

FGM 2012  
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BEIJING 2012  
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**THE 12<sup>TH</sup> INTERNATIONAL SYMPOSIUM ON MULTISCALE,  
MULTIFUNCTIONAL & FUNCTIONALLY GRADED MATERIALS**

**October 22-26, 2012**

**Beijing International Conference Center, Beijing, China**

Endorsed by:



恒利機能材料研究会  
Functionally Graded Material FOHIM of JAPAN

International Association on  
Layered and Graded Materials  
(LGM-AS)

Hosted by: University of Science and Technology Beijing, China

Tsinghua University, Wuhan University of Technology

[www.FGM2012.org](http://www.FGM2012.org)

**SCOPE and HISTORY**

The objective of the 12<sup>th</sup> international symposium on multiscale, multifunctional & functionally graded materials (FGM 2012) intends to provide opportunities for exchanging ideas and discussing state-of-the-art theories, techniques and applications in the fields of multiscale, multifunctional and functionally graded materials (FGM), through invited lectures, oral and poster presentations.

The series continues with previous international symposia on FGM held in Sendai, Japan (1990), San Francisco, USA (1992), Lausanne, Switzerland (1994), Tsukuba, Japan (1996), Dresden, Germany (1998), Estes Park, USA (2000), Beijing, China (2002), Leuven, Belgium (2004), Hawaii, USA (2006), Sendai, Japan (2008) and Guimaraes, Portugal (2010).

**TOPICS**

**Manufacturing:**

*\* Nano-FGMs; \* Functional Components; \* Deposition and Casting; \* Processing of Layers; \* Reactive Bulk and Melt Processing of FGMs; \* Infiltration Processing; \* Thin film; \* Novel fabrication technology;*

**Modeling, Design and Characterization**

*\* Optimal Design of Material Composition Distribution; \* Material-Property Estimation Techniques; \* Functionally Graded Composite Structures; \* Mathematical Modeling and Topology Optimization; \* Multiscale Multiphysics Modeling; \* Nano, Micro and Meso-Scale Modeling; \* Stress in FGM Coatings and Joints; \* Properties Measurement Methods and Characterizations; \* Biomedical Applications; \* Bio-Compatible Materials;*

**Energy systems and extreme environment applications**

*\* Energy Conversion Materials; \* Piezoelectric Systems; \* fusion system applications; \* Thermal Barrier Coatings; \* Tribological Coatings; \* Graded Abrasive Tools;*

**LANGUAGE**

The official language of the conference will be English.

**PUBLICATION**

Submitted papers will be peer reviewed to a high standard. Accepted papers will be published in a proceedings or selected Journal.



## ABSTRACT SUBMISSION

Abstracts should be submitted via **the Online Submission Form** by **15 April 2012**. Submission by graduate students describing their work is encouraged.

## KEY DATES

**Deadline for abstract** **April 15, 2012**

**Notification of acceptance** **May 15, 2012**

**Deadline for 4-page manuscript** **September 15, 2012**

**Deadline for pre-registration** **August 30, 2012**

## VENUE

The conference will be held in the Beijing International Conference Center, conveniently located near the Olympic Park and well accessible by car and public transport. It provides all necessary state-of-the-art facilities for a successful conference. From the council chamber you can find that the bird's nest is right in front of you.



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**More informations please browse webpage: [www.FGM2012.org](http://www.FGM2012.org)**