

**PROGRAMME**  
**21 - 25 JULY 2014**  
LAUSANNE, SWITZERLAND



## **JUNIOR EUROMAT 2014**

The Federation of European Materials Societies

**The Major Event for Young  
Materials Scientists**

**FEMS**

**Sponsored by**  
The Federation of European  
Materials Societies

**EMRS**

**Co-Sponsored by**  
The European Materials  
Research Society

**DGM**

**Organised by**  
Deutsche Gesellschaft  
für Materialkunde e.V.

[junior-euromat.fems.org](http://junior-euromat.fems.org)

	MONDAY 21 July 2014	TUESDAY 22 July 2014	WEDNESDAY 23 July 2014	THURSDAY 24 July 2014	FRIDAY 25 July 2014
<b>MORNING</b>	<ul style="list-style-type: none"> <li>• Registration</li> <li>• Time to fix the Poster</li> <li>• Opening Address M. Hofmann</li> <li>• Plenary M. Rappaz</li> <li>• Oral Presentation K</li> <li>• Poster Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Time to fix the Poster</li> <li>• Plenary M. Ashby</li> <li>• Talk Granta Design</li> <li>• Oral Presentation A</li> <li>• Poster Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Time to fix the Poster</li> <li>• Plenary T. Lippert</li> <li>• Oral Presentations L, M</li> <li>• Poster Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Time to fix the Poster</li> <li>• Oral Presentations F, G</li> <li>• Poster Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Time to fix the poster</li> <li>• Plenary J. Komornicki</li> <li>• Oral Presentation H</li> <li>• Poster Discussion</li> <li>• PosterAwards</li> </ul>
<b>AFTERNOON</b>	<ul style="list-style-type: none"> <li>• Oral Presentations B, C, D, I</li> <li>• Poster Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Oral Presentations E, P</li> <li>• Poster Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• FEMS Lecturer Session H. Proudhon, L. Malfatti, C. Greiner, A. Roguska, F. De Geuser, R. Oliver</li> </ul>	<ul style="list-style-type: none"> <li>• Oral Presentation N</li> <li>• Poster Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Closing Address including Poster Prize and Fems Lecturer Award</li> </ul>
<b>EVENING</b>	<ul style="list-style-type: none"> <li>• Welcome Reception</li> </ul>		<ul style="list-style-type: none"> <li>• Barbecue Evening</li> </ul>		

## Welcome

### Materials Science – Translation to the Future

Dear conference participant,

A warm welcome to Lausanne and JUNIOR EUROMAT 2014. This major event for junior materials scientists and engineers in Europe will take place for the first time at the new Swiss Tech Convention Centre located on the EPFL Campus. The 12th JUNIOR EUROMAT conference organized by DGM under the auspice of FEMS and supported by E-MRS will attract this year more than 300 Master and PhD students from all over the world.

JUNIOR EUROMAT is the conference covering the many different aspects of materials science and engineering by oral presentations and mainly through posters showing the diversity of materials science, processing and characterisation. In the 24 years of biennial JUNIOR EUROMAT conferences, research & development in materials science and engineering has become more complex because of new industrial sectors emerging very quickly such as communication technologies, green technologies for energy, transport or construction. Even sectors such as the health & food or textile industry recognize the importance of material science and engineering in their innovation strategies. European R&D programs like HORIZON 2020 consider “advanced materials” as one of the prior Key Enabling Technologies (KET) endowing about 80 billion Euros to be spent between 2014 and 2020. This investment will be made as a join-up for both research and innovation to support ‘excellent science’ and ‘industrial leadership’.

The main actors in R&D projects are young scientists and engineers working on their master or doctoral thesis, or as young scientists/engineers in industry. They are the backbone for innovation and help to support the idea of joining up innovative ideas and market innovations. Although communication technology has intensified transfer between groups and individuals, the exchange of information and knowledge at conferences is a prerequisite for a sustainable materials community. FEMS is very pleased to announce highly recommended speakers at JUNIOR EUROMAT 2014: Prof. em. Michael F. Ashby, Department of Engineering at the University of Cambridge, a world-renowned authority on engineering materials and author of several best-selling textbooks and first recipient of the FEMS European Materials Medal award; Prof. Michel Rappaz, head of the Computational Materials Laboratory at Ecole Polytechnique Fédérale de Lausanne (EPFL) who received the FEMS European Materials Medal in 2013, he will talk about fundamentals of materials science, covering macroscopic and microscopic aspects of metallic materials; Prof. Thomas Lippert, head of the Materials group at the Department of General Energy Research at the Paul Scherrer Institute (PSI), Switzerland, and President of E-MRS will discuss materials relevant to energy research and especially soft materials. Dr. Jacques Komornicki, Innovation Manager/ Materials Technologies at European Chemical Industry Council (CEPIC) and partner with FEMS in the European MatVal project will discuss the materials value chain.

I wish you a very interesting and pleasant meeting combining scientific discussions and relaxing societal exchange on the banks of Lake Geneva in Lausanne.

**Dr. Margarethe Hofmann**  
**President of FEMS**

## Organising Society

Deutsche Gesellschaft für  
Materialkunde e.V. (DGM)  
Senckenberganlage 10  
D-60325 Frankfurt  
P +49-69-75306-750  
F +49-69-75306-733  
dgm@dgm.de  
www.dgm.de

## Conference Location

The Swiss Tech Convention Center  
EPFL - Ecole Polytechnique  
Fédérale de Lausanne  
CE 0 213 (Centre Est) - Station 1  
CH-1015 Lausanne



## Programme Manager

Dr.-Ing. Margarethe  
Hofmann-Amténbrink  
Mat Search Consulting Hofmann,  
Pully-Lausanne (Switzerland)

## Address of the Civil Shelter:

Chemin du Praz-Veguez 1,  
1022 Chavannes-près-Renens  
(under the "Collège de la Plaine la Chavanne")

## Conference Office

Deutsche Gesellschaft für  
Materialkunde e.V. (DGM)  
Céline Babic  
Beate Tölle-Kortmann  
Kristin Tonn  
Senckenberganlage 10  
D-60325 Frankfurt  
P +49-69-75306-750  
F +49-69-75306-733  
junior-euomat@fems.org  
junior-euomat.fems.org

The conference office will be located in the foyer of the Swiss Tech Convention Center.

## Opening times:

Monday through Friday along the  
conference programme

## Transport Facilities

No special shuttle service to the EPFL will be arranged. There is a metro line (M1) connecting the EPFL with downtown Lausanne and the center of Renens. The stop is called EPFL.

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## Internet Access

1. Connect to one of the following wireless networks: Free\_STCC 1, Free\_STCC 2, Free\_STCC 3
2. Open your Internet browser
3. You will be automatically redirected to the PWLAN connection page
4. Choose Free SMS-Login and enter your mobile phone number (ex. 0041 79 123 4567) page of your Internet browser
5. Enter the security characters that you see in the image indicated on the page
6. Within a few seconds you will receive a text message (SMS) on your mobile phone with your access code
7. Enter this code in the connection page of your Internet browser
8. A pop-up page will appear indicating your remaining connection time
9. The maximum connection time is 24 hours. After 24 hours you will need to redo the procedure

## The Federation of European Materials Societies (FEMS)

### President

Dr.-Ing. Margarethe Hofmann-Amttenbrink  
Mat Search Consulting Hofmann,  
Pully-Lausanne (Switzerland)

### Vice President

Dr. Brett Suddell  
ASTUTE Project Manager, Swansea  
University (United Kingdom)

### Secretary

Dr. Hugh M. Dunlop  
T&I Centre de Recherches de  
Voreppe CRV, Constellium, Voreppe  
(France)

### FEMS member societies

- Associazione Italiana Compositi & Affini, Assocompositi (I)
- Associazione Italiana d'Ingegneria dei Materiali, AIMAT (I)
- Associazione Italiana di Metallurgia, AIM (I)
- Austrian Society for Metallurgy and Materials, ASMET (A)
- Benelux Métallurgie, BM (B)
- Bond voor Materialenkennis, BvM (NL)
- Czech Society for New Materials and Technologies, CSNMT (CZ)
- Deutsche Gesellschaft für Materialkunde, DGM (D)
- Deutscher Verband für Materialforschung und -prüfung, DVM (D)
- Estonian Materials Science Society, EMSS (EE)
- Hellenic Metallurgical Society, HMS (GR)
- Hellenic Society for the Science and Technology of Condensed Matter, HSSTCM (GR)
- Institute of Materials, Minerals & Mining, IOM3 (UK)
- Latvian Materials Research Society, LMRS (LV)
- Lithuanian Materials Research Society, LtMRS (LT)
- Materials Research Society of Serbia, MRS-Serbia (RS)
- Metal Science Society of the Czech Republic, MSS (CZ)
- Norsk Metallurgisk Selskap, NMS (N)
- Országos Magyar Bányászati és Kohászati Egyesület, OMBKE (H)
- Polish Society for Materials, PTM (PL)
- Swiss Association for Materials Science and Technology, SVMT (CH)
- Slovensko Drustvo Za Materiale, SDM (SL)
- Sociedad Española de Materiales, SOCIEMAT (E)
- Sociedade Portuguesa de Materiais, SPM (P)
- Society for New Materials and Technologies in Slovakia, SNMTS (SK)
- Société Française de Métallurgie et de Matériaux, SF2M (F)
- Svenska Föreningen för Materialteknik, SFMT (S)
- Ukrainian Materials Research Society, U-MRS (UA)

## **The Conference Format: Oral Poster Presentation**

JUNIOR EUROMAT will be organised as a poster conference, i. e. all the contributions will be on display as posters. The poster authors have been invited to introduce their poster orally in the lecture hall (3 minutes each) using 3 transparencies. After the oral session, the authors will be available for discussion in front of the poster panels.

## **Voting Information**

The best two posters of each session will be awarded with a certificate and a prize of 100 Euro for the first and 50 Euro for the second winner. Additionally, the best two posters of the entire conference will get an extra prize of 150 Euro and 100 Euro.

All the prizes will be awarded on Friday afternoon during the closing address.

Please note that we will hand out these voting papers only once! Only the "official" voting papers can be used, any other papers (self made voting papers) will not be accepted. To make your vote valid, please return your voting paper until the submission DATE AND TIME to the voting box at the conference office. On the voting paper we listed the country of origin and institute of the voter, as there will be applied a special counting system of the votes to avoid that authors of the same country as the voters take advantage.

Please note that any votes arriving beyond the submission date and time will NOT be accepted. Please write ONLY ONE POSTER NUMBER on each voting paper. Multiple votes on one voting paper are invalid and will not be counted at all. The winners of the awards will be the authors with the highest and second highest numbers of total votes.

## PARTICIPANTS BY COUNTRIES

Algeria	4
Austria	8
Belarus	1
Belgium	6
Brazil	1
China PR	4
Colombia	1
Czech Republic	52
Egypt	1
Estonia	3
France	11
Germany	75
Greece	1
Hungary	9
India	2
Iran	3
Iraq	1
Israel	2
Italy	14
Japan	4
Latvia	1
Mexico	1
Poland	22
Romania	4
Russian Federation	21
Serbia	1
Singapore	3
Slovak Republic	4
Slovenia	2
Spain	9
Sweden	2
Switzerland	23
Tunisia	1
Turkey	1
Ukraine	5
United Kingdom	14
USA	2

**Total: 319**



Die VACUUMSCHMELZE mit 1.500 Mitarbeitern in Hanau entwickelt, produziert und vermarktet Spezialwerkstoffe, insbesondere mit magnetischen, aber auch anderen physikalischen Eigenschaften sowie daraus veredelte Produkte. In über 50 Ländern zählt die VAC-Gruppe mit mehr als 800 Patenten zu den weltweit innovativsten Unternehmen bei der Entwicklung von hochwertigen industriellen Werkstoffen.

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### VACUUMSCHMELZE GmbH & Co. KG

Personalabteilung - Grüner Weg 37 - 63450 Hanau - Telefon 06181 38-2439

E-Mail [bewerbung@vacuumschmelze.com](mailto:bewerbung@vacuumschmelze.com)



DER FORTSCHRITT BEGINNT BEIM WERKSTOFF





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### ACTA MATERIALIA

Acta Materialia provides a forum for publishing full-length, original papers and commissioned overviews which advance the in-depth understanding of the relationship between the processing, the structure and the properties of inorganic materials.

**Time to publication: 13 weeks**

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### SCRIPTA MATERIALIA

A LETTERS journal of Acta Materialia, providing a forum for the rapid publication of short communications on the relationship between the structure & properties of inorganic materials. The emphasis is on originality rather than incremental research. Emphasis is on either the functional or mechanical behavior of metals, ceramics and semiconductors at all length scales.

**Time to publication: 10 weeks**

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### ACTA BIOMATERIALIA

This international journal publishes peer-reviewed original research reports, review papers & communications in the broadly defined field of biomaterials science. The emphasis is on the relationship between biomaterial structure & function at all length scales. The journal is committed to rapid peer-review & publication.

**Time to publication: 15 weeks**

[www.journals.elsevier.com/acta-biomaterialia](http://www.journals.elsevier.com/acta-biomaterialia)

## Topics

- A Mechanical Properties:  
Plastic Deformation, Fatigue, Fracture, Creep
- B Magnetic Properties, Superconductivity,  
Electronic Materials
- C Corrosion, Wear, Biocompatibility
- D Fundamental Aspects: Diffusion, Transformation,  
Dislocation Theory
- E Metals: Al-, Mg-, Ti-, Ni- Alloys, Steel, Intermetallics,  
MMCs, Foams
- F Ceramics, CMC, Glass
- G Polymers, Polymer-based Composites
- H Processing: Casting, Rolling, Extrusion,  
Powder Technology, Machining, Joining
- I Surface Engineering: Laser, Spraying, CVD
- K Simulation Methods and Modelling Methods
- L Materials Characterisation: Mechanical Testing,  
Advanced Analytical Techniques NDE, Materialography
- M Biomimetic and Bioinspired Approaches;  
Biofunctional Materials
- N Nanostructured Materials
- P Electronic and Photonic Materials

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
8:00 - 9:45	<b>Registration</b>
10:00 - 10:15	<b>Opening Address</b> Welcome by M. Hofmann-Amttenbrink, Mat Search Consulting Hofmann, Pully-Lausanne (Switzerland)
10:15 - 10:45	<b>Plenary Lecture</b> <b>When Metallurgy Meets Nanosciences</b> M. Rappaz, Ecole Polytechnique Fédérale de Lausanne, Institute of Materials, Computational Materials Laboratory (Switzerland)
10:45 - 11:00	<b>Coffee Break</b>
11:00 - 12:10	<b>Monday Session</b> <b>Topic K - Simulation Methods and Modelling Methods</b>
1 / K / 33	<b>Transversely Isotropic Material Model for the Crush of Spruce Wood (tiM)</b> G. Eisenacher (Sp), Federal Institute for Materials Research and Testing (BAM), Berlin (Germany)
2 / K / 57	<b>Microstructure-Property Relationships for Porous Ceramics Derived from a Combination of Stochastic and Mechanical Modeling</b> M. Kulosa (Sp), A. Hartmaier, Ruhr-Universität Bochum (Germany); M. Neumann, G. Gaiselmann, V. Schmidt, Universität Ulm (Germany)
* = no oral presentation	

Time/ Poster No.	Room B and Foyer Monday Session
3 / K / 73	<p><b>Simulation and Experimental Verification of Material Damage during Thread Rolling of Screws</b></p> <p>D. Wick (Sp), University Siegen (Germany); R.J. Hellmig, EJOT GmbH &amp; Co. KG, Bad Berleburg (Germany); H.-J. Christ, University Siegen (Germany)</p>
4 / K / 84	<p><b>Influence of Uniaxial Stress on the Morphological Evolution of Solid/Solution Interfaces</b></p> <p>F. Querfurth (Sp), University of Bayreuth (Germany)</p>
5 / K / 88	<p><b>Polarization Rotation in Ferroelectric Domain Walls of PbTiO<sub>3</sub> and PZT</b></p> <p>A. Chandrasekaran (Sp), D. Damjanovic, N. Setter, N. Marzari, EPFL, Lausanne (Switzerland)</p>
6 / K / 97	<p><b>Phase Field Study of the Growth of Intermetallic Compounds in Multi-Component Joints</b></p> <p>Y. Guan (Sp), KU Leuven (Belgium)</p>
7 / K / 109	<p><b>Excess Electrons in Anatase: A Hybrid DFT and RPA Study</b></p> <p>C. Spreafico (Sp), J. VandeVondele, ETH Zürich (Switzerland)</p>
8 / K / 135	<p><b>Analysis of Total-Strain-Controlled Axial Fatigue Tests Hysteresis</b></p> <p>L. Hesselting (Sp), S. Güler, A. Fischer, University of Duisburg-Essen (Germany)</p>
* = no oral presentation	

Time/ Poster No.	Room B and Foyer Monday Session
9 / K / 152	<p><b>Effect of Strain Path Change on Mechanical Response of Microalloyed Steel</b></p> <p>P. Graca (Sp), K. Muszka, J. Majta, AGH University of Science and Technology, Krakau (Poland)</p>
10 / K / 174	<p><b>Thermal Conductivity of Graphene from First Principles</b></p> <p>A. Cepellotti (Sp), EPFL, Lausanne (Switzerland); G. Fugallo, Ecole Polytechnique, Paris (France); L. Paulatto, M. Lazzeri, F. Mauri, UPMC, Paris (France); N. Marzari, EPFL, Lausanne (Switzerland)</p>
11 / K / 208	<p><b>Comparison of Bio-Oils to Mineral Quenching Oils by their Quenching Power</b></p> <p>G. Kerekes (Sp), M. Kocsis Baan, University of Miskolc (Hungary); I. Felde, University of Obuda, Budapest (Hungary)</p>
12 / K / 221	<p><b>Thermoelastic Properties of Iron: Model Potentials and First-Principles Calculations</b></p> <p>D. Dragoni (Sp), EPFL, Lausanne (Switzerland); D. Ceresoli, CNR-ISTM, Milano (Italy); N. Marzari, EPFL, Lausanne (Switzerland)</p>
13 / K / 255	<p><b>Different Numerical Methods around the SHPB Experiment</b></p> <p>A. Klunker (Sp), T. Wilk, W. Daum, BAM Federal Institute for Materials Research and Testing, Berlin (Germany)</p>
14 / K / 288	<p><b>Development and Validation of Multi Dimensional Diffusion Program of Hydrogen Isotopes in Composite Materials</b></p> <p>J. Song (Sp), D. Luo, Z. Huang, G. Huang, China Academy of Engineering Physics, Mianyang (China)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
15 / K / 313	<p><b>A CFD Study of Particle-Laden Flow of a Tundish Water-Model</b></p> <p>E. Runschke (Sp), M. Budak, Z. Cancarevic, Georgsmarienhütte GmbH (Germany)</p>
16 / K / 330	<p><b>Simulation of Nanopulsed Laser Interaction with a Nickel-Based Alloy</b></p> <p>L. Gouton (Sp), CEA/DEN, Gif sur Yvette Cedex (France); N. Caron, W. Pacquentin, CEA/DEN, Gif sur Yvette Cedex (France); M. Dal, ENSAM, Paris (France); P. Aubry, CEA/DEN, Gif sur Yvette Cedex (France); M. Foucault, AREVA, Le Creusot (France); P. Peyre, V. Favier, ENSAM, Paris (France)</p>
17 / K / 336	<p><b>Implementation and Validation of a Core/shell Model in a Large Scale Molecular Mechanics Simulation</b></p> <p>S. Mahendran (Sp), S. Groh, TU Bergakademie Freiberg (Germany)</p>
18 / K / 342	<p><b>Computational Exploration of the Microstructural Evolution During Hot Rolling of Steel</b></p> <p>M. Budak (Sp), E. Runschke, T. Singer, Z. Cancarevic, Georgsmarienhütte GmbH (Germany)</p>
19 / K / 359	<p><b>Effective Medium Model for the Stiffness of Semicrystalline Polymers Based on Molecular Dynamics</b></p> <p>M. Becker (Sp), Universität des Saarlandes, Saarbrücken (Germany)</p>
20 / K / 378	<p><b>First-principles assessment of hydrogen diffusion into <math>\gamma</math>-Al<sub>2</sub>O<sub>3</sub> from the (1-102) surface</b></p> <p>Guikai Zhang , Xiaolin Wang, Yan Shi, Feilong Yang, Jiangfeng Song , Xinchun Lai, China Academy of Engineering and Physics (China)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
12:10 - 13:10	Discussion of all Posters of the Monday Session Topic K in front of the Panels
13:10 -14:10	Lunch
14:10 - 15:00	Monday Session Topic B: Magnetic Properties, Superconductivity, Electronic Materials
1 / B / 46	<p><b>Application of Magnetic NDT Methods to Evaluate the Stress-Strain State of the Base Metal and Welded Joints of Perspective Constructional Steels</b></p> <p>E. Putilova (Sp), E.S. Gorkunov, S.M. Zadvorin, Y.V. Subachev, The Institute of Engineering Science of the Urals Branch of Russian Academy of Science, Ekaterinburg (Russian Federation)</p>
2 / B / 79	<p><b>Dye-Sensitized Solar Cells with Semiconductor Electrodes Made of Perovskite-Type Double Oxide</b></p> <p>Y. Okamoto (Sp), Y. Suzuki, University of Tsukuba (Japan)</p>
3 / B / 81	<p><b>Preparation and Evaluation of BaTiO<sub>3</sub>/Polymer Hybrid Fibers by Electrospinning</b></p> <p>T. Kawashima (Sp), Y. Suzuki, University of Tsukuba (Japan)</p>
4 / B / 123	<p><b>Controlling the Surface Chemistry of Bi<sub>2</sub>Te<sub>2</sub>Se Topological Insulators</b> C. Thomas (Sp), W. McClain, R.J. Cava, S.L. Bernasek, J. Schwartz, Princeton University (USA)</p>
5 / B / 137	<p><b>Semiconductor MgTi<sub>2</sub>O<sub>5</sub> Double-Oxide Electrodes for Dye-Sensitized Solar Cells</b></p>
* = no oral presentation	N. Ishii (Sp), Y. Okamoto, Y. Suzuki, University of Tsukuba (Japan)

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
6 / B / 146	<p><b>Electroplating of Low Coercivity NiFe-Mo-Films for Wafer-Level Fabrication of Magnetic Microsensors</b></p> <p>M. Theis (Sp), S. Ediger, University of Applied Sciences Kaiserslautern / Campus Zweibrücken (Germany); P. Ruther, O. Paul, University of Freiburg (Germany); M. Saumer, University of Applied Sciences Kaiserslautern / Campus Zweibrücken (Germany)</p>
7 / B / 153	<p><b>Single Crystal Growth and Magnetism of the Novel U<sub>2</sub>RhIn<sub>8</sub> Compound</b></p> <p>A. Bartha (Sp), M. Kratochvílová, V. Sechovsky, J. Custers, Charles University, Prag (Czech Republic)</p>
8 / B / 186	<p><b>Change in Metal's Operational Characteristics of Metals upon the Action of a Pulsed Magnetic Field on it</b></p> <p>R. Polikarenko (Sp), SSAU, Samara (Russian Federation)</p>
9 / B / 207	<p><b>Magnetic Domain and Anisotropy Dependence on Strain-Induced Coupling in Terfenol-D / PNZT Multiferroic Composites</b></p> <p>R. Lopes (Sp), M. Cain, S. Lepadatu, University of Leeds, Teddington (UK)</p>
10 / B / 227	<p><b>Solid-State Magnetic Harvesters for Low Power Applications J. Kaleta, K. Kot, D. J. Kaleta, K. Kot, D. Lewandowski, R. Mech (Sp), P. Wiewiorski, Wroclaw University of Technology (Poland)</b></p>
11 / B / 239	<p><b>RF Spectroscopy of Molecular Spin Levels by Scanning Tunnelling Microscope</b></p> <p>S. Tebi (Sp), S. Müllegger, R. Koch, Johannes Kepler University, Linz (Austria)</p>
* = no oral presentation	



Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
12 / B / 283	<p><b>Nb Doping of Hole Blocking TiO<sub>2</sub> to Improve Device Efficiency of Photovoltaic Cells</b> G. Sahasrabudhe (Sp), J. Schwartz, Princeton University (USA)</p>
13 / B / 335	<p><b>Effect of the Strain and the Magnetic Field on the Critical Current and the Electric Resistance of the Joints Between HTS Coated Conductors</b> K. Konstantopoulou (Sp), Universidad Politécnica de Madrid (Spain); M. Serazin, ICMAB-CSIC, Barcelona (Spain); J. Lloberas, IREC, Barcelona (Spain); X. Granados, ICMAB-CSIC, Barcelona (Spain); M. Sanmartí, IREC, Barcelona (Spain); X. Obradors, ICMAB-CSIC, Barcelona (Spain); J.Y. Pastor, Universidad Politécnica de Madrid (Spain)</p>
14 / B / 345	<p><b>Influence of External Field on One-dimensional Array of Single-domain Dipoles</b> A. Peretyatko (Sp), K.V. Nefedev, Far Eastern Federal University, Vladivostok (Russian Federation)</p>
15 / B / 381	<p><b>Microstructure and Magnetic Properties of Cerium Alloyed Sintered Nd-Fe-B Magnets</b> Z. Mural (Sp), Tallinn University of Technology, Tallinn, Estonia; Y. I. Cakmakoglu, Tallinn University of Technology, Tallinn, Estonia; L. Kollo, Tallinn University of Technology, Tallinn, Estonia; M. Kolnes, Tallinn University of Technology, Tallinn, Estonia and R. Veinthal, Tallinn University of Technology, Tallinn, Estonia</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
15:00 -15:45	<b>Monday Session</b> <b>Topic C: Corrosion, Wear, Biocompatibility</b>
1 / C / 37	<p><b>Electrochemical Behaviour of Creep-Resistant Steel 9Cr-1.8W-0.5Mo-VNb in Acidic Environment</b></p> <p>J. Rapouch (Sp), J. Bystriansky, Institute of Chemical Technology, Prague (Czech Republic)</p>
2 / C / 51	<p><b>The Influence of Water Vapour on the Oxidation Behaviour of Ni-Based and Fe-Based Chromia-Forming Alloys at High Temperatures</b></p> <p>D. Simon (Sp), B. Gorr, H.-J. Christ, University of Siegen (Germany); M. Hänsel, W.-J. Quadakkers, Forschungszentrum Jülich (Germany)</p>
3 / C / 61	<p><b>Elucidating Sour Corrosion Scales</b></p> <p>K. Cooper (Sp), D. Engelberg, R. Lindsay, The University of Manchester (UK)</p>
4 / C / 80	<p><b>Cytocompatibility of Polymer Grafted by Functionalized Carbon Nanoparticles</b></p> <p>P. Zakova (Sp), N. Slepickova Kasalkova, P. Slepicka, V. Svorcik, ICT Prague, Prague (Czech Republic)</p>
5 / C / 126	<p><b>Production of Wear Resistant Surface StructuresBased on Composite Materials</b></p> <p>V. Kovalev (Sp), N.V. Kobernik, R.S. Mikheev, Bauman Moscow State Technical University, Moskau (Russian Federation)  Hochschule, Gelsenkirchen (Germany)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
6 / C / 147	<p><b>Influence of the Morphology and Structure of Different Protective Al-Based Coatings on their Corrosion Behavior in NaCl 3,5% Aqueous Solution</b></p> <p>R. Muntean (Sp), I. Secosan, G. Marginean, W. Brandl, Westfälische Hochschule, Gelsenkirchen (Germany)</p>
7 / C / 168	<p><b>The Corrossion Resistance of New Generation Mg-Li Alloys</b></p> <p>A. Dobkowska (Sp), B. Adamczyk - Cieslak, J. Mizera, Warsaw Univeristy of Technology (Poland); J. Kubasek, D. Vojtech, Institute of Chemical Technology, (Czech Republic)</p>
8 / C / 206	<p><b>Influence of Different Storage Durations on the Degradable Magnesium Implant Material LAE442 - An In vitro and In vivo Study</b></p> <p>K. Bracht (Sp), N. Angrisani, University of Veterinary Medicine Hannover (Germany); J.M. Seitz, R. Eifler, Leibniz University Hannover (Germany); J. Reifenrath, University of Veterinary Medicine Hannover (Germany)</p>
9 / C / 241	<p><b>Degradation Behaviour of Designed Sr, Mg and Non-Substituted Hydroxyapatite Granules</b></p> <p>A. Putnins (Sp), J. Locs, L. Stipniece, K. Salma-Ancane, Riga Technical University (Latvia)</p>
10 / C / 261	<p><b>Tribological and Microgeometrical Characterisation of Differently Heat Treated Nitrocarburized 34CrMo4 Steels</b></p> <p>Z. Vass (Sp), Z. Maros, C. Felho, M. Maros B., A. Szilagyine Biro, University of Miskolc (Hungary)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
11 / C / 278	<p><b>Analysis of the Wear Behaviour of HIP and SPS Produced Si3N4-MLG Nanocomposites</b> A.K. Németh (Sp), M.B. Maros, Zs. Maros, Eszter Bódis, University of Miskolc (Hungary)</p>
12 / C / 280	<p><b>Investigation of High-Temperature Corrosion of Inconel 625</b> M. Solecka (Sp), A. Radziszewska, A. Kopia, J. Kusinski, AGH University of Science and Technology, Krakau (Poland)</p>
13 / C / 343	<p><b>Electrochemical Investigation of Carbon Based Conductive Coatings for Cathodic Protection of Steel Reinforcement</b> M. Poltavtseva (Sp), G. Ebell, J. Mietz, BAM Federal Institute for Materials Research and Testing, Berlin (Germany)</p>
15:45 - 16:10	<p><b>Monday Session</b> <b>Topic D - Fundamental Aspects: Diffusion, Transformation, Dislocation Theory</b></p>
1 / D / 30	<p><b>Temperature-Time-Transformation Behavior of Bulk Glass Forming Alloys</b> S. Koch (Sp), German Aerospace Center, Köln (Germany) and Ruhr-University, Bochum (Germany); M. Rettenmayr, Friedrich-Schiller-University, Jena (Germany); D.M. Herlach, German Aerospace Center, Köln (Germany)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
2 / D / 94	<p><b>Diffusion of Fe, Cr, and C in Arc Evaporated TiN and TiAlN Coatings and the Influence on Microstructure and Hardness</b></p> <p>C. Steinkellner (Sp), C. Sabitzer, C.M. Koller, Vienna University of Technology, Wien (Austria); R. Rachbauer, Oerlikon Balzers Coating AG (Liechtenstein); S. Kolozsvári, Plansee Composite Materials GmbH, Lechbruck am See (Germany); P.H. Mayrhofer, Vienna University of Technology, Wien (Austria)</p>
3 / D / 154	<p><b>A Study of the Diffusion Controlled Reaction of Zinc Vapor with Magnetite</b></p> <p>T. Suetens (Sp), M. Guo, K. Van Acker, B. Blanpain, KU Leuven (Belgium)</p>
4 / D / 193	<p><b>Microscopic Structural Excitations in Model Metallic Glass Systems</b></p> <p>S. Swayamjyoti (Sp), P.M. Derlet, J.F. Löffler, Paul Scherrer Institut / ETH Zurich, Villigen (Switzerland)</p>
5 / D / 250	<p><b>Molecular Dynamics Study of the Onset of Plasticity at Vicinal Surfaces of Copper</b></p> <p>N. Puksic (Sp), M. Jenko, M. Godec, Institute of Metals and Technology, Ljubljana (Slovenia)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
6 / D / 274	<p><b>Diffusion and Biodegradation Processes in Water Saturated Porous Matrix</b></p> <p>E. Prokofyeva (Sp), Università Politecnica delle Marche, Ancona (Italy); E. Frapiccini, Istituto di Scienze Marine, Ancona (Italy); M. Maggini, Università Politecnica delle Marche, Ancona (Italy)</p>
7 / D / 352	<p><b>Behavior of Nickel Arsenides in Air and in Oxygen: Kinetics and Reaction Mechanism</b></p> <p>S. Pommier (Sp), S. Valette, P. Lefort, SPCTS/ university of Limoges (France)</p>
8 / D / 379	<p><b>The Investigation on Radiochemical Reaction Between Deuterium-tritium or pure Tritium with Carbon Monoxide</b></p> <p>Xiong Yi-Fu, Ba Jing-Wen, Shi Yan, Jing Wen-Yong, He Min-Ming, Mianyong (China) China Academy of Engineering and Physics</p>
16:10 - 16:25	<p><b>Coffee Break</b></p>
16:25 - 17:00	<p><b>Monday Session</b> <b>Topic I - Surface Engineering: Laser, Spraying, CVD</b></p>
1 / I / 14	<p><b>Development of new ultra-high wear resistant build-up welding alloys with coated ionic and covalent hard particles</b></p> <p>S. Brust (Sp), A. Röttger, W. Theisen, Ruhr-University Bochum (Germany)</p>
2 / I / 18	<p><b>Residual Stress States of Thermally-Sprayed Coatings</b></p> <p>M. Mutter (Sp), R. Mücke, G. Mauer, R. Vaßen, Forschungszentrum Jülich (Germany)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
3 / I / 89	<p><b>Laser Cladding of Al-SiC MMC Coatings on Aluminium Substrate</b></p> <p>A. Riquelme Aguado (Sp), P. Rodrigo, M.D. Escalera, Universidad Rey Juan Carlos, Mostoles, Madrid (Spain)</p>
4 / I / 91	<p><b>A Model for the Deposition of Aluminum and Iron by Chemical Vapor Deposition: an Experimentally Supported Theory</b></p> <p>I.G. Aviziotis (Sp), National Technical University of Athens (Greece); T. Duguet, CIRIMAT,CNRS-Université de Toulouse (France); A.G. Boudouvis, National Technical University of Athens (Greece); C. Vahlas, CIRIMAT,CNRS-Université de Toulouse (France)</p>
5 / I / 192	<p><b>Fabrication of YSZ Coating by Means of Suspension Plasma Spraying at Low Pressure</b></p> <p>P. He (Sp), H.L. Liao, F. Lapostolle, Université de Technologie de Belfort-Montbéliard (France)</p>
6 / I / 232	<p><b>Optimization of Vacuum Furnace Hardfacing Brazing Process Parameters</b></p> <p>D.-T. Pascal (Sp), W. Brandl, G. Marginean, Westfälische Hochschule Gelsenkirchen (Germany)</p>
7 / I / 243	<p><b>Microstructure and Morphology of Niobia-Stabilised Bismuth Oxide Thin Films Deposited by Means of PLD Technique</b></p> <p>G. Szwachta (Sp), S. Kac, T. Moskalewicz, A. Kopia, AGH University of Science and Technology, Krakau (Poland)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
8 / I / 275	<p><b>Comparison of Gas and Plasma Nitrocarburised Surface Layer of C45 Steel</b></p> <p>A. Szilagyine Biro (Sp), M. Kocsis Baan, University of Miskolc (Hungary)</p>
9 / I / 295	<p><b>Influence of Processing on Microstructure, Stoichiometry and Thermal Cycling Performance of Plasma Sprayed Gd<sub>2</sub>Zr<sub>2</sub>O<sub>7</sub>/YSZ Double Layer Thermal Barrier Coatings</b></p> <p>E. Bakan (Sp), D.E. Mack, G. Mauer, R. Vaßen, Forschungszentrum Jülich GmbH (Germany)</p>
17:00 - 18:00	<p><b>Discussion of all Posters of the Monday Session Topics B, C, D, I in front of the Panels</b></p>
18:30 - 20:00	<p><b>Welcome Reception</b></p>
* = no oral presentation	



Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
09:00 - 09:30	<p><b>Plenary Lecture</b>  <b>Materials and Maps</b>  M. Ashby, University of Cambridge,  Mechanical Engineering Department (United Kingdom)</p>
09:30 - 09:45	<p><b>Talk Granta</b>  <b>Materials Teaching in the 21st Century</b>  M. Fry, Granta Design Limited, Cambridge  (United Kingdom)</p>
09:45 - 11:45	<p><b>Topic A- Mechanical Properties: Plastic Deformation, Fatigue, Fracture, Creep</b></p>
1 / A / 4	<p><b>Wear Resistance and Hardness of Austenitic Steels at Elevated Temperatures</b>  M. Walter (Sp), Ruhr-Universität Bochum (Germany)</p>
2 / A / 5	<p><b>Influence of the Heat Treatment of Hot Stamping Tools on Resulting Properties for Hot Stamped Parts</b>  J.A. K�pferle (Sp), Ruhr-Universität Bochum (Germany)</p>
3 / A / 6	<p><b>Yield Surface Distortion Incorporation in Multiaxial Ratcheting Prediction</b>  A. Nayebe (Sp), H. Rokhgireh, Shiraz University (Iran)</p>
4 / A / 8	<p><b>Features of Fatigue Crack Propagation in Layered Metal Composites</b>  I. Kamantsev (Sp), S. Gladkovskiy, V. Veselova, Urals Branch of Russian Academy of Science, Ekaterinburg (Russian Federation)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
5 / A / 9	<p><b>Fatigue Behaviour of Monolithic &amp; Multi-Material Systems Beyond the Classical Fatigue Limit</b></p> <p>D. Pessoa (Sp), J. Standfuß, B. Brenner, M. Zimmermann, Fraunhofer Institute for Material and Beam Technology IWS, Dresden (Germany)</p>
6 / A / 11	<p><b>High-Strength Corrosion-Resistant Steels for Resilient Elements</b></p> <p>M. Tretnikova (Sp), A. Levina, V. Sharapova, N. Ozerets, Ural Federal University, Yekaterinburg (Russian Federation)</p>
7 / A / 21	<p><b>Effect of the Deformation Mechanisms of Hexagonal Close Packed Metals on Volume-surface Mechanical Transitions</b></p> <p>G. Fleurier (Sp), M. Martinez, E. Hug, CRISMAT, CAEN Cedex (France)</p>
8 / A / 38	<p><b>Structural Transformations in Aluminum-Steel at the Shear Stress under the Pressure</b></p> <p>M. Tretnikova, A. Levina (Sp), V. Sharapova, N. Ozerets, Ural Federal University, Ekaterinburg (Russian Federation)</p>
9 / A / 93	<p><b>Fatigue-induced Changes Determined by Means of High Energy Synchrotron Radiation</b></p> <p>H. Fu (Sp), K. Istomin, B. Dönges, U. Pietsch, H.-J. Christ, University Siegen (Germany); M. Söker, U. Krupp, Hochschule Osnabrück (Germany)</p>
10 / A / 107	<p><b>Low-Cycle Fatigue Behavior of IN 718 Superalloy Processed by SLM</b></p> <p>M.E. Aydinöz (Sp), T. Niendorf, M. Schaper, Universität Paderborn (Germany); C. Schaak, W. Tillmann, TU Dortmund (Germany)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
11 / A / 117	<p><b>Crack Initiation and Volume Changes in Modified Fine-Grain Cement-Based Composite Specimens</b></p> <p>I. Havlíková (Sp), V. Bílek Jr, L. Topolár, H. Simonová, Z. Kersner, Brno University of Technology (Czech Republic)</p>
12 / A / 122	<p><b>The Plastic Deformation of Microcast Aluminium Wires</b></p> <p>S. Verheyden (Sp), J. Krebs, A. Mortensen, EPFL, Lausanne (Switzerland)</p>
13 / A / 124	<p><b>3D In-Situ Characterization of Crystal Plasticity by Hard X-Ray Synchrotron Topotomography</b></p> <p>N. Gueninchault (Sp), H. Proudhon, Mines Paristech, Corbeil-Essonnes (France); W. Ludwig, European synchrotron radiation facility, (France)</p>
14 / A / 127	<p><b>Microstructure Analysis of Total-Strain-controlled Axial Fatigue Tests of LC and HC Co28Cr6Mo</b></p> <p>D. Janßen (Sp), S. Güler, A. Fischer, University of Duisburg-Essen (Germany)</p>
15 / A / 128	<p><b>Polarization Curves and Microstructure after Long-Term Creep of CB2 Steel</b></p> <p>J. Sladká (Sp), D. Jandová, Research and Testing Institute Plzen, Pilsen (Czech Republic)</p>
16 / A / 151	<p><b>Plane Stress Yield Function Using Crystallographic Orientations of Orthotropic Sheets</b></p> <p>I. Erisov (Sp), Samara State Aerospace University (Russian Federation)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
17 / A / 159	<p><b>Finite Element Modelling of Mechanical Properties and Dislocation Patterning of fcc Metals during Cyclic Plastic Fatigue</b> N. Grilli (Sp), K.G.F. Janssens, H. van Swygenhoven, Paul Scherrer Institut, Villigen (Switzerland)</p>
18 / A / 160	<p><b>Acoustic Emission Study of the Illite-Based Ceramic Body with Power Plant Fly Ash Addition During Firing</b> M. Knappek (Sp), P. Dobron, J. Pesicka, F. Chmelik, Charles University in Prague, Prag 2 (Czech Republic); T. Hulan, A. Trnik, I. Stubna, Constantine the Philosopher University, Nitra (Slovakia)</p>
19 / A / 171	<p><b>Effects of Forest Biomass Ash on Mechanical Properties of an Eco-Efficient Cement-Based Material</b> I. Jiménez Serrano (Sp), Institute of Construction Science „Eduardo Torroja“, CSIC, Madrid (Spain); G. Pérez, Institute of Construction Science „Eduardo Torroja“, CSIC, Madrid (Spain); M. Ruiz, National Institute of Coal, CSIC, Oviedo (Spain); A. Guerrero, Institute of Construction Science „Eduardo Torroja“, CSIC, Madrid (Spain)</p>
20 / A / 177	<p><b>Measuring the Strength of Alumina Reinforcements at the Micron-Scale</b> M. Mueller (Sp), V. Pejchal, G. Zagar, A. Singh, A. Rossoll, M. Cantoni, A. Mortensen, Ecole Polytechnique Fédérale de Lausanne (EPFL) (Switzerland)</p>
21 / A / 182	<p><b>Understanding the Pit-Crack Transition in Offshore Pipeline Steels</b></p>
* = no oral presentation	C. Evans (Sp), R. Akid, University of Manchester (UK)

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
22 / A / 189	<p><b>Hybrid and Combined Technologies Combining Static and Dynamic Loadings</b> I. Belyaeva (Sp), SSAU, Samara (Russian Federation)</p>
23 / A / 210	<p><b>Influence of Hydrostatic Extrusion on Microstructure and Mechanical Properties of Biomedical T-13Nb-13Zr Alloy</b> K. Ozaltin (Sp), W. Chrominski, Warsaw University of Technology (Poland); M. Kulczyk, Polish Academy of Sciences, Warsaw (Poland); M. Lewandowska, Warsaw University of Technology (Poland)</p>
24 / A / 213	<p><b>Nanoindentation Hardness Measurements at elevated Temperatures of Electrical Steels</b> P. Gavendová (Sp), Brno University of Technology (Czech Republic); I. Petryshynets, M. Sopko, Slovak Academy of Science, Košice (Slovak Republic)</p>
25 / A / 216	<p><b>Cracks from Notches – A Continuous Examination of Crack Propagation</b> D. Tiedemann (Sp), J. Bär, H.-J. Gudladt, Universität der Bundeswehr München, Neubiberg (Germany)</p>
26 / A / 218	<p><b>The Effect of Strain Rate on the Mechanical Properties of Inconel 718 at Elevated Temperatures</b> P. Maj (Sp), J. Mizera, Warsaw University of Technology (Poland)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
27 / A / 228	<p><b>Improved Fracture Behaviour of Thin Tungsten Foils</b></p> <p>V. Nikolic (Sp), Austrian Academy of Sciences, Leoben (Austria); S. Wurster, University of Leoben (Austria); R. Pippan, Austrian Academy of Sciences, Leoben (Austria)</p>
28 / A / 230	<p><b>An Investigation of the Influence of the Temperature on the Plastic Deformation of Polymers During High Pressure Torsion Process</b></p> <p>A. Draï (Sp), Université de Mascara, Mascara (Algeria); B. Aour, Ecole Nationale Polytechnique d'Oran (Algeria)</p>
29 / A / 257	<p><b>The Influence of Texture on Twinning and Untwinning Process in Mg Alloys</b></p> <p>D. Drozdenko (Sp), P. Dobron, F. Chmelik, Charles University in Prague (Czech Republic); J. Bohlen, Helmholtz-Zentrum Geesthacht (Germany)</p>
30 / A / 269	<p><b>The Texture Evolution of &lt;111&gt; CuAl Single Crystal Subjected to Hydrostatic Extrusion</b></p> <p>D. Jakubowska (Sp), J. Zdunek, J. Mizera, K.J. Kurzydowski, Warsaw University of Technology (Poland)</p>
31 / A / 279	<p><b>An Acoustic Emission Study of Deformation Mechanisms in Novel Magnesium Alloys at Uniaxial and Low Cyclic Loading</b></p> <p>K. Horváth (Sp), P. Dobron, F. Chmelík, Charles University, Prag 2 (Czech Republic); J. Bohlen, D. Letzig, Helmholtz-Zentrum-Geesthacht (Germany)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
32 / A / 304	<p><b>The Effect of Initial Grain Size on the Mechanical Properties of AA6063 Processed by ECAP</b></p> <p>S.F. Razavi (Sp), Islamic Azad University Science&amp; Research Branch of Kermanshah, Tehran (Iran); A.R. Eivani, F. Rahimi, Iran University of Science and Technology (IUST), Tehran (Iran); M. Kiani, Islamic Azad University Science&amp; Research Branch of Kermanshah, Tehran (Iran)</p>
33 / A / 329	<p><b>Atomistic Investigations of Lithium Gamma-Surfaces and Stacking Faults</b></p> <p>M.M. Alam (Sp), S. Groh, TU Bergakademie Freiberg (Germany)</p>
34 / A / 357	<p><b>Strain Accumulation in TiAl Intermetallics via High-Resolution Digital Image Correlation (DIC)</b></p> <p>L. Patriarca, I.-H.C. Icoz (Sp), S. Beretta, M. Filippini, Politecnico di Milano (Italy)</p>
35 / A / 373	<p><b>A Fast Procedure for Predicting the Mechanical Properties of Composite Materials for Yacht Industry</b></p> <p>A. Pani (Sp), D. Boote, University of Genoa, La Spezia (Italy)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
36 / A / 376	<p><b>Low Cycle Fatigue Behaviour of Nickel Base Superalloys IN713 LC and MAR-M-247 HIP at 900 °C</b></p> <p>I. Sulak (Sp), K. Obrtlík, Academy of Sciences of the Czech Republic, Brno (Czech Republic)</p>
37 / A / 3	<p><b>Numerical Analysis of a Single - Edge Notched Tension Specimen Repaired with CFRP Patch</b></p> <p>V.K. Tripathi (Sp), S. Tamboli, P.S. Shinde, P. Kumar, College of Engineering Pune (India)</p>
11:45 - 12:00	<b>Coffee Break</b>
12:00 - 13:00	<b>Discussion of all Posters of the Tuesday Session Topic A in front of the Panels</b>
13:00 - 14:00	<b>Lunch</b>
14:00 - 16:15	<p><b>Tuesday Session</b>  <b>Topic E - Metals: Al-, Mg, Ti-, Ni- Alloys, Steel, Intermetallics, MMCs, Foams</b></p>
1 / E / 7	<p><b>Effect of High-Pressure Torsion on the Microstructure and Mechanical Properties of Biomedical Ti-24Nb-4Zr-8Sn Beta Alloy</b></p> <p>K. Lubkowska (Sp), P. Bazarnik, M. Lewandowska, Warsaw University of Technology (Poland); Y. Huang, University of Southampton (UK); T.G. Langdon, University of Southampton (UK) and University of Southern California (USA).</p>
* = no oral presentation	



Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
2 / E / 15	<p><b>The Effect of Strain and Temperature Profiles on Static Recrystallization during Solution Heat Treatment after Hot Deformation of Alloy 718</b></p> <p>R. Watson (Sp), M. Preuss, J. Fonseca, University of Manchester (UK)</p>
3 / E / 17	<p><b>Formation of Steel 20 Structure under Ultrasonic Processing</b></p> <p>S. Bogdanov (Sp), National Academy of Science of Ukraine, Kiev (Ukraine)</p>
4 / E / 20	<p><b>Microstructure and Properties of Joints of Aluminum Foam with Magnesium Alloys Formed at up to 140 Degrees Celsius.</b></p> <p>M. Khokhlov (Sp), Y. Falchenko, J. Khokhlova, The E. O. Paton Electric Welding Institute of National Academy of Sciences of Ukraine, Kiev (Ukraine)</p>
5 / E / 28	<p><b>Study of the Mechanical Behavior of Two Families of Sinter-hardened Steels for Applications to Automotive Industry</b></p> <p>M. Gilmas (Sp), E. Hug, CRISMAT, CAEN Cedex 4 (France); J. Chottin, Faurecia, Caligny (France)</p>
6 / E / 45	<p><b>Investigation of Al-rich Fe-Al Intermetallic Alloys</b></p> <p>X. Li (Sp), F. Stein, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf (Germany); A. Scherf, D. Janda, M. Heilmaier, Karlsruher Institut für Technologie (Germany)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
7 / E / 49	<p><b>Properties of Binary Mg-X(Gd, Ag, Ca) Alloys Developed for Biomedical Applications</b></p> <p>Y. Lu (Sp), N. Hort, Y. Huang, F. Feyerabend, R. Willumeit, K.U. Kainer, Helmholtz-Zentrum Geesthacht (Germany)</p>
8 / E / 66	<p><b>Peculiarities of Structure of Electron Beam Welded Joints on Titanium Alloys (Ti-Si-X) with Disperse Strengthening</b></p> <p>S. Grigorenko, V. Tunyk (Sp), O. Zadorozhnyuk, V. Vasilenko, Paton Electric Welding Institute of the NAS of Ukraine, Kiev (Ukraine)</p>
9 / E / 76	<p><b>Study of Phase Transformations in Metastable Ti-15Mo Alloy</b></p> <p>P. Zhanal (Sp), P. Harcuba, M. Hajek, B. Smola, Charles University in Prague (Czech Republic)</p>
10 / E / 78	<p><b>Development of Al-Li Alloys and Multi-Stage Heat Treatment</b></p> <p>R. Vakhromov (Sp), FSUE "VIAM", Moskau (Russian Federation)</p>
11 / E / 95	<p><b>Phase Identification in Mg-12wt.%Zn Alloy</b></p> <p>M. Nemeč (Sp), V. Gartnerova, J. Drahokoupil, M. Klementova, Institute of Physics ASCR, Prag 8 (Czech Republic)</p>
12 / E / 96	<p><b>Effect of Segregation on Microstructure and Long-Rupture Strength of Rhenium-Containing Intermetallic Nickel-Based Alloy</b></p> <p>E. Arginbaeva (Sp), O.A. Bazyleva, E.J. Turenko, A.V. Shestakov, FSUE VIAM, Moskau (Russian Federation)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
13 / E / 110	<p><b>Study of Structure and Thermal Stability of Phases in TiAl Alloys Doped with 7 at.% Nb and Variable Content of C and/or Mo by In-Situ Neutron Diffraction Techniques</b></p> <p>M. Heczko (Sp), Institute of Physics of Materials, ASCR, Brno (Czech Republic); P. Beran, Nuclear Physics Institute, ASCR, Rez (Czech Republic); T. Kruml, Institute of Physics of Materials, ASCR, Brno (Czech Republic)</p>
14 / E / 112	<p><b>Characterization of Biocompatible Ti-6Al-7Nb Alloy Processed by High Pressure Torsion</b></p> <p>K. Václavová (Sp), J. Strasky, Charles University, Prag (Czech Republic); V.V. Polyakova, I.P. Semenova, Ufa State Aviation Technical University (Russian Federation); J. Cizek, M. Janecek, Charles University, Prag (Czech Republic)</p>
15 / E / 157	<p><b>Study of the Passive Layer and Corrosion Resistance of Stainless Steels</b></p> <p>T. Chara (Sp), J. Tkacz, M. Zmrzly, Brno University of Technology (Czech Republic)</p>
16 / E / 163	<p><b>Morphology of Beta Phase Lamellae in Duplex Phase Titanium Grade 2</b></p> <p>W. Guy (Sp), V. Gartnerova, A. Jager, K. Tesar, Institute of Physics ASCR, Prague (Czech Republic)</p>
17 / E / 166	<p><b>Comparison of Calculated and Measured Properties of Real Steel Grades</b></p> <p>A. Kalup (Sp), M. Zaludova, S. Zla, B. Smetana, VSB - Technical University of Ostrava (Czech Republic)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
18 / E / 203	<p><b>Performance Characterisation of a New Generation Nickel-Base Alloy for Oil &amp; Gas Well Environment Application</b></p> <p>M. Brown (Sp), D. Engelberg, M. Preuss, University of Manchester (UK)</p>
19 / E / 212	<p><b>Synthesis and Thermoelectric Properties of ZnSb</b></p> <p>R. Pothin (Sp), R.M. Ayrat, F. Rouessac, P. Jund, Université montpellier 2, Montpellier Cedex 5 (France)</p>
20 / E / 217	<p><b>The Method of Direct Thermal Analysis for the Experimental Determination of the Solidus and Liquidus Temperatures of Real Steel Grades</b></p> <p>M. Strouhalová (Sp), K. Gryc, B. Smetana, K. Michalek, M. Zaludová, S. Zlá, M. Tkladlecková, L.J. Dobrovská, L. Socha, A. Kalup, VSB-Technical University of Ostrava, Ostrava-Poruba (Czech Republic)</p>
21 / E / 223	<p><b>Powder Metallurgical Synthesis of a Metal Ceramic Composite for Bearing Application</b></p> <p>R. Besler (Sp), R. Janssen, Hamburg University of Technology (Germany)</p>
22 / E / 224	<p><b>Properties of Al – Fe – X Alloys Depending on the Method of Manufacture</b></p> <p>P. Hanusová (Sp), Brno University of Technology (Czech Republic); P. Novák, Institute of Chemical Technology, Prague (Czech Republic)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
23 / E / 233	<p><b>Strain Effects Induced by Impurity Atoms in Eutectic Silicon</b></p> <p>M. Albu (Sp), Graz Center for Electron Microscopy (Austria); J.H. Li, University of Leoben, (Austria); G. Kothleitner, Graz Center for Electron Microscopy (Austria); P. Schumacher, University of Leoben, (Austria); F. Hofer, Graz Center for Electron Microscopy (Austria)</p>
24 / E / 235	<p><b>Study of the Microstructure and Mechanical Properties of Electron Beam Melted Ti-6Al-4V</b></p> <p>C. de Formanoir (Sp), Université Libre de Bruxelles, Brüssel (Belgium); C. Engel, Sirris, Gosselies (Belgium); S. Godet, Université Libre de Bruxelles, Brüssel (Belgium)</p>
25 / E / 252	<p><b>The Creep Behavior of the Composite NiAl-Cr and its Microstructure</b></p> <p>A. Krüger (Sp), M. Klimenkov, A. Möslang, Karlsruher Institut für Technologie, Eggenstein-Leopoldshafen (Germany)</p>
26 / E / 284	<p><b>Magnesium Alloy AZ31 with Fluoride Conversion Coating</b></p> <p>J. Drábiková (Sp), M. Zmrzly, J. Tkacz, Brno University of Technology (Czech Republic)</p>
27 / E / 292	<p><b>Heat Treatment of the Nickel Coatings on Magnesium Alloys</b></p> <p>P. Kosár (Sp), M. Zmrzly, J. Wasserbauer, University of Technology, Brno (Czech Republic)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
28 / E / 298	<p><b>The Influence of Homogenization on Texture of Twin-Roll Cast AZ31 Magnesium Alloy</b></p> <p>M. Zimina (Sp), Charles University in Prague (Czech Republic); A. Zimina, ANKA, Eggenstein-Leopoldshafen (Germany); J. Bohlen, Magnesium Innovation Centre (MagIC) Helmholtz Zentrum Geesthacht (Germany); M. Cieslar, Charles University in Prague (Czech Republic)</p>
29 / E / 299	<p><b>Microstructure and Mechanical Properties of Water Wall Tubing Weld Overlaid with Inconel 625</b></p> <p>P. Petrzak (Sp), M. Blicharski, S. Dymek, AGH University of Science and Technology, Krakau (Poland)</p>
30 / E / 300	<p><b>Influence of Heat Treatment on Formation of Conversion Coatings on Magnesium Alloy AZ91</b></p> <p>M. Brezina (Sp), M. Zmrzl, J. Tkacz, Brno University of Technology (Czech Republic)</p>
31 / E / 310	<p><b>Thermo-Mechanical Processing of Magnesium Alloy Elektron 43</b></p> <p>T. Brownsmith (Sp), Advanced Metallic Systems CDT/ University of Manchester (UK)</p>
32 / E / 311	<p><b>Flowforming of Ti-6Al-4V: Influence of Processing Parameters on Loads on Tool and Microstructural Changes</b></p> <p>D. Depriester (Sp), E. Massoni, MINES ParisTech, Sophia Antipolis (France)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
33 / E / 327	<p><b>Structural Hierarchies and Phase Transformation of Laser Melted and Post Annealed 316L Austenitic Stainless Steel</b> K. Saeidi (Sp), Z. Shen, X. Gao, Stockholm University (Sweden)</p>
34 / E / 332	<p><b>Ab initio and Atomistic Study of Generalized Stacking Fault Energies in Mg and Mg-Y Alloys</b> Z. Pei (Sp), RWTH Aachen University (Germany)</p>
35 / E / 337	<p><b>Foams Used as Thermal Regenerators</b> E. Elizondo Luna (Sp), R. Goodall, R. Woolley, F. Barari, The University of Sheffield (UK)</p>
36 / E / 338	<p><b>Effect of Al Addition in Magnesium Alloy on Temperature Dependent Internal Friction</b> A. Soviarova (Sp), P. Palcek, Z. Dresslerova, M. Uricik, University of Zilina (Slovak Republic)</p>
37 / E / 344	<p><b>Amplitude Dependency of the Internal Friction of Selected Magnesium Alloys</b> Z. Dresslerova (Sp), P. Palcek, A. Soviarova, M. Uricik, University of Zilina (Slovak Republic)</p>
38 / E / 348	<p><b>Structural Characteristics and Fatigue Properties of AlSi12CuNiMg Alloy</b> A. Baca (Sp), R. Konecná, University of Zilina (Slovak Republic)</p>
39 / E / 350	<p><b>Silver Based Metal Matrix Composites for Circuit Breaker Application</b> N. Ray (Sp), L. Froyen, K. Vanmeensel, KU Leuven (Belgium); B. Kempf, Umicore, Hanau (Germany); J. Vleugels, KU Leuven (Belgium)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
40 / E / 354	<p><b>Neutron Diffraction Study of Mg-Al-Sr Alloy Reinforced with Short Saffil Fibers Deformed in Compression</b></p> <p>G. Farkas (Sp), K. Mathis, Charles University, Prag (Czech Republic); Z. Száraz, The University of Manchester (UK)</p>
41 / E / 360	<p><b>Detection Limit for Depth Profiling of Fluorine in Titan Aluminum Using Proton Induced Gamma Emission</b></p> <p>D. Brenner (Sp), Goethe-University Frankfurt (Germany); H.E. Zschau, Dechema-Forschungsinstitut, Frankfurt (Germany); S. Neve, Goethe-University Frankfurt (Germany)</p>
42 / E / 362	<p><b>Development of „Second Generation“ Ductile Iron with a High Silicon Content and Additional Solution Strengtheners</b></p> <p>P. Weiss (Sp), J. Brachmann, S.F. Fischer, A. Bührig-Polaczek, RWTH Aachen University (Germany)</p>
43 / E / 371	<p><b>Study of the Mechanical Properties of Welded Joints in Aluminum Al5083-H116 by GMAW-P Process</b></p> <p>F. Chacón Niño (Sp), F. Pardo, H. Rojas, M. Sierra, Universidad Libre de Colombia, Bogota D.C (Colombia)</p>
44 / E / 386	<p><b>Measurement of Thermal Cycles of Martensitic Creep Resistant Steel</b></p> <p>L. Havelka (Sp), D. Schwarz, P. Mohyla, VSB-TU Ostrava, Ostrava-Poruba (Czech Republic)</p>
45 / E / 388	<p><b>Technology of Production of Electro-contact Plugs of Electrolyzers of Metallurgy Industry</b></p>
* = no oral presentation	A.A. Lazareva, D.G. Chernikov (Sp), Samara State Aerospace University (Russian Federation)



Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
16:15 - 16:45	<b>Tuesday Session</b> <b>Topic P- Electronic and Photonic Materials</b>
1 / P / 118	<p><b>Growth and Characterization of III-Group Elements Doped ZnS Micro- and Nanostructures</b></p> <p>B. Sotillo Buzarra (Sp), P. Fernández, J. Piqueras, University Complutense of Madrid (Spain)</p>
2 / P / 161	<p><b>IR, NIR and Vis to NIR and Vis up - Conversion Emission in Er doped BiOCl</b></p> <p>R.D. Avram (Sp), C. Tiseanu, National Institute for Laser, Plasma and Radiation Physics, Magurele (Romania)</p>
3 / P / 211	<p><b>SEM Imaging with EsB Detectors at Low Accelerating Voltage</b></p> <p>M.A. Garitagoitia Cid (Sp), R. Rosenkranz, E. Zschech, Technische Universität Dresden (Germany)</p>
4 / P / 236	<p><b>An Investigation of Phase Stability in the Cu-Zn-Sn-S Photovoltaic System</b></p> <p>F. Boero (Sp), S. Delsante, G. Borzone, University of Genoa, Genova (Italy)</p>
5 / P / 238	<p><b>The Growth of GaAs Nanomembranes with Selective Area Epitaxy</b></p> <p>G. Tutuncuoglu (Sp), E. Russo Averchi, A. Fontcuberta I Morral, Ecole Polytechnique Federale de Lausanne (Switzerland)</p>
6 / P / 247	<p><b>Current-Voltage Characteristics of Zinc Oxide Varistors with Respect to Mechanical Load</b></p>
* = no oral presentation	<p>N. Raidl (Sp), M. Hofstätter, P. Supancic, Montanuniversität Leoben (Austria)</p>

Time/ Poster No.	Lecture Hall Room B and Foyer Tuesday Session
7 / P / 272	<p><b>CZTS Monograin Membranes for Photoelectrochemical Fuel Production</b>  <b>1. Preparation and Characterization</b>            A. Samieipour (Sp), E. Kouhiisfahani, C. Neubauer, D. Meissner, Tallinn University of Technology (Estonia)</p>
8 / P / 273	<p><b>CZTS Monograin Membranes for Photoelectrochemical Fuel Production</b>  <b>2. Modifications for Fuel Production</b>            E. Kouhiisfahani (Sp), A. Samieipour, S. Galajev, D. Meissner, Tallinn University of Technology (Estonia)</p>
9 / P / 346	<p><b>Organic Nanocomposite Multifunctional Thin Films by Remote Plasma Assisted Vacuum Deposition</b>            M. Alcaire Martín (Sp), F.J. Aparicio, CSIC-Universidad de Sevilla (Spain); L. Cerdán, Instituto de Química Física Rocasolano (CSIC), Madrid (Spain); F. Lahoz, Universidad de La Laguna (Spain); A. Borrás, CSIC-Universidad de Sevilla (Spain); I. García-Moreno, A. Costela, Instituto de Química Física Rocasolano (CSIC), Madrid (Spain); A.R. González-Elipe, A. Barranco, CSIC-Universidad de Sevilla (Spain)</p>
10 / P / 347	<p><b>High-Quality Surface High In-Content AlInN Grown by RF-Sputtering</b>            A. Núñez-Cascajero (Sp), L. Monteagudo-Lerma, M. Jiménez-Rodríguez, Universidad de Alcalá, Alcalá de Henares, Madrid (Spain); S. Valdueza-Felip, E. Monroy, CEA-Grenoble (France); A. Ruiz, CSIC-ICMM, Madrid (Spain); S. Fernández, CIEMAT, Madrid (Spain); M. González-Herráez, F.B. Naranjo, Universidad de Alcalá, Alcalá de Henares, Madrid (Spain)</p>
* = no oral presentation	

<b>Time/ Poster No.</b>	<b>Lecture Hall Room B and Foyer Tuesday Session</b>
<b>16:45 - 17:00</b>	<b>Coffee Break</b>
<b>17:00 - 18:00</b>	<b>Discussion of all Posters of the Tuesday Session Topics E, P in front of the Panels</b>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
09:00- 09:30	<p><b>Plenary Lecture</b>  <b>Thin Film Deposition by Pulsed Laser Deposition (PLD) and Laser-Induced Forward Transfer (LIFT)</b>                      T. Lippert, Materials Group, General Energy Research Department, Paul Scherrer Institut and Laboratory of Inorganic Chemistry, ETH Zurich (Switzerland)</p>
09:30 - 11:00	<p><b>Wednesday Session</b>  <b>Topic L - Materials Characterisation: Mechanical Testing, Advanced Analytical Techniques NDE, Materialographie</b></p>
1 / L / 1	<p><b>The Use of HT-LSCM for the In-Situ Observation of Acicular Ferrite</b>                      D. Loder (Sp), S.K. Michelic, C. Bernhard, Montanuniversitaet Leoben (Austria)</p>
2 / L / 16	<p><b>Radiation-Induced Microstructural Evolution of ODS Steel Welds for Next Generation Nuclear Reactors</b>                      H. Dawson (Sp), E. Jimenez-Melero, G. Burke, University of Manchester (UK); M. Serrano, CIEMAT, Madrid (Spain); S. Cater, TWI, Rotherham (UK)</p>
3 / L / 35	<p><b>Characterization of Secondary Phases by EDS and EBSD in a Hot Rolled 316LN Austenitic Stainless Steel Plate</b>                      M. Garcia (Sp), S. Sgobba, G.A. Izquierdo, CERN, Meyrin 2 / Geneva (Switzerland)</p>
4 / L / 42	<p><b>Cobalt-Free Hard Facing Materials for Nuclear Applications</b>                      D. Bowden (Sp), M. Preuss, G. Burke, D. Tsioulas, University of Manchester (UK); D. Stewart, Rolls-Royce plc. (UK)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
5 / L / 43	<p><b>Model-Size and Full-Size Penetration Tests on Damping Concrete</b></p> <p>R. Scheidemann (Sp), Federal Institute for Materials Research and Testing, Berlin (Germany)</p>
6 / L / 50	<p><b>Investigation of Fusion Relevant Heat Loads and Particle Fluxes on Double Forged Tungsten</b></p> <p>I. Steudel (Sp), A. Huber, J. Linke, M. Wirtz, Forschungszentrum Jülich (Germany)</p>
7 / L / 60	<p><b>Supramolecular Polymers as Reversible Adhesives</b></p> <p>C. Heinzmann (Sp), G.L. Fiore, C. Weder, University of Fribourg, Marly (Switzerland)</p>
8 / L / 62	<p><b>Effect of Heat Treatment on the Microstructure of Austenitic Stainless Steel</b></p> <p>J. Nacházel (Sp), COMTES FHT a.s., Dobruška (Czech Republic)</p>
9 / L / 72	<p><b>Behaviour of Beryllium under ITER Relevant Cyclic Transient High Heat Fluxes</b></p> <p>B. Spilker (Sp), J. Linke, T. Loewenhoff, T. Weber, M. Wirtz, Forschungszentrum Jülich (Germany)</p>
10 / L / 86	<p><b>Determination of Mechanical Properties by Small Punch Test</b></p> <p>A. Janca (Sp), J. Siegl, P. Hausild, Czech Technical University, Faculty of Nuclear Sciences and Physical Engineering, Prag (Czech Republic)</p>
11 / L / 105	<p><b>Production and Characterization of Refractory Metal Coatings</b></p>
* = no oral presentation	<p>M. Lungu (Sp), I. Tiseanu, C. Porosnicu, C. Dobrea, NILPRP, Magurele (Romania)</p>

Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
12 / L / 106	<p><b>Determination of Mechanical Properties of ODS EP450 Steel Using Spherical Indentation</b></p> <p>J. Cech (Sp), P. Hausild, Czech Technical University in Prague, Praha (Czech Republic); J. Nohava, CSM Instruments A company of Anton-Paar, Peseux (Switzerland)</p>
13 / L / 111	<p><b>Characterization of Very Dense and Very Porous Ceramics via Microscopic Image Analysis Using Stereological Relations</b></p> <p>T. Uhlířová (Sp), J. Hostas, E. Gregorová, W. Pabst, Institute of Chemical Technology Prague (Czech Republic)</p>
14 / L / 129	<p><b>Microstructural Analysis of X13 CrMnMoN 18-14-3 after Heat Treatment and Additional Cold Forming</b></p> <p>O. Wildt (Sp), S. Güler, A. Fischer, Universität Duisburg-Essen (Germany)</p>
15 / L / 130	<p><b>Micro-Phase Residual Stresses in Pearlite as a Tool to Understand Strain Hardening</b></p> <p>J. Tacq (Sp), M. Kriska, M. Seefeldt, B. Verlinden, KU Leuven (Belgium)</p>
16 / L / 158	<p><b>Biaxial Mechanical Characterization of Short Fiber Reinforced Thermoplastics</b></p> <p>M. Schöneich (Sp), M. Stommel, Saarland University, Saarbrücken (Germany)</p>
17 / L / 164	<p><b>Evaluation of Current Mechanical Properties of Steel Components Using Small Sample Techniques</b></p> <p>J. Vokac (Sp), Comtes FHT a.s., Dobruška (Czech Republic)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
18 / L / 190	<p><b>Nondestructive Detection of Mechanically Induced Magnetic Stray Fields in Steels</b> N. Sonntag (Sp), R. Stegemann, B. Skrotzki, M. Kreuzbruck, BAM Federal Institute for Materials Research and Testing, Berlin (Germany)</p>
19 / L / 197	<p><b>In-Situ TEM Electrochemical Studies of La<sub>0.9</sub>Ba<sub>0.1</sub>F<sub>2.9</sub>/Bi Half-Cell</b> M.H. Fawey (Sp), Karlsruhe Institute of Technology (KIT), Eggenstein-Leopoldshafen (Germany); V.S.K. Chakravadhanula, Helmholtz Institute Ulm for Electrochemical Energy Storage (HIU) (Germany); T. Scherer, C. Rongeat, A.R. Munnangi, H. Hahn, M. Fichtner, C. Kuebel, Karlsruhe Institute of Technology (KIT), Eggenstein-Leopoldshafen (Germany)</p>
20 / L / 201	<p><b>The Effect of Strain Rate on the Mechanical Properties of UD Glass-Fiber Reinforced Polymers</b> C. Hirth (Sp), Polymer Competence Center Leoben GmbH (Austria); H. Koerber, Technical University Munich (Germany); M. Wolfahrt, Polymer Competence Center Leoben GmbH (Austria); M. Feuchter, Montanuniversität Leoben (Austria)</p>
21 / L / 219	<p><b>The Influence of Developer on Structural and Optical Properties of Thermo-chromic Composite</b> M. Hajzeri (Sp), National Institute of Chemistry, Ljubljana (Slovenia); K. Basnec, Cetus d.d, Celje (Slovenia); M. Klanjsek Gunde, National Institute of Chemistry, Ljubljana (Slovenia)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
22 / L / 237	<p><b>Characterization of Steel Microstructure: From 2D Artisan Etching to 3D Understanding</b></p> <p>D. Britz (Sp), A. Hegetschweiler, J. Weibel, F. Mücklich, Saarland University, Saarbrücken (Germany)</p>
23 / L / 259	<p><b>Analysis of Microstructure and Microtexture Development of GOES</b></p> <p>A. Volodarskaja (Sp), VSB - Technical University of Ostrava (Czech Republic); S. Miklusova, Arcelor Mittal Frydek-Mystek a.s, (Czech Republic); V. Vodarek, VSB - Technical University of Ostrava (Czech Republic)</p>
24 / L / 263	<p><b>Effect of Near Infrared Radiation on the Growth and Development of Parsley Seeds</b></p> <p>K. Grabowska (Sp), J. Detyna, M. Komorowska, S. Olszynska-Janus, H. Bujak, Wroclaw University of Technology (Poland)</p>
25 / L / 268	<p><b>Stability of Microstructure in Heterogeneous P23/P91 Welds at 550°C</b></p> <p>J. Holesinsky (Sp), V. Vodarek, VSB- Technical University of Ostrava (Czech Republic); L. Strilkova, Z. Kubon, Materials and Metallurgical Research Ltd, Ostrava (Czech Republic)</p>
26 / L / 306	<p><b>The Effect of Microstructure of Nickel Based Alloys for Use in Oil and Gas Applications</b></p> <p>V. Demetriou (Sp), J.D. Robson, M. Preuss, P.J. Withers, University of Manchester (UK)</p>
* = no oral presentation	



Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
27 / L / 331	<p><b>Vacancy Type Defects in UO<sub>2</sub> Pellets: The Positron Annihilation Study</b> E. Vitkowska (Sp), Slovak University of Technology, Bratislava (Slovak Republic); M. Chollet, V. Krsjak, J. Bertsch, Paul Scherrer Institute, Villigen (Switzerland); P. Ballo, M. Okal, Slovak University of Technology, Bratislava (Slovak Republic)</p>
28 / L / 369	<p><b>2D Surface Reconstruction of a CBN Cutting Tool for the Abrasive Process and the Quantitative Topography Analysis</b> S. Fang (Sp), D. Bähre, Saarland University, Saarbrücken (Germany)</p>
11:00 - 11:15	<p><b>Coffee Break</b></p>
11:15 - 12:00	<p><b>Wednesday Session</b> <b>Topic M - Biomimetic and Bioinspired Approaches; Biofunctional Materials</b></p>
1 / M / 31	<p><b>Structure-Property Relationships of Sorghum Bicolor (Poaceae)</b> A. Pohl (Sp), INM - Leibniz Institute for New Materials, Saarbrücken (Germany); E. Weber, Technion Israel Institute of Technology, Haifa (Israel); M.-L. Lemloh, A. Schneider, I. Weiss, INM - Leibniz Institute for New Materials, Saarbrücken (Germany)</p>
2 / M / 64	<p><b>Synthesis of Mesoscopic Minerals by Double Migration Process</b> B. Kruppke (Sp), Technische Universität Dresden (Germany); A. Keroué, Montupet Ltd The Cutts Dunmurry, Belfast (Northern Ireland);</p>
* = no oral presentation	<p>C. Heinemann, T. Hanke, H. Worch, Technische Universität Dresden (Germany)</p>

Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
3 / M / 104	<p><b>Nacre-Like Composites by Sedimentation of Planar Particles</b></p> <p>S. Behr (Sp), L. Rossack, G.A. Schneider, Hamburg University of Technology (Germany)</p>
4 / M / 180	<p><b>Organic Memristor: Interface with Biological Molecules</b></p> <p>S. Battistoni (Sp), University of Parma (Italy)</p>
5 / M / 205	<p><b>Fabrication and Characterization of Multi-Functional Poly(Ethylene Glycol)-Based Microgels for Specific Interaction with Cells</b></p> <p>Z. Ouyang (Sp), Z. Zhang, F. Ren, G. de Vicente, M.C. Lensen, Technische Universität Berlin (Germany)</p>
6 / M / 215	<p><b>Squid Sucker Ring Teeth: From Recombinant Expression to Protein Colloids</b></p> <p>D. Ding (Sp), P. Guerette, A. Miserez, Nanyang Technological University, Singapore (Singapore)</p>
7 / M / 242	<p><b>Interplay between Chemistry and Micromechanical Properties in a Spring-Like Mineralized Tissue</b></p> <p>M. Tadayon (Sp), S. Amini, A. Miserez, Nanyang Technological University, Singapore (Singapore)</p>
8 / M / 245	<p><b>A Comprehensive Bottom-up Approach towards Biomimicry: Modular Peptide Interactions of Squid Sucker Ring Teeth Proteins with Silk-Like Sequence</b></p> <p>S.H. Hiew (Sp), A. Miserez, Nanyang Technological University, Singapore (Singapore)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
9 / M / 271	<p><b>Characterization of Polymer Fibers Prepared by Electrospinning Process for Tissue Engineering Applications</b></p> <p>J. Karbowniczek (Sp), AGH University of Science and Technology, Krakau (Poland); M. Buzgo, E. Amler, Institute of Experimental Medicine AS CR, Prag (Czech Republic); A. Czyska-Filemonowicz, AGH University of Science and Technology, Krakau (Poland)</p>
10 / M / 314	<p><b>Effect of MgO Incorporation and Synthesis Temperature on Phase Stability of Beta Tricalciumphosphate</b></p> <p>R. Sasidharan Pillai (Sp), V.M. Sglavo, University of Trento (Italy)</p>
11 / M / 339	<p><b>Superparamagnetic Nanoparticles for Biomedical Applications</b></p> <p>D. Bonvin (Sp), L. Maurizi, EPFL, Lausanne (Switzerland); M. Mionic, University Hospital of Lausanne (Switzerland); H. Hofmann, EPFL, Lausanne (Switzerland)</p>
12 / M / 349	<p><b>Characterization and Electrochemical Behavior of Porous Graphitic Biocarbons</b></p> <p>A. Gutiérrez-Pardo (Sp), J. Ramírez-Rico, J. Martínez-Fernández, University of Seville - ICMS, Sevilla (Spain)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
13 / M / 356	<p><b>Optimization of a Modular Multiple-Molding Process to Characterize the Influence of Microfeature Characteristics on their Tissue Interaction</b></p> <p>S. Fischer (Sp), Leibniz Institute for New Materials, Saarbrücken (Germany) ; E.K. Kroner, Leibniz Institute for New Materials, Saarbrücken (Germany); O. Levy, J.M. Karp, Harvard-MIT Division of Health Sciences and Technology, Cambridge (USA); E. Arzt, Leibniz Institute for New Materials, Saarbrücken (Germany)</p>
14 / M / 363	<p><b>Macro- and Micromechanical Material Modeling Based on Bionics Principles</b></p> <p>A. Kalteis (Sp), Z. Major, Johannes Kepler University Linz (Austria)</p>
15 / M / 364	<p><b>Electrospun Nanofibers for Biofunctional and Biomimetic Nanotextured Coatings</b></p> <p>A. Davis (Sp), E. Mele, I.S. Bayer, A. Athanassiou, Istituto Italiano di Tecnologia, Genoa (Italy)</p>
12:00 -13:00	<p><b>Discussion of all Posters of the Wednesday Session Topic L, M in front of the Panels</b></p>
13:00 - 14:00	<p><b>Lunch</b></p>
14:00 -14:05	<p> <b>FEMS Lecturer Session</b></p>
14:00	<p><b>Beginning of the FEMS Lecturer Session</b></p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Wednesday Session
14:05	<p><b>Deformation and cracking of structural materials: from synchrotron X-rays investigations to computational mechanics</b> H. Proudhon, Centre des Matériaux Mines Paris Tech (France)</p>
14:25	<p><b>Getting order into matter: a top-down and bottom-up approach towards the processing of hierarchical porous thin films</b> L. Malfatti, University of Sassari (Italy)</p>
14:45	<p><b>Materials Tribology: An emerging field in materials science</b> C. Greiner, Karlsruher Institut für Technologie (KIT) (Germany)</p>
15:05	<p><b>Metal Oxide Nanotube Based Composite Layers Intended for Biomedical Applications</b> A. Roguska (Sp), Polish Academy of Sciences, Warszawa (Poland)</p>
15:25	<p><b>Precipitation kinetics in multicomponent structural hardening alloys: how to get the full picture?</b> F. De Geuser, CNRS, SIMAP, F-38000 Grenoble (France)</p>
15:45	<p><b>Nitrides at the Nanoscale</b> R. Oliver, University of Cambridge (UK)</p>
18:30	<p><b>Barbecue Evening</b></p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
09:30 - 11:00	<b>Thursday Session</b> <b>Topic F - Ceramics, CMC, Glass</b>
1 / F / 85	<p><b>Optical Properties of Polycrystalline Nd:YAG Processed by Spark Plasma Sintering (SPS)</b>                      M. Sokol (Sp), N. Frage, Ben-Gurion University, Beer-Sheva (Israel)</p>
2 / F / 90	<p><b>Oxidation of Silicon Carbide Composites at Very High Temperature with Final Quenching</b>                      V. Avincola (Sp), M. Steinbrück, H.J. Seifert, Karlsruher Institut für Technologie, Eggenstein-Leopoldshafen (Germany)</p>
3 / F / 101	<p><b>New Formulations and Processes for Ceramic Layers Deposition on Complex Geometry Substrates</b>                      R. Balzarotti (Sp), M. Migliavacca, S. Latorrata, R. Pelosato, C. Cristiani, Politecnico di Milano (Italy)</p>
4 / F / 119	<p><b>Production of Bulk Metallic Glasses of Crystalline Structures by Local Small-Volume Re-Melting</b>                      V. Kripak (Sp), C. Otten, U. Prael, U. Reisgen, RWTH Aachen (Germany)</p>
5 / F / 149	<p><b>Inversion Parameter of Non-Stoichiometric Magnesium Aluminate Spinel</b>                      M. Halaby (Sp), S. Hayun, Ben-Gurion University of the Negev, Beer-Sheva (Israel)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
6 / F / 167	<p><b>Thermal and Electric Conductivities of Polymer Derived Ceramics with In-Situ Grown Carbon Nanotubes</b></p> <p>N. Mantzel (Sp), S. Rannabauer, J. Sauerhering, Otto von Guericke University Magdeburg (Germany); K.G. Schell, M.J. Hoffmann, Karlsruhe Institute of Technology (KIT) (Germany); M. Scheffler, Otto von Guericke University Magdeburg (Germany)</p>
7 / F / 175	<p><b>Polymer-Derived Ceramic Material With Negative Thermal Expansion</b></p> <p>A. Fedorova (Sp), M. Scheffler, Otto-von-Guericke University Magdeburg (Germany)</p>
8 / F / 178	<p><b>Applications of Glass as Solder for Joining of Silicon Carbide Components</b></p> <p>S. Ahmad (Sp), Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen (Germany); M. Herrmann, W. Lippmann, Technical University Dresden (Germany); M.M. Mahmoud, M. Steinbrück, H.J. Seifert, Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen (Germany)</p>
9 / F / 181	<p><b>Investigation of Damage in Glass Subjected to Static Indentation Using Continuum Damage Mechanics</b></p> <p>J. Ismail (Sp), University of Zakho (Iraq); F. Zaïri, M. Naït-Abdelaziz, Université de Lille 1, Villeneuve D'Ascq (France); Z. Azari, Université Paul Verlaine de Metz (France)</p>
10 / F / 184	<p><b>Production of an Alumina-Aluminum Ceramic Matrix Composite by Selective Laser Melting</b></p> <p>C. Van Gestel (Sp), E. Boillat, Ecole Polytechnique Fédérale de Lausanne (Switzerland)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
11 / F / 187	<p><b>Sintering of Ceria Ceramic: Comparison of SPS and CPS Methods</b></p> <p>L. Golovkina (Sp), A. Orlova, M. Boldin, O. Belkin, A. Nokhrin, V. Chuvil'deev, M. Logunov, I. Manakov, A. Ryakov, State University of Nizhni Novgorod, Nizhny Novgorod (Russian Federation)</p>
12 / F / 198	<p><b>The Effect of the Molar Ratio to the Setting Time and the Relation of Physical Properties to the Phase Composition of Fly-Ash Based Geopolymer</b></p> <p>I. Balczár (Sp), T. Korim, University of Pannonia, Veszprém (Hungary)</p>
13 / F / 202	<p><b>The Production of Bioactive Glass Ceramics Containing Synthetic and Natural Calcium Phosphates</b></p> <p>A. Dobrádi (Sp), M. Enisz Bódogh, University of Pannonia, Veszprém (Hungary)</p>
14 / F / 220	<p><b>NaOH and KOH Fly Ash-Based Geopolymers Compared with Cementitious Mortars with the Same Mechanical Strength Class</b></p> <p>A. Mobili (Sp), C. Giosuè, F. Tittarelli, Università Politecnica delle Marche, Ancona (Italy)</p>
15 / F / 226	<p><b>Innovative and Multifunctional Mortars able to Improve Indoor Air Quality</b></p> <p>C. Giosuè (Sp), A. Mobili, M.L. Ruello, F. Tittarelli, Università Politecnica delle Marche, Ancona (Italy)</p>
* = no oral presentation	



Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
16 / F / 258	<p><b>Effect of Polyacrylic Binder Addition on Rheological Properties of Silicon Carbide Ceramic Slurries</b></p> <p>M. Malek (Sp), P. Wisniewski, H. Matysiak, K.J. Kurzydowski, Warsaw University of Technology (Poland)</p>
17 / F / 270	<p><b>Influence of the Degassing and Mixing Parameters on the Properties of the WCCo/cBN Composites Produced by the PPS Method</b></p> <p>J. Wachowicz (Sp), T. Truszkowski, M. Rosinski, R. Zielinski, Warsaw University of Technology (Poland)</p>
18 / F / 328	<p><b>Influence of Magnesium Oxide Additives on the Structure of Stabilized Zirconia</b></p> <p>A. Buyakov (Sp), S. Kulkov, ISPMAS RAS/TSU, Seversk (Russian Federation)</p>
19 / F / 341	<p><b>Template-Assisted Preparation of High-Surface-Area V8C7/SiC Nanocomposites from Single-Source Precursor</b></p> <p>S. Kaur (Sp), E. Poix, M. Biesalski, R. Riedel, E. Ionescu, Technische Universität Darmstadt (Germany)</p>
20 / F / 358	<p><b>Low-Cost and Energy-Saving Formulations in the Manufacturing of Ceramic Tiles</b></p> <p>O. Cengiz (Sp), Afyon Kocatepe University (Turkey)</p>
11:00 - 11:15	<b>Coffee Break</b>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
11:15 - 12:15	<b>Thursday Session</b> <b>Topic G: Polymers, Polymer-based Composites</b>
1 / G / 19	<b>The Influence of Small Additions Plasti- cizers on the Structure and Properties of Porous Materials</b> A. Samatadze (Sp), A. Tumanov, VIAM, Mos- kau (Russian Federation)
2 / G / 36	<b>Combining Aerogels with Honeycombs – A New Stiff and Flexible Superinsulation</b> M. Schwan (Sp), B. Milow, L. Ratke, German aerospace center, Köln (Germany)
3 / G / 40	<b>Ductile Steel Fibres: A Path to Tough Struc- tural Composites?</b> M.G. Callens (Sp), L. Gorbatikh, I. Verpoest, KU Leuven (Belgium)
4 / G / 53	<b>Tailoring Pore Geometries and Properties of Porous Polymers for Gas Sensing Appli- cations</b> F.M. Wisser (Sp), K. Eckhard, J. Grothe, S. Kaskel, Dresden University of Technology (Germany)
5 / G / 63	<b>Mechanochemistry with Metallosupramo- lecular Polymers</b> D. Balkenende (Sp), S. Coulibaly, S. Balog, Y.C. Simon, G.L. Fiore, C. Weder, Université de Fribourg, Marly (Switzerland)
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
6 / G / 100	<p><b>Thermal Insulation of Impedance Mismatch Powder Compacts</b> K. Voges (Sp), D.C. Lupascu, M. Vadalá, C. Hautkappe, University Duisburg-Essen (Germany); G. Schierning, University Duisburg-Essen (Germany)</p>
7 / G / 102	<p><b>Novel Materials for Rare Earths Uptake: Study on a Lanthanum Model Solution</b> E.M. Iannicelli Zubiani (Sp), C. Cristiani, G. Dotelli, P. Gallo Stampino, R. Pelosato, I. Bengo, Politecnico di Milano (Italy)</p>
8 / G / 136	<p><b>GNP/Epoxy Nanocomposites for Thermal Interface Materials</b> R. Moriche (Sp), S.G. Prolongo, M. Sánchez, A. Jimenez-Suarez, A. Ureña, University Rey Juan Carlos, Mostoles, Madrid (Spain)</p>
9 / G / 139	<p><b>Investigation of N-Alkyl-Pyrrolidone as Plasticizers for PVC</b> A. Bánhegyi (Sp), K. Marossy, University of Miskolc (Hungary)</p>
10 / G / 195	<p><b>The Effects of Nanoparticles in Thermoplastic Polymers Concerning Thermal Conductivity and Heating</b> R. Brüll (Sp), G. Seide, T. Gries, RWTH Aachen University (Germany)</p>
11 / G / 200	<p><b>In situ Synthesis of Nanocomposites from Poly(Ethylene Glycol)-Based Hydrogels and Calcium Phosphates with Improved Mechanical and Biological Properties</b> Z. Zhang (Sp), A. Ioebus, C. Strehmel, M.C. Lensen, Technische Universität Berlin (Germany)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
12 / G / 214	<p><b>Polysaccharide Based Hydrogels: Chitosan-Alginate Blended Films</b></p> <p>V. Vosmanská (Sp), K. Kolárová, S. Rimpelová, V. Svorcik, ICT Prague (Czech Republic)</p>
13 / G / 225	<p><b>Thermoplastic Starch as a Packaging Material - Reinforcement and Hydrophobisation</b></p> <p>J. Dlouhy (Sp), P. Duchek, P. France, University of West Bohemia, Plzen (Czech Republic)</p>
14 / G / 229	<p><b>Characterization of Carbon Fibers Treated by Dielectric Barrier Discharge at Low and High Frequency</b></p> <p>A. Santos (Sp), E.C. Botelho, K.G. Kostov, Guaratingueta Faculty of Engineering, FEG/UNESP, Guaratinguetá (Brazil); L.L.G. da Silva, FATEC – Pinda, Pindamonhangaba (Brazil)</p>
15 / G / 231	<p><b>A Novel Technology for the Manufacture of Integral Sandwich Structures Using a Polyurethane Spray Coat Method</b> M.</p> <p>Gude, S. Geller, O. Weissenborn (Sp), Dresden University of Technology (Germany)</p>
16 / G / 254	<p><b>PLA Hybrid Biocomposites Reinforced with Natural Fibres of Different Geometry</b></p> <p>A. Meljon (Sp), A.K. Bledzki, West Pomeranian University of Technology Szczecin (Poland)</p>
17 / G / 325	<p><b>Polyaniline -Polyacrylamide Hydrogel Composite Material for Energy Storage Devices</b></p> <p>I. Dmitriev (Sp), P.V. Vlasov, M.A. Smirnov, G.K. Elyashevich, Russian Academy of Sciences, St.Petersburg (Russian Federation)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
<p><b>18 / G / 326</b></p> <p><b>12:15 : 13-15</b></p> <p><b>13:15 - 14:15</b></p>	<p><b>Biopolymers in Multicomponent Injection-Moulding Applications</b> F. Tautenhain (Sp), T. Hartmann, R. Rinberg, L. Kroll, Technische Universität Chemnitz (Germany)</p> <p><b>Discussion of all Posters of the Thursday Session Topics F, G in front of the Panels</b></p> <p><b>Thursday Session</b> Topic N- Nanostructured Materials</p>
<p><b>1 / N / 2</b></p> <p><b>2 / N / 22</b></p> <p><b>3 / N / 34</b></p>	<p><b>A Thermal Analysis of the Effect of the High Pressure Torsion Process on the Plastic Deformation of High Density Polyethylene</b> A. Draï (Sp), B. Aour, Université de Mascara (Algeria)</p> <p><b>Preparation of Composite of ZnS Nanoparticles and Montmorillonite by Cavitation Deposition</b> L. Svoboda (Sp), R. Dvorsky, P. Praus, B. Kostura, VŠB-Technical University of Ostrava, Ostrava-Poruba (Czech Republic)</p> <p><b>Self-organized Periodical Ripple-like Gold Nanostructures on Poly-L-lactic Acid</b> P. Jurik (Sp), P. Slepicka, ICT Prague (Czech Republic); J. Mistrik, P. Janicek, UP, Pardubice (Czech Republic); V. Svorcik, ICT Prague (Czech Republic)</p>
<p>* = no oral presentation</p>	

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
4 / N / 54	<p><b>CO<sub>2</sub>-Laser Flash Evaporation as Novel CVD Precursor Delivery System for Functional Thin-Film Growth</b></p> <p>C. Loho (Sp), A.J. Darbandi, Technische Universität Darmstadt (Germany) and Karlsruhe Institute of Technology, Darmstadt (Germany); R. Djenadic, Technische Universität Darmstadt (Germany), Karlsruhe Institute of Technology, Darmstadt (Germany) and Helmholtz Institute Ulm (Germany); O. Clemens, Technische Universität Darmstadt (Germany) and Karlsruhe Institute of Technology, Darmstadt (Germany); H. Hahn, Technische Universität Darmstadt (Germany), Karlsruhe Institute of Technology, Darmstadt (Germany) and Helmholtz Institute Ulm (Germany)</p>
5 / N / 55	<p><b>Micro-Contact Printing of Platinum Electrodes</b></p> <p>F.M. Wissler (Sp), S. Raschke, J. Grothe, S. Kaskel, Dresden University of Technology (Germany)</p>
6 / N / 56	<p><b>Oxygen Plasma Activated Carbon Nanotubes as Electrode Material for Proton Exchange Membrane Fuel Cells</b></p> <p>U. Rost (Sp), G. Marginean, V. Rigou, W. Brandl, M. Brodmann, Westphalian University of Applied Sciences, Gelsenkirchen (Germany)</p>
7 / N / 59	<p><b>The Electrical Conductivity of Pure Aluminium after SPD Processing</b></p> <p>M. Lipinska (Sp), P. Bazarnik, M. Lewandowska, Warsaw University of Technology (Poland)</p>
8 / N / 67	<p><b>Nanoparticle Self-Assemblies with Luminescent Lanthanide-Based Materials</b></p>
* = no oral presentation	<p>D. Thévenaz (Sp), G.L. Fiore, University of Fribourg, Marly (Switzerland)</p>

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
9 / N / 70	<p><b>Preparation of Au Nanostructures via Annealing and Gas Sensing Capabilities</b> O. Kvitek (Sp), P. Konrad, Z. Novotna, V. Svorcik, Institute of Chemical Technology, Prague (Czech Republic)</p>
10 / N / 71	<p><b>Physically Deposited and Anchored Gold Nanostructures on Substrate</b> Z. Novotna (Sp), R. Reznickova, O. Kvitek, V. Svorcik, ICT Prague, Prague (Czech Republic)</p>
11 / N / 74	<p><b>Aerogel-Aerogel-Composites from Resorcinol-Formaldehyde-Aerogel and Silica-Aerogel-Granulate</b> J. Laskowski (Sp), B. Milow, L. Ratke, German Aerospace Center (DLR), Köln (Germany)</p>
12 / N / 75	<p><b>Nanostructures Construction by Laser Interaction with Biopolymers</b> I. Michaljanicova (Sp), P. Slepicka, P. Sajdl, V. Svorcik, ICT Prague (Czech Republic)</p>
13 / N / 77	<p><b>Bipolar Control of Non-linear Transport in Nanostructured Functional Perovskite Film by an Electric Double Layer Gate</b> R. Nath (Sp), A.K. Raychaudhuri, S. N. Bose National Centre for Basic Sciences, Kolkata (India)</p>
14 / N / 116	<p><b>Noble Metal Nanostructures on Periodically Patterned Polymer</b> R. Krajcar (Sp), J. Siegel, V. Svorcik, Institute of Chemical Technology, Prague (Czech Republic)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
15 / N / 131	<p><b>Properties of Unconventional Synthesized Noble Metal Nanoparticles with Controlled Size and Shape</b></p> <p>M. Staszek (Sp), J. Siegel, K. Kolarova, S. Rimpelova, V. Svorcik, ICT Prague (Czech Republic)</p>
16 / N / 133	<p><b>Low Fluence Excimer Patterning of Polymethylmethacrylate</b></p> <p>Y. Kalachyova (Sp), O. Lyutakov, J. Tuma, J. Svanda, V. Svorcik, The Institute of Chemical Technology, Prag (Czech Republic)</p>
17 / N / 134	<p><b>Metallic Nanoparticles for Enhancement of Gas Sensing Properties of Phthalocyanines</b></p> <p>D. Tomecek (Sp), P. Fitl, J. Vlcek, E. Maresova, M. Vrnata, Institute of Chemical Technology, Prague (ICT) (Czech Republic); M. Skeren, Czech Technical University in Prague (CTU) (Czech Republic)</p>
18 / N / 156	<p><b>Design of a Tomographic Atom Probe</b></p> <p>A. Lukyanchuk (Sp), A. Aleev, ITEP, Moscow (Russian Federation)</p>
19 / N / 169	<p><b>Effect of Heavy-Ion Irradiation on the Nanoscale State of Advanced Reactor Ferritic-Martensitic Steels</b></p> <p>A. Bogachev (Sp), SSC RF Institute for Theoretical and Experimental Physics, Moscow (Russian Federation)</p>
20 / N / 173	<p><b>Preparation of Optical Metamaterials by „Bottom-up“ Technology</b></p> <p>J. Svanda (Sp), O. Lyutakov, Y. Kalachyova, J. Tuma, V. Svorcik, ICT Prague (Czech Republic)</p>
* = no oral presentation	



Time/ Poster No.	Lecture Hall Room B and Foyer Thursday Session
21 / N / 176	<p><b>Processing and Properties of Percolated Transparent Silver Nanowire Network Electrodes</b></p> <p>C. Ainsworth (Sp), B. Derby, W. Sampson, University of Manchester (UK)</p>
22 / N / 185	<p><b>Thin Coatings Applied on Materials Metallurgical Performance for Short-Term Anticorrosive Protection</b></p> <p>D. Pavelková (Sp), L. Koldová, J. Podjuklová, R. Siostrzonek, VSB- Technical University of Ostrava, Ostrava-Poruba (Czech Republic)</p>
23 / N / 199	<p><b>Adsorption of Heavy Metals from Waste Waters by Help of Magnetic Systems</b></p> <p>A.M. Predescu (Sp), E. Matei, A. Predescu, A. Berbecaru, G. Coman, Politehnica University of Bucharest (Romania)</p>
24 / N / 209	<p><b>Nanoscale Structure Formation on Polymer Surface by Excimer Laser Treatment</b></p> <p>O. Nedela (Sp), P. Slepicka, V. Svorcik, Institute of Chemical Technology, Prague (Czech Republic)</p>
25 / N / 234	<p><b>Comparative Study of Ammonium and Potassium Acetate Intercalation into High- and Medium-Defect Kaolinites</b></p> <p>A. Kovács (Sp), E. Makó, E. Horváth, J. Kristóf, University of Pannonia, Veszprém (Hungary)</p>
26 / N / 249	<p><b>Preparation of Graphene Sheet Patterning by Laser Scanning</b></p> <p>J. Tuma (Sp), O. Lyutakov, J. Svanda, Y. Kalachyova, V. Svorcik, Institute of Chemical Technology Prague, Prague (Czech Republic)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
27 / N / 264	<p><b>Textile Sensor with Nanocomposite Sensitive Layer for Gas Detection</b></p> <p>E. Maresova (Sp), M. Vrnata, P. Fitl, D. Tomecek, Institute of chemical technology Prague (Czech Republic); J. Bulir, J. Lancok, P. Pokorny, M. Novotny, Institute of Physics ASCR, Prague (Czech Republic)</p>
28 / N / 276	<p><b>Synthesis of Porous Ni/Cu Alloys from Commercial Constantan Wire</b></p> <p>E.F. Marano (Sp), A. Castellero, M. Baricco, Università degli Studi di Torino, Turin (Italy)</p>
29 / N / 286	<p><b>Novel Nanostructured Cathode Material for Lithium- Sulfur Batteries Based on Polymer Template Approach</b></p> <p>S. Choudhury (Sp), Leibniz Institute of Polymer Research Dresden (Germany); K. Gruber, VARTA Microinnovation GmbH, Graz (Austria); M. Stamm, L. Ionov, Leibniz Institute of Polymer Research Dresden (Germany)</p>
30 / N / 287	<p><b>Synthesis of Calixarene Functionalized Gold Nanoparticles and their Application in Label Free Analysis</b></p> <p>Y. Yu (Sp), China Academy of Engineering Physics, Mianyang (China)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Monday Session
31 / N / 305	<p><b>Photonic Crystal Fabrication by Slide-Coating Co-assembly</b> J.J. do Rosario (Sp), G.A. Schneider, Hamburg University of Technology (Germany)</p>
32 / N / 340	<p><b>Nano-Structuring of Thin Amorphous Films by Pulsed Laser Irradiation in Ultraviolet</b> A.C. Kuncser (Sp), R. Negrea, A.V. Maraloiu, V.S. Teodorescu, C. Ghica, I. Stavarache, A.M. Lepadatu, M.L. Ciurea, Bucharest University, Magurele (Romania); N.D. Scarisoreanu, A. Andrei, M. Dinescu, National Institute for Plasma, Bucharest-Magurele (Romania)</p>
33 / N / 353	<p><b>Influence of the One-Stage (T6) and Two-Stage Ageing (T616) on the Selected Properties of 2024 Aluminium Alloy, After High-pressure Torsion (HPT) Process</b> M. Klich (Sp), L. Kaczmarek, Lodz University of Technology (Poland); I. Brodova, A. Petrova, Ural Division of the Russian Academy of Sciences, Ekaterinburg (Russian Federation)</p>
16:15 - 16:30	<p><b>Coffee Break</b></p>
16:30 - 17:30	<p><b>Discussion of all Posters of the Thursday Session Topic N in front of the Panels</b></p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Friday Session
09:00 - 09:30	<p><b>Plenary Lecture</b>  <b>Innovation in materials, how to collaborate in a value-chain</b>            J. Komornicki, European Chemical Industry Council – CEFIC, Suschem (Brussels)</p>
09:30 - 10:30	<p><b>Friday Session</b>  <b>Topic H - Processing: Casting, Rolling, Extrusion, Powder Technology, Machining, Joining</b></p>
1 / H / 23	<p><b>Water Soluble Cores Verifying of Development Trends</b>            E. Adamkova (Sp), P. Jelinek, J. Beno, F. Miksovsky, VSB-Technical University of Ostrava, Ostrava-Poruba (Czech Republic)</p>
2 / H / 29	<p><b>Influences of Zn Addition on the Hot Tearing Behaviour of Mg-0.5 wt. %Ca Alloy</b>            J. Song (Sp), Z. Wang, Y.D. Huang, K.U. Kainer, N. Hort, Helmholtz-Zentrum Geesthacht (Germany)</p>
3 / H / 58	<p><b>Simulation of Quenching of Ball Bearing Rings Made from 100Cr6 Steel</b>            I. Moravcik (Sp), Brno University of Technology (Czech Republic); M. Breznican, University of Zilina (Slovakia)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Friday Session
4 / H / 69	<p><b>Design and Implementation of an Apparatus to Apply High-Pressure-Torsion in Order to Generate Grain Refinement</b> J. Ehrich (Sp), S. Güler, A. Fischer, University of Duisburg-Essen (Germany)</p>
5 / H / 83	<p><b>Development of Brazing Processes for Tugsten-Tugsten and Tugsten-Eurofer Structural Joints Using Flexible Filler Tapes</b> J. de Prado Escudero (Sp), M. Sánchez, A. Ureña, Rey Juan Carlos University, Mostoles, Madrid (Spain)</p>
6 / H / 103	<p><b>The Study of the High-chromium Powders Manufactured by the Melt Atomization Method with Reference to the Gas Turbine Engine Critical Parts Renewal By Means of the Laser Metal Deposition (LMD) Method</b> S. Nerush (Sp), A.G. Evgenov, „ALL-RUSSIAN SCIENTIFIC RESEARCH INSTITUTE OF AVIATION MATERIALS“ „VIAM“ FSUE, Moskau (Russian Federation)</p>
7 / H / 115	<p><b>Simulation of Oxide Scale Growth Based on Thermogravimetric Tests to Clarify the Influence of the Coatings on Nucleation of Oxide Scale and Diffusion Current of the Generated Oxide Layers</b> M. Wunde (Sp), M. Sartor, VDEh-Betriebsforschungsinstitut GmbH (BFI), Düsseldorf (Germany)</p>
8 / H / 125	<p><b>Novel Microstructure Appeared in Sono-Solidified Aluminum Alloys</b> Y. Matsubara (Sp), Y. Tsunekawa, M. Okumiya, Toyota Technological Institute, Nagoya (Japan); Y. Furukawa, N. Nishikawa, Y. Genma, Toyota Motor Corporation, (Japan)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Friday Session
9 / H / 143	<p><b>Processing of Multilayered Materials - Application of the Top Down Techniques</b> M. Kwiecien (Sp), J. Majta, P. Graca, M. Stefanska-Kadziela, D. Dziedzic, AGH University of Science and Technology in Krakow, Krakau (Poland)</p>
10 / H / 148	<p><b>Microstructure and Mechanical Properties of PM Steels Designed for Direct Hardening After Different Post-Sintering Heat Treatments</b> C. Fial (Sp), A. Cias, M. Sulowski, AGH University of Science and Technology, Krakau (Poland)</p>
11 / H / 165	<p><b>Investigation of Different CNT Reinforcements for Fabricating Bulk AlMg5 Matrix Nanocomposites</b> K. Kallip (Sp), S. Clerc, G. Deguilhem, EMPA, Thun (Switzerland); K.A. AIOgab, King Abdulaziz City for Science and Technology, Riyadh (Saudi Arabia); M. Leparoux, EMPA, Thun (Switzerland)</p>
12 / H / 196	<p><b>Procedures and Apparatus for Investigation of Thermal-Force Parameters of Fast-Proceeding Processes</b> E. Kostriukov (Sp), Samara State Aerospace University (Russian Federation)</p>
13 / H / 222	<p><b>Effects of Selective Laser Melted on Thermoelectric Properties of FeSi2</b> X. FENG (Sp), LERMPS-Université de Technologie de Belfort – Montbéliard (France)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Friday Session
14 / H / 246	<p><b>Mechanical Alloying of Austenitic ODS Steels for High Temperature Applications</b> T. Gräning (Sp), M. Rieth, A. Möslang, Karlsruher Institut für Technologie (KIT), Eggenstein-Leopoldshafen (Germany)</p>
15 / H / 267	<p><b>Asymmetric Rolling of Copper</b> A. Uniwersal (Sp), M. Wrobel, S. Wronski, K. Wierzbowski, AGH University of Science and Technology, Krakau (Poland)</p>
16 / H / 303	<p><b>The Influence of Additives on the Manufacturing of Powders Used for Oxide Dispersion Strengthened Bond Coats</b> J. Bergholz (Sp), R. Vaßen, Forschungszentrum Jülich and Ruhr Universität Bochum(Germany)</p>
17 / H / 322	<p><b>TEM Evaluation of Microstructure of Commercially Pure Aluminum Severely Deformed by Combination of the KoBo Extrusion and Differential Speed Rolling</b> A. Brzostowicz, AGH University of Science and Technology, Krakau (Poland); W. Polkowski (Sp), Military University of Technology, Warsaw (Poland)</p>
* = no oral presentation	

Time/ Poster No.	Lecture Hall Room B and Foyer Friday Session
18 / H / 334	<p><b>Correct Description of the Ionic Polarization Near a Charged Suspended Surface</b> V. Bernau (Sp), S. Galmarini, P. Bowen, H. Hofmann, EPFL, Lausanne (Switzerland)</p>
19 / H / 387	<p><b>Development of Technologies on the Basis of Pulsed-magnetic Field Action on Melts in Mechanical Engineering and Metallurgy</b> D.G. Chernikov (Sp), S.S. Savin, Samara State Aerospace University (Russian Federation)</p>
10:30 - 11:30	<p><b>Discussion of all Posters of the Friday Session Topic H in front of the Panels</b></p>
12:30 - 12:45	<p><b>Coffee Break</b></p>
11:30 - 12:30	<p><b>Poster Awards</b> The best two posters of each session will receive a certificate and a prize of 100 Euro for the first and 50 Euro for the second winner.</p> <p>Best two posters of the Monday Session: Topics K, B, C, D, I Best two posters of the Tuesday Session: Topics A, E, P Best two posters of the Wednesday Session: Topics L, M Best two posters of the Thursday Session: Topics F, G, N Best two posters of the Friday Session: Topic H</p> <p>Repetition of the Oral Presentation of the best two posters of each session. On Friday, the session winners will take part in the competition of the best conference poster. The winner and the second winner will receive an extra award of 150 Euro and 100 Euro, respectively</p>
* = no oral presentation	



Time/ Poster No.	Lecture Hall Room B and Foyer Friday Session
<b>12:45 - 13:30</b>	<b>Closing address including Poster Prize and FEMS Lecturer Award</b> Dr.-Ing. Margarethe Hofmann-Antenbrink Mat Search Consulting Hofmann, Pully-Lausanne (Switzerland)
<b>13:30</b>	<b>End of Conference</b>
* = no oral presentation	

## Welcoming Reception

The welcoming reception on Monday evening will be held on the terrace of the building Unithèque (next to the UNIL – Université de Lausanne).

The welcoming reception will be sponsored by the local government of Canton de Vaud and the Olympic Committee.

**Beginning: 18h30**

## Barbecue Evening

We will meet at the terrace of the building Amphimax (next to Amphipôle) at the UNIL – Université de Lausanne, where sausages, chicken fillet and pork cutlet, salads (potatoes, carrots and tomatoes), bread and drinks (beer, sodas, mineral water) will be served. Please use the coupons that will be distributed on Wednesday by the conference office.

Depending on the weather, the participants can walk together to the lake of Geneva after the Barbecue.

**Beginning: 18h30**

## Lunch during the Week

The closest cafeterias to the Swiss Tech Convention Center are the following:

### **CUT Takeaway (Cafeteria)**

EPFL - Les Arcades  
Route Louis-Favre 8c  
CH-1024 Ecublens

### **LE CORBUSIER (Self-Service)**

EPFL  
SG 0166  
Avenue J.-R. Perronet  
CH-1024 Ecublens

### **LE GIACOMETTI (Cafeteria)**

EPFL  
SG 1131  
Avenue J.-R. Perronet  
CH-1024 Ecublens

*Lunch has to be paid by each participant.*

Errors and omissions excepted.

## MANY THANKS TO THE SPONSORS

The FEMS President, Margarethe Hofmann, wishes to thank Professor Wilfried Kurz, President of FEMS between 2004 and 2005 and Honorary Member of FEMS, and Professor Patrick Aebischer who both supported the request from FEMS to carry out the event on the EPFL Campus.



**Tourist Office**

Lausanne Tourist Office

Phone: +41 21 613 73 73

Fax: +41-21-616 86 47

E-mail: [info@lausanne-tourisme.ch](mailto:info@lausanne-tourisme.ch)

[www.lausanne-tourisme.ch](http://www.lausanne-tourisme.ch)

**Conference Secretariat**

**Further information can be obtained from:**

Deutsche Gesellschaft für Materialkunde e.V.

Céline Babic

Beate Tölle-Kortmann

Kristin Tonn

Senckenberganlage 10

D-60325 Frankfurt

Phone: +49-69-75306 750

Fax: +49-69-75306 733

E-mail: [junior-euromat@fems.org](mailto:junior-euromat@fems.org)