

Slovenská silikátová
vedecko-technická
spoločnosť



FunGlass- Centre for Functional and Surface Functionalized Glass

Friends of FunGlass

and

the Slovak Silicate Scientific-Technological Society

are organizing a scientific seminar

PROCESSING AND PROPERTIES OF ADVANCED CERAMICS AND GLASS

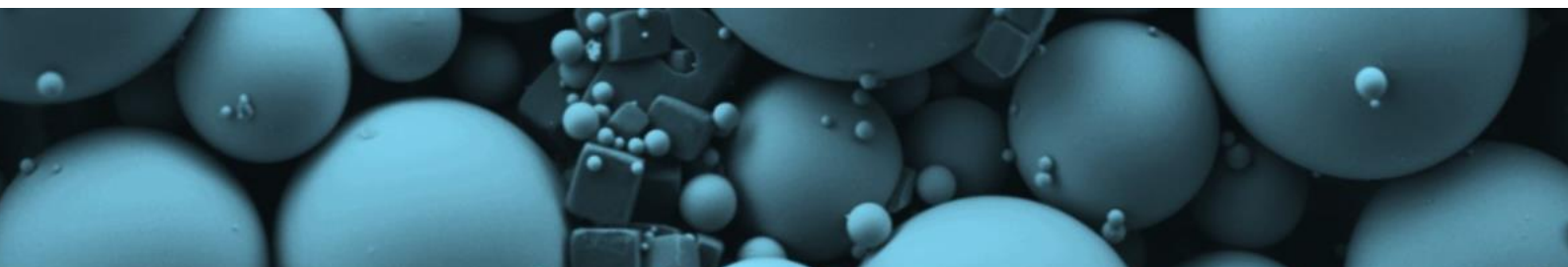
including

Joint annual meeting of the Silicate Scientific-Technological Society

Vršatské Podhradie, October 16 - 18, 2024

TOPICS:

- Development of advanced ceramics, ceramics composites and glasses
 - Functional ceramics and glasses
 - Porous ceramics and glasses
 - Ceramic & glass coatings
- Characterisation and testing of ceramic & glass materials
- Surface modification techniques of ceramics and glasses



PROGRAM

WEDNESDAY, October 16

11,00- 12,00	<i>Registration</i>	
12,00-13,00	<i>Lunch</i>	
Chairman: J. Ráhel'		Session: Processing I
13,00- 13,10	D. Galusek	Opening of the workshop
13,10- 13,30	P. Sokola	Stability of photosensitive zirconia suspensions as a substantive factor for rheology measurements
13,30- 13,50	J. Záchenská	Optimization Strategy for Debinding of Composite Ceramic Material Produced by 3D Printing
13,50- 14,10	M. Ghaffari	Al doped ZnO by sol-gel dip-coating method
14,10- 14,30	A. Foltin	Hydrothermal synthesis of ZnO nanoparticles and its characterisation
14,30- 14,50	<i>Coffee break</i>	
Chairman: J. Kraxner		Session: Processing II
14,50- 15,10	A. Gamal	Economic Enhancement of Pharmaceutical Glasses Through Combined Plasma and Ion-Exchange Treatments (P-IET)
15,10- 15,30	A. Ourgessa	Utilization of Alkali-activated Waste Glass for Developing Porous Glass Ceramics
15,30- 17,00	<i>Short Contributions & Open Discussion</i>	
	Z. Lenčes	Silicon/graphite anodes with atomic layer deposited ZnO nanolayer as an anodes for Li-ion batteries
	H. Hassani	How glass composition changes alkali ion diffusion in soda lime glass?
	B. Hruška	Physicochemical properties of barium crystal glass
	J. Ráhel'	Use of a Fluidized Glass Bead Bed for Rapid Charring of Wood Surfaces
	J. Velazquez	Nd ³⁺ ion doped oxyfluoride silicate glasses and glass-ceramics for NIR laser application
	M. Hičák	Si ₃ N ₄ dynamic oxidation
	M. Michálková	The influence of phosphor crystallinity on the optical properties of PiG
18,00	<i>Dinner</i>	
20,00- 21,00	Joint Annual Meeting of Slovak Silicate Scientific-Technological Society	

THURSDAY, October 17

Chairman: M. Janek		Session: Additive manufacturing
9,00-9,20	A. Novokhatska	Design and manufacturing of SOFC components by 3D printing technologies
9,20- 9,40	G. Thakur	Fabrication of Complex-shaped Translucent Glass Structures by Digital Light Processing
9,40- 10,00	M. Benköová	Development of ceramic filaments for FFF additive manufacturing: chalanges and failures
10,00- 10,20	P. Veteška	Innovative slicing strategies for additive manufacturing of bioceramic scaffolds
10,20- 10,40	<i>Coffee break</i>	
Chairman: D. Galusek		Session: High entropy ceramic
10,40- 11,00	M. Babaei	Advances in High Entropy Oxides: Unveiling Superior Thermophysical Properties for thermal barrier coatings application
11,00- 11,20	M. Rotter	Preparation of single-phase high entropy ceramic for further modification
11,20- 11,40	T. Havlíková	High entropy ceramics with garnet structure
11,40- 12,00	L. Ďáková	SiC whiskers as a secondary phase within the structure of HEC and its effect on tribological and oxidation properties
12,00- 13,00	<i>Lunch</i>	
Chairman: Z. Neščáková		Session: Bioceramic
13,00- 13,20	L. Mařáková	In vivo assessment on freeze-cast bioceramic scaffolds with a selective cell/tissue ingrowth
13,20- 13,40	R. Fialka	Hydroxyapatite-based microscaffolds - their properties and limits
13,40- 14,00	G. de la Torre Olvera	Surface treatment and sintering additives of silicon nitride for biomedical application
14,00- 14,20	K. Ravikumar	Hardness anisotropy of HfC and TaC ceramic grains
14,20- 16,00	<i>Short Contributions & Open Discussion</i>	
	Ľ. Bača	Application of AI in Development of Ceramics
	A. Nowicka	Cellular response to modified zirconia-based ceramics surfaces
	F. Kurtuldu	Zinc-phthalocyanine loaded mesoporous bioactive glass nanoparticles for biomedical applications
	M. Hnatko	Sustainable Solutions in Biomedical Substrate Design: Micro- and Nanotexturing on 3D Printed Titanium Alloys
	Z. Neščáková	Antimicrobial properties as an added value of Ag-ZnO thin films primarily designed for photocatalytic applications
	R. Sedlák	Development and characterisation of novel reactively sintered high-entropy diboride ceramic composites reinforced with SiC
	K. Drdlíková	Change in photoluminescence properties due to high entropy structure
	R. Klement	Strategy for preparation of high entropy ceramic materials with photoluminescence properties for photonic applications
15,00	<i>Social program</i>	
18,00	<i>Dinner</i>	

FRIDAY, October 18

Chairman: Z. Lenčěš		Session: Properties of ceramic
9,20- 9,40	V. Mařák	Effect of alumina or zirconia particles on the performance of lead-free BCZT piezoceramics
9,40- 10,00	A. Ali	Modification in BaTiO ₃ by substituting/ doping at their A and/or B site of perovskite structure
10,00- 10,20	H. Hosseini	NUV/Blue mechanoluminescence of Bi ³⁺ -doped germanate olivine compound
10,20-11,30	<i>Short Contributions & Open Discussion</i>	
	O. Hanzel	Effect of polytypes on thermal conductivity of silicon carbide
	M. Parchovianský	Preparation and investigation of hot corrosion, CMAS, and thermal shock behaviour of double-layer YSZ/LC+YSZ thermal barrier coatings
	D. Patil	Study of crystallization behaviour of Mg-doped Aluminosilicate glass-ceramics
	F. Lofaj	The effect of stoichiometry on mechanical and electrical properties of TiNbMoTa-Cx coatings
	M. Janek	Fluorescent sintering additives for hydroxyapatite derived from rare earth modified smectites
	A. Kovalčíková	Effect of sintering conditions on microstructure evolution of ultrahigh temperature monocarbides
11,30	<i>LUNCH</i>	



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