

B07: Bioactive, Antibacterial Surfaces and Coatings

Enrica Verne - Polytechnic of Turin, Department of Applied Science and Technology, Italy **Klaus D. Jandt** - Friedrich Schiller University Jena, Chair of Materials Science, Germany

B08: Biopolymers for Medical Applications

Ipsita Roy - University of Westminster, Faculty of Science and Technology, Great Britain **Gianluca Ciardelli** - Politecnico di Torino, Department of Mechanical and Aerospace Engineering, Italy

CHARACTERIZATION

TOPIC COORDINATORS







FRANK MÜCKLICH

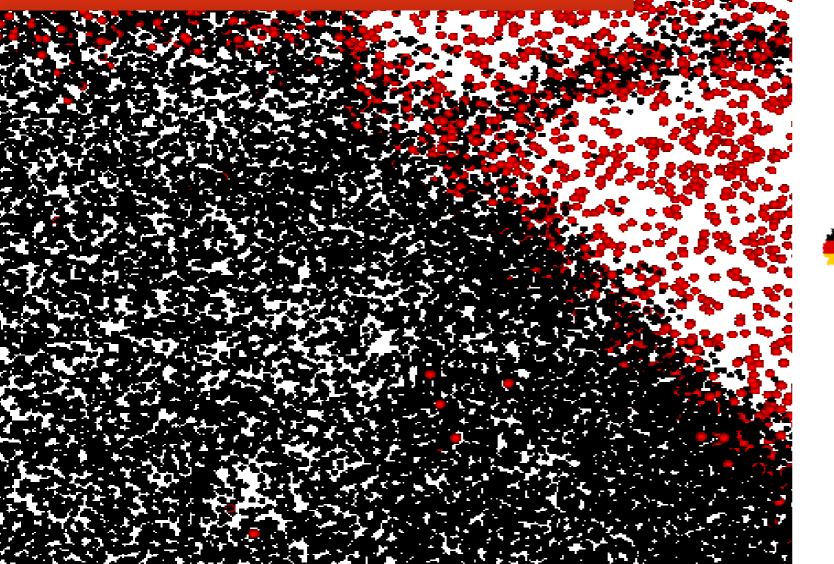


MARTINA ZIMMERMANN



The investigation of the origin and formation of material microstructures during processing and the effect that microstructure has on the properties of materials are questions of central importance in materials science and engineering. This topic covers symposia for presenting and discussing recent developments in this field, which focus on advancements of characterization techniques and its application in the macro, micro, nano as well as atomic scale of all kinds of materials.

Advances in characterization nowadays often mean the explicit consideration of the 3D nature of microstructures. In addition to this, in-situ characterization and in operando techniques are becoming increasingly important. And finally, high throughput characterization is growing more and more powerful.



SYMPOSIA

C01: Correlative Electron Microscopy / Atom Probe Tomography

Christian Liebscher - Max-Planck-Institut für Eisenforschung GmbH, Structure and Micro-/Nanomechanics of Materials, Germany

Michael Herbig - Max-Planck-Institut für Eisenforschung GmbH, Materials science of mechanical contacts, Germany Sophie Primig - UNSW Sydney, School of Materials Science and Engineering, Australia Peter Ercius - University of California, National Center for Electron Microscopy, USA Williams Lefebvre - University of Rouen, Department of Physics, France

C02: Going 3D: From Image to Knowledge

Peter Felfer - Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), General Materials Properties, Germany **Kübel, Christian** - Karlsruhe Institute of Technology, Electron Microscopy and Spectroscopy Laboratory, Germany **Frank Mücklich** - Universität des Saarlandes, Institute of Functional Materials, Germany **Michael Engstler** - Universität des Saarlandes, Institute of Functional Materials, Germany

C03: Tomographic and Radiographic Imaging with Synchrotron X-rays and Neutrons: Exploiting Contrast and Time

Alexander Rack - European Synchrotron Radiation Facility, Experiments Division, France **Guillermo Requena** - German Aeorspace Center, Institute of Materials Research, Germany

C04: In-situ Techniques and Advanced Microscopy for High Resolution and Multi Scale Characterization of Materials

Hrishikesh Bale - Carl Zeiss Microscopy, USA

Ruth Schwaiger - Karlsruhe Institute of Technology, Institute for Applied Materials, Germany

Timo Bernthaler - Hochschule Aalen, Germany

C05: Small Scale and In-situ Mechanical Testing

Karsten Durst - Darmstadt University of Technology, Physical Metallurgy, Germany **Verena Maier-Kiener** - Montan Universität, Department Physical Metallurgy and Materials Testing, Austria **Rebecca Janisch** - Ruhr-Universität Bochum, Interdisciplinary Centre for Advanced Materials Simulation, Germany **Afrooz Barnoush** - Norwegian University of Science and Technology, Department of Mechanical and Industrial Engineering, Norway

C06: Surface and Thin Film Analysis

Michael Kopnarski - Technische Universität Kaiserslautern, Institute for Surface and Thin Film Analysis, Germany
Tom Wirtz - Luxembourg Institute of Science and Technology, Department Materials Research and Technology, Luxembourg
Jens Kreisel - Luxembourg Institute of Science and Technology, Department Materials Research and Technology, Luxembourg

C07: Orientation Image Microscopy: The Evolution. EBSD, TKD, PED-TEM, ECCI + 3D world

Stefan Zaefferer - Max-Planck-Institut für Eisenhüttenforschung GmbH, Department Microstructure Physics and Alloy Design, Germany

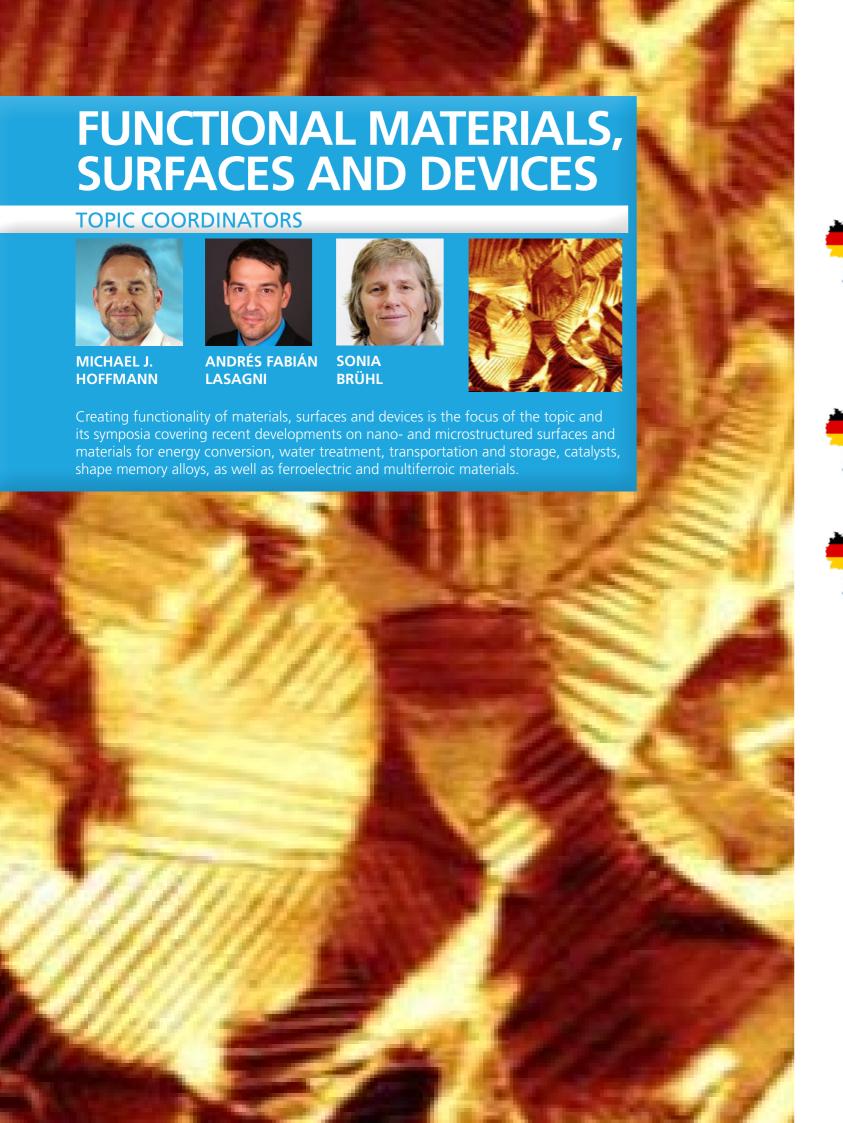
Martina Avalos - National Scientific and Technical Research Council, Argentina **Raúl Bolmaro** - National Scientific and Technical Research Council, Argentina

C08: Microstructure Characterization Strategies for the Digital Twin

Hans-Georg Herrmann - Fraunhofer Institute for Nondestructive Testing, Germany **Christoph Eberl** - Fraunhofer Institute for Mechanics of Materials, Germany **Stefan Sandfeld** - TU Bergakademie Freiberg, Micromechanical Materials Modelling, Germany **Babtiste Gault** - Max-Planck-Institut für Eisenhüttenforschung GmbH, Atom Probe Tomography, Germany

C09: Mechanical Processing and Deformation Induced Microstructural Evolution, Damage Mechanisms and Failure Characterization from Micro to Macro Imaging

Martina Zimmermann - TU Dresden, Faculty of Mechanical Science and Engineering, Germany
Jens Freudenberger - Leibniz Institute for Solid State and Materials Research, Department of Metal Physics, Germany
James E. Martinez - NASA, Johnson Space Center, USA



SYMPOSIA

F01: High-Temperature Functional Materials

Holger Fritze - TU Clausthal, Institute of Energy Research and Physical Technologies, Germany **Philippe Knauth** - Aix-Marseille University, CNRS, France

F02: Surface Engineering and Functionalisation

Andrés Lasagni - TU Dresden, Chair for Large Area Laser Based Surface Structuring, Germany **Carsten Gachot** - TU Wien, Institute for Engineering Design and Logistics Engineering, Austria **Sonia Brühl** - Universidad Tecnológica Nacional, Argentina

F03: Advances in Thermoelectricity: From Materials to Devices

Marie-Christine Record - Aix-Marseille University, CNRS, France

Pascal Boulet - Aix-Marseille University, CNRS, France

Kornelius Nielsch - Leibniz Institute for Solid State and Materials Research Dresden, Institute for Metallic Materials, Germany

F04: Mixed Ionic-Electronic Conductors: Novel Oxide Materials and Engineered Microstructures

Matias Acosta - Energy Research at the University of Cambridge, Great Britain
Till Frömling - Darmstadt University of Technology, Nonmetallic-Inorganic Materials, Germany
Ian S. Metcalfe - Newcastle University, School of Chemical Engineering, Great Britian
Liliana Mogni - National Atomic Energy Commission, Bariloche Atomic Centre, Argentina

F05: Ferromagnetic Memory Alloys

Osvaldo Agustín Lambri - National Scientific and Technical Research Council and National University, Argentina **Bernd Weidenfeller** - TU Clausthal, Institute of Electrochemistry, Deptartment of Materials Science, Germany

F06: Materials Design for Electrochemical Energy Storage

Joachim Binder - Karlsruhe Institute of Technology, Ceramic Materials and Technologies, Germany Marc Kamlah - Karlsruhe Institute of Technology, Institute for applied Materials, Germany Jürgen Janek - Justus-Liebig Universität Gießen, Physical Chemistry of Solids, Germany Linda F. Nazar - University of Waterloo, Department of Chemistry, Canada

F07: The Great Transition – The Importance of Critical Metals for Green Energy Technologies

Oliver Gutfleisch - Darmstadt University of Technology, Functional Materials, Germany Gilles Dennler - IMRA Europe, France

F08: Advanced Materials for Lithium Ion Batteries

Hans Jürgen Seifert - Karlsruhe Institute of Technology, Applied Materials Physics, Germany Maria Helena Braga - University of Porto, Faculty of Engineering, Portugal John B. Goodenough - The University of Texas, Mechanical Engineering, USA

F09: Superconducting Materials for Energy Applications

Jens Hänisch - Karlsruhe Institute of Technology, Institute for Technical Physics, Germany Bernhard Holzapfel - Karlsruhe Institute of Technology, Institute for Technical Physics, Germany John H. Durrell - University of Cambridge, Bulk Superconductivity Group, Great Britain

F10: Interfaces in Microstructural Evolution: Structure, Properties, Anisotropy and Modelling

Wolfgang Rheinheimer - Karlsruhe Institute of Technology, Institut für Keramik im Maschinenbau, Germany Michael Hoffmann - Karlsruhe Institute of Technology, Institut für Keramik im Maschinenbau, Germany John Blendell - Purdue University, School of Materials Engineering, USA Klaus van Benthem - University of California, Department of Materials Science and Engineering, USA

MODELLING AND SIMULATION

TOPIC COORDINATORS



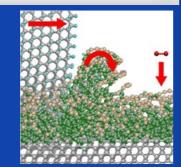




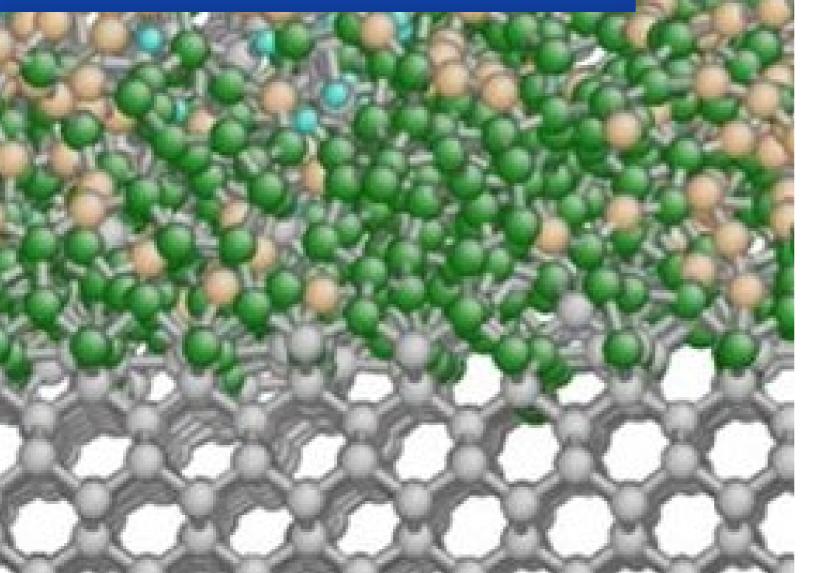
JÖRG NEUGEBAUER



BRITTA NESTLER



Modeling and simulation methods play an increasingly important role in academic research as well as in industrial applications. This topic provides a platform for presenting and discussing the current developments in linking processing, microstructure evolution and functional and mechanical properties of materials. Various methods for material modeling will be covered, with a special emphasis on scalebridging materials modeling. With metals, ceramics, glasses, polymers and composites, all classes of materials will be covered, with a wide spectrum of applications as functional, lightweight and high-strength materials.



SYMPOSIA

M01: Experimental and Computational Thermodynamics and Kinetics

Hans Jürgen Seifert - Karlsruhe Institute of Technology, Applied Materials Physics, Germany Damian Cupid - Karlsruhe Institute of Technology, Applied Materials Physics, Germany Torsten Markus - HS Mannheim, Faculty of Mechanical Engineering, Germany Yong Du - Central South University, State Key Laboratory of Powder Metallurgy, China Rainer Schmid-Fetzer - TU Clausthal, Institute of Metallurgy, Germany

M02: Atomistic Methods for Designing

Pascal Boulet - Aix-Marseille University, CNRS, France
Marie-Christine Record - Aix-Marseille University, France
Sybille Gemming - TU Dresden, Department of Chemistry and food Chemistry, Germany

M03: Microstructure Evolution in Applied Materials: Process to Property

Ingo Steinbach - Ruhr Universität Bochum, Interdisciplinary Centre for Advanced Materials Simulation, Germany Marc G.D. Geers - Eindhoven University of Technology, Department of Mechanical Engineering, The Netherlands

M04: Predicting Interface Structure and Dynamics – From Atomic- to Meso-Scale

Marcela E. Trybula - Polish Academy of Science, Institute of Metallurgy and Materials Science PAS, Poland Sherri Hadian - Max-Planck-Institut für Eisenforschung, Department Computational Materials Design, Germany Pavel A. Korzhavyi - KTH Royal Institute of Technology, Materials Technology, Sweden Yuri N. Gornostyrev - Ural Federal University, Institute of Quantum Materials Science, Russia Mikhail I. Katsnelson - Radboud University of Nijmegen, Institute for Molecules and Materials, The Netherlands

M05: Plasticity Across the Scales – From Microstructure Changes to Bulk Mechanical Behavior

Nina Gunkelmann - TU Clausthal, Institute of Applied Mechanics, Germany
Benoît Appolaire - Université de Lorraine, Institut Jean Lamour, France
Yann Le Bouar - Laboratoire d'Etude des Microstructures, CNRS, France
Daniel Schneider - Karlsruhe Institute of Technology, IAM - Computational Materials Science, Germany
Markus A. Stricker - Karlsruhe Institute of Technology, IAM - Computational Materials Science, Germany

M06: Cellular and Granular Porous Microstructures: Computational Design and Application

Britta Nestler - Karlsruhe Institute of Technology, IAM - Computational Materials Science, Germany Anastasia August - Karlsruhe Institute of Technology, IAM - Computational Materials Science, Germany Christoph Hilgers - Karlsruhe Institute of Technology, Institute of Applied Geosciences, Germany Norbert Jost - HS Pforzheim, Material Development and Testing, Germany Yuksel C. Yabansu - Georgia Institut of Technology, MINED Group, USA

M07: Modeling and Process Simulation of Fiber-Reinforced Polymers

Luise Kärger - Karlsruhe Institute of Technology, Institute of Automotive Engineering, Germany **Andy Hrymak** - University of Western Ontario, Chemical & Biochemical Engineering, Canada **Thomas Böhlke** - Karlsruhe Institute of Technology, Institute of Engineering Mechanics, Germany

M08: Integrated Computational Materials Engineering

Ulrich Prahl - TU Bergakademie Freiberg, Institute of Metal Forming, Germany **Alexander Hartmaier** - Ruhr-Universität Bochum, Interdisciplinary Centre for Advanced Materials Simulation (ICAMS), Germany

Sybrand van der Zwaag - TU Delft, Faculty of Aerospace Engineering, The Netherlands **Ernst Kozeschnik** - TU Wien, Institute of Materials Science and Technology, Austria **Grigorios Chaidemenopoulos** - Khalifa University of Science and Technology, Department of Mechanical Engineering, United Arab Emirates

PROCESSING AND SYNTHESIS

TOPIC COORDINATORS











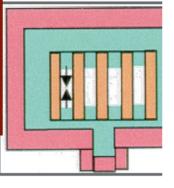
MONICA FERRARIS

SANJAY MATHUR

RALF RIEDEL

The emphasis of this topic is the development of new techniques to synthesize materials with desired microstructure-property relation; to understand the physical phenomena that underpin materials synthesis such as diffusion, nucleation, and phase transitions; and to develop in situ monitoring and diagnostic capabilities. The synthesis of complex thin films, nanoscale materials, composites, coatings are just a part of this comprehensive emphasis.





SYMPOSIA

P01: Manipulation of Matter by Electric and Magnetic Fields

Oliver Guillon - Forschungszentrum Jülich, Institute of Energy and Climate Research, Germany Rishi Raj - University of Colorado Boulder, Materials Science & Engineering Program, USA

P02: Additive Manufacturing Technologies and Materials

Fernando Lasagni - Advanced Center for Aerospace Technologies, Materials & Processes Department, Spain Christoph Levens - Technische Universität Dresden, Institute for Materials Science, Germany José Manuel Martín Márquez - Airbus Defence and Space, Additive Manufacturing, Spain

P03: Coatings and Thin Films for Structural and Functional Applications -Monika Willert-Porada Memorial Sympoisum

Michael Stüber - Karlsruhe Institute of Technology, Applied Materials Physics, Germany **Karsten Woll** - Karlsruhe Institute of Technology, Applied Materials Physics, Germany Thorsten Gerdes - Universität Bayreuth, Lehrstuhl für Werkstoffverarbeitung, Germany José L. García - Sandvik Coromant, R&D, Schweden

Haroldo Pinto - University of São Paulo, Department of Materials Engineering, Brasil Flavio Soldera - Universität des Saarlandes, European School of Materials, Germany

SYMPOSIA

P04: Nanocomposites and Nanolaminated Functional Coatings

Naureen Ghafoor - Linköping University, Department of Physics, Chemistry and Biology, Sweden **Grégory Abadias** - Université de Poitiers, Department of Physics and Mechanics of Materials, France

P05: Advances in Atomic Layer Deposition Technologies: Conformal Thin Films and Hybrid Materials for Energy, Electronics and Health

Mariona Coll - Institut de Ciència de Materials de Barcelona, Spain

Thomas Fischer - University of Cologne, Department für Chemistry, Germany

Mercedes Vila - CTECHnano, Spain

Changdeuck Bae - Sungkyunkwan University, Energy Materials Laboratory, Korea

Yakup Gönüllü - Schott AG, Mainz, Germany

Susanne Hoffmann-Eifert - Forschungszentrum Jülich, Peter Grünberg Institute Electronic Materials, Germany

P06: Molecular Preparative Approaches to Functional Materials

Emanuel Ionescu - Darmstadt University of Technology, Department of Materials and Earth Sciences, Germany Sanjay Mathur - University of Cologne, Inorganic and Materials Chemistry, Germany

Ralf Riedel - Darmstadt University of Technology, Department of Materials and Earth Sciences, Germany

Aitana Tamayo - Instituto de Cerámica y Vidrio, Spain

Aivaras Kareiva - Vilnius University, Department of General and Inorganic Chemistry, Lithuania **Zhaoju Yu** - Xiamen University, College of Materials, China

P07: Joining

Monica Ferraris - Politecnico di Torino, Department Applied Science and Technology, Italy Mrityunjay J. Singh - NASA Glenn Research Center, Ohio Aerospace Institute, USA

P08: Damage in Metal Forming

Erman Tekkaya - TU Dortmund, Institute of Forming Technology and Lightweight Components, Germany Till Clausmeyer - TU Dortmund, Institute of Forming Technology and Lightweight Components, Germany **Sebastian Münstermann** - RWTH Aachen University, Faculty of Georesources and Materials Engineering, Germany

P09: Solution-Processed Absorber Materials for Photovoltaics and Solar Fuel Device Concepts

Trilok Singh - Toin University of Yokohama, School of Engineering, Japan

Silke Christiansen - Helmholtz Zentrum Berlin, Germany

Thomas Fischer - University of Cologne, University of Cologne, Department für Chemistry, Germany

P10: Wet Processing of Nanostructured Materials

Tobias Kraus - Leibniz Institute for New Materials, Structure Formation, Germany Lola González-García - Leibniz Institute for New Materials, Structure Formation, Germany Gabriel Lozano - Spanish National Research Council, Institute of Materials Science of Sevilla, Spain Heiko Wolf - IBM Research–Zurich, Switzerland

P11: Thin Film Formation and Nano Structuring Through the Control of Geometry and **Deposition Parameters**

Bernd Rauschenbach - Leibniz Institute of Surface Modification, Germany **Agustín R. González-Elipe** - University of Seville, Nanotechnology on Surfaces, Spain Tansel Karabacak - University of Arkansas at Little Rock, Department of Physics and Astronomy, USA

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STRUCTURAL MATERIALS

TOPIC COORDINATORS







HEILMAIER



KOERNER



This topic focuses on the relationships between the structure of materials and their properties and performance. Regardless of the material class being metallic, ceramic, polymeric or composite, an understanding of the structure-property relationships provides a scientific basis for developing engineering materials for advanced structural applications. Contributions are sought from both, fundamental and applied research in this field responding to the ever-increasing demand for improved and better-characteri-



SYMPOSIA



S01: Environmentally Assisted Cracking of High-Strength Alloys

Afrooz Barnoush - Norwegian University of Science and Technology, Department of Mechanical and Industrial Engineering, Norway

Roy Johnsen - Norwegian University of Science and Technology, Department of Mechanical and Industrial Engineering, Norway

Mariano lannuzzi - Curtin University, Department of Chemical Engineering, Australia Mariano A. Kappes - National Scientific and Technical Research Council, Argentina

S02: Experiments and Simulations Towards Understanding Tribology Across Length-Scales

Christian Greiner - Karlsruhe Institute of Technology, Institute for Applied Materials, Germany **Steffen Brinckmann** - Max-Planck-Institut für Eisenforschung GMBH, Experimental Nanotribology, Germany Sylvie Descartes - Université de Lyon, LaMCoS, CNRS, INSA-Lyon UMR5259, France Filippo Mangolini - University of Leeds, School of Mechanical Engineering, Great Britain

S03: Process-Microstructure-Property Relationships in High-Performance Alloys Produced by Additive Manufacturing

Christian Haase - RWTH Aachen University, Department of Ferrous Metallurgy, Germany **Thomas Niendorf** - University of Kassel, Institute of Materials Engineering, Germany Andrey Molotnikov - Monash University, Materials Science and Engineering, Australia Moataz Attallah - University of Birmingham, School of Metallurgy and Materials, Great Britain

S04: Micro- and Nanoarchitected Materials

Jens Bauer - University of California, Irvine, USA **Tobias Schaedler** - HRL Laboratories, USA

Christoph Eberl - Fraunhofer Institute for Mechanics of Materials, Germany

S05: Bulk Ultrafine- and Nano-Structured Materials

Martin Wagner - Technische Universität Chemnitz, Mechanical Engineering, Germany **Philipp Frint** - Technische Universität Chemnitz, Mechanical Engineering, Germany

S06: Compositionally Complex Alloys – High Entropy Alloys

Uwe Glatzel - Universität Bayreuth, Faculty of Engineering Science, Germany Bronislava Gorr - University Siegen, Department Maschinenbau, Germany **Anna Manzoni** - Helmholtz Zentrum Berlin, Institute Applied Materials, Germany

S07: Mechanical Behavior of Advanced Structural Materials -Reinhard Pippan Honorary Symposium

Andrea Bachmaier - Austrian Academy of Science, Erich-Schmid-Institute for Materials Science, Austria Daniel Kiener - Montanuniversität Leoben, Department Material Physics, Austria **Bernd Gludovatz** - University of New South Wales, School of Mechanical and Manufacturing Engineering, Australia **Christian Motz** - Universität des Saarlandes, Department of Materials Science and Engineering, Germany



S08: Advanced Steels

Pello Uranga - Ceit-IK4 and Tecnun, University of Navarra, Spain Martin Valdez - Materials Department at TENARIS, Argentina

Roumen Petrov - Ghent University, Department of Electrical Energy, Systems and Automation, Belgium Horst Biermann - TU Bergakademie Freiberg, Institute of Materials Engineering, Germany

Wolfgang Bleck - RWTH Aachen University, Department of Ferrous Metallurgy, Germany **Ulrich Prahl** - TU Bergakademie Freiberg, Institute of Metal Forming, Germany



DGM S09: Light Weight Metals

TIMS Jürgen Hirsch - Consultant to Hydro Aluminium Rolled Products GmbH, Germany David DeYoung - Alcoa Technical Center & TMS President, USA

EXHIBITION

The MSE has become a the central worldwide platform for Material Science and Engineering experts. The knowledge exchange of the latest developments in the field of Material Science and Engineering as well as connected disciplines is a major feature of the MSE. Be a part of the MSE and present your products.

Limited exhibition spaces are available in the central building of the MSE. Present your product portfolio to the scientific audience and meet your target groups for laboratory equipment and accessories.

Benefits & Conditions

	Premium	Standard
Exhibition Space	6 m ²	6 m ²
Exhibition Booth*	included	-
Short company description incl. logo and hyperlink on MSE-homepage	✓	✓
Short company description incl. logo in the final program	✓	✓
2 exhibitor passes to join the scientific program	✓	✓
Prices excl. 19% VAT	2.500 €	2.000€

^{* 1} Building booth system (3 m back wall / 1 m sidewall (2,5 m high) 3 x 1 m), 1 power connection (220V), electric socket, 2 bar tables, 2 bar stools, 1 fascia, 2 spots 100 W, 1 waste basket, no carpet (!).

Be part of the MSE 2018 and send your request to: **exhibition@mse-congress.de**



SPONSORING



MSE Party

The social highlight of the MSE offers numerous opportunities to present your company in a relaxed atmosphere.



Posterexhibition and -evening

Your company logo will be displayed on all poster walls. Brochure holders and roll-up banners will be placed in the congress and catering area.



Poster award ceremony

A company representative will hand over the prizes sponsored by your company to the winners. The certificates will include your company logo. Additionally, a roll-up banner will be placed in the ceremony area.

└ 1.250∜



Promotional materials

Advertisements in the congress program, distribution of flyers or distribution of promotional material with your company logo: contact us to discuss the possibilities for presenting your company in an effective and sustainable manner.

- ☐ Flyer in the congress bags (1.500 pcs.)1.000€
- ☐ Flyer on the chairs at the opening (800 pcs.) 800€
- ☐ Distribution of flyer at the entrance (1.000 pcs.) 500€
- ☐ Distribution of giveaways at the entrance (1.000 pcs.) **500€**
- ☐ Distribution of giveaways in the congress bags (1.500 pcs.) 1.000€



Catering

By sponsoring the coffee breaks you can place brochure holders and roll-up banners in the congress and catering area.



Symposium sponsorship

Project your company logo on the screen of the sponsored symposia and place a roll-up banner in the plenary lecture hall.



Program brochure

Circulation: 1.500 pcs.

	'	
1.500€	☐ Back cover(DIN A4 1/1 4C)	
1.000€	☐ Insidebackcover(DINA4 1/1 4C)	
)850€	☐ Regular inside page (DIN A4 1/1 4	



Congress material

Your logo on the congress bags	1.000€
Your logo on the congress lanyards	1.000€
Your logo on the name badges	1.000€
Your writing pad in the congress bags	1.000€

☐ Your pen in the congress bags 1.000€

Please note that the general terms and conditions of the DGM e.V. are applied. All prices are in euros (€) and do not include VAT (19%). Promotional materials for presentation or distribution (for example, roll-ups, brochure stands, flyers) must be provided by you.

ABOUT DARMSTADT

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City of Science with a Strong Economy Darmstadt has been officially dubbed a "City of Science" since 1997, which underscores the national and international significance of Darmstadt in fields of science and research. The recognition granted by the title signifies the great scientific potential contained within the city and its citizens as well as the great number of scientific institutions and companies performing research. This power is also evident in the workplace: in no other German city are there so many citizens employed in research and development as in Darmstadt. To ensure to carry on with this legacy in future the next generation of high level experts is being developed at the Technical University Darmstadt and two further colleges. Significant inventions such as the radio clock, electret and silicon microphones, which have been produced by the billions, the first enzyme based detergents and Plexiglas have all helped to make Darmstadt

Optimal Utilization of Economic Potential

known beyond the state's borders.

Darmstadt is the site of four major corporations' headquarters and home to one of the most significant technology sites in the state. The scientific focus lies in the five fields of chemicals/pharmaceuticals/biotech, cosmetics, IT, achinery/electronics/mechatronics and space technology. Internationally renowned research-based

companies seated here include Deutsche Telekom AG, Software AG, Merck KGaA, Evonik, Coty/Wella, KAO, Schenck-Process as well as Schenck-Rotec and EUMETSAT. Darmstadt possesses all the attributes to make it an attractive retail trade location and it can claim a strong purchasing power level. To ensure an effective establishment of retail trade and a long-term market, the settling of retail shops in the inner city and the outer districts as well as in the 17 industrial parks is clearly regulated.

SPECIAL PLACES

Luisenplatz

The Luisenplatz is the centre of the city. Architect Georg Moller built the Ludwigs-Column (39m high) in 1844 in honour of the first Grand Duke Ludewig I. Located on the north side of the square is the council building, former seat of ministers (1781), today district council.

Hessian state museum Darmstadt

The museum, built by Alfred Messel in 1902, houses various interesting collections, e.g. history of art, cultural history, geology, palaeontology and zoology. It is considered as being one of the few universal museums in the world.

Residential Palace

The Old Renaissance Palace with its two Baroque wings, built by Remy de la Fosse between 1716 and 1727, today replaces the old water fortress. The Bell Tower building houses the Palace Museum with a representative collection showing the history of the former Landgraviate and later Grand Dukedom.

Mathildenhöhe

In 1899 Grand Duke Ernst Ludwig invited seven artists to come to Darmstadt and, thus, the Artists' Colony Mathildenhöhe was founded. The first of four large art exhibitions took place in 1901. The artists presented their ideas of a new living and working world. They designed a colony, the focal point of which is the Studio House, the Ernst Ludwig House. Since 1990 it houses the Artists' Colony Museum. The homes of the artists, partly with original exteriors, are grouped around the Studio Building: House Olbrich, House Deiters, House Habich, the Glückert Houses and House Behrens. In 1908 the Exhibition Halls were built, together with the Wedding tower, which was a wedding present for the Grand Duke, Bernhard Hoetger artistically added his reliefs and sculptures to the Plane Tree Grove in 1914. Due to the family relationship between Hessen-Darmstadt and the Romanovs, the Russian Chapel was built in 1899, according to the design of the St. Petersburg architect Louis Benois and decorated by Victor Wasnezow.

CITY OF SCIENCE OR CENTRE OF CULTURE?

Jugenstilbad

Influenced by the late Jugendstil, the former "Central Bath" was built by August Buxbaum in 1909. In 2007 it was renovated to become a wellness centre.

The porcelain collection in Prince Gerog Palace

In 1907 the museum was set up by Grand Duke Ernst Ludwig. The collection includes, amongst others, rare pieces from the Hessian-Darmstadt Factory of Kelsterbach and the Russian Factory of St. Petersburg.

House of History

The former Court Theatre was built by Georg Moller in 1819. After complete destruction and renovation the "Mollerbuilding" was reopened in 1994. It houses the State and City Archives. A sight no-one should miss is the magnificent foyer, restored in the style of the 1870s.

White Tower

The White Tower is the landmark of the city centre. It was formerly a corner tower of the fortification wall. Today it is used as a gallery by the Fotoclub Darmstadt.

Main Railway Station

The station building of 1912, designed by Friedrich Pützer, displays characteristic elements of the late Jugendstil.

Kranichstein Hunting Lodge Museum

The Renaissance Hunting Lodge, built in 1578, is the centre of an extensive game park. The museum displays a large collection of hunting weapons and equipment as well as furnished noble salons.

The Waldspirale

This unusual building with 105 apartments, based on a design by Friedensreich Hundertwasser, was built in 2000. The outside area is open to the public.

DARMSTADT CARD

The Darmstadt Card is valid for 1 day at the price of $6 \in$ or for 2 days at the price of $9 \in$.

The Darmstadt Card offers you the following discounts:

Public transport

Free use of public transport (bus and tram) in fare zone 40 (includes Darmstadt, Erzhausen, Messel, Roßdorf, Ober-Ramstadt, Modau, Nieder-Beerbach, Pfungstadt, Griesheim, Weiterstadt) for 1 person on one or two consecutive days.

Free admission

Kunsthalle Darmstadt

Price reduction

for guided tours and for pedelec hire at the Darmstadt Marketing GmbH

Reduced admission in culture and leisure facilities:

Altstadt Museum Hinkelsturm,
Großherzoglich-Hessische
Porzellansammlung, Castle Museum
Darmstadt, bioversum Kranichstein,
Museum Jagdschloss Kranichstein, Train
Museum Darmstadt-Kranichstein, Hessian
State Museum Darmstadt, Museum
Artists' Colony Darmstadt, Wedding Tower,
Literaturhaus Darmstadt (main program),
halbNeun Theater, State Theater Darmstadt
(repertory performances), Theater im
Pädagog, Kinopolis Darmstadt, Bezirksbad
Bessungen, DSW Freibad, Mühltalbad
Eberstadt, Naturbad Großer Woog, Nordbad

Free of charge

Info brochure at the Weißer Turm, postcard at the Zoo Vivarium

Available

Online: darmstadt-tourismus.de

Darmstadt Shop Luisencenter Luisenplatz 5, 64283 Darmstadt T: +49 6151 – 134513 information@darmstadt.de



Organizing Society

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