

# Preface

The 9<sup>th</sup> International Conference “Local Mechanical Properties - LMP 2012“ was held in Levoča, Slovak Republic from November 7 till November 9, 2012. The 2012 year was organised by Dr. Pavol Zubko and his team from the Department of Materials Science, Faculty of Metallurgy, Technical University of Košice, Slovakia.

The 2012 conference was attended by 96 participants who presented 27 oral presentations (2 invited lectures), 6 commercial presentations and 46 posters from both academia and industry covering several countries (the Czech Republic, Slovakia, Poland, Switzerland, Germany, Japan, Serbia).

The “Local Mechanical Properties” conference continued the series of successful meetings (*Lokálne mechanické vlastnosti - LMV*) held in Košice (2004, 2005), Plzeň – Nečtiny (2006), Brno – Šlapanice (2007), Herľany (2008), Telč (2009), Smolenice (2010), and Olomouc (2011). Since Smolenice in 2010 the conference reached an international level with all presentations in English and the conference is called “Local Mechanical Properties – LMP”.

The conference venue is situated alternatively in Slovakia or in the Czech Republic.

The conference proceedings were published at first by conference organizers, later (2007 – 2011) in the journal *Chemické listy*, the LMP 2012 is now published by Trans Tech Publication in the Key Engineering Materials periodical for the first time.

The poster competition was also successfully incorporated in the conference program since last three years with the aim to support the most applicable poster and the best poster from the scientific point of view.

The conference discusses recent results of research and development in the field of materials engineering, experimental methods, modeling, etc., with the aim to characterize mechanical properties of materials from nano to micro/meso-scale. Contributions on indentation and other methods for hardness and other mechanical properties assessment, measurement of deformations and stresses, time-dependent mechanical properties with related microstructure analyses (TEM/SEM, AFM, TERS, etc.) regardless of material type (metals, ceramics, plastics, biomaterials, concrete, etc.) are welcome. However, the contributions related to global mechanical properties are out of the scope of the conference.

The LMP 2012 conference organizers would like to thank all the speakers, session chairpersons, invited speakers and participants for making this conference successful. The support of the conference sponsors is also greatly appreciated.

## EDITORS

Prof. Ladislav Pešek (TU Košice)

Dr. Pavol Zubko (TU Košice)



**Organized by:**  
Faculty of Metallurgy  
Technical University of Košice  
Slovak Republic



**In association with**  
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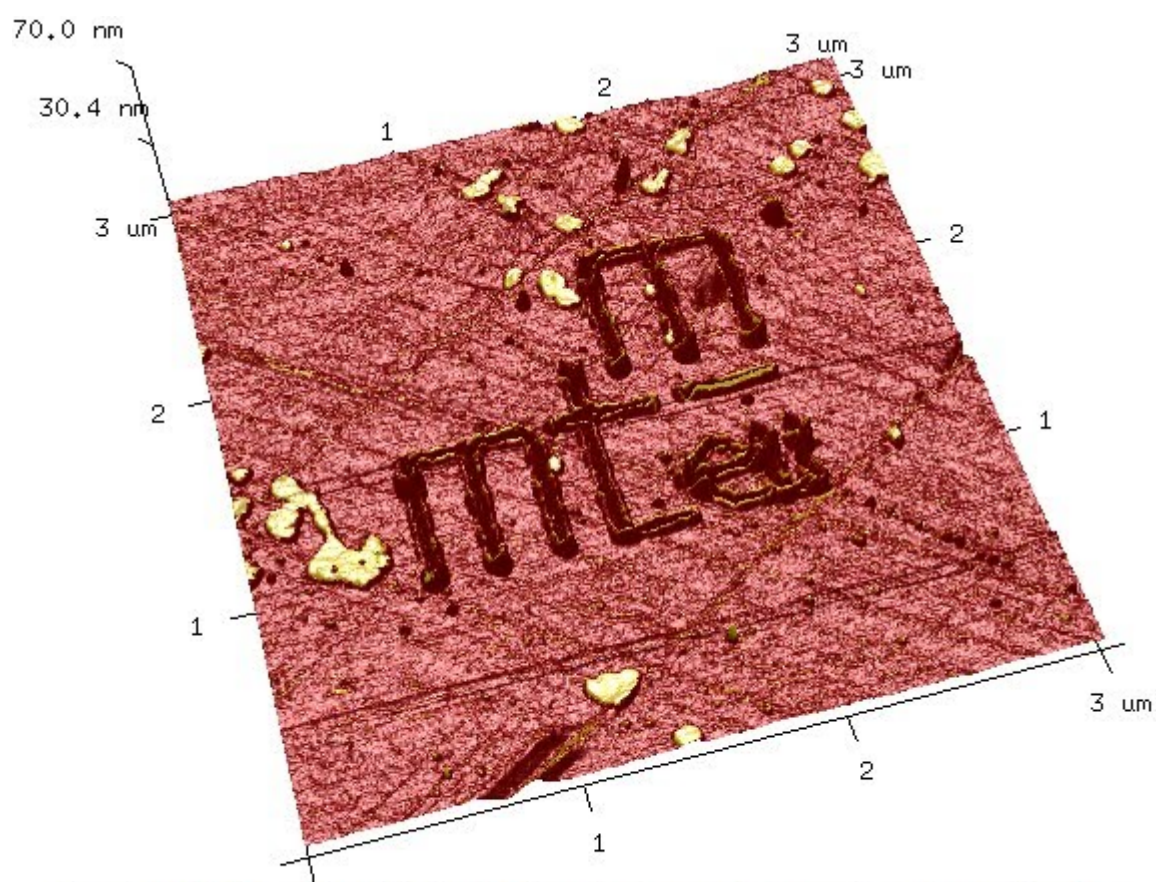
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