

Programme of X Jubilee International S&T Conference *Polish Ceramics 2018* and 2nd Polish-Slovak-Chinese Seminar on Ceramics^{*)}

Sunday, 9th September 2018		
^{*)} The programme contains the name of presenting author of the lecture/poster only		
17:00-21:00	Registration of Conference and Seminar participants	
19:00-21:00	Welcome party – B8 building ground floor	
Monday, 10th September 2018		
8:00-8:30	Registration of Conference and Seminar participants	
8:30-11:00	Polish-Slovak-Chinese Seminar B8 building, room 018 (chair: Zbigniew Pędzich)	
8:30-8:40	Official ceremony of opening of the Seminar	
8:40-9:05	1. Yueming Li - Study on the preparation and properties of ion doped γ -Ce ₂ S ₃ red pigments	
9:05-9:30	2. Janusz Partyka - The role of alkali metal oxides in crystalline glass materials at various of SiO ₂ /Al ₂ O ₃ molar ratios	
9:30-9:55	3. Weixia Dong - Effect of Li ₂ O-K ₂ O-Na ₂ O-CaO-MgO composite flux on low-temperature sintering of building ceramics	
9:55-10:20	4. Hesham El-Maghraby - Structural and morphological studies of a chemically-bonded calcium phosphate coatings formed onto Al surfaces	
10:20-10:45	5. Qifu Bao - Effect of B ₂ O ₃ on the properties of the medium/low temperature borosilicate separated opaque glaze system	
10:45-11:10	6. Malgorzata Sopicka-Lizer - Technological challenges for oxynitride phosphor materials in a large scale manufacturing	
11:10-11:30	Coffee break	
11:30-12:00	Conference <i>Polish Ceramic 2018</i> opening ceremony, B8 building, Assembly hall Jerzy Lis Co-Rector AGH – Opening lecture	
12:00-13:20	Plenary lectures Part I - B8 building, Assembly hall	
	1. Xiaoping Yu - The role of Jingdezhen in the ceramic culture heritage and scientific and technological innovation of China (<i>Jingdezhen Ceramic Institute</i>)	
	2. Bożena Kostuch - Ceramic decorations in Polish architecture after WWII (<i>Muzeum Narodowe Kraków</i>)	
13:20-14:30	Lunch	
14:30-16:00	Plenary lectures Part II - B8 building, Assembly hall	
	3. Pablo Solá - Ceramic innovation thru large format and full digital decoration (<i>Esmalglass-Itaca Group</i>)	
	4. Marek Grabowy – Research institute - "missing link" between an university and business ? (<i>CEREL, Boguchwała</i>)	
19:00-2.00	Conference Gala Dinner – Batory Restaurant, Bulwar Czerwieński Kraków	
Tuesday, 11th September 2018		

8:30-10:25	Polish-Slovak-Chinese Seminar B8 building, room 018 <i>(chair: Zoltán Lenčák)</i>	Conference Polish Ceramics 2018		
8:30-8:55	1. Hailei Zhao - High performance double perovskite anode materials for SOFC	Poster Session,		9.00-10.30
8:55-9:20	2. Konrad Świerczek - MIEC ceramic membranes for energy-related applications	B8 building, ground floor		
9:20-9:45	3. Feng Gao – Microstructure and properties of SrTiO ₃ -based thermoelectric ceramics	(detailed list of posters is given in the final part of this programme)		
9:45-10:10	4. Krzysztof Wojciechowski - Microstructural and thermoelectric properties of CoSb ₃ skutterudite prepared by shock-compression method			
10:10-10:25	5. Yifeng Wang - Crystal structure and band engineering for optimizing the thermoelectric performance of copper tin sulfide			
10:25-11:00	Coffee break			
11:00-13:00	Polish-Slovak-Chinese Seminar <i>(chair: Mirosław Bućko)</i>	Conference Polish Ceramics 2018 – session II B8 building, Assembly hall A <i>(chair: Zbigniew Pędzich)</i>	Conference Polish Ceramics 2018 – session III B8 building, Assembly hall B <i>(chair: Paweł Pichniarczyk)</i>	11.00-12.50
11:00-11:25	1. Lin Lu - Structural study and numerical simulation of gourd kiln in Ming Dynasty of China	1. G. Szandrowski , Tradition and modernity - industrial designing in „Ceramic Artistic” (key-note lecture)	1. K. Wiśniewska, W. Zelik - Research capabilities of the Zakłady Magnezytowe "ROPCZYCE" S.A. - the analysis of wear of refractory in thermal devices (sponsored lecture)	11.00-11.30
11:25-11:50	2. Paulina Wicińska - Polyhydroxy compounds as prospective and multifunctional additives in colloidal processing of ceramics	2. S. Paloschi , Tile Different, add value to your products: going from factory to ceramic smart production; <i>SITI B&T Group (sponsored lecture; 30 min.)</i>	2. M. Szafran , Effect of organic additives on the properties of advanced ceramics ad composites	11.30-11.50
11:50-12:15	3. Jie Kong - Precursor-derived SiBCN Ceramics doped with nitrogen/sulphur graphenes as highly efficient anodes for lithium ion batteries	3. A. Mengoli , Ceramic Production 4.0; <i>SACMI IMOLA (30 min.)</i>	3. K. Perkowski , Thermal properties of SiC/W composites	11.50-12.10
12:15-12:40	4. Zoltán Lenčák - Transparent MgAlON and polymer precursor derived silicon oxynitride-based phosphors	4. M. Ferrari, F. Vecchi , Tile Different, add value to your products: full digital adding value, texture, decoration and finishing; <i>Projecta Engineering and Ancora (sponsored lecture; 30 min.)</i>	4. M. Kukielski , Manufacturing and characteristics of ceramic-metal composites via infiltration of porous ceramic materials	12.10-12.30
12:40-13:05	5. Dionizy Czekaj - Study of piezoelectric materials by dielectric spectroscopy		5. P. Wiciński , The influence of interfaces on microstructure and properties of ceramic materials	12.30-12.50
13:00-14:30	Lunch			
14:30-16:55	Polish-Slovak-Chinese Seminar <i>(chair: František Lofaj)</i>	Conference Polish Ceramics 2018 – session IV <i>(chair: Mikołaj Szafran)</i>	Conference Polish Ceramics 2018 – session V <i>(chair: Jacek Szczerba)</i>	14.30-16.20
14:30-14:55	1. Chengyou Zhang - Damage mechanisms of 2D-C/SiC composites at high temperatures	1. P. Wyszomirski , Clayey raw materials used in the former faience manufactures in the Opole vicinity (key-note lecture)	1. P. Czaja , Pasek Europe – Refractory materials, practice, applications (sponsored lecture)	14.30-15.00
14:55-15:20	2. Jerzy Morgiel – Effect of addition of graphen-like particles (GLP) on microstructure, hardness and wear of Al ₂ O ₃ i Si ₃ N ₄	2. W. Nocuń – Wczelik , Microstructure and phase composition of old cement pastes	2. R. Prorok , Technological concept of modern unshaped refractory materials	15.00-15.20
15:20-16:05	3. Richard Sedlák - Effect of different processing technologies on development of boron carbide/graphene platelets ceramics	3. P. Nocuń , Production of ceramic pipes in XVIII-century manufactory in Zborowskie near Lubliniec (Upper Silesia)	3. M. Rokita , Biomimetic apatite layers on calcium silicate covered Ti ₆ Al ₄ V substrates	15.20-15.40
16:05-16:30	4. Yongsheng Liu - Growth of SiC nanowires in porous ceramic substrates and their functional performance	4. J. Czechowski , Ceramic coins - short about history and occurrence on the Polish territory	4. M. Potoczek , Ti ₂ AlC cellular ceramics	15.40-16.00
16:30-16:55	5. Ondrej Hanzel - Anisotropy of functional properties of SiC-graphene composites sintered by rapid hot-pressing	5. A. Kuśnierz , The impact of selected wastes on the course of the glass melting process	5. R. Żurowski , Smart ceramic-polymer structures with enhanced capacity of energy dissipation	16.00-16.20
19:00-	Dinner			

Wednesday, 12th September 2018

8:30-10:25	Polish-Slovak-Chinese Seminar B8 building, room 018 (chair: <i>Chengyou Zhang</i>)	Conference Polish Ceramics 2018 – session VI B8 building, Assembly hall A (chair: <i>Ferdynand Gacki</i>)	Conference Polish Ceramics 2018 – session VII B8 building, Assembly hall B (chair: <i>Małgorzata Sopicka – Lizer</i>)	8.30-10.30
8:30-8:55	1. <i>Ján Duszka</i> - Development and characteristics of High Entropy Transition Metal Carbides	1. <i>P. Falkowski</i> , Fast gelation in enhanced gelcasting process (key-note lecture)	1. <i>Z. Woźniak</i> , The big and the small projects. Industry-Science cooperation aspects in user assessment (key-note lecture)	8.30-9.00
8:55-9:20	2. <i>Zongyang Shen</i> – Glass-modified BST ceramics for high temperature energy storage applications	2. <i>A. Kędzierska – Sar</i> , Alumina-tungsten composites obtained by gelcasting method	2. <i>A. Adamczyk</i> , The influence of ZrO ₂ precursor type on the structure of the selected zirconia-silica gels	9.00-9.20
9:20-9:45	3. <i>Agnieszka Gubernat</i> - The influence of various content of carbon additive on thermal properties of non-oxide advanced ceramics	3. <i>E. Pietrzak</i> , Colloidal processing of ceramic nanopowders-additives selection and samples characterization	3. <i>A. Szysiak</i> , Preparation of transparent cobalt-doped yttrium aluminium garnet (Co:YAG) ceramics with the aid of freeze granulation	9.20-9.40
9:45-10:10	4. <i>František Lofaj</i> - The effect of hydrogen on structure and tribological properties of W-C/a-C:H coatings	4. <i>M. Gluszek</i> , Preparation, properties and applications of nanofluids	4. <i>K. Jach</i> , Transparent alumina ceramics obtained by U-FAST	9.40-10.00
10:10-10:25	5. <i>Tamás Csanádi</i> - Nanoscale elastic-plastic transition and slip activation anisotropy in ZrB ₂ -SiC and ZrB ₂ -B ₄ C composites	5. <i>P. Ožóg</i> , Shaping of AlN through UV-curable dispersions	5. <i>T. Brylewski</i> , Oxidation kinetics and electrical properties of a system composed of spinel and ferritic steel modified with gadolinium oxide nanoparticles	10.00-10.20
10:25-10:45	Coffee break			
10:45-13:15	Polish-Slovak-Chinese Seminar (chair: <i>Zongyang Shen</i>)	Young Polish Ceramics, session VIII - B8 building, Assembly hall A (chair: <i>Krzysztof Haberkó</i>)		11.00-13.15
10:45-11:10	1. <i>Maciej Sitarz</i> - Protective layers based on black glasses	1. <i>K. Tyrła</i> , Influence of the M-A-S-H gel phases on preparation of the Al ₂ O ₃ -based refractory ceramics		11.00-11.15
11:10-11:35	2. <i>Peter Švančárek</i> – Europium doped willemite based luminescent materials: the effect of lithium co-doping	2. <i>A. Bugaj</i> , Immobilization of chloride ions in mineral matrices containing hydrated calcium aluminates		11.15-11.30
11:35-12:00	3. <i>Alexandra Kovalčíková</i> - Wear and thermal shock resistance of ZrB ₂ based ceramic composites	3. <i>B. Adamczyk</i> , Green oxynitride phosphors for LEDs prepared by the two-step gas pressure synthesis method		11.30-11.45
12:00-12:25	4. <i>Pavol Hvizdoš</i> – B ₄ C-based ceramics prepared by SPS and flash sintering	4. <i>J. Michalek</i> , Influence of selected alkali on properties of porcelain C130 type		11.45-12.00
12:25-12:50	5. <i>Miroslaw Bučko</i> - Aluminium oxynitride composites reinforced with TiN or TiC inclusions	5. <i>K. Wojteczko</i> , Ytria stabilized tetragonal zirconia polycrystals doped with elongated zirconia particles		12.00-12.15
		6. <i>Sz. Świątek</i> , Optical properties of doped borate glasses		12.15-12.30
		7. <i>J. Pleśniak</i> , Synthesis of ZrO ₂ -Al ₂ O ₃ composite ionic conductors and their electrical properties		12.30-12.45
		8. <i>K. Korhaus</i> , Tialite (Al ₂ TiO ₅) – synthesis and sintering		12.45-13.00
		Conference Polish Ceramics 2018 - Closing ceremony		13.00-13.15
13:00-14:30	Lunch			
15:00-	Krakow sightseeing			
20:00-	Dinner			
Thursday, 13th September 2018				
	Roundtable discussion, Bilateral meetings, laboratory visits (optional)			



Ceramika Artystyczna
Spółdzielnia Rękodzieła Artystycznego
w Bolesławcu

SESJA POSTEROWA/ POSTER SESSION (Tuesday 11.09.2018; 9.00-10.30, B8 building, ground floor)

Sesja A

1. A-373 *Alicja Rapacz-Kmita* Antibacterial properties of the halloysite carriers of active substances
2. A-402 *Katarzyna Walczak* NASICON-structured cathode materials $\text{Na}_3\text{Fe}_{2-x}\text{M}_x(\text{PO}_4)_3$ for Na-ion batteries
3. A-408 *Anna Poddębniak* Development of a new series of high abrasion resistant tiles with the use of an innovative body coloring system
4. A-425 *Magdalena Gizowska* Application of Solution Combustion Synthesis for yttria powder fabrication
5. A-427 *Tomasz Pawlik* Influence of the synthesis / sintering method on the density and properties of powders / ceramics based on YAP
6. A-431 *Ewa Litwinek* The role of bismuth in low-melting boron frits
7. A-436 *Paweł Murzyn* Investigation of chosen building ceramic raw materials with the use of simultaneous thermal analysis coupled with mass spectrometry
8. A-436a *Paweł Murzyn* Research on the influence of the type, quantity and granulation of pore forming additives on the drying rate of ceramic masses with their share
9. A-440 *Danuta Chmielewska*
Roman Gebel Activity spectrum of Decorative Agent's Testing Department in the Institute of Ceramics and Building Materials
10. A-442 *Barbara Synowiec* Studies on the synthesis of white ceramic inorganic pigments used for the production of white under-glaze paints
11. A-444 *Katarzyna Redel* $\text{Li}[\text{Li}_{0.2}\text{Mn}_{0.6}\text{Ni}_{0.2}\text{O}_2]$ – cathode material for Li-ion batteries
12. A-449 *Gabriela Ważny* Optimization of solid state reaction procedure as a synthesis method of cubic $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ garnet-based solid electrolyte for all-solid-state lithium batteries
13. A-450 *Kacper Cichy* Capabilities of OSM materials from the group of $\text{Y}_{1-x}\text{R}_x\text{MnO}_{3+\delta}$ (R – Yb, Gd, Pr) to effective operation in the air atmosphere
14. A-457 *Anna Szczygielska* Gas sensing properties of $\text{TiO}_2\text{-SnO}_2$ nanocomposites
15. A-462 *Dawid Koziń* Influence of B/C ratio on B_4C synthesis using saccharides
16. A-467 *Tomasz Brylewski* Mechanochemical synthesis of entropy-stabilized oxide materials and their physicochemical properties
17. A-468 *Justyna Pleśniak* Chemical stability of glass-metal joints in SOFC operating conditions

Sesja B

18. B-382 *Wojciech Skubida* Structure and sinterability of composite electrodes for SPCFC fuel cells
19. B-383 *Anna Olszewska* Influence of preparation conditions of SOFC cathode layers on their microstructure and cathodic polarization
20. B-447 *Magdalena Gromada* Influence of forming parameters by injection moulding method on the quality of ceramic cores for GP7000 vanes engine
21. B-448 *Barbara Łagowska* Modification of chemical composition of mixed glass from $\text{P}_2\text{O}_5\text{-SiO}_2\text{-B}_2\text{O}_3\text{-K}_2\text{O-MgO-CaO}$ system
22. B-451 *Magdalena Szumera* The method of manufacturing of oxide multi-component glasses modified by Co_2O_3 addition
23. B-459 *Joanna Gnyla* Electrostatic stabilization of aqueous suspensions of submicron SiC powder
24. B-401 *Tomasz Polczyk* Application of $\text{La}_{2/3-x}\text{Li}_{3x}\text{TiO}_3$ perovskite as an electrolyte in quasi all-solid-state and Li-O₂ cell

Sesja C

25. C-379 *Magdalena Ziąbka* The antibacterial middle ear prosthesis – in vivo examination
26. C-403 *Elwira Kocyló* Zirconia foams manufactured by gelcasting method
27. C-419 *Marcin Cegła* Advanced ceramics in modern ballistic protection
28. C-460 *Agnieszka Wojteczko* Friction and wear of tetragonal zirconia based materials
29. C-460a *Agnieszka Wojteczko* Friction and wear of alumina/graphene composite

Sesja D

30. D-387 *Anna Niemczyk* Crystal structure, oxygen nonstoichiometry and electrochemical performance of $\text{La}_{2-x}(\text{Sr,Ba})_x\text{MO}_{4\pm\delta}$ (M: Cu, Ni) potential air electrode materials for SOFC/SOEC
31. D-392 *Camille Reynaert* Characteristic temperature determination of refractory raw materials and slag mixtures
32. D-397 *Maciej Ludwig* Chemical interaction between calcium zirconate and steel slags
33. D-409 *Maciej Pawlik* Development of a new series of a large-format tiles with the use of the rolling pressing process
34. D-412 *Bartosz Adamczyk* The use of waste materials for the production of electricity in SOFC batteries
35. D-417 *Ewelina Kłosek-Wawrzyn* Waste from dolomite washing as a raw material for building ceramics production
36. D-417a *Ewelina Kłosek-Wawrzyn* The influence of calcium carbonate addition to industrial clinker masses on the properties and microstructure of the fired materials
37. D-418 *Robert Kusiorowski* Application of silica refractory wastes to manufacture of ceramic building materials
38. D-426 *Mariusz Krauz* Metal Supported Solid Oxide Fuel Cells – third generation of SOFC
39. D-432 *Ryszard Kluczowski* Application of new materials for functional layers of anode supported solid oxide fuel cells
40. D-439 *Karolina Kminikowska* Influence of spherical willemite particles in the glass-crystalline matrix on the mechanical properties of porous alumina composites
41. D-467 *Tomasz Brylewski* Structure and electrical properties of $\text{MnCo}_2\text{O-LaNi}_{0.6}\text{Fe}_{0.4}\text{O}_3$ composites with regard to their potential function as protective-conducting coating materials used to modify the surface of metallic interconnects applied in SOFCs
42. D-468 *Justyna Pleśniak* Influence of gadolinium nanoparticle deposition method on oxidation resistance of ferritic steel
43. D-458 *Zuzanna Góral* Wood adhesive with reduced flammability - the impact of ceramic additives on the properties of the polyvinyl acetate
44. D-460 *Paweł Rutkowski* Laser treatment of Si_3N_4 – TiN composites
45. D-461 *Joanna Mastalska-Popławska* Studies on thermal properties of the ceramic intumescent coatings
46. D-462 *Maciej Sitarz* Hydrofobic - hydrophilic layers based on black glasses on steel substrates
47. D-463 *Magdalena Stan* Sintering and preparation of dense polycrystalline yttrium-aluminium garnet by solid-state reaction with addition of $\alpha\text{-Al}_2\text{O}_3$ as heterogeneous seeds
48. D-466 *Karolina Dudek* Hydrothermal synthesis and properties of ultralight xonotlite
49. D-464 *Kamil Wojciechowski* Reaction sintering of the perovskite yttrium-iron (YIP) with $\alpha\text{-Fe}_2\text{O}_3$ in order to obtain the yttrium-iron garnet (YIG)
50. D-464a *Kamil Wojciechowski* Impact of magnesium doping on sintering properties of lanthanum strontium iron oxide