

**The World Academy of Materials
and Manufacturing Engineering
and the Materials Science Committee
of the Polish Academy of Sciences**

would like to invite to the 18th International
Scientific Conference on Achievements
in Mechanical and Materials Engineering



A M M E ' 1 0

which will be organised in Zakopane
at the beautiful Polish Tatra mountains,
13th-16th June 2010

GLIWICE • ZAKOPANE • WIELICZKA

**The Opening Ceremony
of the Conference is foreseen
in the underground rooms
of the historic Salt Mine
dated from 11th century
in Wieliczka near Cracow**



**Conference Venue
Mercure Kasprowy Hotel
Zakopane, Poland**

ADDRESS OF THE CONFERENCE:

AMME'2010 Conference Secretariat
Institute of Engineering Materials and Biomaterials,
Silesian University of Technology
ul. Konarskiego 18 a (room 366)
44-100 Gliwice, Poland

On-line registration and detailed information

Home page: <http://www.amme.pl>
E-mail: amme.info@polsl.pl

DEADLINES

**Abstract and Paper Early Bird Submission
– 31st January 2010**

PUBLICATION

AMME'2010 conference delegates are invited to prepare abstracts which will be published in the Conference Programme and Proceedings and full papers which will be published after peer reviews worked by experts invited by the Conference Organisers and after the choice made by the Organisers in:

- Worldwide Journal of Achievements in Materials and Manufacturing Engineering by the International OCSCO World Press, Gliwice – Campinas – Portland – Madrid – Daejeon – Brisbane – Cairo
- Archives of Materials Science and Engineering by the International OCSCO World Press, Gliwice – Sao Paulo – Athens – Osaka – Doha – West Lafayette – Auckland – Szczecin – Singapore
- Archives of Computational Materials Science and Surface Engineering by the International OCSCO World Press, Gliwice – West Lafayette – Daejeon – Riga – Campinas – Singapore – Rijeka



**REGIONAL
PROGRAMME**
NATIONAL COHESION STRATEGY



**EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND**



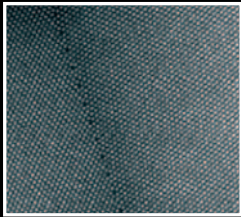
The project is co-funded by European Union from financial resources of European Regional Development Fund

Institute of Engineering Materials and Biomaterials SILESIAN UNIVERSITY OF TECHNOLOGY



Modernisation and equipping of the research and forming laboratories of engineering materials in Gliwice

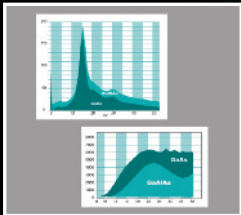
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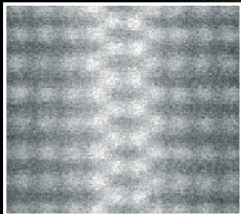
Background image

High resolution STEM image from a grain boundary in gold at the atomic level

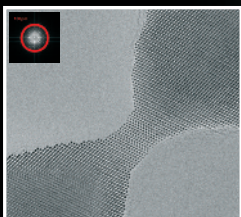
Courtesy of: C. Kisielowski, NCEM, UC Berkley



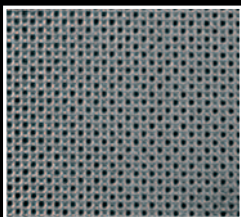
EELS spectrum of GaAs and GaAlAs



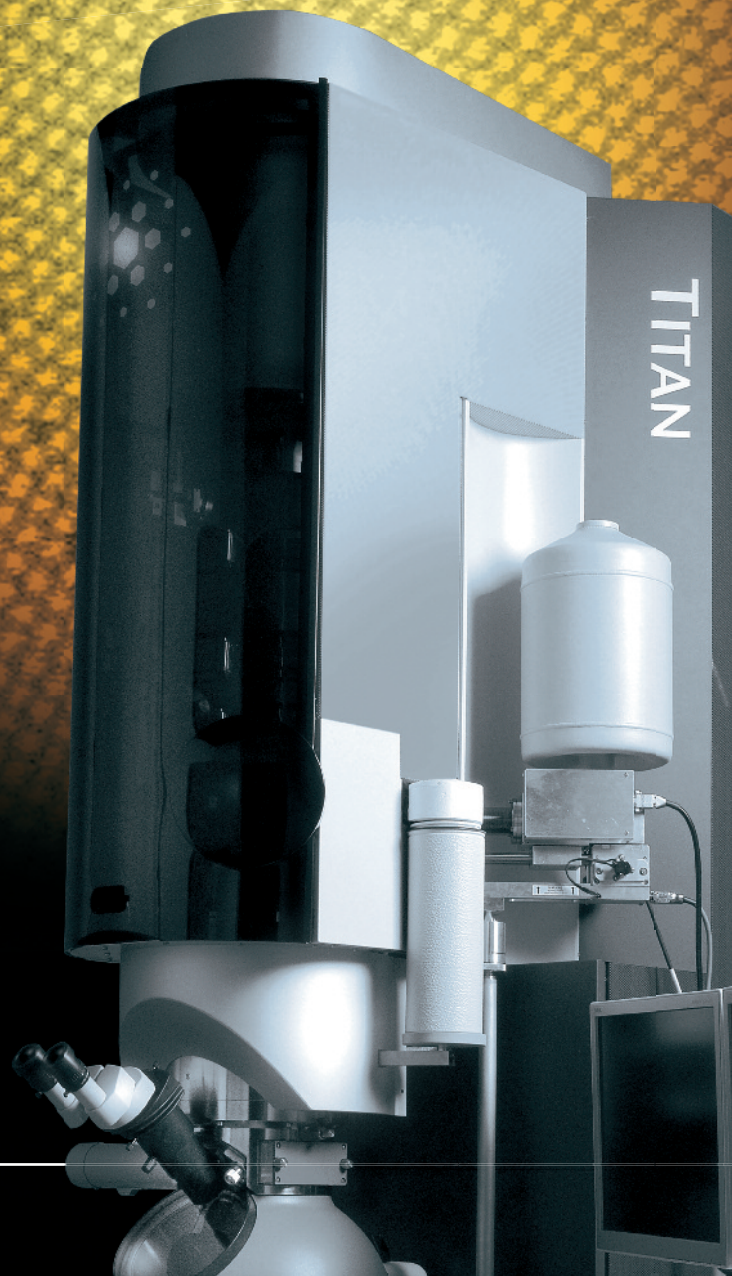
High resolution STEM image of WB precipitates in TiB_2



High resolution TEM image of a gold nanobridge at the atomic level



High resolution image from an atomic structure of LaB_6



TITAN

Materials:

Metallic Alloys, Tool Materials, Superplastic Materials, Ceramics and Glasses, Composites, Amorphous Materials, Nanomaterials, Biomaterials, Multifunctional and Smart Materials, Engineering Polymers

Properties:

Ductility and Crack Resistance, Fatigue, Creep-resistance, Fracture Mechanics, Mechanical, Electrical, and Magnetic Properties, Corrosion and Erosion, Wear Resistance, Non-Destructive Testing, Reliability Assessment, Toxicity, Working Properties of Materials and Products

Methodology of Research:

Electron Microscopy, X-ray Phase Analysis, Metallography and Quantitative Metallography, Image Analysis, Computer Assistance in the Engineering Tasks and Scientific Research

Analysis and Modelling:

Numerical Techniques, Statistic Methods, Residual Life Analysis, Process Systems Design, Mould Flow Analysis, Rapid Prototyping, CAD/CAM, CAMS, CAQ, Engineering Design, Constructional Design, Technological Design, Materials Design, Applied Mechanics, Computational Material Science and Mechanics, Materials and Engineering Databases, Expert Systems, Artificial Intelligence Methods

Manufacturing and Processing:

Casting, Powder Metallurgy, Welding, Sintering, Heat Treatment, Thermo-Chemical Treatment, Thin & Thick Coatings, Surface Treatment, Machining, Plastic Forming, Quality Assessment, Automation Engineering Processes, Robotics and Mechatronics, Technological Devices and Equipment

Cleaner Production and Biotechnology:

Theoretical Fundamentals of Cleaner Production, Industrial Application of Cleaner Production, Biotechnology

Industrial Management and Organisation:

Production and Operations Management, Production Planning and Control, Manufacturing Technology Management, Quality Management, Environmental Management, Safety and Health Management, Project Management, Physical Distribution and Logistics Management, Supply Chain Management, Productivity and Performance Management

Education and Research Trends:

Development of New Curricula for BSc and MSc Studies in the field of Materials Science, Manufacturing and Mechanical Engineering, Challenges of the Widening Labour Market, Complementary Roles of Developed and Developing Nations in Promoting a Global Industrial and Economical Infrastructure and Requirements on Common International Research and Teaching Development in the field of Materials, Manufacturing and Mechanical Engineering, Computer Aided Teaching, E-learning

Only papers positively pre-reviewed by at least two reviewers are published in the Journal

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