

EMRS Fall Meeting 2013

Symposium M

Research Infrastructures at the frontier of innovation – cutting edge technologies for knowledge based applications

September 16-20 2013, Warsaw, Poland

First Call for papers

Topics

1. Regional, National (also from non-EU) and European Research Infrastructures for advanced materials and nanotechnology
2. Utilization of micro and nano technologies for functional structures and devices
3. Characterization of nanomaterials, structures and devices
4. Safety assessment and reliability of materials, technologies and processes and alternative testing methods
5. Regulatory considerations for applications of nanotechnologies
6. Hydrogen storage and fuel cell development
7. Knowledge management systems available or intended for open access use

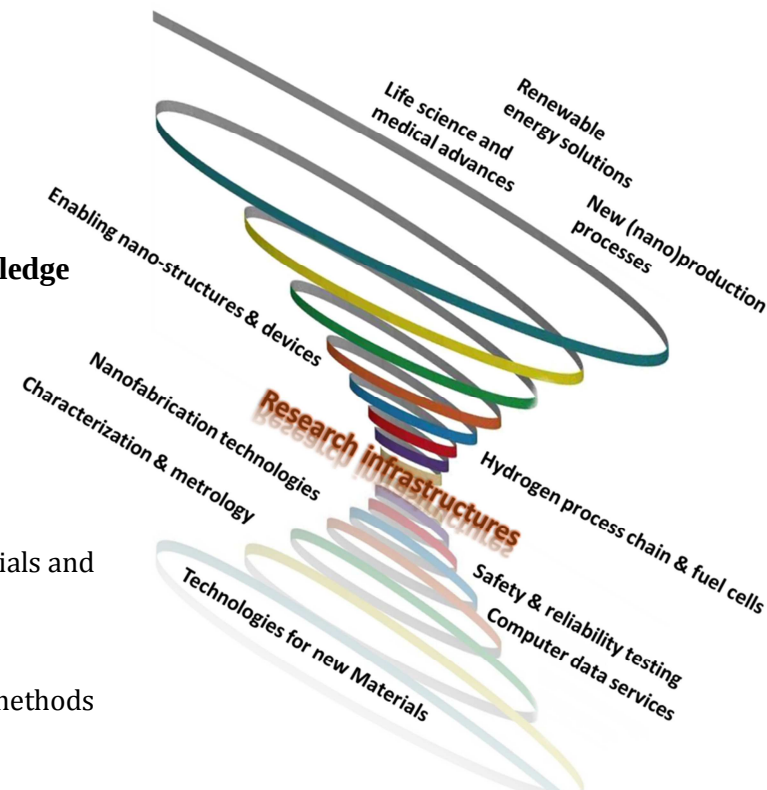
Abstracts for oral and poster presentations should be submitted by 10th June 2013

Aims and Scope of Symposium

Research infrastructures (RIs) are destined to be hubs of activity for pursuing R&D at the frontier of scientific knowledge and innovation. This symposium will provide a platform for the presentation of excellent results obtained at infrastructures offering nano and micro fabrication, nanometrology and characterization, nanosafety testing, and hydrogen and fuel cell technologies.

The aims hereby are to:

- demonstrate the innovation relevance of cutting edge nano and micro technologies
- present the latest advances obtained by international cooperation
- highlight progress towards 'safer by design' nanomaterials
- stimulate problem solving discussions to address technological bottlenecks
- open opportunities for cooperation between existing and new RIs



The sessions of the symposium will be based on the following themes

Nanofabrication: open access to nano structuring and fabrication technologies and expertise is showing particular relevance for innovation in the areas of health, optics and photonics and futuristic ICT applications. Such advances are facilitated by international cooperation leading to the development of new processes and the creation of functional structures and devices using e.g. nano or micro structuring, thin film, or replication technologies and the associated characterization technologies.

Nanomaterials: Assessing the safety and biological and environmental impact as part of the design phase of nanomaterials, which due to their small size and large surface area, can interact with living systems and the environment in completely different ways than their molecular or bulk counterparts, is vital to ensuring regulatory and consumer acceptance of new materials, products and processes.

Hydrogen und Fuel Cell Technologies: significant progress in hydrogen and fuel cell technologies is dependent upon the availability of technical research facilities. To overcome scientific and technical bottlenecks, a close interdisciplinary cooperation is needed to support the development and research at all levels in the hydrogen and fuel cell subject. Nano- and micro technologies may also have an impact on hydrogen and fuel cell development through new technologies and/or ideas.

Computer data services such as knowledge management systems under development across each of the three research areas listed above which may greatly assist the choice of material, process and process parameters, as well as facilitating data mining and meta-analysis.

Regional, National and European Research Infrastructures for advanced materials and nanotechnology. In addition to the scientific presentations, research infrastructures are invited to present details of their services and the specific ways in which they serve users. Opportunities for cooperation between infrastructures will be discussed.

CHAIRPERSONS:

Susan Anson Helmholtz Programme NANOMICRO Karlsruhe Institute of Technology Hermann-von-Helmholtz Platz 1, 76344, Eggenstein-Leopoldshafen, Germany Phone: +49 (0) 721 608 2 8103 E-mail susan.anson@kit.edu	Iseult Lynch University of Birmingham School of Geography Earth & Environmental Sciences (GEES) Edgbaston Birmingham B15 2TT Phone 0044 (0)121 414 5531 E-mail : i.lynch@bham.ac.uk	Olaf Jedicke Institute for Nuclear- and Energy technique; Hydrogen Safety Group Karlsruhe Institute of Technology; Hermann-von-Helmholtz-Platz 1; 76344 Eggenstein-Leopoldshafen; Germany Phone +49 (0) 721 6082 5274 E-mail olaf.jedicke@kit.edu	Witold Łojkowski Institute of High Pressure Physics, PAS Sokołowska 29/37, 01-142 Warsaw, Poland Phone: +48 22 8880006 Fax number: +48 22 6324218 E-mail : wl@unipress.waw.pl
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