



## **MSc. Beáta Ballóková**

Research Assistant

### ***contact***

Institute of Materials Research, SAS  
Watsonova 47, 040 01 Kosice, SLOVAKIA

**tel:** + 421 55 792 2411

**fax:** + 421 55 792 2408

**email:** [bbalokova@imr.saske.sk](mailto:bbalokova@imr.saske.sk)

### ***CURRICULUM, EDUCATION***

- 2001 - - Research Assistant at the IMR SAS in Košice, Department of Nanostructured Materials  
- Managing Editor Journal of Powder Metallurgy Progress
- 2001 - 2007 Postgraduate student at the Institute of Materials Research
- 1995 - 2001 Research Assistant at the IMR SAS in Košice, Department of Structural Ceramics
- 1990 - 1995 maternity leave
- 1989 - 1990 Research Assistant at the IMR SAS in Košice, Powder Metallurgy Department
- 1985-1989 Technical University Košice, Faculty of Metallurgy, specialization: Department of Non-ferrous Materials
- 1981- 1985 Graduated from secondary school of Chemistry

### ***LINGUISTIC SKILLS***

English - intermediate, Russia - advanced

### ***SCIENTIFIC ACTIVITIES***

- Microstructure and fracture properties of composite structural ceramics and intermetallic compound.
- Microstructure characterization of  $\text{Si}_3\text{N}_4$ ,  $\text{Al}_2\text{O}_3$  and  $\text{SiC}$  composite ceramics and materials in the base of  $\text{MoSi}_2$  (scanning and transmission microscopies, optical microscopy)
- Mechanical testing of ceramics at room and high temperatures, effect of mechanical testing on microstructure; resistance to fracture; fracture toughness; reinforcing mechanisms in polycrystalline ceramics; fatigue behaviour; indentation techniques.

### ***TEACHING ACTIVITIES***

-

### **PROJECTS (COORDINATOR, PARTICIPANT)**

- No.2/5142/25 the Slovak Grant Agency of the Ministry of Education of the Slovak Republic and the Slovak Academy of Sciences (2005-2007)
- APVV-20-027205 Nanostructure development in metal materials by bulk severe plastic deformation with relation on physical and mechanical properties (2006-2008)

### **STAYS ABROAD**

- Dept. of Materials, Queen Mary and Westfield College, London, UK, 1.3. - 29.3. 1998
- Institute for Physical Chemistry of Ceramics, Russian Academy of Sciences, Moscow, Russia, 12.6.-30.6.1999
- Institute of Mathematics of the ASCR, Prague, Czech Republic, 5.2004
- Nuclear Physics Institute of the ASCR, Řež near Prague, Czech Republic, 16.10.2005 - 24.10.2005

### **MEMBERSHIPS, AWARDS**

- 

**NUMBER OF PUBLICATIONS: 39**

**NUMBER OF CITATIONS: 5**

### **SELECTED PUBLICATIONS**

- HVIŽDOŠ, P. - BESTERCI, M. - BALLÓKOVÁ, B. - SCHOLL, R. - BÖHM, A.: Creep Behaviour of MoSi<sub>2</sub>-SiC and MoSi<sub>2</sub>-HfO<sub>2</sub>, Materials Letters, vol. 51, 2001, s.485-489
- BALLÓKOVÁ, B.- HVIŽDOŠ, P.- BESTERCI, M.- IVAN, J.- ZUMDICK, M.- BÖHM, A. - WEISSGÄRBER, T. - KIEBACK, B.F.:  
Microstructure and Mechanical Properties of ZrO<sub>2</sub>-Reinforced MoSi<sub>2</sub> Matrix Composites International Journal of Materials and Product Technology, 22, 2005, 4, s.322-327
- BESTERCI, M. - BALLÓKOVÁ, B. - HVIŽDOŠ, P. - SCHOLL, R. - BÖHM, A.: Creep Behaviour of MoSi<sub>2</sub>-HfO<sub>2</sub> Composites, Journal of Materials Science, 40, 2005, s.3869-3871
- BALLÓKOVÁ, B.- BESTERCI, M.- ZUMDICK, M.:  
Creep testing of MoSi<sub>2</sub> - Bases Nanocomposites, In: 1st Afro-Asian Conference on Advanced Materials Science and Technology, AMSAT 06. Cairo, 13.-16.11.2006. B.V. 2006, s.377-381
- BESTERCI, M. - SPITAS, V. - MICHELIS, P. - SPITAS, C. - SÜLLEIOVÁ, K. - BALLÓKOVÁ, B. - KVAČKAJ, T. :  
Creep of Al and Al-Al<sub>4</sub>C<sub>3</sub> Materials  
In: PM 2006. 2006 Powder Metallurgy World Congress. Extended Abstracts. Part 2. Busan, 24.-28.9.2006. Ed. Y.E.Kwang, K.Yong-Seog. Korean Powder Metallurgy Institute 2006, s.1050-1051
- BALLÓKOVÁ, B.- HVIŽDOŠ, P.- BESTERCI, M.- ZUMDICK, M.- BÖHM, A.:  
Creep testing of MoSi<sub>2</sub> - Bases Composites, High Temperature Materials and Processes, 25, 2006, 3, s.139-142