Sunday – July 10, 2022

09:00 – 19:00	Registration of participants
19:00 – 21:30	Welcome reception

Monday – July 11, 2022

Room	S1	S2	S3A	S3B	S4A	S4B	S4C	S4D	S4E
08:30 – 08:50	Opening ceremony – **Zbigniew Pędzich, Suk-Joong Kang, Francis Cambier**								
08:50 – 09:30	**William Fahrenholtz** – Structure and Properties of Zeta-Phase Tantalum Carbide								
09:30 – 10:10	**Jae-Ho Jeon** – Texture Engineering of Lead-based and Lead-free Piezoelectric Ceramics								
10:10 – 10:40	Concert by the AGH University Representative Orchestra								
10:40 – 11:00	Coffee break								
11:00 – 13:00	**Marek Grabowy** Refining of alumina toughened zirconia composites properties by reactive sintering proces	**Adelina Ianculescu** Properties of bulk graded (Ba,Sr)TiO3 ceramics with various architectures obtained by spark plasma sintering	**Marie-Alix Pizzoccaro-Zilamy** Controlled Nanoconfinement of Polyimide Networks in Mesoporous γ-Alumina Membranes for the Molecular Separation of Organic Dyes	**Clive Randall** Cold Sintering of Functional Materials: A Path to a Possible Sustainable Future	**Claudia Ortmann** ATZ bioceramics for medical instruments a comparison from CNC to LCM production	**David Salamon** Trapping a large surface area into a small volume by SPS	**Jacques Poirier** Self-healing zirconia mullite refractory with secondary mullite precipitation inducing crack repair	**Raul Bermejo** Exploring new concepts to design damage tolerant ceramics using additive manufacturing	**Diletta Sciti** Extending carbon fibre ceramic composites from boride to carbide and oxide matrices
	Alejandro Montón Core shell powder strategy for Additive Manufacturing of ceramics: Applied to Powder Bed Selective Laser Processing of preceramic surface modified Silicon Carbide	**Jörg Töpfer** Transverse Multilayer Thermoelectric Generators with Thermoelectric	**Elisa Mercadelli** Design and fabrication of proton-conducting ceramic membranes for H2 separation	**Johanna Sänger** Nanometer structured yttria stabilized zirconia via two-photon-polymerization for powder processing	**Johannes Homa** 3D printing of different types of ceramics for modern medical engineering	**Paulina Wiecinska** Colloidal processing of ceramic-matrix-composites – between capabilities and limitations	**Dominika Madej** Characterization and mechanism of early hydration of high resistant refractory cement systems undoped and doped with foreign elements	**Jan-Felix Wendel** Combination of polymer derived ceramic and physical vapour deposition coating methods for new functional coatings	**Gerard Vignoles** Taming thermal gradients for an optimal chemical vapor infiltration with the help of modeling
	Anna De Marzi Hybrid additive manufacturing for the fabrication of freeform silica glass components	**Ivana Panžić** Nanostructured TiO2 photocatalysts modified with Cu for imidaclo-prid degradation	**Giamper Escobar Cano** Sol-gel process based molten-flux synthesis of plate-like La2NiO4+δ ceramic particles	**Amirhossein Pakseresht** Synthesis and characterization of La2Ce2O7 powder and mechanical properties of La2Ce2O7/YSZ composites	**Edgar B. Montufar** Compressive strength and effective elastic constants of bone tissue engineering scaffolds with regular and shifted primitive cubic base cell	**Ollie Osborn** Digital Light Processing of Carbides	**Andy Nieto** Resistance of Ultra-High Temperature Ceramic Borides to Calcia-Magnesia-Alumina-Silicate Attack Under Isothermal Conditions	**Marek Potoczek** Calcium phosphate coatings on gel-cast ZrO2 foams	**Julia Doll** High-resolution mass spectrometry-based classification of high-boiling binders used in refractory materials

	Dirk Penner Production of complex shaped MoSi2 heating elements using additive manufacturing methods and injection molding	**Shangxiong Huangfu** Novel physical properties in high-entropy oxides	**Cristina Vladut** Molten metal – zinc oxide composites for high temperature thermal energy storage	**Jarosław Kita** The Powder Aerosol Deposition Method – Possibilities and Actual Limitations	**Hamada Elsayed** Glass-ceramics from glass powders and reactive silicone binders: from sealants to additive manufacturing	**Nicolas Pradeille** Comparative study of Hot-pressing and Spark Plasma Sintering of cerium oxide doped aluminium nitride: influence of the process on ceramics electrical behaviour	**Jeremie Manaud** Investigation of ultra-high temperature transition metals carbo-nitrides	**Romain Trihan** A new SPR-based sensor using transparent ceramics coated with gold-silica nanoparticles and mesoporous topcoat	**Hakan Ünsal** Ablation behavior of rare--earth modified ZrB2–SiC composites prepared by reaction sintering of ZrSi2, B4C and C
	Serkan Nohut Fabrication of Porosity Graded Ceramics by Lithography-based Ceramic Manufacturing (LCM)		**Thomas Graule** Supplying safe drinking water to developing countries: Adsorption of viruses on porous ceramics structures and nanofibers	**Rana Al Tahan** Sintering behaviour of α-alumina containing low amounts of kaolinite and auxiliary molecules	**Susana Olhero** Multifunctional injectable inks for extrusion-based additive manufacturing techniques	**Rouslan Svintsitski** Mass customization, with additive manufacturing	**Luca Zoli** Thermal stability of polymer derived ultra-high temperature ceramic matrix composites	**Joanna Szymanska** Preparation and characterization of ZTA intended for structural ceramics	**Jakub Ramult** Analysis of the corrosion mechanism of spinel refractory materials with different stoichiometry in contact with steel slags
13:00 – 14:30	Lunch								
14:30 – 16:30	**Filip Antoncik** Production and recyclation of large REBCO sputtering targets	**Jan Schultheiß** Charged Ferroelectric Domain Walls for Deterministic AC Signal Control at the Nanoscale	**Alexander Michaelis** Advanced ceramics for green hydrogen production and environmental technology	**Dominique Hautcoeur** Pre-debinding processes of alumina parts printed by stereolithography	**Antonia Ressler** Bio-ispired scaffolds based on silicon-wollastonite and multi-substituted hydroxyapatite-chitosan hydrogel	**Jesús López Arenal** Fabrication of ZrB2–hardened Zr3Al2 intermetallic composites by high-energy ball-milling and reactive spark-plasma sintering	**Jan Dusza** Deformation and fracture of high - entropy ceramics during micro/nano mechanical testing	**Frantisek Lofaj** Mechanical properties and thermal stability of High Target Utilization Sputtered TiNbVTaZrHf based nitride and carbide coatings	**Jurij Koruza** Ferroelectric hardening by microstructural elements
	Michal Lojka Capibilities of large single-domain bulks REBCO prepared by TSMG	**Till Frömling** Dislocation-tuned properties of functional ceramics	**Christos Agrafiotis** Ca1-xSrxMnO3-δ perovskites for redox-operation-based thermochemical applications	**Astri Bjørnetun Haugen** Robocasting of piezoelectric ceramics	**Jan Hostaša** Advanced shaping approaches for the production of transparent ceramics and ceramic laser gain media	**Ana Borta-Boyon** Influence of sintering aids on the piezoelectric properties of KNN LS-BZ based ceramics.			
	Martin Schwentenwein Lithography-based Ceramic Manufacturing of Precise Multi-Material Components		**Moritz Kindelmann** Lowering the processing temperature while maintaining performance of barium cerium zirconates using the cold sintering process	**Oliver Diwald** Surface Reactivity and Processing Properties of Metal Oxide Nanoparticles for Ceramics		**Timothée Fabre** Flash sintering of Li3V2(PO4)3, a mixed cationic/electronic conductor as an electrode active material for Li-ion All-Solid-State Battery	**Nur Sena Yüzbasi** Fabrication and selection of high temperature energy storage ceramic materials and refractories for solar thermal systems: microstructure-performance relationship under corrosive atmosphere	**Monika Tatarková** Boron nitride nanosheets as a reinforcement for silicon nitride	**Ece Gunay** Investigating the Effect of Silicon on Microstructural Evolution during Crystallization in Long Persistence Strontium Aluminate Compounds
	Hamada Elsayed Large Scale Binder Jetting of Inorganic Component Using a Geopolymer	**Eva Deronzier** Preparation of solid electrolyte thick films for Li batteries by aerosol deposition method	**Paolo Fedeli** Scalable manufacturing of ceramic components for oxygen separation in industrial processes	**Sandrine Cottrino** Nanostructured rutile TiO2 ceramics fabricated by High Pressure Spark Plasma Sintering: effect of high pressure on physical densification phenomena		**Delphine Gourdonnaud** Printability by micro--extrusion of innovative alumina pastes, based on environmentally friendly	**Francesca Servadei** Self-protection capability of ultra-high temperature ceramic matrix composites manufactured by Water--based Powder Slurry Infiltration and Polymer Infiltration and Pyrolysis	**Eugeni Cañas** Atmospheric plasma sprayed bioactive glass coatings containing strontium and magnesium	**Lorenz Hagelüken** Multiscale 2D/3D microshaping of property-contrast polymer-derived SiCN

	Enrique Juste Shaping of ceramic by binder jetting	**Erkka Frankberg** Ductility - A new functionality to ceramics?	**Bogdan Dabrowski** Efficient oxygen separation from air using manganates RMnO3+d	**Ali Talimian** Structure and optical properties of Mn and Cr doped MgAl2O4 transparent ceramics with LiOH as sintering aid	**Helen Reveron** Effect of ceramic stereolithography processing on the mechanical behavior of ductile ceria-stabilized zirconia-based composites for biomedical applications	**Dylan Jennings** Scanning transmission electron microscopy studies of segregation behavior in iron doped strontium titanate	**Steven Smith** Thermal Properties of (Ti,Cr)B2 Ceramics	**Thomas Père** Elaboration of yttria-stabilized zirconia coatings at room temperature by Aerosol Deposition Method (ADM)	**Arun Ichangi** Electrospun Ferroelectric Fibers and Their Applications
	Alice Zanini Novel materials and fabrication routes for target components for radioactive ion beams	**Tashneem Ara Islam** Development of LTCC and SiCer Compatible Ag-based Metallization Pastes for High-Performance Sensors	**Pinar Kaya** Laser Sintering of Li6.6La3Zr1.6Ta0.4O12 Solid Electrolyte	**Paola Palmero** DLP-based stereolithography of composites in the alumina-zirconia system: processing, microstructural development and mechanical properties	**Verónica Müller** Nanostructured Si-based bioactive glass coatings by electrostatic spray deposition technique	**Andrew Gibson** Flash Sintering of Alpha-SiC	**Petra Jenus** Processing and characterization of binderless WC for high temperature applications	**Daniel Paulus** Influence of powder composition on the internal stresses and thermal annealing behavior of ceramic films formed by Powder Aerosol Co-Deposition	
16:30 – 17:00	Coffee break								
17:00 – 18:20	**Bibi Malmal Moshtaghioun** New hardness model for fine fibrous eutectic ceramics prepared by laser-heated floating zone (LFZ)	**Matjaž Spreitzer** Dielectric Properties of Upside-Down SrTiO3/Li2MoO4 Composites Fabricated at Room Temperature	**Aleksandra Kędzierska-Sar** Thin films of metal carbides as effective catalyst materials	**Petra Šimonová** Shrinkage-free sintering of tin oxide ceramics – Monitoring microstructure and elastic property changes by temperature-dependent impulse excitation	**Nathan Brard** Development of nanocomposite ceramics (MgO/Y2O3) for infrared window applications	**Jean-Marc Chaix** Fast processing of complex ceramic components by robocasting and microwave sintering	**Serhii Yaroshevskyi** Development of 3D-Printing Filament System for Manufacturing of Tailor-Made Refractory Products	**Dylan Chatelain** Modification of the nozzle geometry to improve HA deposition efficiency in cold gas spraying	**Moritz Braun** Band-gap engineering of ABO3 (A = Ba) perovskites by isovalent B-site substitution
	Alexandre Fantou Multiphysic and multiscale investigation of the setting process of hydraulic binders: the case of gypsum	**Taras Parashchuk** Synergistic effect of resonance scattering and lattice softening on thermoelectric performance of p-type PbTe	**Andrea Zambotti** Polymer-derived silicon-based aerogels as shape stabilizers for thermal energy storage	**Wolfgang Freudenberg** Novel approach to fabricate C/C-SiC by applying additive manufacturing based on the fused filament fabrication	**Zohreh Hamnabard** Preparation, phase separation and porosity analysis of an alkali resistant glass composition for biomedical applications	**Gareth M. Jones** Cold or Fast: Sintering of Al doped LLZO solid state electrolyte by cold-sintering and flash-sintering	**Anna-Marie Lauermannová** Multicomponent composites based on reactive magnesia: contribution of 1D and 2D carbon-based nanomaterials and their combinations	**Abdullah Jabr** Enhancing contact damage tolerance through microstructure tailoring and layered design	**Danica Piper** Polycrystalline and epitaxial thin films based on LaMnO3/(La,Sr)MnO3 and BaTiO3/(Ba,Sr)TiO3 prepared by chemical solution deposition techniques
	Nouhaila Khalile Microwave sintering of zirconia bulk and lattice samples shaped by DLP-based stereolithography	**Oleksandr Cherniushok** Origins of low lattice thermal conductivity in novel quaternary Cu2MHf3S8 (M – Mn, Fe, Co, Ni) thiospinels	**Elisabeth Djurado** Innovative architectural oxygen electrodes for solid oxide cells using electrostatic spray deposition	**Harshit Tripathi** Structural, Morphological and Optical Studies of Nd/Er-co-doped Y2O3 Ceramics	**Albina Murashko** Bioresorbable ceramics produced by stereolithographic 3D printing	**Ali Talimian** Densification behaviour and optical properties of nano-Y2O3 ceramics doped with bivalent transition metals	**Vasanthakumar Kombamuthu** Effect of SiC particulates/whiskers reinforcements on properties of spark plasma sintered high entropy borides (Ti-0.2Zr0.2Hf0.2Nb0.2Ta0.2)B2 synthesized using boro/carbothermal reduction	**Manuela González-Sánchez** Alumina ceramics prepared by reactive pressureless sintering dip-coated with PDMS-TEOS hybrid material	**Artur Kosonowski** The influence of contact resistance on electrical conductivity in PbTe/CoSb3 thermoelectric composite
	Manuel Fellipe Rodrigues Pais Alves Optimization of inks formulations for processing dense lithium disilicate glass-ceramics by Robocasting	**Peter Supancic** The Piezotronic Effect of Single Grain Boundaries in Zinc Oxide Varistors		**Dylan Jennings** Does flash sintering involve plastic flow?	**Karen Hans** Influence of laser engraving on alumina-zirconia composites	**Bilge Saruhan-Brings** Processing of Rh-doped perovskite protective filters for selective gas sensing	**Peter Tatarko** Effect of the electric field on the in-situ formation of graphene nanoplatelets during reactive sintering of B4C-TiB2 composites	**Josef Schlacher** Understanding fracture of layered alumina-based ceramics with textured microstructures: from macro- to micro-scale	**Rafał Knura** Analysis of lattice dynamics in Pb1-xSnxTe solid solutions by XAFS spectroscopy

Tuesday – July 12, 2022

Room	S1	S2	S3A	S3B	S4A	S4B	S4C	S4D	S4E
08:30 – 10:30	**Catherine Elissalde** Low temperature sintering strategies based on chemical reactivity and control of interfaces	**Manuel Hinterstein** Structure properties relationships in functional ceramics for energy conversion	**Liliana Mitoseriu** Peculiar and enhanced properties in BaTiO3 ceramics with structural instability induced by composition, density or grain size	**Jingzhe Pan** Digital twin of sintering using artificial neural network as constitutive law	**Dušan Galusek** Mesoporous nanoparticles doped with ions with potential therapeutic effect: synthesis and characterization	**Sylvain Fournier** Paste rheology, photopolymerization and mechanical behaviour of tough ceramics prepared by Stereolithography	**Ann-Katrin Fetzer** Transmission electron microscopy study of the local structure in Na1/2Bi-1/2TiO3-BaTiO3 ceramics	**Mathias Herrmann** Diamond-SiC composites with excellent wear resistance and thermal properties	**Samuel Bernard** Highly crystalline boron nitride powders by pyrolysis and mechanochemical synthesis of ammonia borane and alkali metal-containing precursors
	Andraž Kocjan Rapid Sintering of Ceramics: A Culprit or an Opportunity	**Yumeng Zheng** Effects of boron oxide addition on electrical properties of yttrium-doped bismuth--based zinc oxide varistors	**Teresa Rey Wojcik** Preparation and characterization of ytterbia stabilised zirconia for SOFC/EC	**Diego Gomez-Garcia** Are disclination dipoles responsible for high temperature superplasticity in ceramics?	**Katalin Balázsi** Ceramic biomaterials: from traditional technologies to novel applications	**Farid Salari** Development of printing resolution for binder jet 3D printing of cement--based inorganic materials: Implementing in-situ control of binder flow rate during printing	**Fangping Zhuo** Effect of temperature on permittivity and piezoelectric response in mechanically deformed BaTiO3 single crystals	**Anna Kozłowska** Multilayer ceramic as a novel functional material for lightning and sensing platform	**Benedicte Vertruyen** High temperature X-ray diffraction to study the formation of sodium titanates from spray-dried mixtures
	Anna-Katharina Hofer Rapid sintering of 3D-printed parts with exceptional high strength	**Oliver Diwald** Role and activity of Fe3+ and In3+ impurities on coarsening and functional properties in MgO nanoparticle derived ceramics	**Olivier Guillon** Scalable fabrication and microstructure optimization of garnet-based ceramic components	**Nicolas Lauro** Optical characterisation of shrinkage for modelling of drying 3D printed green body ceramics	**Premysl Vanek** Ferroelectric BaTiO3 coating of beta-titanium alloy – physicochemical properties and human mesenchymal stromal cells response	**Piotr Wiecinski** Improving the properties of ceramic materials by doping combined with colloidal processing	**David Menne** Tuning Functional Properties in Porous Electroceramics through 3D Printing of Capillary Suspensions	**Edgar B. Montufar** Microstructural features of plasma electrolytic oxidation ceramic coatings on titanium scaffolds	**Chandima Pradeep Ellawala Kankanamge** Stirring-hydrothermal Synthesis of Uniformity Improved Plate like Potassium-Sodium Niobate (KNN) Templates
	Pedro Rivero-Antúnez Sol-Gel and reactive-SPS: a route towards toughening of alumina with low dimensionality carbon nanophases	**Sophie Bresch** Thermoelectric multilayer generators: development from oxide powder to demonstrator	**Olivier Guillon** Composite cathode layers for solid-state lithium batteries: What should we pay attention to?	**Radu Stefan Stirbu** Mesoscale models for strain-stress distributions in anisotropic porous BaTiO3 ceramics	**Mariana R. F. Silva** Near colourless UV protective glass and coating	**Holger Friedrich** Efficient optimization of thermal processes in ceramic processing	**Marion Höfling** Mechanical dislocation imprint as tool to control the polarization in ferroelectric BaTiO3 single crystals	**Jallouli Necib** Developing zinc aluminate and zinc silicate ceramic films by a cost-efficient screen printing method assisted by a molten salt flux	**Kamil Domaradzki** Low-temperature synthesis of nanocrystalline high--entropy oxides and effect of heat treatment on structural changes
	Thomas Konegger Additive manufacturing of aluminum nitride ceramics with high thermal conductivity via lithography-based ceramic manufacturing	**Camila Ribeiro** Flash Sintering of Barium Strontium Titanate (BST) ceramics	**Juan Carlos Pérez Flores** Development of full ceramic electrodes for Li-Ion batteries fabricated by 3D printing	**Dylan Vallet** Development of a 3D model for prediction of curing dimensions, conversion rate, temperature and homogeneity of ceramic systems in stereolithography	**Soraia Coelho** Structure and microstructure of PDMS-borosilicate hybrid materials produced by sol-gel for biomedical applications	**Peter Veteška** Upcycling of waste glass in development of FFF ceramic material			
10:30 – 11:00	Coffee break								

11:00 – 13:00	**Karel Maca** Rapid pressure-less sintering of advanced oxide ceramics	**Anna Berezicka** Structur al studies of sulfurbearing silicate-phosphate glasses	**Oana Condurache** Insitu scanning transmission electron microscopy study of ferroelectric domain walls	**Tanja Lube** The Ball-on-Three-Ballstest: Improving accuracy while simplifying stress evaluation	**Anna Lea Kutsch** Lithograph y-based additive manufacturing of short fiber reinforced alumina	**Anatolii Belous** Functional materials based on the oxide magnetic nanosystems	**Chiara Molinari** Method for Viscosity Measurement of Silicate Melts by Hot Stage Microscopy	**Samuel Bernard** Mesoporous Si3N4(C,O) Encapsulated Co or Ni nanocatalysts: from design to application in catalyst-assisted reactions in alkaline media	**Manuella Cerbelaud** Study of heteroaggregation between silica particles modified by polyelectrolyte multilayers
	Felipe Mello Rigon Additive Manufacturing of Porous Ceramic Bodies by Extrusion of Capillary Suspensions	**Andreas Wohninsland** Quenching-induced changes in crystallographic structure and polarized volume of Na1/2Bi1/2TiO3--BaTiO3 piezoceramics	**Jon Bell** Room Temperature H2 Sensing of a Pt-BaTiO3--Pt System Prepared by Spark Plasma Sintering						**Marta Lubszczyk** Study of wet chemistry methods for fabricating potassium sodium niobate materials
	Anthony Ballestero Design and elaboration of Polymer-Derived Silicon Oxycarbide (SiOxCy) parts by Stereolithogtaphy (SLA)	**Andrzej Kruk** Optical properties of RE--doped potassium sodium niobate ceramics obtained using the sol-gel method	**Teodora Sandu** Investigation of the electrical properties of hafnium doped barium – titanate ceramics	**Simon Pirkelmann** Computational ceramics engineering utilizing microstructure-based simulation of material properties	**Lucie Pejchalová** In vivo assessment on calcium phosphate and titania scaffolds prepared via freeze-casting	**Andrea Nesterović** Investigaton of phase formation, structure and functional properties of bismuth sodium titanate based piezoceramics	**Ewelina Kłosek-Wawrzyn** Preparation and properties of new thermal-insulating building materials with high content of coffee grounds	**Oliver Preuß** Dislocation Toughening in Oxide Perovskites	**Kamil Wojteczko** Effect of Y2O3 additive on morphology and phase composition of zirconia solid solutions
	Marco Mariani Preparation of ready-to-print α-alumina granulated powders by spray-drying	**Anton Tuluk** Study of the effect of heterovalent doping on the piezoelectrical properties of BiFeO3	**Mélanie François** BaZr0.8Y0.2O3-δ as electrolyte material for Protonic Ceramic Fuel Cell: from its supercritical hydrothermal synthesis to its electrochemical properties	**Maxim Popov** Raman spectra of ceramic materials from first principles	**Agnieszka Szysiak** Preparation of transparent cerium-rare-earth-elements doped yttrium aluminum garnet (Ce,RE-E:YAG) ceramics with the aid of freeze granulation	**Brenda Carreño-Jiménez** Characterization of BaZrO3 doped-KNLNS ceramic	**Sonia Conte** Mobility of hazardous elements in ceramic bodies	**Victoria Vilchez** Quantifying local fracture toughness in nacre-like ceramics	**Katarina Mužina** Copper doped ceria nanocatalyst for VOCs oxidation
	Mohamed Abdelmoula Direct Powder Bed Selective Laser Sintering of Silicon Carbide	**Katja Wätzig** Characterization of the thermal and mechanical properties of C12A7-Mo composites as electron emitting ceramic	**Amir Maghsoudipour** Comparison of sintering behavior of barium-based solid oxide fuel cell cathode by conventional and microwave methods	**Radu Stefan Stirbu** Comparative analysis of BaTiO3 ceramics produced from cuboidal and spherical nanoparticles: the role of nanopowders assembly during the pressing step	**Dawid Kozień** Synthesis and surface modification of boron carbide (B4C) nanopowders as a boron deliver agent in Boron Neutron Capture Therapy	**Nikola Kanas** Boosting zT of CaMnO3--based ceramics by controlled micro-structuring	**Eugeni Cañas** Gibbsite-based ceramics for humidity control tiles	**Barbara Putz** Mechanical Properties of Al2O3/Y2O3 Nanolaminate Films on Aluminum towards Protective Coatings	**Václav Tyrpekl** Oxalate salts: From oxide powder synthesis to field assisted sintering studies
	Aatreya Manjulagiri Venkatesh Analysis of ceramic sintering at the particle length scale by in-situ and post-mortem synchrotron X-ray nano-tomography		**Elisa Zanchi** Microstructural, thermo--mechanical and corrosion properties of electrophoretically co-deposited Cu and Fe doped Mn–Co spinel coatings for solid oxide cell interconnects	**Andrea Cintio** High temperature dielectric properties of different SiCf/SiC samples at various infiltration levels	**Paul Danty** Elaboration of 3D bioceramic scaffolds mimicking human bone architecture	**Armin Feldhoff** Electrospun Ca3Co4 xO9+δ ceramics from nanofiber mats: Investigation of the microstructure and thermoelectric properties	**Florica Mățău** Insights into the firing technology of the Cucuteni pottery	**Alina Makudera** Interaction in cerium oxide (+3) and oxides of yttrium subgroup systems	
13:00 – 14:30	Lunch								

14:30 – 16:30	**Alberto Ortona** Fabrication of complex Silicon Carbide architectures by a novel hybrid additive manufacturing process	**Stanislav Kamba** Subsequent displacive and spin-induced ferroelectric phase transitions in multiferroic BiMn3Cr4O12 ceramics	**Lavinia Curecheriu** Exploring critical conditions (composition and grain size) as a new tool for enhancing electrocaloric properties of BaTiO3 -based ceramics	**Csaba Balázsi** Nanocarbon added Silicon Nitrides	**Gyu-Nam Kim** Fabrication of compositionally graded zirconia products with high translucency using digital light processing (DLP) technique	**Vojtěch Nečina** The role of fluoride additives in the densification of ceramics – How does it work?	**Renaud Batier** Ceramic Roadmap to 2050	**Laura Silvestroni** Boride hierarchical composites for ultrahigh temperature applications	**Fumihiro Wakai** Rigid body motion of multiple particles in solid-state sintering
	Dmitrii Komissarenko Additive manufacturing of high strength zirconia ceramics via digital light processing	**Anna Grünebohm** Multistep polarization switching on orthorhombic domain walls: a molecular dynamics study	**Vilko Mandić** Utilisation of ceramic thin-films for sensing humidity at room temperature		**Marian Janek** The effect of sintering temperature on material properties of 3D printed hydroxyapatite scaffolds	**Patrick Höhne** Optimized spray granules for dry pressing by means of slurry destabilization and ultrasonic atomization			**Zdeněk Chlup** Fracture behaviour in the vicinity of Curie temperature of BaTiO3 piezoceramic
	Aljaž Iveković Influence of paraffin wax addition on rheological properties and printability of ethylene vinyl acetate based feedstocks for fused filament fabrication of alumina	**Patrick Stargardt** Dielectric properties of plasma sprayed coatings for insulation application	**Sanjay Mathur** Advanced TNO-carbon ceramic material for fast-charging Li-ion batteries	**Maxime Balestrat** From design to application of porous TiC(N)/SiC(N) Nanocomposites derived from preceramic polymers	**Nathalie Douard** Investigation of the microwave sintering of carbonated hydroxyapatite	**Martin Trunec** Defect-free drying of large fine-particle ceramic bodies prepared by gelcasting method	**Jerzy Czechowski** The refractory industry in the EU - as it stands and in view of future expectations	**Pietro Galizia** Disclosing residual thermal stresses in fiber-reinforced ceramic composites	
	Paulina Zubrzycka Effects of Eu, Y, Mg doping on the sintering and microstructural development of MgAl2O4	**Yannick Lorgouilloux** Optimization of (Ba,Ca)(Zr,Ti)O3 lead-free piezoelectric ceramics properties by variation of the composition	**Fabian Delorme** Ultralow thermal conductivity of molybdenum oxides	**Carmen Muñoz-Ferreiro** Zirconia- Few-Layer Graphene multifunctional composites: a compromise between mechanical and electrical properties	**Erica Roitero** Towards a better compromise between mechanical properties, aging resistance and translucency of Zirconia for dental applications: comparison between sub-micronic and nanometric YSZ with various Yttria contents	**Julian Fanghanel** Using Organic Acids to Densify Ceramics		**Arno Görne** Sputtered tungsten trioxide for scalable hydrogen modules with separate hydrogen and oxygen evolution	**Bjoern Mieller** Numerical study of electric field distribution in breakdown strength testing of ceramics
	Natalia Kovalska Synthesis of K-b-Al2O3 solid electrolyte for battery applications	**Stefanie Taibl** Identification of Sr vacancies and Ti on Sr sites as the origin of ultra-low conductivity in doped SrTiO3 thin films	**Ryszard Kluczowski** LSC-GDC and LSCF Air electrodes with modified porosity designated for solid oxide cells	**Adrian Graboś** Oxidation resistance of Spark Plasma Sintered (SPS) Inconel 625-NbC Metal Matrix Composites (MMC)	**Qaisar Nawaz** Bioactive glass-based composite scaffolds incorporating gelatin/manganese doped mesoporous bioactive glass nanoparticles for bone tissue regeneration	**Mikolaj Szafran** Challenges in designing of advanced ceramics and composites obtained by colloidal processing	**Thomas Kronberg** Ceramic demolition waste in the circular economy	**Karina Trevino Rodríguez** Photovoltaic glass waste recycling in the development of susbtrates for photovoltaic applications	**Kirsten Schulze** Thermal shock characterization of refractories and ceramics using improved in-situ methods
	Vojtech Marak Microstructural evolution of barium titanate at applied non-conventional rapid sintering		**Andreas Nenning** Surface and defect chemistry of porous La-0.6Sr0.4FeO3 electrodes on polarized 3-electrode cells	**Lukas Wagner** Influence of matrix densification on the properties of weak matrix ox-ide fibre composites	**Michal Gorbar** Development of Yb2O3-based ceramics for indirect production of 177Lu used in targeted radionuclide therapies		**Zbigniew Woźniak** The waste glass as a base of the lining tiles. The results of the POIR project.	**Carmen Muñoz-Ferreiro** Dependence of the tribological behavior of graphene-based ceramic composites on the graphene structure	
16:30 – 17:00	Coffee break								

17:00 – 18:20	**Isacco Mazo** Role of Surface Carbon Nanolayer on the Activation of Flash Sintering in Pure Tungsten Carbide	**Ondrej Hanzel** Effect of sintering additives and sintering conditions on electrical and thermal properties of SiC-GNPs and SiC-GO composites	**Sophie Guillemet-Fritsch** Role of graphene on the electrical and thermal conductivies of doped aluminum nitride ceramics	**Matteo Mor** Tribological characterization of UHTCMCs for brake applications	**Ali Alzahrani** Sinter-Crystallization of Nepheline Glasses for Dental Application	**Jens Huber** Graded ceramic solid-state electrolytes as an example of FAST/SPS-based research and production	**Daniel Bremecker** Tailoring of electrical and electromechanical properties in Mg-doped 0.94Na-1/2Bi1/2TiO3-0.06BaTiO3	**Jean-Régis Martinent** Valorisation of local residues, by-products and wastes into ceramic materials for civil engineer application	**Soňa Hříbalová** Light scattering predictions for transparent ceramics with birefringent grains
	Maxime Cheype Chemical modification of silicon carbide precursors for Direct Ink Writing	**Pascal Marchet** Elaboration of lead-free piezoelectric thick films by Aerosol Deposition Method	**Katja Wätzig** Development of Co-Sintering Regimes for Phosphate Based Composite Cathodes in Solid-State Batteries	**Sebastian Sado** Explanation of MgO-C lined steel ladles lifetime differences with use of computational techniques	**Monika Furko** Bioactive ions doped carbonated hydroxyapatite-biopolymer composite coatings for orthopaedic implants	**Nicolas Somers** Fabrication of doped β-tricalcium phosphate bioceramics by robocasting for bone repair applications	**Lucas Lemos da Silva** Field-induced ferroelectric phase transformation in barium titanate	**Tamás Csanádi** Strengthening and plasticity in a (Hf-Ta-Zr-Nb)C high-entropy carbide	**Leontin Padurariu** Modeling of the dielectric properties in ferroelectric--based composites by a new dynamic finite element method
	Zonghao Guo Investigation of densification mechanisms in Ultrafast High-temperature Sintering (UHS)	**Piotr Winiarz** Optimizing ReBa-0.5Sr0.5CoCuO5+δ double perovskite oxides for application as oxygen electrodes for Solid Oxide Cells	**Leszek Ajdys** Electrophoretic deposition of the protective layers on the SOC stack components using powders with multimodal grain size distribution	**Robert Świerszcz** Influence of Si and Al metallic additives on the mechanical properties and microstructure of the qAl2O3-C refractory material	**Islam Bouakaz** The effect of TPMS design and pores size on biological and mechanical properties of Calcium Phosphate bone graft	**Kyriakos Didilis** Enhancing the geometrical capabilities and performance of functional ceramics fabricated with Freeform Injection Molding	**Emmanuel Iii Ricohermoso** High-temperature giant piezoresistivity of SiOC film for strain gauge application	**Chengying Bai** Fly ash-based porous geopolymer: A review	**Ivan Zorin** Mid-IR OCT imaging as a method for studying additive manufactured ceramics
			Athanasios Goulas Additive Manufacturing of Sodium Polyaluminate Solid-State Electrolytes		**Erika Iveth Cedillo-González** Sanitization of different porcelain stoneware tiles after bacterial contamination	**Anna Galotta** Mechanochemical synthesis and cold sintering of mussel shell-derived hydroxyapatite nano-powders for biomedical applications			**Katharina Marquardt** Grain morphology and microstructural evolution during high temperature and high-pressure deformation of a potential optical ceramic: comparison to simulated microstructures

Wednesday – July 13, 2022									
Room	S1	S2	S3A	S3B	S4A	S4B	S4C	S4D	S4E
08:30 – 10:15	L – ECerS and JECS Trust Awards Ceremony								
08:30 – 08:40	Short introduction: **Francis Cambier**, **Jon Binner**, **Zbigniew Pędzich**								
08:40 – 09:10	Stuijts award: **Jérôme Chevalier**: Zirconia for dental applications: what can we do with the 'ceramic steel'?								
09:10 – 09:40	Richard Brook award: **Bikramjit Basu**: Bioceramics for Healthcare: Where the future lies?								
9:40 – 10:10	JECS Trust Award: **Ralf Riedel**: From Pottery to Battery - Advanced Ceramic Energy Storage Materials								
10:10 – 10:15	JECS Best Paper Award announcement: Mingde Qin et al. "Dual-phase high-entropy ultra-high temperature ceramics" published in the Journal of the European Ceramic Society 40 (2020) 5037–5050								
10:15 – 10:30	Coffee break								
10:30 – 12:00	L – ECerS and JECS Trust Awards Ceremony								
10:30 – 11:00	Industrial Award: **Franco Stefani**								
11:00 – 11:30	Young Scientist Award: **Ondřej Jankovský**: Unique properties of layered inorganic materials								
11:30 – 11:45	2021 Students Speech Contest Winner: **Maximilian Staudacher**: The Ball-on-Three-Balls-Test: Comparison with the Ring-on-Ring-Test for Ceramics								
11:45 – 11:50	Announcement of the Electroceramics Young Researcher Award								
11:50 – 11:55	ECerS-ACerS Award: Short Kathleen Richardson								
11:55	Presentation of Lyon 2023								
12:00	Closure of the ceremony								
12:00 – 13:00	Poster session								
13:00 – 14:30	Lunch								

14:30 – 16:30	**Alberto Ortona** Fabrication of dense SiC ceramics by a novel hybrid additive manufacturing process	**Anis Aliouat** Ignition of densification mechanisms through applied electric/electromagnetic fields during spark plasma sintering - application to a pre-oxidized copper powder	**Temesgen Zate** Outstanding Unipolar Strain of Textured Pb(Mg1/3Nb2/3)O3–PbZrO3–PbTiO3 Piezoelectric Ceramics Manufactured by Particle Size Distribution Control of the Plate-like BaTiO3 Template	**Annamaria Naughton Duszova** Sintering of ZrB2 based uhtc composites by sps technique	**Mattia Biesuz** Novel Entropy-stabilized NiO-free Rock Salt Ceramic	**Andrea Zocca** Additive Manufacturing of advanced ceramics by layerwise slurry deposition and binder jetting (LSDprint)	**Muhammad Imran Asghar** Additive manufacturing of ceramic nanocomposite fuel cells	**Mattia Muracchioli** High Shear Wet Granulation of Geopolymer and Geopolymer-Zeolite powders for CO2 adsorption	**Michele Dondi** Porcelain versus porcelain stoneware: so close, so different. Sintering kinetics, phase evolution, and vitrification pathways
	Stefan Pfeiffer Customized ceramic granules for laser powder bed fusion of crack-reduced aluminum oxide components	**Christian Bechteler** Formation and influence of plasma in flash sintering of ceramics	**Maryam Azadeh** Effect of doping on the electrical and electrochemical characteristics of Potassium sodium niobate ceramics	**Johanna Schmidt** SiC/SiC ceramic fibre composites for turbine applications	**Venkata Raveendra Nallagatla** Perovskite thin films for high energy density capacitor devices from chemical solution deposition	**Paweł Falkowski** Additive manufacturing-assisted shaping of ceramics with complex shape	**Nur Sena Yüzbasi** Virus retention of porous and granular Al2O3 modified with MgAl2O4 for drinking water production	**Souhaila Nider** Creation of porous ceramics with hierarchical pores using capillary suspensions for bone tissue engineering	**Katarzyna Pasiut** Characterization of raw strontium glazes with changing the molar ratio of Na2O/K2O
	Claude Estournes Engineering of ceramic oxides microstructures using low temperature reactive sintering processes and Flash SPS	**Berfu Göksel** Optimization of Alumina Toughened Zirconia Inks for Direct Ink Writing Applications: Rheological Characterization And Printability	**Vladislav Kolotygin** Electrochemical behaviour of dry-processed and slurry-casted all-solid-state batteries with argyrodite electrolyte	**Antonio Vinci** Synthesis and mechanical characterization of YB2C2-based ceramics	**Shuang Gao** Microstructure and growth mechanism of LiNbO3 hardening precipitate in Li-doped NaNbO3	**Marco D'Agostini** Net-shape zeolite monoliths by bulk crystallisation of 3D printed aluminosilicate slurries	**Rosa I. Merino** Ceramic supports with highly dense and aligned pores for molten-carbonate based CO2 separation membranes	**Kevin Tedjokusuma** Filtration Performance of Highly Porous Glass Filters Made from Capillary Suspensions	
	Jean-Marc Chaix Effect of physical and geometrical parameters on the stability of flash sintering and the quality of flash sintered parts	**Nicolas Preux** Versatility of direct-ink writing for the manufacturing of lattice ceramic truss		**Enrico Storti** The importance of the ceramic strut morphology: mechanical and physical characterization of Al2O3-C foam filters produced by distinct processing routes	**Pinar Kaya** Linking Microstructure and Transport Properties in Sm/Yb-doped AlN Ceramics	**Fateme Sarraf** Fabrication of Polymer Derived Mullite Ceramics Made by Pellet Extrusion 3D Printer	**Tomasz Brylewski** Functional steel/composite ceramics layered systems for interconnects applied in electrochemical energy conversion devices	**Eveline Zschippang** Influence of cost-efficient Si3N4 powders on the microstructure formation of alpha/beta Sialons prepared via an aqueous processing route	**Paolo Scanferla** Effect of potassium and additives concentration on alkali-based geopolymers for high temperature applications
	Larissa Wahl Multi-material printing of reaction bonded carbides by robocasting	**Radosław Żurowski** Rheological aspects in designing the functional properties of ceramic-matrix-composites		**Lisa Audouard** Manufacturing and characterisation of fully stabilised hafnia by FAST and natural sintering	**Lovro Fulanović** A novel indentation method for dielectric breakdown strength investigation	**Andrea Bartoletti** 3D printed proton-conducting substrates for hydrogen separation	**Magdalena Kosiorek** 3D printing as an economical and efficient method for fabricating solid oxide cell (SOC) stacks sealings	**Moritz Weiß** FastCast – open porous ceramics	**Gisèle Laure Lecomte-Nana** Influence of the freeze tape casting process on the properties of use of kaolinite and halloysite-based ceramics
				Enrico Storti Metal-ceramic beads containing Nb and alumina produced by alginate gelation	**Viviann Hole Pedersen** In situ studies of crystallization and texturing in SrxBa1-xNb2O6 thin films prepared by aqueous chemical solution deposition	**Kinga Sztymela** Cathode ink formulation for inkjet printing technology	**Sherly Novia Sari** The influence of sintering method on electrical properties of BaCeO3-based composite protonic conductors	**Xinyu Li** Porous metakaolin/slag-based geopolymer adsorbent synthesized by a water-soluble template	**Karolina Kaczmarczyk** Nanomechanical properties of glass-ceramic materials from the SiO2-Al2O3-Na2O-K2O-MgO system with an addition of CaO
16:30 – 17:00	Coffee break								

17:00 – 18:20	**Farid Salari** Effect of binder flow rate on the product quality of binder jet 3D printed magnesium oxychloride cementitious materials	**Mattia Biesuz** Gadolinium-doped ceria electrolytes by ultrafast high-temperature sintering	**Alena Stein** Influence of Thermal Pre-Treatment on the Efficiency of Iron Leaching in Non-Refractory Grade Raw Bauxite	**Ilona Jastrzębska** Corrosion of MgO-Cr refractory by PbO-rich copper slags by various corrosion methods	**Javier Mena-Garcia** Integration and Characterization of a Ferroelectric Polymer PVDF-TrFE into the Grain Boundary Structure of ZnO via Cold Sintering	**Ľuboš Bača** Additive manufacturing of ceramic components by fused deposition modelling technology	**Arijeta Bafti** Development of geopolymer network and following influence on conductivity properties	**Pedro Henrique Da Rosa Braun** Designing the pore morphology of SiOC freeze-cast structures using solvent mixtures	**Janusz Partyka** The impact of the Na2O/K2O molar ratio on the properties of ceramic glazes
	Giorgia Franchin Fast and high resolution volumetric 3D printing of SiOC components	**Tianhui Jiang** Hierarchical compositional control of ceramic composites	**Simone Taraborelli** Improvement of the mechanical properties of TiB2 for armour applications using different additives and sintering techniques.	**Rafael Vargas** Effect of Sintering Temperature on Fracture parameters for an alumina-mullite-zirconia refractory via Wedge Splitting Tests at 600°C	**Roxana Elena Patru** Low and high field electrical properties of dense fine-grained ferroelectric ceramics prepared via sol-gel method	**Johannes Homa** Successful Use Cases of LCM Ceramic 3D Printing in Industrial Mass Production	**Kiryl Zakharchuk** Synthesis and characterization of Ba(Fe,Zr,Ni)O3 perovskites for potential application in electrochemical NOx decomposition	**Christos Agrafiotis** Reticulated porous perovskite structures for implementation of cyclic redox-based thermochemical gas-solid reactions	
	Darya Farrokhnemoun Effect of Sodium on phase transformation of alumina at a glance	**Anna Wieclaw-Midor** Photocurable ceramic dispersions of different compositions for additive manufacturing techniques	**Jan Urbánek** Phosphate-bonded refractory materials with controlled setting and adhesive properties	**Roberto D'Ambrosio** Control of the sample temperature profile in pilot-scale Microwave-assisted Chemical Vapor Infiltration reactors by means of multiport/multifrequency excitation	**Farrukh Erkinov** Effect of CuO added BNST-BF lead-free piezoelectric ceramics	**Amy Knorpp** Hydrothermal synthesis of multi-cationic high-entropy layered double hydroxides	**Zoltán Lenčéš** Translucent/transparent spinel phosphors for solid state lighting and photocatalytic applications	**Swantje Simon** Additive Manufactured Replica Foams	
			Eva Bartonickova Reinforced porous mullite ceramics via sol gel impregnation	**Adéla Jiříčková** Carbon-bonded alumina refractories reinforced with graphene oxide			**Donatella Giuranno** Polymer-Derived Ceramic materials for novel ultrahigh-temperature latent-heat thermal energy storage device	**Cristina Elena Ciomaga** Influence of porosity on dielectric, ferroelectric and pyro-, piezoelectric properties for Ba0.85Ca-0.15Ti0.90Zr0.10O3 porous ceramics	
20:00	Gala Dinner								

Thursday – July 14, 2022

Room	S1	S2	S3A	S3B	S4A	S4B	S4C	S4D	S4E
09:00 – 11:20		**Witold Nawrot** Application of stereolithography-based ceramic additive manufacturing in microsystems	**Young-Wook Kim** High-Temperature Strength of Liquid-Phase Sintered Silicon Carbide Ceramics	**Katrin Schönfeld** New ceramic heating elements based on zirconium carbide	**Marcela Arango-Ospina** Comparison of the in vitro activity of silicate-based bioactive glasses and silicon oxycarbide systems for bone regeneration	**Joanna Czechowska** Biomicroconcretes containing hydroxyapatite/chitosan hybrid granules for bone tissue regeneration	**Maksim Starykevich** Novel electrolyte for composite CO2 separation membranes.	**Johannes Eßmeister** Lithography-based additive manufacturing of polymer-derived SiOC/SiC composites	**Roman Papšík** Modelling of Hertzian crack initiation in brittle materials using a stress--energy criterion
		Simone Failla Lightweight Alumina-B4C composites for structural and functional applications	**Felix Wich** Reactivity, pyrolysis, mass-loss kinetics and carbon residue of phenol--formaldehyde resins with different hexa-contents	**Alper Güneren** Self-healing binder adaption to silicon-graphite blended anodes	**Andrzej Kruk** Synthesis and magneto--optical properties of rare-earth co-doped Y2O3	**Premysl Stastny** Highly translucent and strong 3Y-TZP ceramics for dental applications	**Aikai Yang** Towards viable solid-state batteries: electrochemical studies and amplifying fabrication for a silicate-based Na superionic conductor	**Eveline Zschippang** Modified silicon nitride for high temperature bearing applications	**Mehdi Mazaheri** Damage propagation in Silicon Nitride ceramics under cyclic indentation
		Zuzana Kováčová Oxidation performance of ZrB2-SiC composites tested above 2000°C and effect of Y-containing additives	**Thorsten Opel** Development and Tribological Studies of an Aluminium-CMC Hybrid Brake Disc	**Gurdial Blugan** Material design and optimization of ternary silicon oxycarbide/graphite/tin nanocomposite ceramics for anodes in Li-ion batteries	**Mastura Aripova** Synthesis of bioactive materials based on Zn3(PO4)2 –Ca5(PO4)3F –CaAl2Si2O8 system for dentistry applications	**Przemysław Gołębiewski** The effect of boron oxide doping on the properties of alkali-free bioactive glasses designed for the production of microfibers for bone regeneration	**Agnieszka Zurawska** Composite glass-zirconia sealing for SOC technology	**Floren Radovanović-Perić** β-TCP porous scaffolds with controllable macro--microporosity prepared by PU replication method assisted by vacuum	**Divyansh Mittal** Response surface methodological (RSM) model for optimizing erosion response of WC reinforced SiC ceramics
		Stefano De la Pierre Pressure-less glass--ceramic joining of SiC/SiC nuclear fuel clads for Light Water Reactors	**Mohammad Bavandvandchali** The effect of Nano-Iron on phase and microstructural evolution of MgO-C refractories	**Valeriu Mereacre** Enhanced performance of high-voltage batteries by the coating of spinel LiNi0.5Mn1.5O4 with different Li-containing oxides		**Amund Ruud** Crystal structure and mechanical properties of yttria-stabilized zirconia for dental applications		**David Köllner** Prediction of crack propagation in honeycomb ceramics by polarimetry and digital image correlation.	**Pedro Rivero-Antúnez** The dispersion and aggregation problems of the carbon nanotubes as reinforcing phase assessed by computer simulation
				Aleksey Yaremchenko Sr0.7Ce0.3MnO3-δ as anode material for fuel-assisted solid oxide electrolysis cells					
11:20 – 11:50	Closing Ceremony								
11:50 – 13:20	Lunch								