



CERAMICS IN EUROPE

2022 Kraków
10th–14th July

ICC9



PROGRAM

The conference supported by Ministry of Education and Science
under Excellent Science Programme



Ministry of Education
and Science

Logistics Sponsor



Convention Bureau

Platinum Sponsor



Gold Sponsors



Exhibitors



Others



Table of Contents

International Advisory Committee	6
Local Organizing Committee	7
Technical Committee	7
Organizers	8
Conference Secretariat	8
Conference Venue	9
Program at a Glance	11
Scientific Program	34
Monday - July 11, 2022	34
Tuesday - July 12, 2022	42
Wednesday - July 13, 2022	52
Thursday - July 14, 2022	58
Poster Session	61
Council Meetings	70
Floor Plan and Exhibition	71
Sponsors and Exhibitors	75
Social Program	77
General Information	79
Notes	82

Dear Colleagues and fellow Ceramists,

As we all know only too well, the global pandemic has had some tragic consequences as well as disrupting our personal and professional lives very significantly. Whilst many valiant efforts have been made to continue with meeting and conferences on-line, our ability to talk face-to-face with each other and enjoy each other's company has in many cases simply not been possible. However, the good news is that, hopefully, things look as if we may be able to start planning again for a world where we can meet, learn and laugh together.

The undersigned below would very much like to invite all of you to a meeting that we hope will help to re-unify the worldwide ceramics community in one place and at one time. By agreement between the European Ceramics Society, the International Ceramic Federation and the International Committee of Electroceramics, and with excellent international co-operation, it has been decided to combine three major conferences into a single major conference. We realise just how busy 2022 is likely to be as many conferences that have had to be postponed are now jostling for timeslots – and attendees' budgets. Our move will see ECeS XVII, ICC9 and Electroceramics XVIII all held simultaneously in Krakow, Poland, 10-14 July 2022. A single registration fee will provide access to all three conferences, which are being hosted under the common title Ceramics in Europe 2022.

We truly hope that you will let this wonderful and ancient city with an old university and scientific tradition become the background for a tremendously fruitful meeting, which will give us all a much-needed boost for achieving progress again in our professional lives for the benefit of our world.



Prof. Francis Cambier
Belgian Ceramic
Research Centre
ECeS President



Prof. Jon Binner
University of
Birmingham
JECS Trust President



**Prof. Suk-Joong
L. Kang**
Korea Advanced
Institute of Science
and Technology
ICF President



**Prof. Zbigniew
Pędzich**
AGH University
of Science and
Technology in Cracow
ICC-9 Chairman



**Prof. Alexander
Michaelis**
Fraunhofer IKTS
Dresden
ECeS XVIII Chairman



Prof. Pascal Marchet
University of Limoges
Electroceramics
Conference Chairman

Dear fellow Ceramists,

It is a great pleasure for me to welcome you all to this unique event. Thanks to the kind agreement of the International Ceramic Federation and the European Ceramics Society, it has been made possible to bring together ceramists from all branches of this wide field of knowledge and technology at one time. After a period of enormous social disorganization caused by the pandemic, we meet again directly. Recent years have made it clear to us that undoubtedly very useful methods of electronic communication are not able to replace direct contact and the exchange of thoughts in traditional face-to-face conversation. We would like our meeting to start rebuilding the weakened ties in the ceramics community.

We meet in Krakow, a city that is legendary in its own way with its historical tradition, a symbol of unity, which can be a model for the international relations that are currently being built. At the same time, Krakow is a city of science. These traditions initiated by the Jagiellonian University have been extended for over a hundred years by AGH University, which is the only university in Poland educating academic staff and ceramics industry workers and which has actively supported the organization of the Ceramics in Europe conference.

By inviting everyone to Krakow, I wish you to enjoy your presence in the ceramics community and that your participation in the conference will bear fruit throughout your professional and personal life.



Prof. Zbigniew Pędzich

AGH University of Science and Technology in Krakow
ICC-9 Chairman

International Advisory Committee

- Erik Adolfsson** – Swerea – Swedish Research – Kista, Sweden
Simeon Agathopoulos – University of Ioannina, Greece
Jun Akedo – National Institute of Advanced Industrial Science and Technology, Japan
José Carlos Almeida – University of Aveiro, Portugal
Palani Balaya – National University of Singapore, Singapore
Csaba Balazsi – Centre for Energy Research, ELKH, Hungary
Katalin Balazsi – Centre for Energy Research, ELKH, Hungary
Eamonn De Barra – University of Limerick, Ireland
Carmen Baudin – Spanish Society of Ceramics and Glass, Spain
Lennart Bergstrom – Swedish Association for Materials Technology, Sweden
Liga Berzina-Cimdina – Riga Technical University, Latvia
Omer Van der Biest – Belgian Ceramic Society, Belgium
Jon Binner – UK Ceramics Society, UK
Raj Bordia – Clemson University, USA
Richard Bowman – Australian Ceramic Society, Australia
Eddy Brinkman – Betase B.V., The Netherlands
Francis Cambier – European Ceramic Society, Belgium
Laifei Cheng – Northwestern Polytechnical University, China
Thomas W. Coyle – University of Toronto, Canada
Lidija Ćurković – University of Zagreb, Croatia
Marco Deluca – Austrian Ceramic Society, Austria
Michele Dondi – Italian Ceramic Society, Italy
Hugo Fernandes – University of Aveiro, Portugal
Begoña Ferrari – Instituto de Cerámica y Vidrio, Spain
Thomas Graule – Empa, Switzerland
Stuart Hampshire – University of Limerick, Ireland
Astri Bjørnmetun Haugen – Technical University of Denmark, Denmark
Kiyoshi Hirao – National Institute of Advanced Industrial Science and Technology, Japan
Yoshihiro Hirata – Kagoshima University, Japan
Nobuhito Imanaka – Osaka University, Japan
Dongliang Jiang – Shanghai Institute of Ceramics, China
Sylvia Johnson – American Ceramic Society, USA
Alpagut Kara – Turkish Ceramic Federation, Turkey
Yutai Katoh – Oak Ridge Notational Laboratory, USA
Adelina Ianculescu – University Politehnica Bucharest, Romania
Ondej Jankovský – University of Chemistry and Technology Prague, Czech Republic
Deug Joong Kim – Korean Ceramic Society, Korea
Walter Krenkel – University of Bayreuth, Germany
Dietmar Koch – University of Augsburg, Germany
Andraz Kocjan – Jožef Stefan Institute – Ljubljana, Slovenia
Zviad Kovziridze – Georgian Ceramists Association, Georgia
Thomas Kronberg – Finnish Ceramic Society, Finland
Bill Lee – Imperial College London, UK
Zoltan Lences – Slovak Academy of Sciences, Slovakia
Anne Leriche – University of Valenciennes, France
Erkki Levänen – Tampere University of Technology Finland
Hua-Tay Lin – Guangdong University of Technology, China
Barbara Malic – Josef Stefan Institute, Slovenia
Hasan Mandal – Sabanci University, Turkey
Vilko Mandić – University of Zagreb, Croatia
Branko Matovic – Vinka Institute of Nuclear Science, Serbia
Marcel Menet – Swiss Association for Materials Science and Technology, Switzerland
Alexander Michaelis – Fraunhofer Institute for Ceramic Technologies and Systems, Germany
Larisa Mezentseva – Russian Academy of Sciences, Russia
Vojslav Mitić – Serbian Ceramic Society, Serbia
Makio Naito – Osaka University, Japan
Roger Narayan – University of North Carolina, USA
Detlev Nicklas – Deutsche Keramische Gesellschaft e.V., Germany
Tatsuki Ohji – National Institute of Advanced Industrial Science and Technology, Japan
Eugene A. Olevsky – San Diego State University, USA
Wei Pan – Tsinghua University, China
María Canillas Pérez – Universidad Politécnica de Madrid, Spain
Jacques Poirier – French Ceramic Society
Michal Pribyl – PROMAT Praha, Czech Republik
Klaus Reichmann – Graz University of Technology, Austria
Jacques Rennotte – Belgian Ceramic Research Centre, Belgium
Ralf Riedel – Technische Universität Darmstadt, Germany
Erling Ringgaard – Meggitt A/S, Denmark
Pavol Šajgalík – Slovak Academy of Sciences, Slovakia
Kristine Salma-Ancane – Riga Technical University, Latvia
Vladimir Shevchenko – Russian Academy of Sciences, Russia
Dileep Singh – Argonne National Laboratory, USA
Mrityunjay Singh – American Ceramic Society, USA
Somnuk Srisoonthorn – The National Science and Technology Development Agency, Thailand
Matjas Spreitzer – Slovenian Chemical Society, Slovenia
Vladimir V. Srdic – University of Novi Sad, Serbia
Mikolaj Szafran – Warsaw University of Technology, Poland
Junichi Tamami – Yokohama National University, Japan
Richard Todd – Oxford University, UK
Samuel Marcio Toffoli – University of São Paulo, Brazil
Athena Tsetsekou – National Technical University of Athens, Greece
Wei-Hsing Tuan – National Taiwan University, Taiwan
Kjell Wilk – Norwegian University of Science and Technology, Norway
Louis Winnubst – University of Twente, The Netherlands
Moritz von Witzleben – European Ceramics Society, Germany
Pietro Vincenzini – World Academy of Ceramics, Italy
Adrian Volceanov – Romanian Ceramic Society, Romania
Tatjana Volkov-Husovic – Serbian Chemical Society, Ceramic Division, Serbia
Paolo Zannini – Italian Ceramic Society, Italy
Yanchun Zhou – Aerospace Research Institute of Materials & Processing Technology, China
Yu Zhou – Harbin Institute of Technology, China

Local Organizing Committee

Chairman

Zbigniew Pędzich – AGH University Krakow

Members

Jerzy Czechowski – The Association of Refractory Materials' Producers in Poland

Dionizy Czekał – Gdansk University of Technology

Ferdynand Gacki – Ceramika Paradyż SA

Marek Grabowy – Institute of Power Engineering, Ceramics Division CEREL

Tomasz Pawlik – Silesian University of Technology

Paweł Pichniarczyk – Łukasiewicz Network Warsaw

Mikołaj Szafran – Warsaw University of Technology

Technical Committee

Chairman

Jerzy Lis – AGH University Krakow

Members

Bartłomiej Andrzejewski – Institute of Molecular Physics Polish Academy of Sciences

Tomasz Brylewski – AGH University Krakow

Grzegorz Grabowski – AGH University Krakow

Dariusz Kata – The Materials Engineering and Metallurgy
Committee of the Polish Academy of Sciences

Janusz Partyka – AGH University Krakow

Waldemar Pyda – AGH University Krakow

Jacek Szczerba – AGH University Krakow

Marcin Środa – AGH University Krakow

Konrad Świerczek – AGH University Krakow

Paulina Wieceńska – Warsaw University of Technology

Piotr Wieceński – Warsaw University of Technology

Magdalena Zarzecka-Napierała – AGH University Krakow

Aneta Zima – AGH University Krakow

Łukasz Zych – AGH University Krakow

Organizers



International Ceramic Federation

ICF Secretariat: c/o The American Ceramic Society
550 Polaris Parkway, Suite 510, Westerville
Ohio 43082 USA, Tel: +1 614-794-5829
e-mail: ICFSecretariat@ceramics.org
ceramic.or.jp/icf/



Polskie Towarzystwo Ceramiczne PTCer – Polish Ceramic Society

Al. Mickiewicza 30, 30-059 Kraków, Poland
Tel: +48 12 617 23 97, e-mail: sekretariat@ptcer.pl
ptcer.pl



European Ceramic Society AISBL

Ave. Gouverneur Cornez, 4 - 7000 Mons, Belgium
Tel: +32 65 403421, e-mail: v.huart@bcrc.be
ecers.org

Conference Secretariat



Symposium Cracoviense, PCO

PL 31-123 Kraków, ul. Krupnicza 3
Tel: +48 12 422 76 00, Fax: +48 12 421 38 57
e-mail: ceramicsineurope2022@symposium.pl
Meeting coordinator: Kamilia Dudek
e-mail: kamilia.dudek@symposium.pl
ceramicsineurope2022.org

Conference Venue



ICE Kraków Congress Centre

ul. Marii Konopnickiej 17, 30-302 Kraków, Poland
Tel: +48 12 354 23 00, e-mail: office@icekrakow.pl



Łukasiewicz

Institute
of Ceramics
and Building
Materials

ACCREDITED LABORATORIES
TECHNICAL ASSESSMENT UNIT
EU NOTIFIED BODY NO. 1487
CERTIFICATION

Research & Development

- ✓ Ballistic ceramics for personal protection and vehicle armor
- ✓ Refractory ceramics
- ✓ Structural and building materials
- ✓ Glazes and coatings
- ✓ Engineering, advanced, special and fine ceramics
- ✓ High-temperature ceramics
- ✓ Whitewares including tableware
- ✓ Bioceramics



www.icimb.lukasiewicz.gov.pl

CHALLENGE US!

**Łukasiewicz Research Network – Institute of Ceramics
and Building Materials**

31-983 Kraków, ul. Cementowa 8

Program at a Glance

Legends

A	Synthesis of powders
B	Ceramic processing (including: Innovative processing, manufacturing, additive manufacturing, HT processes, sintering)
C	Modelling, Simulation, characterization and digitalization of materials and processes (including process diagnosis for quality assessment/non-destructive testing)
D	Structural ceramics / Ceramic coatings / Porous ceramics
E	Functional ceramics (Dielectrics, Antiferroelectrics, Ion Conductors, Electronics, Piezoelectrics, Ferroelectrics, Multiferroics, Magnetics, Electrocalorics, Thermistors, Thermoelectrics)
F	Electronic Ceramics (Batteries; SOFC)
G	Ceramics for energy and environmental technology / Membranes
H	Ceramics and glasses for healthcare, Bioceramics and Optical ceramics, Bio-electroceramics
I	HT materials / Refractories / Composites
J	Silicate / Traditional ceramics, Arts + Design
K	ICC9 Industrial and Educational Session (invited presentation - 30 min)
L	ECerS and JECS Trust Awards Ceremony
	Invited presentations - 30 min.

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
08:30 - 08:50	Opening ceremony - Zbigniew Pędzich, Suk-Joong Kang, Francis Cambier			
08:50 - 09:30	William Fahrenheitt - 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)TiO ₃ 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
	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 H ₂ separation	Johanna Sängner Nanometer structured yttria stabilized zirconia via two-photon-polymerization for powder processing
	Anna De Marzi Hybrid additive manufacturing for the fabrication of freeform silica glass components	Ivana Panžić Nanostructured TiO ₂ photocatalysts modified with Cu for imidacloprid degradation	Giamper Escobar Cano Sol-gel process based molten-flux synthesis of plate-like La ₂ NiO ₄ + δ ceramic particles	Amirhossein Pakseresht Synthesis and characterization of La ₂ Ce ₂ O ₇ powder and mechanical properties of La ₂ Ce ₂ O ₇ /YSZ composites

S4A	S4B	S4C	S4D	S4E
<p>Claudia Ortmann ATZ bioceramics for medical instruments a comparison from CNC to LCM production</p>	<p>David Salamon Trapping a large surface area into a small volume by SPS</p>	<p>Jacques Poirier Self-healing zirconia mullite refractory with secondary mullite precipitation inducing crack repair</p>	<p>Raul Bermejo Exploring new concepts to design damage tolerant ceramics using additive manufacturing</p>	<p>Diletta Sciti Extending carbon fibre ceramic composites from boride to carbide and oxide matrices</p>
<p>Johannes Homa 3D printing of different types of ceramics for modern medical engineering</p>	<p>Paulina Wiecinska Colloidal processing of ceramic-matrix-composites – between capabilities and limitations</p>	<p>Dominika Madej Characterization and mechanism of early hydration of high resistant refractory cement systems undoped and doped with foreign elements</p>	<p>Jan-Felix Wendel Combination of polymer derived ceramic and physical vapour deposition coating methods for new functional coatings</p>	<p>Gerard Vignoles Taming thermal gradients for an optimal chemical vapor infiltration with the help of modeling</p>
<p>Edgar B. Montufar Compressive strength and effective elastic constants of bone tissue engineering scaffolds with regular and shifted primitive cubic base cell</p>	<p>Ollie Osborn Digital Light Processing of Carbides</p>	<p>Andy Nieto Resistance of Ultra-High Temperature Ceramic Borides to Calcia-Magnesia-Alumina-Silicate Attack Under Isothermal Conditions</p>	<p>Marek Potoczek Calcium phosphate coatings on gel-cast ZrO2 foams</p>	<p>Julia Doll High-resolution mass spectrometry-based classification of high-boiling binders used in refractory materials</p>

	<p>Dirk Penner Production of complex shaped MoSi₂ heating elements using additive manufacturing methods and injection molding</p>	<p>Shangxiong Huangfu Novel physical properties in high-entropy oxides</p>	<p>Cristina Vladut Molten metal – zinc oxide composites for high temperature thermal energy storage</p>	<p>Jaroslav Kita The Powder Aerosol Deposition Method – Possibilities and Actual Limitations</p>
	<p>Serkan Nohut Fabrication of Porosity Graded Ceramics by Lithography-based Ceramic Manufacturing (LCM)</p>		<p>Thomas Graule Supplying safe drinking water to developing countries: Adsorption of viruses on porous ceramics structures and nanofibers</p>	<p>Rana Al Tahan Sintering behaviour of α-alumina containing low amounts of kaolinite and auxiliary molecules</p>
13:00 – 14:30				
14:30 – 16:30	<p>Filip Antoncik Production and recycling of large REBCO sputtering targets</p>	<p>Jan Schultheiß Charged Ferroelectric Domain Walls for Deterministic AC Signal Control at the Nanoscale</p>	<p>Alexander Michaelis Advanced ceramics for green hydrogen production and environmental technology</p>	<p>Dominique Hautcoeur Pre-debinding processes of alumina parts printed by stereolithography</p>
	<p>Michal Lojka Capabilities of large single-domain bulks REBCO prepared by TSMG</p>	<p>Till Frömling Dislocation-tuned properties of functional ceramics</p>	<p>Christos Agrafiotis Ca_{1-x}Sr_xMnO_{3-δ} perovskites for redox-operation-based thermochemical applications</p>	<p>Astri Bjørnetun Haugen Robocasting of piezoelectric ceramics</p>
	<p>Martin Schwentenwein Lithography-based Ceramic Manufacturing of Precise Multi-Material Components</p>		<p>Moritz Kindelmann Lowering the processing temperature while maintaining performance of barium cerium zirconates using the cold sintering process</p>	<p>Oliver Diwald Surface Reactivity and Processing Properties of Metal Oxide Nanoparticles for Ceramics</p>
	<p>Hamada Elsayed Large Scale Binder Jetting of Inorganic Component Using a Geopolymer</p>	<p>Eva Deronzier Preparation of solid electrolyte thick films for Li batteries by aerosol deposition method</p>	<p>Paolo Fedeli Scalable manufacturing of ceramic components for oxygen separation in industrial processes</p>	<p>Sandrine Cottrino Nanostructured rutile TiO₂ ceramics fabricated by High Pressure Spark Plasma Sintering: effect of high pressure on physical densification phenomena</p>

<p>Hamada Elsayed Glass-ceramics from glass powders and reactive silicone binders: from sealants to additive manufacturing</p>	<p>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</p>	<p>Jeremie Manaud Investigation of ultra-high temperature transition metals carbo-nitrides</p>	<p>Romain Trihan A new SPR-based sensor using transparent ceramics coated with gold-silica nanoparticles and mesoporous topcoat</p>	<p>Hakan Ünsal Ablation behavior of rare-earth modified ZrB₂-SiC composites prepared by reaction sintering of ZrSi₂, B₄C and C</p>
<p>Susana Olhero Multifunctional injectable inks for extrusion-based additive manufacturing techniques</p>	<p>Rouslan Svintsitski Mass customization, with additive manufacturing</p>	<p>Luca Zoli Thermal stability of polymer derived ultra-high temperature ceramic matrix composites</p>	<p>Joanna Szymanska Preparation and characterization of ZTA intended for structural ceramics</p>	<p>Jakub Ramult Analysis of the corrosion mechanism of spinel refractory materials with different stoichiometry in contact with steel slags</p>

Lunch

<p>Antonia Ressler Bio-inspired scaffolds based on silicon-wollastonite and multi-substituted hydroxy-apatite-chitosan hydrogel</p>	<p>Jesús López Arenal Fabrication of ZrB₂-hardened Zr₃Al₂ intermetallic composites by high-energy ball-milling and reactive spark-plasma sintering</p>	<p>Jan Dusza Deformation and fracture of high - entropy ceramics during micro/nano mechanical testing</p>	<p>Frantisek Lofaj Mechanical properties and thermal stability of High Target Utilization Sputtered TiNbVTaZrHf based nitride and carbide coatings</p>	<p>Jurij Koruza Ferroelectric hardening by microstructural elements</p>
<p>Jan Hostaša Advanced shaping approaches for the production of transparent ceramics and ceramic laser gain media</p>	<p>Ana Borta-Boyon Influence of sintering aids on the piezoelectric properties of KNN LS-BZ based ceramics.</p>	<p>Nur Sena Yüzbası Fabrication and selection of high temperature energy storage ceramic materials and refractories for solar thermal systems: microstructure-performance relationship under corrosive atmosphere</p>	<p>Monika Tatarková Boron nitride nanosheets as a reinforcement for silicon nitride</p>	<p>Ece Gunay Investigating the Effect of Silicon on Microstructural Evolution during Crystallization in Long Persistence Strontium Aluminate Compounds</p>
<p>Delphine Gourdonnaud Printability by micro-extrusion of innovative alumina pastes, based on environmentally friendly</p>	<p>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</p>	<p>Francesca Servadei Self-protection capability of ultra-high temperature ceramic matrix composites manufactured by Water-based Powder Slurry Infiltration and Polymer Infiltration and Pyrolysis</p>	<p>Eugenii Cañas Atmospheric plasma sprayed bioactive glass coatings containing strontium and magnesium</p>	<p>Lorenz Hagelüken Multiscale 2D/3D microshaping of property-contrast polymer-derived SiCN</p>

	<p>Enrique Juste Shaping of ceramic by binder jetting</p>	<p>Erkka Frankberg Ductility - A new functionality to ceramics?</p>	<p>Bogdan Dabrowski Efficient oxygen separation from air using manganates $\text{RMnO}_3 + d$</p>	<p>Ali Talimian Structure and optical properties of Mn and Cr doped MgAl_2O_4 transparent ceramics with LiOH as sintering aid</p>
	<p>Alice Zanini Novel materials and fabrication routes for target components for radioactive ion beams</p>	<p>Tashneem Ara Islam Development of LTCC and SiCer Compatible Ag-based Metallization Pastes for High-Performance Sensors</p>	<p>Pinar Kaya Laser Sintering of $\text{Li}_6.6\text{La}_3\text{Zr}_{1.6}\text{Ta}_{0.4}\text{O}_{12}$ Solid Electrolyte</p>	<p>Paola Palermo DLP-based stereolithography of composites in the alumina-zirconia system: processing, microstructural development and mechanical properties</p>
16:30 - 17:00				
17:00 - 18:20	<p>Bibi Malmal Moshtaghioun New hardness model for fine fibrous eutectic ceramics prepared by laser-heated floating zone (LFZ)</p>	<p>Matjaž Spreitzer Dielectric Properties of Upside-Down $\text{SrTiO}_3/\text{Li}_2\text{MoO}_4$ Composites Fabricated at Room Temperature</p>	<p>Aleksandra Kędzierska-Sar Thin films of metal carbides as effective catalyst materials</p>	<p>Petra Šimonová Shrinkage-free sintering of tin oxide ceramics - Monitoring microstructure and elastic property changes by temperature-dependent impulse excitation</p>
	<p>Alexandre Fantou Multiphysic and multiscale investigation of the setting process of hydraulic binders: the case of gypsum</p>	<p>Taras Parashchuk Synergistic effect of resonance scattering and lattice softening on thermoelectric performance of p-type PbTe</p>	<p>Andrea Zambotti Polymer-derived silicon-based aerogels as shape stabilizers for thermal energy storage</p>	<p>Wolfgang Freudenberg Novel approach to fabricate C/C-SiC by applying additive manufacturing based on the fused filament fabrication</p>
	<p>Nouhaila Khalile Microwave sintering of zirconia bulk and lattice samples shaped by DLP-based stereolithography</p>	<p>Oleksandr Cherniushok Origins of low lattice thermal conductivity in novel quaternary $\text{Cu}_2\text{MHf}_3\text{S}_8$ (M - Mn, Fe, Co, Ni) thiospinels</p>	<p>Elisabeth Djurado Innovative architectural oxygen electrodes for solid oxide cells using electrostatic spray deposition</p>	<p>Harshit Tripathi Structural, Morphological and Optical Studies of Nd/Er-co-doped Y_2O_3 Ceramics</p>
	<p>Manuel Fellipe Rodrigues Pais Alves Optimization of inks formulations for processing dense lithium disilicate glass-ceramics by Robocasting</p>	<p>Peter Supancic The Piezotronic Effect of Single Grain Boundaries in Zinc Oxide Varistors</p>		<p>Dylan Jennings Does flash sintering involve plastic flow?</p>

<p>Helen Reveron</p> <p>Effect of ceramic stereolithography processing on the mechanical behavior of ductile ceria-stabilized zirconia-based composites for biomedical applications</p>	<p>Dylan Jennings</p> <p>Scanning transmission electron microscopy studies of segregation behavior in iron doped strontium titanate</p>	<p>Steven Smith</p> <p>Thermal Properties of (Ti,Cr)B₂ Ceramics</p>	<p>Thomas Père</p> <p>Elaboration of yttria-stabilized zirconia coatings at room temperature by Aerosol Deposition Method (ADM)</p>	<p>Arun Ichangi</p> <p>Electrospun Ferroelectric Fibers and Their Applications</p>
<p>Verónica Müller</p> <p>Nanostructured Si-based bioactive glass coatings by electrostatic spray deposition technique</p>	<p>Andrew Gibson</p> <p>Flash Sintering of Alpha-SiC</p>	<p>Petra Jenus</p> <p>Processing and characterization of binderless WC for high temperature applications</p>	<p>Daniel Paulus</p> <p>Influence of powder composition on the internal stresses and thermal annealing behavior of ceramic films formed by Powder Aerosol Co-Deposition</p>	

Coffee break

<p>Nathan Brard</p> <p>Development of nanocomposite ceramics (MgO/Y₂O₃) for infrared window applications</p>	<p>Jean-Marc Chaix</p> <p>Fast processing of complex ceramic components by robocasting and microwave sintering</p>	<p>Serhii Yaroshevskiy</p> <p>Development of 3D-Printing Filament System for Manufacturing of Tailor-Made Refractory Products</p>	<p>Dylan Chatelain</p> <p>Modification of the nozzle geometry to improve HA deposition efficiency in cold gas spraying</p>	<p>Moritz Braun</p> <p>Band-gap engineering of ABO₃ (A = Ba) perovskites by isovalent B-site substitution</p>
<p>Zohreh Hamnabard</p> <p>Preparation, phase separation and porosity analysis of an alkali resistant glass composition for biomedical applications</p>	<p>Gareth M. Jones</p> <p>Cold or Fast: Sintering of Al doped LLZO solid state electrolyte by cold-sintering and flash-sintering</p>	<p>Anna-Marie Lauermannová</p> <p>Multicomponent composites based on reactive magnesia: contribution of 1D and 2D carbon-based nanomaterials and their combinations</p>	<p>Abdullah Jabr</p> <p>Enhancing contact damage tolerance through microstructure tailoring and layered design</p>	<p>Danica Piper</p> <p>Polycrystalline and epitaxial thin films based on LaMnO₃/(La,Sr)MnO₃ and BaTiO₃/(Ba,Sr)TiO₃ prepared by chemical solution deposition techniques</p>
<p>Albina Murashko</p> <p>Bioresorbable ceramics produced by stereolithographic 3D printing</p>	<p>Ali Talimian</p> <p>Densification behaviour and optical properties of nano-Y₂O₃ ceramics doped with bivalent transition metals</p>	<p>Vasanthakumar Kombamuthu</p> <p>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</p>	<p>Manuela González-Sánchez</p> <p>Alumina ceramics prepared by reactive pressureless sintering dip-coated with PDMS-TEOS hybrid material</p>	<p>Artur Kosonowski</p> <p>The influence of contact resistance on electrical conductivity in PbTe/CoSb₃ thermoelectric composite</p>
<p>Karen Hans</p> <p>Influence of laser engraving on alumina-zirconia composites</p>	<p>Bilge Saruhan-Brings</p> <p>Processing of Rh-doped perovskite protective filters for selective gas sensing</p>	<p>Peter Tatarko</p> <p>Effect of the electric field on the in-situ formation of graphene nanoplatelets during reactive sintering of B4C-TiB₂ composites</p>	<p>Josef Schlacher</p> <p>Understanding fracture of layered alumina-based ceramics with textured microstructures: from macro- to micro-scale</p>	<p>Rafal Knura</p> <p>Analysis of lattice dynamics in Pb_{1-x}Sn_xTe solid solutions by XAFS spectroscopy</p>

Tuesday - July 12, 2022

Room	S1	S2	S3A	S3B
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 BaTiO ₃ ceramics with structural instability induced by composition, density or grain size	Jingzhe Pan Digital twin of sintering using artificial neural network as constitutive law
	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?
	Anna-Katharina Hofer Rapid sintering of 3D-printed parts with exceptional high strength	Oliver Diwald Role and activity of Fe ³⁺ and In ³⁺ 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
	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 BaTiO ₃ ceramics
	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
10:30 - 11:00				

S4A	S4B	S4C	S4D	S4E
<p>Dušan Galusek Mesoporous nanoparticles doped with ions with potential therapeutic effect: synthesis and characterization</p>	<p>Sylvain Fournier Paste rheology, photopolymerization and mechanical behaviour of tough ceramics prepared by Stereolithography</p>	<p>Ann-Katrin Fetzer Transmission electron microscopy study of the local structure in Na_{1/2}Bi_{1/2}TiO₃-BaTiO₃ ceramics</p>	<p>Mathias Herrmann Diamond-SiC composites with excellent wear resistance and thermal properties</p>	<p>Samuel Bernard Highly crystalline boron nitride powders by pyrolysis and mechanochemical synthesis of ammonia borane and alkali metal-containing precursors</p>
<p>Katalin Balázi Ceramic biomaterials: from traditional technologies to novel applications</p>	<p>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</p>	<p>Fangping Zhuo Effect of temperature on permittivity and piezoelectric response in mechanically deformed BaTiO₃ single crystals</p>	<p>Anna Kozłowska Multilayer ceramic as a novel functional material for lightning and sensing platform</p>	<p>Benedicte Vertruyen High temperature X-ray diffraction to study the formation of sodium titanates from spray-dried mixtures</p>
<p>Premysl Vanek Ferroelectric BaTiO₃ coating of beta-titanium alloy – physicochemical properties and human mesenchymal stromal cells response</p>	<p>Piotr Wiecinski Improving the properties of ceramic materials by doping combined with colloidal processing</p>	<p>David Menne Tuning Functional Properties in Porous Electroceramics through 3D Printing of Capillary Suspensions</p>	<p>Edgar B. Montufar Microstructural features of plasma electrolytic oxidation ceramic coatings on titanium scaffolds</p>	<p>Chandima Pradeep Ellawala Kankanamge Stirring-hydrothermal Synthesis of Uniformity Improved Plate like Potassium-Sodium Niobate (KNN) Templates</p>
<p>Mariana R. F. Silva Near colourless UV protective glass and coating</p>	<p>Holger Friedrich Efficient optimization of thermal processes in ceramic processing</p>	<p>Marion Höfling Mechanical dislocation imprint as tool to control the polarization in ferroelectric BaTiO₃ single crystals</p>	<p>Jallouli Necib Developing zinc aluminate and zinc silicate ceramic films by a cost-efficient screen printing method assisted by a molten salt flux</p>	<p>Kamil Domaradzki Low-temperature synthesis of nanocrystalline high-entropy oxides and effect of heat treatment on structural changes</p>
<p>Soraia Coelho Structure and microstructure of PDMS-borosilicate hybrid materials produced by sol-gel for biomedical applications</p>	<p>Peter Veteška Upcycling of waste glass in development of FFF ceramic material</p>			

Coffee break

11:00 – 13:00	<p>Karel Maca Rapid pressure-less sintering of advanced oxide ceramics</p>	<p>Anna Berezicka Structural studies of sulfurbearing silicate-phosphate glasses</p>	<p>Oana Condurache Insitu scanning transmission electron microscopy study of ferroelectric domain walls</p>	<p>Tanja Lube The Ball-on-Three-Balltest: Improving accuracy while simplifying stress evaluation</p>
	<p>Felipe Mello Rigon Additive Manufacturing of Porous Ceramic Bodies by Extrusion of Capillary Suspensions</p>	<p>Andreas Wohninsland Quenching-induced changes in crystallographic structure and polarized volume of Na_{1/2}Bi_{1/2}TiO₃-BaTiO₃ piezoceramics</p>	<p>Jon Bell Room Temperature H₂ Sensing of a Pt-BaTiO₃-Pt System Prepared by Spark Plasma Sintering</p>	
	<p>Anthony Ballestero Design and elaboration of Polymer-Derived Silicon Oxycarbide (SiOxCy) parts by Stereolithography (SLA)</p>	<p>Andrzej Kruk Optical properties of RE-doped potassium sodium niobate ceramics obtained using the sol-gel method</p>	<p>Teodora Sandu Investigation of the electrical properties of hafnium doped barium – titanate ceramics</p>	<p>Simon Pirkelmann Computational ceramics engineering utilizing micro-structure-based simulation of material properties</p>
	<p>Marco Mariani Preparation of ready-to-print α-alumina granulated powders by spray-drying</p>	<p>Anton Tuluk Study of the effect of heterovalent doping on the piezoelectrical properties of BiFeO₃</p>	<p>Mélanie François BaZr_{0.8}Y_{0.2}O_{3-δ} as electrolyte material for Protonic Ceramic Fuel Cell: from its supercritical hydrothermal synthesis to its electrochemical properties</p>	<p>Maxim Popov Raman spectra of ceramic materials from first principles</p>
	<p>Mohamed Abdelmoula Direct Powder Bed Selective Laser Sintering of Silicon Carbide</p>	<p>Katja Wätzig Characterization of the thermal and mechanical properties of C12A7-Mo composites as electron emitting ceramic</p>	<p>Amir Maghsoudipour Comparison of sintering behavior of barium-based solid oxide fuel cell cathode by conventional and microwave methods</p>	<p>Radu Stefan Stirbu Comparative analysis of BaTiO₃ ceramics produced from cuboidal and spherical nanoparticles: the role of nanopowders assembly during the pressing step</p>
	<p>Aatreya Manjulagiri Venkatesh Analysis of ceramic sintering at the particle length scale by in-situ and post-mortem synchrotron X-ray nano-tomography</p>		<p>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</p>	<p>Andrea Cintio High temperature dielectric properties of different SiCf/SiC samples at various infiltration levels</p>
13:00 – 14:30				

<p>Anna Lea Kutsch Lithograph y-based additive manufacturing of short fiber reinforced alumina</p>	<p>Anatolii Belous Functional materials based on the oxide magnetic nanosystems</p>	<p>Chiara Molinari Method for Viscosity Measurement of Silicate Melts by Hot Stage Microscopy</p>	<p>Samuel Bernard Mesoporous Si₃N₄(C,O) Encapsulated Co or Ni nanocatalysts: from design to application in catalyst-assisted reactions in alkaline media</p>	<p>Manuella Cerbelaud Study of heteroaggregation between silica particles modified by polyelectrolyte multilayers</p> <p>Marta Lubczyk Study of wet chemistry methods for fabricating potassium sodium niobate materials</p>
<p>Lucie Pejchalová In vivo assessment on calcium phosphate and titania scaffolds prepared via freeze-casting</p>	<p>Andrea Nesterović Investigation of phase formation, structure and functional properties of bismuth sodium titanate based piezoceramics</p>	<p>Ewelina Kłosek-Wawrzyn Preparation and properties of new thermal-insulating building materials with high content of coffee grounds</p>	<p>Oliver Preuß Dislocation Toughening in Oxide Perovskites</p>	<p>Kamil Wojteczko Effect of Y₂O₃ additive on morphology and phase composition of zirconia solid solutions</p>
<p>Agnieszka Szysiak Preparation of transparent cerium-rare-earth-elements doped yttrium aluminum garnet (Ce,RE-E:YAG) ceramics with the aid of freeze granulation</p>	<p>Brenda Carreño-Jiménez Characterization of BaZrO₃ doped-KNLNS ceramic</p>	<p>Sonia Conte Mobility of hazardous elements in ceramic bodies</p>	<p>Victoria Vilchez Quantifying local fracture toughness in nacre-like ceramics</p>	<p>Katarina Mužina Copper doped ceria nanocatalyst for VOCs oxidation</p>
<p>Dawid Kozięń Synthesis and surface modification of boron carbide (B₄C) nanopowders as a boron deliver agent in Boron Neutron Capture Therapy</p>	<p>Nikola Kanas Boosting zT of CaMnO₃-based ceramics by controlled micro-structuring</p>	<p>Eugeni Cañas Gibbsite-based ceramics for humidity control tiles</p>	<p>Barbara Putz Mechanical Properties of Al₂O₃/Y₂O₃ Nanolaminate Films on Aluminum towards Protective Coatings</p>	<p>Václav Tyrpekl Oxalate salts: From oxide powder synthesis to field assisted sintering studies</p>
<p>Paul Danty Elaboration of 3D bioceramic scaffolds mimicking human bone architecture</p>	<p>Armin Feldhoff Electrospun Ca₃Co₄xO_{9+δ} ceramics from nanofiber mats: Investigation of the microstructure and thermoelectric properties</p>	<p>Florica Mățău Insights into the firing technology of the Cucuteni pottery</p>	<p>Alina Makudera Interaction in cerium oxide (+3) and oxides of yttrium subgroup systems</p>	

Lunch

14:30 – 16:30	<p>Alberto Ortona Fabrication of complex Silicon Carbide architectures by a novel hybrid additive manufacturing process</p>	<p>Stanislav Kamba Subsequent displacive and spin-induced ferroelectric phase transitions in multiferroic BiMn₃Cr₄O₁₂ ceramics</p>	<p>Lavinia Curecheriu Exploring critical conditions (composition and grain size) as a new tool for enhancing electrocaloric properties of BaTiO₃-based ceramics</p>	<p>Csaba Balácsi Nanocarbon added Silicon Nitrides</p>
	<p>Dmitrii Komissarenko Additive manufacturing of high strength zirconia ceramics via digital light processing</p>	<p>Anna Grünebohm Multistep polarization switching on orthorhombic domain walls: a molecular dynamics study</p>	<p>Vilko Mandić Utilisation of ceramic thin-films for sensing humidity at room temperature</p>	
	<p>Aljaž Iveković Influence of paraffin wax addition on rheological properties and printability of ethylene vinyl acetate based feedstocks for fused filament fabrication of alumina</p>	<p>Patrick Stargardt Dielectric properties of plasma sprayed coatings for insulation application</p>	<p>Sanjay Mathur Advanced TNO-carbon ceramic material for fast-charging Li-ion batteries</p>	<p>Maxime Balestrat From design to application of porous TiC(N)/SiC(N) Nanocomposites derived from preceramic polymers</p>
	<p>Paulina Zubrzycka Effects of Eu, Y, Mg doping on the sintering and microstructural development of MgAl₂O₄</p>	<p>Yannick Lorgouilloux Optimization of (Ba,Ca) (Zr,Ti)O₃ lead-free piezoelectric ceramics properties by variation of the composition</p>	<p>Fabian Delorme Ultralow thermal conductivity of molybdenum oxides</p>	<p>Carmen Muñoz-Ferreiro Zirconia- Few-Layer Graphene multifunctional composites: a compromise between mechanical and electrical properties</p>
	<p>Natalia Kovalska Synthesis of K-b-Al₂O₃ solid electrolyte for battery applications</p>	<p>Stefanie Taibl Identification of Sr vacancies and Ti on Sr sites as the origin of ultra-low conductivity in doped SrTiO₃ thin films</p>	<p>Ryszard Kluczowski LSC-GDC and LSCF Air electrodes with modified porosity designated for solid oxide cells</p>	<p>Adrian Graboś Oxidation resistance of Spark Plasma Sintered (SPS) Inconel 625-NbC Metal Matrix Composites (MMC)</p>
	<p>Vojtech Marak Microstructural evolution of barium titanate at applied non-conventional rapid sintering</p>		<p>Andreas Nenning Surface and defect chemistry of porous La_{0.6}Sr_{0.4}FeO₃ electrodes on polarized 3-electrode cells</p>	<p>Lukas Wagner Influence of matrix densification on the properties of weak matrix oxide fibre composites</p>
	16:30 – 17:00			

<p>Gyu-Nam Kim Fabrication of compositionally graded zirconia products with high translucency using digital light processing (DLP) technique</p>	<p>Vojtěch Nečina The role of fluoride additives in the densification of ceramics – How does it work?</p>	<p>Renaud Batier Ceramic Roadmap to 2050</p>	<p>Laura Silvestroni Boride hierarchical composites for ultrahigh temperature applications</p>	<p>Fumihiko Wakai Rigid body motion of multiple particles in solid-state sintering</p>
<p>Marian Janek The effect of sintering temperature on material properties of 3D printed hydroxyapatite scaffolds</p>	<p>Patrick Höhne Optimized spray granules for dry pressing by means of slurry destabilization and ultrasonic atomization</p>		<p>Zdeněk Chlup Fracture behaviour in the vicinity of Curie temperature of BaTiO₃ piezoceramic</p>	
<p>Nathalie Douard Investigation of the microwave sintering of carbonated hydroxyapatite</p>	<p>Martin Trunec Defect-free drying of large fine-particle ceramic bodies prepared by gelcasting method</p>	<p>Jerzy Czechowski The refractory industry in the EU - as it stands and in view of future expectations</p>	<p>Pietro Galizia Disclosing residual thermal stresses in fiber-reinforced ceramic composites</p>	
<p>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</p>	<p>Julian Fanghanel Using Organic Acids to Densify Ceramics</p>		<p>Arno Görne Sputtered tungsten trioxide for scalable hydrogen modules with separate hydrogen and oxygen evolution</p>	<p>Bjoern Mieller Numerical study of electric field distribution in breakdown strength testing of ceramics</p>
<p>Qaisar Nawaz Bioactive glass-based composite scaffolds incorporating gelatin/manganese doped mesoporous bioactive glass nanoparticles for bone tissue regeneration</p>	<p>Mikolaj Szafran Challenges in designing of advanced ceramics and composites obtained by colloidal processing</p>	<p>Thomas Kronberg Ceramic demolition waste in the circular economy</p>	<p>Karina Trevino Rodríguez Photovoltaic glass waste recycling in the development of substrates for photovoltaic applications</p>	<p>Kirsten Schulze Thermal shock characterization of refractories and ceramics using improved in-situ methods</p>
<p>Michal Gorbar Development of Yb²⁰³-based ceramics for indirect production of ¹⁷⁷Lu used in targeted radionuclide therapies</p>			<p>Zbigniew Woźniak The waste glass as a base of the lining tiles. The results of the POIR project.</p>	<p>Carmen Muñoz-Ferreiro Dependence of the tribological behavior of graphene-based ceramic composites on the graphene structure</p>

Coffee break

17:00 – 18:20	<p>Isacco Mazo Role of Surface Carbon Nanolayer on the Activation of Flash Sintering in Pure Tungsten Carbide</p>	<p>Ondrej Hanzel Effect of sintering additives and sintering conditions on electrical and thermal properties of SiC-GNPs and SiC-GO composites</p>	<p>Sophie Guillemet-Fritsch Role of graphene on the electrical and thermal conductivities of doped aluminum nitride ceramics</p>	<p>Matteo Mor Tribological characterization of UHTCMCs for brake applications</p>
	<p>Maxime Cheype Chemical modification of silicon carbide precursors for Direct Ink Writing</p>	<p>Pascal Marchet Elaboration of lead-free piezoelectric thick films by Aerosol Deposition Method</p>	<p>Katja Wätzig Development of Co-Sintering Regimes for Phosphate Based Composite Cathodes in Solid-State Batteries</p>	<p>Sebastian Sado Explanation of MgO-C lined steel ladles lifetime differences with use of computational techniques</p>
	<p>Zonghao Guo Investigation of densification mechanisms in Ultrafast High-temperature Sintering (UHS)</p>	<p>Piotr Winiarz Optimizing ReBa-0.5Sr0.5CoCuO5+δ double perovskite oxides for application as oxygen electrodes for Solid Oxide Cells</p>	<p>Leszek Ajdys Electrophoretic deposition of the protective layers on the SOC stack components using powders with multimodal grain size distribution</p>	<p>Robert Świercz Influence of Si and Al metallic additives on the mechanical properties and microstructure of the qAl2O3-C refractory material</p>
			<p>Athanasios Goulas Additive Manufacturing of Sodium Polyaluminate Solid-State Electrolytes</p>	

<p>Ali Alzahrani Sinter-Crystallization of Nepheline Glasses for Dental Application</p>	<p>Jens Huber Graded ceramic solid-state electrolytes as an example of FAST/SPS-based research and production</p>	<p>Daniel Bremecker Tailoring of electrical and electromechanical properties in Mg-doped 0.94Na₁/2Bi₁/2TiO₃-0.06BaTiO₃</p>	<p>Jean-Régis Martinet Valorisation of local residues, by-products and wastes into ceramic materials for civil engineer application</p>	<p>Soňa Hříbalová Light scattering predictions for transparent ceramics with birefringent grains</p>
<p>Monika Furko Bioactive ions doped carbonated hydroxyapatite-biopolymer composite coatings for orthopaedic implants</p>	<p>Nicolas Somers Fabrication of doped β-tricalcium phosphate bioceramics by robocasting for bone repair applications</p>	<p>Lucas Lemos da Silva Field-induced ferroelectric phase transformation in barium titanate</p>	<p>Tamás Csanádi Strengthening and plasticity in a (Hf-Ta-Zr-Nb) C high-entropy carbide</p>	<p>Leontin Padurariu Modeling of the dielectric properties in ferroelectric-based composites by a new dynamic finite element method</p>
<p>Islam Bouakaz The effect of TPMS design and pores size on biological and mechanical properties of Calcium Phosphate bone graft</p>	<p>Kyriakos Didilis Enhancing the geometrical capabilities and performance of functional ceramics fabricated with Freeform Injection Molding</p>	<p>Emmanuel Iii Ricohermoso High-temperature giant piezoresistivity of SiOC film for strain gauge application</p>	<p>Chengying Bai Fly ash-based porous geopolymer: A review</p>	<p>Ivan Zorin Mid-IR OCT imaging as a method for studying additive manufactured ceramics</p>
<p>Erika Iveth Cedillo-González Sanitization of different porcelain stoneware tiles after bacterial contamination</p>	<p>Anna Galotta Mechanochemical synthesis and cold sintering of mussel shell-derived hydroxyapatite nano-powders for biomedical applications</p>			<p>Katharina Marquardt Grain morphology and microstructural evolution during high temperature and high-pressure deformation of a potential optical ceramic: comparison to simulated microstructures</p>

Wednesday – July 13, 2022

Room	S1	S2	S3A	S3B
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				



S4A	S4B	S4C	S4D	S4E
-----	-----	-----	-----	-----

--	--	--	--	--

--	--	--	--	--

Lunch				
-------	--	--	--	--

14:30 – 16:30	<p>Alberto Ortona Fabrication of dense SiC ceramics by a novel hybrid additive manufacturing process</p>	<p>Anis Aliouat Ignition of densification mechanisms through applied electric/electromagnetic fields during spark plasma sintering - application to a pre-oxidized copper powder</p>	<p>Temesgen Zate Outstanding Unipolar Strain of Textured Pb(Mg_{1/3}Nb_{2/3})O₃-PbZrO₃-PbTiO₃ Piezoelectric Ceramics Manufactured by Particle Size Distribution Control of the Plate-like BaTiO₃ Template</p>	<p>Annamaria Naughton Duszova Sintering of ZrB₂ based uhtc composites by sps technique</p>
	<p>Stefan Pfeiffer Customized ceramic granules for laser powder bed fusion of crack-reduced aluminum oxide components</p>	<p>Christian Bechteler Formation and influence of plasma in flash sintering of ceramics</p>	<p>Maryam Azadeh Effect of doping on the electrical and electrochemical characteristics of Potassium sodium niobate ceramics</p>	<p>Johanna Schmidt SiC/SiC ceramic fibre composites for turbine applications</p>
	<p>Claude Estournes Engineering of ceramic oxides microstructures using low temperature reactive sintering processes and Flash SPS</p>	<p>Berfu Göksel Optimization of Alumina Toughened Zirconia Inks for Direct Ink Writing Applications: Rheological Characterization And Printability</p>	<p>Vladislav Kolotygin Electrochemical behaviour of dry-processed and slurry-casted all-solid-state batteries with argyrodite electrolyte</p>	<p>Antonio Vinci Synthesis and mechanical characterization of YB₂C₂-based ceramics</p>
	<p>Jean-Marc Chaix Effect of physical and geometrical parameters on the stability of flash sintering and the quality of flash sintered parts</p>	<p>Nicolas Preux Versatility of direct-ink writing for the manufacturing of lattice ceramic truss</p>		<p>Enrico Storti The importance of the ceramic strut morphology: mechanical and physical characterization of Al₂O₃-C foam filters produced by distinct processing routes</p>
	<p>Larissa Wahl Multi-material printing of reaction bonded carbides by robocasting</p>	<p>Radosław Żurowski Rheological aspects in designing the functional properties of ceramic-matrix-composites</p>		<p>Lisa Audouard Manufacturing and characterisation of fully stabilised hafnia by FAST and natural sintering</p>
				<p>Enrico Storti Metal-ceramic beads containing Nb and alumina produced by alginate gelation</p>
16:30 – 17:00				

<p>Mattia Biesuz Novel Entropy-stabilized NiO-free Rock Salt Ceramic</p>	<p>Andrea Zocca Additive Manufacturing of advanced ceramics by layer-wise slurry deposition and binder jetting (LSDprint)</p>	<p>Muhammad Imran Asghar Additive manufacturing of ceramic nanocomposite fuel cells</p>	<p>Mattia Muracchioli High Shear Wet Granulation of Geopolymer and Geopolymer-Zeolite powders for CO₂ adsorption</p>	<p>Michele Dondi Porcelain versus porcelain stoneware: so close, so different. Sintering kinetics, phase evolution, and vitrification pathways</p>
<p>Venkata Raveendra Nallagatla Perovskite thin films for high energy density capacitor devices from chemical solution deposition</p>	<p>Paweł Falkowski Additive manufacturing-assisted shaping of ceramics with complex shape</p>	<p>Nur Sena Yüzbaşı Virus retention of porous and granular Al₂O₃ modified with MgAl₂O₄ for drinking water production</p>	<p>Souhaila Nider Creation of porous ceramics with hierarchical pores using capillary suspensions for bone tissue engineering</p>	<p>Katarzyna Pasiut Characterization of raw strontium glazes with changing the molar ratio of Na₂O/K₂O</p>
<p>Shuang Gao Microstructure and growth mechanism of LiNbO₃ hardening precipitate in Li-doped NaNbO₃</p>	<p>Marco D'Agostini Net-shape zeolite monoliths by bulk crystallisation of 3D printed aluminosilicate slurries</p>	<p>Rosa I. Merino Ceramic supports with highly dense and aligned pores for molten-carbonate based CO₂ separation membranes</p>	<p>Kevin Tedjokusuma Filtration Performance of Highly Porous Glass Filters Made from Capillary Suspensions</p>	
<p>Pinar Kaya Linking Microstructure and Transport Properties in Sm/Yb-doped AlN Ceramics</p>	<p>Fateme Sarraf Fabrication of Polymer Derived Mullite Ceramics Made by Pellet Extrusion 3D Printer</p>	<p>Tomasz Brylewski Functional steel/composite ceramics layered systems for interconnects applied in electrochemical energy conversion devices</p>	<p>Eveline Zschippang Influence of cost-efficient Si₃N₄ powders on the microstructure formation of alpha/beta Sialons prepared via an aqueous processing route</p>	<p>Paolo Scanferla Effect of potassium and additives concentration on alkali-based geopolymers for high temperature applications</p>
<p>Lovro Fulanović A novel indentation method for dielectric breakdown strength investigation</p>	<p>Andrea Bartoletti 3D printed proton-conducting substrates for hydrogen separation</p>	<p>Magdalena Kosiorek 3D printing as an economical and efficient method for fabricating solid oxide cell (SOC) stacks sealings</p>	<p>Moritz Weiß FastCast – open porous ceramics</p>	<p>Gisèle Laure Lecomte-Nana Influence of the freeze tape casting process on the properties of use of kaolinite and halloysite-based ceramics</p>
<p>Viviann Hole Pedersen In situ studies of crystallization and texturing in Sr_xBa_{1-x}Nb₂O₆ thin films prepared by aqueous chemical solution deposition</p>	<p>Kinga Szymela Cathode ink formulation for inkjet printing technology</p>	<p>Sherly Novia Sari The influence of sintering method on electrical properties of BaCeO₃-based composite protonic conductors</p>	<p>Xinyu Li Porous metakaolin/slag-based geopolymer adsorbent synthesized by a water-soluble template</p>	<p>Karolina Kaczmarczyk Nanomechanical properties of glass-ceramic materials from the SiO₂-Al₂O₃-Na₂O-K₂O-MgO system with an addition of CaO</p>

Coffee break

17:00 – 18:20	<p>Farid Salari Effect of binder flow rate on the product quality of binder jet 3D printed magnesium oxychloride cementitious materials</p>	<p>Mattia Biesuz Gadolinium-doped ceria electrolytes by ultrafast high-temperature sintering</p>	<p>Alena Stein Influence of Thermal Pre-Treatment on the Efficiency of Iron Leaching in Non-Refractory Grade Raw Bauxite</p>	<p>Ilona Jastrzębska Corrosion of MgO-Cr refractory by PbO-rich copper slags by various corrosion methods</p>
	<p>Giorgia Franchin Fast and high resolution volumetric 3D printing of SiOC components</p>	<p>Tianhui Jiang Hierarchical compositional control of ceramic composites</p>	<p>Simone Taraborelli Improvement of the mechanical properties of TiB2 for armour applications using different additives and sintering techniques.</p>	<p>Rafael Vargas Effect of Sintering Temperature on Fracture parameters for an alumina-mullite-zirconia refractory via Wedge Splitting Tests at 600°C</p>
	<p>Darya Farrokhneumon Effect of Sodium on phase transformation of alumina at a glance</p>	<p>Anna Wieclaw-Midor Photocurable ceramic dispersions of different compositions for additive manufacturing techniques</p>	<p>Jan Urbánek Phosphate-bonded refractory materials with controlled setting and adhesive properties</p>	<p>Roberto D'Ambrosio Control of the sample temperature profile in pilot-scale Microwave-assisted Chemical Vapor Infiltration reactors by means of multiport/multifrequency excitation</p>
			<p>Eva Bartonickova Reinforced porous mullite ceramics via sol gel impregnation</p>	<p>Adéla Jiříčková Carbon-bonded alumina refractories reinforced with graphene oxide</p>
20:00	Gala Dinner			

<p>Javier Mena-García Integration and Characterization of a Ferroelectric Polymer PVDF-TrFE into the Grain Boundary Structure of ZnO via Cold Sintering</p>	<p>Luboš Bača Additive manufacturing of ceramic components by fused deposition modelling technology</p>	<p>Arijeta Bafti Development of geopolymer network and following influence on conductivity properties</p>	<p>Pedro Henrique Da Rosa Braun Designing the pore morphology of SiOC freeze-cast structures using solvent mixtures</p>	<p>Janusz Partyka The impact of the Na₂O/K₂O molar ratio on the properties of ceramic glazes</p>
<p>Roxana Elena Patru Low and high field electrical properties of dense fine-grained ferroelectric ceramics prepared via sol-gel method</p>	<p>Johannes Homa Successful Use Cases of LCM Ceramic 3D Printing in Industrial Mass Production</p>	<p>Kiryl Zakharchuk Synthesis and characterization of Ba(Fe,Zr,Ni)O₃ perovskites for potential application in electrochemical NO_x decomposition</p>	<p>Christos Agrafiotis Reticulated porous perovskite structures for implementation of cyclic redox-based thermochemical gas-solid reactions</p>	
<p>Farrukh Erkinov Effect of CuO added BNST-BF lead-free piezoelectric ceramics</p>	<p>Amy Knorpp Hydrothermal synthesis of multi-cationic high-entropy layered double hydroxides</p>	<p>Zoltán Lenčič Translucent/transparent spinel phosphors for solid state lighting and photocatalytic applications</p>	<p>Swantje Simon Additive Manufactured Replica Foams</p>	
		<p>Donatella Giuranno Polymer-Derived Ceramic materials for novel ultrahigh-temperature latent-heat thermal energy storage device</p>	<p>Cristina Elena Ciomaga Influence of porosity on dielectric, ferroelectric and pyro-, piezoelectric properties for Ba_{0.85}Ca_{0.15}Ti_{0.90}Zr_{0.10}O₃ porous ceramics</p>	

Thursday - July 14, 2022

Room	S1	S2	S3A	S3B
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
		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
		Zuzana Kováčová Oxidation performance of ZrB ₂ -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
		Stefano De la Pierre Pressure-less glass-ceramic joining of SiC/SiC nuclear fuel clads for Light Water Reactors	Mohammad Bavandvanchali 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 LiNi _{0.5} Mn _{1.5} O ₄ with different Li-containing oxides
				Aleksey Yaremchenko Sr _{0.7} Ce _{0.3} MnO _{3-δ} as anode material for fuel-assisted solid oxide electrolysis cells
11:20 - 11:50	Closing Ceremony			
11:50 - 13:20				

S4A	S4B	S4C	S4D	S4E
<p>Marcela Arango-Ospina Comparison of the in vitro activity of silicate-based bioactive glasses and silicon oxycarbide systems for bone regeneration</p>	<p>Joanna Czechowska Biomicroconcretes containing hydroxyapatite/chitosan hybrid granules for bone tissue regeneration</p>	<p>Maksim Strykevich Novel electrolyte for composite CO2 separation membranes.</p>	<p>Johannes Eßmeister Lithography-based additive manufacturing of polymer-derived SiOC/SiC composites</p>	<p>Roman Papšík Modelling of Hertzian crack initiation in brittle materials using a stress-energy criterion</p>
<p>Andrzej Kruk Synthesis and magneto-optical properties of rare-earth co-doped Y2O3</p>	<p>Premysl Stastny Highly translucent and strong 3Y-TZP ceramics for dental applications</p>	<p>Aikai Yang Towards viable solid-state batteries: electrochemical studies and amplifying fabrication for a silicate-based Na superionic conductor</p>	<p>Eveline Zschippang Modified silicon nitride for high temperature bearing applications</p>	<p>Mehdi Mazaheri Damage propagation in Silicon Nitride ceramics under cyclic indentation</p>
<p>Mastura Aripova Synthesis of bioactive materials based on Zn3(PO4)2 -Ca5(PO4)3F -CaAl2Si2O8 system for dentistry applications</p>	<p>Przemyslaw Gołębiewski The effect of boron oxide doping on the properties of alkali-free bioactive glasses designed for the production of microfibers for bone regeneration</p>	<p>Agnieszka Zurawska Composite glass-zirconia sealing for SOC technology</p>	<p>Floren Radovanović-Perić β-TCP porous scaffolds with controllable macro-microporosity prepared by PU replication method assisted by vacuum</p>	<p>Divyansh Mittal Response surface methodological (RSM) model for optimizing erosion response of WC reinforced SiC ceramics</p>
	<p>Amund Ruud Crystal structure and mechanical properties of yttria-stabilized zirconia for dental applications</p>		<p>David Köllner Prediction of crack propagation in honeycomb ceramics by polarimetry and digital image correlation.</p>	<p>Pedro Rivero-Antúnez The dispersion and aggregation problems of the carbon nanotubes as reinforcing phase assessed by computer simulation</p>
Lunch				

Scientific Program

Monday – July 11, 2022

Hall S1

08:30 – 10:40	Opening ceremony
08:30 – 08:50	Welcome talks: Zbigniew Pędzich (Poland) – Suk-Joong Kang (South Korea) – Francis Cambier (Belgium)
08:50 – 09:30	William Fahrenholtz (United States) – Structure and Properties of Zeta-Phase Tantalum Carbide
09:30 – 10:10	Jae-Ho Jeon (South Korea) – Texture Engineering of Lead-based and Lead-free Piezoelectric Ceramics
10:10 – 10:30	Concert by the AGH University Representative Orchestra
10:40 – 11:00	Coffee break
11:00 – 12:50	Symposium B
11:00 – 11:30	Invited presentation: Marek Grabowy (Poland) – Refining of alumina toughened zirconia composites properties by reactive sintering process
11:30 – 11:50	Alejandro Montón (United States) – Core shell powder strategy for Additive Manufacturing of ceramics: Applied to Powder Bed Selective Laser Processing of preceramic surface modified Silicon Carbide
11:50 – 12:10	Anna De Marzi (Italy) – Hybrid additive manufacturing for the fabrication of freeform silica glass components
12:10 – 12:30	Dirk Penner (Switzerland) – Production of complex shaped MoSi ₂ heating elements using additive manufacturing methods and injection molding
12:30 – 12:50	Serkan Nohut (Austria) – Fabrication of Porosity Graded Ceramics by Lithography-based Ceramic Manufacturing (LCM)
13:00 – 14:30	Lunch
14:30 – 16:30	Symposium B
14:30 – 14:50	Filip Antoncik (Czech Republic) – Production and recycling of large REBCO sputtering targets
14:50 – 15:10	Michal Lojka (Czech Republic) – Capabilities of large single-domain bulks REBCO prepared by TSMG
15:10 – 15:30	Martin Schwentenwein (Austria) – Lithography-based Ceramic Manufacturing of Precise Multi-Material Components
15:30 – 15:50	Hamada Elsayed (Italy) – Large Scale Binder Jetting of Inorganic Components Using a Geopolymer
15:50 – 16:10	Enrique Juste (Belgium) – Shaping of ceramic by binder jetting
16:10 – 16:30	Alice Zanini (Italy) – Novel materials and fabrication routes for target components for radioactive ion beams
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium B
17:00 – 17:20	Bibi Malmal Moshtaghioun (Spain) – New hardness model for fine fibrous eutectic ceramics prepared by laser- heated floating zone (LFZ)

17:20 – 17:40	Alexandre Fantou (France) – Multiphysic and multiscale investigation of the setting process of hydraulic binders: the case of gypsum
17:40 – 18:00	Nouhaila Khalile (France) – Microwave sintering of zirconia bulk and lattice samples shaped by DLP-based stereolithography
18:00 – 18:20	Manuel Felipe Rodrigues Pais Alve (Portugal) – Optimization of inks formulations for processing dense lithium disilicate glass-ceramics by Robocasting

Hall S2

11:00 – 12:40	Symposium E
11:00 – 11:30	Invited presentation: Adelina Ianculescu (Romania) – Proper ties of bulk graded (Ba,Sr)TiO ₃ ceramics with various architectures obtained by spark plasma sintering
11:30 – 12:00	Invited presentation: Jörg Töpfer (Germany) – Transverse Multilayer Thermoelectric Generators with Thermoelectric
12:00 – 12:20	Ivana Panžić – Nanostructured TiO ₂ photocatalysts modified with Cu for imidacloprid degradation
12:20 – 12:40	Shangxiong Huangfu (Switzerland) – Novel physical properties in high-entropy oxides
13:00 – 14:30	Lunch
14:30 – 16:30	Symposium E
14:30 – 15:00	Invited presentation: Jan Schultheiß (Norway) – Charged Ferroelectric Domain Walls for Deterministic AC Signal Control at the Nanoscale
15:00 – 15:30	Invited presentation: Till Frömling (Germany) – Dislocati on-tuned properties of functional ceramics
15:30 – 15:50	Eva Deronzier – Preparation of solid electrolyte thick films for Li batteries by aerosol deposition method
15:50 – 16:10	Erkka Frankberg – Ductility - A new functionality to ceramics?
16:10 – 16:30	Tashneem Ara Islam – Development of LTCC and SiCer Compatible Ag- based Metallization Pastes for High- Performance Sensors
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium E
17:00 – 17:20	Matjaž Spreitzer (Slovenia) – Dielectric Properties of Upside-Down SrTiO ₃ /Li ₂ MoO ₄ Composites Fabricated at Room Temperature
17:20 – 17:40	Taras Parashchuk (Poland) – Syner gistic effect of resonance scattering and lattice softening on thermoelectric performance of p-type PbTe
17:40 – 18:00	Oleksandr Cherniushok (Poland) – Origins of low lattice thermal conductivity in novel quaternary Cu ₂ MHf ₃ S ₈ (M – Mn, Fe, Co, Ni) thiospinels
18:00 – 18:20	Peter Supancic (Austria) – The Piezotronic Effect of Single Grain Boundaries in Zinc Oxide Varistors

Hall S3A

11:00 – 13:10	Symposium G
11:00 – 11:30	Invited presentation: Marie-Alix Pizzoccaro-Zilamy (Holland) – Controlled Nanoconfinement of Polyimide Networks in Mesoporous γ -Alumina Membranes for the Molecular Separation of Organic Dyes
11:30 – 12:00	Invited presentation: Elisa Mercadelli (Italy) – Design and fabrication of proton-conducting ceramic membranes for H ₂ separation
12:00 – 12:20	Giamper Escobar Cano (Germany) – Sol-gel process based molten-flux synthesis of plate-like La ₂ NiO ₄ + δ ceramic particles
12:20 – 12:40	Cristina Vladut (Romania) – Molten metal – zinc oxide composites for high temperature thermal energy storage
12:40 – 13:10	Invited presentation: Thomas Graule (Switzerland) – Supplying safe drinking water to developing countries: Adsorption of viruses on porous ceramics structures and nanofibers
13:00 – 14:30	Lunch
14:30 – 16:40	Symposium G
14:30 – 15:00	Invited presentation: Alexander Michaelis (Germany) – Advanced ceramics for green hydrogen production and environmental technology
15:00 – 15:20	Christos Agrafiotis (Germany) – Ca _{1-x} Sr _x MnO _{3-δ} perovskites for redox-operation-based thermochemical applications
15:20 – 15:40	Moritz Kindelmann (Germany) – Lowering the processing temperature while maintaining performance of barium cerium zirconates using the cold sintering process
15:40 – 16:00	Paolo Fedeli (Italy) – Scalable manufacturing of ceramic components for oxygen separation in industrial processes
16:00 – 16:20	Bogdan Dąbrowski (Poland) – Efficient oxygen separation from air using manganates RMnO ₃ + δ
16:20 – 16:40	Pinar Kaya (Germany) – Laser Sintering of Li ₆ .6La ₃ Zr ₁ :6Ta ₀ :4 O ₁₂ Solid Electrolyte
16:30 – 17:00	Coffee break
17:00 – 18:00	Symposium G
17:00 – 17:20	Aleksandra Kędzierska-Sar (Poland) Thin films of metal carbides as effective catalyst materials
17:20 – 17:40	Andrea Zambotti (Italy) – Polymer- derived silicon-based aerogels as shape stabilizers for thermal energy storage
17:40 – 18:00	Elisabeth Djurado (France) – Innovative architectural oxygen electrodes for solid oxide cells using electrostatic spray deposition

Hall S3B

11:00 – 13:00	Symposium B
11:00 – 11:30	Invited presentation: Clive Randall (United States) – Cold Sintering of Functional Materials: A Path to a Possible Sustainable Future
11:30 – 12:00	Invited presentation: Johanna Sanger (Germany) – Nanometer structured yttria stabilized zirconia via two-photon-polymerization for powder processing

12:00 – 12:20	Amirhossein Pakseresht (Slovakia) – Synthesis and characterization of La ₂ Ce ₂ O ₇ powder and mechanical properties of La ₂ Ce ₂ O ₇ /YSZ composites
12:20 – 12:40	Jaroslav Kita (Germany) – The Powder Aerosol Deposition Method – Possibilities and Actual Limitations
12:40 – 13:00	Rana Al Tahan (France) – Sintering behaviour of α -alumina containing low amounts of kaolinite and auxiliary molecules
13:00 – 14:30	Lunch
14:30 – 16:30	Symposium B
14:30 – 14:50	Dominique Hautcoeur (Belgium) – Pre-debinding processes of alumina parts printed by stereolithography
14:50 – 15:10	Astri Bjørnetun Haugen (Denmark) – Robocasting of piezoelectric ceramics
15:10 – 15:30	Oliver Diwald (Austria) – Surface Reactivity and Processing Properties of Metal Oxide Nanoparticles for Ceramics
15:30 – 15:50	Sandrine Cottrino (France) – Nanostructured rutile TiO ₂ ceramics fabricated by High Pressure Spark Plasma Sintering: effect of high pressure on physical densification phenomena
15:50 – 16:10	Ali Talimian (Slovakia) – Structure and optical properties of Mn and Cr doped MgAl ₂ O ₄ transparent ceramics with LiOH as sintering aid
16:10 – 16:30	Paola Palmero (Italy) – DLP- based stereolithography of composites in the alumina-zirconia system: processing, microstructural development and mechanical properties
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium B
17:00 – 17:20	Petra Šimonová (Czech Republic) – Shrinkage-free sintering of tin oxide ceramics – Monitoring microstructure and elastic property changes by temperature-dependent impulse excitation
17:20 – 17:40	Wolfgang Freudenberg (Germany) – Novel approach to fabricate C/C-SiC by applying additive manufacturing based on the fused filament fabrication
17:40 – 18:00	Harshit Tripathi (India) – Structural, Morphological and Optical Studies of Nd/Er-co-doped Y ₂ O ₃ Ceramics
18:00 – 18:20	Dylan Jennings (Germany) – Does flash sintering involve plastic flow?

Hall S4A

11:00 – 13:00	Symposium H
11:00 – 11:30	Invited presentation: Claudia Ortmann (Germany) – ATZ bioceramics for medical instruments a comparison from CNC to LCM production
11:30 – 12:00	Invited presentation: Johannes Homa (Austria) – 3D printing of different types of ceramics for modern medical engineering
12:00 – 12:20	Edgar B. Montufar (Czech Republic) – Compressive strength and effective elastic constants of bone tissue engineering scaffolds with regular and shifted primitive cubic base cell
12:20 – 12:40	Hamada Elsayed (Italy) – Glass-ceramics from glass powders and reactive silicone binders: from sealants to additive manufacturing
12:40 – 13:00	Susana Olhero (Portugal) – Multifunctional injectable inks for extrusion-based additive manufacturing techniques
13:00 – 14:30	Lunch

14:30 – 16:10	Symposium H
14:30 – 15:00	Invited presentation: Antonia Ressler (Croatia) – Bio-inspired scaffolds based on silicon-wollastonite and multi-substituted hydroxyapatite-chitosan hydrogel
15:00 – 15:30	Invited presentation: Jan Hostaša (Italy) – Advanced shaping approaches for the production of transparent ceramics and ceramic laser gain media
15:30 – 15:50	Helen Reveron (France) – Effect of ceramic stereolithography processing on the mechanical behavior of ductile ceria-stabilized zirconia-based composites for biomedical applications
15:50 – 16:10	Verónica Müller (France) – Nanostructured Si-based bioactive glass coatings by electrostatic spray deposition technique
16:30 – 17:00	Coffee break
17:00 – 18:00	Symposium H
17:00 – 17:20	Nathan Brard (France) – Development of nanocomposite ceramics (MgO/Y ₂ O ₃) for infrared window applications
17:20 – 17:40	Zohreh Hamnabard (Iran) – Preparation, phase separation and porosity analysis of an alkali resistant glass composition for biomedical applications
17:40 – 18:00	Karen Hans (Germany) – Influence of laser engraving on alumina-zirconia composites
Hall S4B	
11:00 – 13:00	Symposium B
11:00 – 11:30	Invited presentation: David Salamon (Czech Republic) – Trapping a large surface area into a small volume by SPS
11:30 – 12:00	Invited presentation: Paulina Wiecinska (Poland) – Colloidal processing of ceramic-matrix-composites – between capabilities and limitations
12:00 – 12:20	Ollie Osborn (United Kingdom) – Digital Light Processing of Carbides
12:20 – 12:40	Nicolas Pradeille (France) – Comparative study of Hot-pressing and Spark Plasma Sintering of cerium oxide doped aluminium nitride: influence of the process on ceramics electrical behaviour
12:40 – 13:00	Rouslan Svintsitski (France) – Mass customization, with additive manufacturing
13:00 – 14:30	Lunch
14:30 – 16:30	Symposium B
14:30 – 14:50	Jesús López Arenal (Spain) – Fabrication of ZrB ₂ -hardened Zr ₃ Al ₂ intermetallic composites by high-energy ball-milling and reactive spark-plasma sintering
14:50 – 15:10	Ana Borta-Boyon (France) – Influence of sintering aids on the piezoelectric properties of KNN LS-BZ based ceramics:
15:10 – 15:30	Timothée Fabre (France) – Flash sintering of Li ₃ V ₂ (PO ₄) ₃ , a mixed cationic/electronic conductor as an electrode active material for Li-ion All-Solid-State Battery
15:30 – 15:50	Delphine Gourdonnaud (France) – Printability by micro-extrusion of innovative alumina pastes, based on environmentally friendly
15:50 – 16:10	Dylan Jennings (German) – Scanning transmission electron microscopy studies of segregation behavior in iron doped strontium titanate:
16:10 – 16:30	Andrew Gibson (United Kingdom) – Flash Sintering of Alpha-SiC
16:30 – 17:00	Coffee break

17:00 – 18:20	Symposium B
17:00 – 17:20	Jean-Marc Chaix (France) – Fast processing of complex ceramic components by robocasting and microwave sintering
17:20 – 17:40	Gareth M. Jones (United Kingdom) – Cold or Fast: Sintering of Al doped LLZO solid state electrolyte by cold-sintering and flash-sintering
17:40 – 18:00	Ali Talimian (Slovakia) – Densification behaviour and optical properties of nano-Y2O3 ceramics doped with bivalent transition metals
18:00 – 18:20	Bilge Saruhan-Brings (Germany) – Processing of Rh-doped perovskite protective filters for selective gas sensing
Hall S4C	
11:00 – 13:00	Symposium I
11:00 – 11:30	Invited presentation: Jacques Poirier (France) – Self-healing zirconia mullite refractory with secondary mullite precipitation inducing crack repair
11:30 – 12:00	Invited presentation: Dominika Madej (Poland) – Characterization and mechanism of early hydration of high resistant refractory cement systems undoped and doped with foreign elements
12:00 – 12:20	Andy Nieto (United States) – Resistance of Ultra-High Temperature Ceramic Borides to Calcia-Magnesia-Alumina-Silicate Attack Under Isothermal Conditions
12:20 – 12:40	Jeremie Manaud (Germany) – Investigation of ultra-high temperature transition metals carbonitrides
12:40 – 13:00	Luca Zoli (Italy) – Thermal stability of polymer derived ultra-high temperature ceramic matrix composites
13:00 – 14:30	Lunch
14:30 – 16:30	Symposium I
14:30 – 15:00	Invited presentation: Jan Dusza (Slovakia) – Deformation and fracture of high - entropy ceramics during micro/nano mechanical testing
15:00 – 15:30	Invited presentation: Nur Sena Yüzbası (Switzerland) – Fabrication and selection of high temperature energy storage ceramic materials and refractories for solar thermal systems: microstructure-performance relationship under corrosive atmosphere
15:30 – 15:50	Francesca Servadei (Italy) – Self-protection capability of ultra-high temperature ceramic matrix composites manufactured by Water-based Powder Slurry Infiltration and Polymer Infiltration and Pyrolysis
15:50 – 16:10	Steven Smith (United States) – Thermal Properties of (Ti,Cr)B2 Ceramics
16:10 – 16:30	Petra Jenus (Slovenia) – Processing and characterization of binderless WC for high temperature applications
16:30 – 17:00	Coffee break
17:00 – 18:30	Symposium I
17:00 – 17:30	Invited presentation: Serhii Yaroshevskiy (Germany) – Development of 3D-Printing Filament System for Manufacturing of Tailor-Made Refractory Products
17:30 – 17:50	Anna-Marie Lauermannová (Czech Republic) – Multicomponent composites based on reactive magnesia: contribution of 1D and 2D carbon-based nanomaterials and their combinations

17:50 – 18:10	Vasanthakumar Kombamuthu (Slovakia) – Effect of SiC particulates/whiskers reinforcements on properties of spark plasma sintered high entropy borides (TiO:2ZrO:2HfO:2NbO:2TaO:2)B ₂ synthesized using boro/carbothermal reduction
18:10 – 18:30	Peter Tatarko (Slovakia) – Effect of the electric field on the in-situ formation of graphene nanoplatelets during reactive sintering of B ₄ C-TiB ₂ composites
Hall S4D	
11:00 – 13:00	Symposium D
11:00 – 11:30	Invited presentation: Raul Bermejo (Austria) – Exploring new concepts to design damage tolerant ceramics using additive manufacturing
11:30 – 12:00	Jan-Felix Wendel (Germany) – Combination of polymer derived ceramic and physical vapour deposition coating methods for new functional coatings
12:00 – 12:20	Marek Potoczek (Poland) – Calcium phosphate coatings on gel-cast ZrO ₂ foams
12:20 – 12:40	Romain Trihan (France) – A new SPR-based sensor using transparent ceramics coated with gold-silica nanoparticles and mesoporous topcoat
12:40 – 13:00	Joanna Szymanska (Austria) – Preparation and characterization of ZTA intended for structural ceramics
13:00 – 14:30	Lunch
14:30 – 16:20	Symposium D
14:30 – 15:00	Invited presentation: Frantisek Lofaj (Slovakia) – Mechanical properties and thermal stability of High Target Utilization Sputtered TiNbVTaZrHf based nitride and carbide coatings
15:00 – 15:20	Monika Tatarková (Slovakia) – Boron nitride nanosheets as a reinforcement for silicon nitride
15:20 – 15:40	Eugeni Cañas (Spain) – Atmospheric plasma sprayed bioactive glass coatings containing strontium and magnesium
15:40 – 16:00	Thomas Père (France) – Elaboration of yttria-stabilized zirconia coatings at room temperature by Aerosol Deposition Method (ADM)
16:00 – 16:20	Daniel Paulus (Germany) – 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	Symposium D
17:00 – 17:20	Dylan Chatelain (France) – Modification of the nozzle geometry to improve HA deposition efficiency in cold gas spraying
17:20 – 17:40	Abdullah Jabr (Austria) – Enhancing contact damage tolerance through microstructure tailoring and layered design
17:40 – 18:00	Manuela González-Sánchez (Spain) – Alumina ceramics prepared by reactive pressureless sintering dip-coated with PDMS-TEOS hybrid material
18:00 – 18:20	Josef Schlacher (Austria) – Understanding fracture of layered alumina-based ceramics with textured microstructures: from macro- to micro-scale

Hall S4E	
11:00 – 13:00	Symposium I
11:00 – 11:30	Invited presentation: Diletta Sciti (Italy) – Extending carbon fibre ceramic composites from boride to carbide and oxide matrices
11:30 – 12:00	Invited presentation: Gerard Vignoles (France) – Taming thermal gradients for an optimal chemical vapor infiltration with the help of modeling
12:00 – 12:20	Julia Doll (Germany) – High-resolution mass spectrometry-based classification of high-boiling binders used in refractory materials
12:20 – 12:40	Hakan Ünsal (Slovakia) – Ablation behavior of rare-earth modified ZrB ₂ -SiC composites prepared by reaction sintering of ZrSi ₂ , B ₄ C and C
12:40 – 13:00	Jakub Ramult (Poland) – Analysis of the corrosion mechanism of spinel refractory materials with different stoichiometry in contact with steel slags
13:00 – 14:30	Lunch
14:30 – 16:00	Symposium E
14:30 – 15:00	Invited presentation: Jurij Koruza (Austria) – Ferroelectric hardening by microstructural elements
15:00 – 15:20	Ece Gunay (Turkey) – Investigating the Effect of Silicon on Microstructural Evolution during Crystallization in Long Persistence Strontium Aluminate Compounds
15:20 – 15:40	Lorenz Hagelüken (Switzerland) – Multiscale 2D/3D microshaping of property-contrast polymer-derived SiCN
15:40 – 16:00	Arun Ichangi (Switzerland) – Electrospun Ferroelectric Fibers and Their Applications
16:30 – 17:00	Coffe break
17:00 – 18:20	Symposium E
17:00 – 17:20	Moritz Braun (Germany) – Band-gap engineering of ABO ₃ (A = Ba) perovskites by isovalent B-site substitution
17:20 – 17:40	Danica Piper (Serbia) – Polycrystalline and epitaxial thin films based on LaMnO ₃ /(La,Sr)MnO ₃ and BaTiO ₃ /(Ba,Sr)TiO ₃ prepared by chemical solution deposition techniques
17:40 – 18:00	Artur Kosonowski (Poland) – The influence of contact resistance on electrical conductivity in PbTe/CoSb ₃ thermoelectric composite
18:00 – 18:20	Rafał Knura (Poland) – Analysis of lattice dynamics in Pb _{1-x} Sn _x Te solid solutions by XAFS spectroscopy

Tuesday – July 12, 2022

Hall S1

08:30 – 10:30	Symposium B
08:30 – 09:00	Invited presentation: Catherine Elissalde (France) – Low temperature sintering strategies based on chemical reactivity and control of interfaces
09:00 – 09:30	Invited presentation: Andraž Kocjan (Slovenia) – Rapid Sintering of Ceramics: A Culprit or an Opportunity
09:30 – 09:50	Anna-Katharina Hofer (Austria) – Rapid sintering of 3D-printed parts with exceptional high strength
09:50 – 10:10	Pedro Rivero-Antúnez (Spain) – Sol-Gel and reactive-SPS: a route towards toughening of alumina with low dimensionality carbon nanophases
10:10 – 10:30	Thomas Konegger (Austria) – Additive manufacturing of aluminum nitride ceramics with high thermal conductivity via lithography-based ceramic manufacturing
10:30 – 11:00	Coffee break
11:00 – 13:00	Symposium B
11:00 – 11:20	Karel Maca (Czech Republik) – Rapid pressure-less sintering of advanced oxide ceramics
11:20 – 11:40	Felipe Mello Rigon (Germany) – Additive Manufacturing of Porous Ceramic Bodies by Extrusion of Capillary Suspensions
11:40 – 12:00	Anthony Ballester (France) – Design and elaboration of Polymer- Derived Silicon Oxycarbide (SiOxCy) parts by Stereolithography (SLA)
12:00 – 12:20	Marco Mariani (Italy) – Preparation of ready-to-print α -alumina granulated powders by spray-drying
12:20 – 12:40	Mohamed Abdelmoula (Turkey) – Direct Powder Bed Selective Laser Sintering of Silicon Carbide
12:40 – 13:00	Aatreya Manjulagiri Venkatesh (France) – Analysis of ceramic sintering at the particle length scale by in-situ and post-mortem synchrotron X-ray nano-tomography
13:00 – 14:30	Lunch
14:30 – 16:30	Symposium B
14:30 – 14:50	Alberto Ortona (Switzerland) – Fabrication of complex Silicon Carbide architectures by a novel hybrid additive manufacturing process
14:50 – 15:10	Dmitrii Komissarenko (Switzerland) – Additive manufacturing of high strength zirconia ceramics via digital light processing
15:10 – 15:30	Aljaž Iveković (Slovenia) – Influence of paraffin wax addition on rheological properties and printability of ethylene vinyl acetate based feedstocks for fused filament fabrication of alumina
15:30 – 15:50	Paulina Zubrzycka (Switzerland) – Effects of Eu, Y, Mg doping on the sintering and microstructural development of MgAl ₂ O ₄
15:50 – 16:10	Natalia Kovalska (Switzerland) – Synthesis of K- b-Al ₂ O ₃ solid electrolyte for battery applications
16:10 – 16:30	Vojtech Marak (Czech Republic) – Microstructural evolution of barium titanate at applied non-conventional rapid sintering
16:30 – 17:00	Coffee break

17:00 – 18:00	Symposium B
17:00 – 17:20	Isacco Mazo (Italy) – Role of Surface Carbon Nanolayer on the Activation of Flash Sintering in Pure Tungsten Carbide
17:20 – 17:40	Maxime Cheype (France) – Chemical modification of silicon carbide precursors for Direct Ink Writing
17:40 – 18:00	Zonghao Guo (United Kingdom) – Investigation of densification mechanisms in Ultrafast High-temperature Sintering (UHS)
Hall S2	
08:30 – 10:20	Symposium E
08:30 – 09:00	Invited presentation: Manuel Hinterstein (Germany) – Structure properties relationships in functional ceramics for energy conversion
09:00 – 09:20	Yumeng Zheng (Japan) – Effects of boron oxide addition on electrical properties of yttrium-doped bismuth-based zinc oxide varistors
09:20 – 09:40	Oliver Diwald (Austria) – Role and activity of Fe ³⁺ and In ³⁺ impurities on coarsening and functional properties in MgO nanoparticle derived ceramics
09:40 – 10:00	Sophie Bresch (Germany) – Thermoelectric multilayer generators: development from oxide powder to demonstrator
10:00 – 10:20	Camila Ribeiro (Portugal) – Flash Sintering of Barium Strontium Titanate (BST) ceramics
10:30 – 11:00	Coffee break
11:00 – 12:40	Symposium E
11:00 – 11:20	Anna Berezicka (Poland) – Structural studies of sulfur-bearing silicate-phosphate glasses
11:20 – 11:40	Andreas Wohmsland (Germany) – Quenching-induced changes in crystallographic structure and polarized volume of Na _{1/2} Bi _{1/2} TiO ₃ -BaTiO ₃ piezoceramics
11:40 – 12:00	Andrzej Kruk (Poland) – Optical properties of RE-doped potassium sodium niobate ceramics obtained using the sol-gel method
12:00 – 12:20	Anton Tuluk (Netherlands) – Study of the effect of heterovalent doping on the piezoelectric properties of BiFeO ₃
12:20 – 12:40	Katja Wätzig (Germany) – Characterization of the thermal and mechanical properties of C12A7-Mo composites as electron emitting ceramic
13:00 – 14:30	Lunch
14:30 – 16:10	Symposium E
14:30 – 14:50	Stanislav Kamba (Czech Republic) – Subsequent displacive and spin-induced ferroelectric phase transitions in multiferroic BiMn ₃ Cr ₄ O ₁₂ ceramics
14:50 – 15:10	Anna Grünebohm (Germany) – Multi step polarization switching on orthorhombic domain walls: a molecular dynamics study
15:10 – 15:30	Patrick Stargardt (Germany) – Dielectric properties of plasma sprayed coatings for insulation application
15:30 – 15:50	Yannick Lorgouilloux (France) – Optimization of (Ba,Ca)(Zr,Ti)O ₃ lead-free piezoelectric ceramics properties by variation of the composition
15:50 – 16:10	Stefanie Taibl (Austria) – Identification of Sr vacancies and Ti on Sr sites as the origin of ultra-low conductivity in doped SrTiO ₃ thin films

16:30 – 17:00	Coffee break
17:00 – 18:00	Symposium E
17:00 – 17:20	Ondrej Hanzel (Slovakia) – Effect of sintering additives and sintering conditions on electrical and thermal properties of SiC-GNPs and SiC-GO composites
17:20 – 17:40	Pascal Marchet (France) – Elaboration of lead-free piezoelectric thick films by Aerosol Deposition Method
17:40 – 18:00	Piotr Winiarz (Poland) – Optimizing ReBa0.5Sr0.5CoCuO5+ δ double perovskite oxides for application as oxygen electrodes for Solid Oxide Cells
Hall S3A	
08:30 – 10:20	Symposium F
08:30 – 09:00	Invited presentation: Liliana Mitoseriu (Romania) – Peculiar and enhanced properties in BaTiO ₃ ceramics with structural instability induced by composition, density or grain size
09:00 – 09:20	Teresa Rey Wojcik (Germany) – Preparation and characterization of ytterbia stabilized zirconia for SOFC/EC
09:20 – 09:40	Olivier Guillon (Germany) – Scalable fabrication and microstructure optimization of garnet-based ceramic components
09:40 – 10:00	Olivier Guillon (Germany) – Composite cathode layers for solid-state lithium batteries: What should we pay attention to?
10:00 – 10:20	Juan Carlos Pérez Flores (Spain) – Development of full ceramic electrodes for li-ion batteries fabricated by 3d printing
10:30 – 11:00	Coffee break
11:00 – 13:00	Symposium F
11:00 – 11:20	Oana Condurache (Slovenia) – In-situ scanning transmission electron microscopy study of ferroelectric domain walls
11:20 – 11:40	Jon Bell (Switzerland) – Room Temperature H ₂ Sensing of a Pt-BaTiO ₃ -Pt System Prepared by Spark Plasma Sintering
11:40 – 12:00	Teodora Sandu (Romania) – Investigation of the electrical properties of hafnium doped barium – titanate ceramics
12:00 – 12:20	Mélanie François (France) – BaZr0.8Y0.2O3- δ as electrolyte material for Protonic Ceramic Fuel Cell: from its supercritical hydrothermal synthesis to its electrochemical properties
12:20 – 12:40	Amir Maghsoudipour (Iran) – Comparison of sintering behavior of barium-based solid oxide fuel cell cathode by conventional and microwave methods
12:40 – 13:00	Elisa Zanchi (Italy) – Microstructural, thermo-mechanical and corrosion properties of electrophoretically co-deposited Cu and Fe doped Mn–Co spinel coatings for solid oxide cell interconnects
13:00 – 14:30	Lunch
14:30 – 16:30	Symposium F
14:30 – 14:50	Lavinia Curecheriu (Romania) – Exploring critical conditions (composition and grain size) as a new tool for enhancing electrocaloric properties of BaTiO ₃ –based ceramics
14:50 – 15:10	Vilko Mandić (Croatia) – Utilisation of ceramic thin-films for sensing humidity at room temperature

15:10 – 15:30	Sanjay Mathur (Germany) – Advanced TNO-carbon ceramic material for fast-charging Li-ion batteries
15:30 – 15:50	Fabian Delorm (France) – Ultralow thermal conductivity of molybdenum oxides
15:50 – 16:10	Ryszard Kluczewski (Poland) – Lsc-gdc and Lscf air electrodes with modified porosity designated for solid oxide cells
16:10 – 16:30	Andreas Nennung (Austria) – Surface and defect chemistry of porous La _{0.6} Sr _{0.4} FeO ₃ electrodes on polarized 3- electrode cells
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium F
17:00 – 17:20	Sophie Guillemet-Fritsch (France) – Role of graphene on the electrical and thermal conductivities of doped aluminum nitride ceramics
17:20 – 17:40	Katja Wätzig (Germany) – Development of Co-Sintering Regimes for Phosphate Based Composite Cathodes in Solid-State Batteries
17:40 – 18:00	Leszek Ajdys (Poland) – Electrophoretic deposition of the protective layers on the SOC stack components using powders with multimodal grain size distribution
18:00 – 18:20	Athanasios Goulas (United Kingdom) – Additive Manufacturing of Sodium Polyaluminate Solid-State Electrolytes

Hall S3B

08:30 – 10:30	Symposium C
08:30 – 09:00	Invited presentation: Jingzhe Pan (United Kingdom) – Digital twin of sintering using artificial neural network as constitutive law
09:00 – 09:30	Invited presentation: Diego Gomez- Garcia (Spain) – Are disclination dipoles responsible for high temperature superplasticity in ceramics?
09:30 – 09:50	Nicolas Lauro (France) – Optical characterisation of shrinkage for modelling of drying 3D printed green body ceramics
09:50 – 10:10	Radu Stefan Stirbu (Romania) – Mesoscale models for strain- stress distributions in anisotropic porous BaTiO ₃ ceramics
10:10 – 10:30	Dylan Vallet (France) – Development of a 3D model for prediction of curing dimensions, conversion rate, temperature and homogeneity of ceramic systems in stereolithography
10:30 – 11:00	Coffee break
11:00 – 12:50	Symposium C
11:00 – 11:30	Invited presentation: Tanja Lube (Austria) – The Ball-on-Three-Balls- test: Improving accuracy while simplifying stress evaluation
11:30 – 11:50	Simon Pirkelmann (Germany) – Computational ceramics engineering utilizing microstructure-based simulation of material properties
11:50 – 12:10	Maxim Popov (Belgium) – Raman spectra of ceramic materials from first principles
12:10 – 12:30	Radu Stefan Stirbu (Romania) – Comparative analysis of BaTiO ₃ ceramics produced from cuboidal and spherical nanoparticles: the role of nanopowders assembly during the pressing step
12:30 – 12:50	Andrea Cintio (United Kingdom) – High temperature dielectric properties of different SiCf/SiC samples at various infiltration levels
13:00 – 14:30	Lunch

14:30 – 16:20	Symposium I
14:30 – 15:00	Invited presentation: Csaba Balázi (Hungary) – Nanocarbon added Silicon Nitrides
15:00 – 15:20	Maxime Balestrat (France) – From design to application of porous TiC(N)/SiC(N) Nanocomposites derived from preceramic polymers
15:20 – 15:40	Carmen Muñoz-Ferreiro (Spain) – Zirconia-Few-Layer Graphene multifunctional composites: a compromise between mechanical and electrical properties
15:40 – 16:00	Adrian Graboś (Poland) – Oxidation resistance of Spark Plasma Sintered (SPS) Inconel 625- NbC Metal Matrix Composites (MMC)
16:00 – 16:20	Lukas Wagner (Germany) – Influence of matrix densification on the properties of weak matrix oxide fibre composites
16:30 – 17:00	Coffee break
17:00 – 18:00	Symposium I
17:00 – 17:20	Matteo Mor (Italy) – Tribological characterization of UHTCMCs for brake applications
17:20 – 17:40	Sebastian Sado (Poland) – Explanation of MgO-C lined steel ladles lifetime differences with use of computational techniques
17:40 – 18:00	Robert Świerszcz (Poland) – Influence of Si and Al metallic additives on the mechanical properties and microstructure of the qAl ₂ O ₃ -C refractory material

Hall S4A

08:30 – 10:30	Symposium H
08:30 – 09:00	Invited presentation: Dušan Galusek (Slovakia) – Mesoporous nanoparticles doped with ions with potential therapeutic effect: synthesis and characterization
09:00 – 09:30	Invited presentation: Katalin Balázi (Hungary) – Ceramic biomaterials: from traditional technologies to novel applications
09:30 – 09:50	Premysl Vanek (Czech Republic) – Ferroelectric BaTiO ₃ coating of beta-titanium alloy – physicochemical properties and human mesenchymal stromal cells response
09:50 – 10:10	Mariana R. F. Silva (Portugal) – Near colourless UV protective glass and coating
10:10 – 10:30	Soraia Coelho (Portugal) – Structure and microstructure of PDMS-borosilicate hybrid materials produced by sol-gel for biomedical applications
10:30 – 11:00	Coffee break
11:00 – 12:50	Symposium H
11:00 – 11:30	Invited presentation: Anna Lea Kutsch (Austria) – Lithography-based additive manufacturing of short fiber reinforced alumina
11:30 – 11:50	Lucie Pejchalová (Czech Republic) – In vivo assessment on calcium phosphate and titania scaffolds prepared via freeze-casting
11:50 – 12:10	Agnieszka Szysiak (Poland) – Preparation of transparent cerium-rare-earth-elements doped yttrium aluminum garnet (Ce, REE:YAG) ceramics with the aid of freeze granulation
12:10 – 12:30	Dawid Kozieln (Poland) – Synthesis and surface modification of boron carbide (B ₄ C) nanopowders as a boron deliver agent in Boron Neutron Capture Therapy
12:30 – 12:50	Paul Danty (France) – Elaboration of 3D bioceramic scaffolds mimicking human bone architecture
13:00 – 14:30	Lunch

14:30 – 16:30	Symposium H
14:30 – 14:50	Gyu-Nam Kim (South Korea) – Fabrication of compositionally graded zirconia products with high translucency using digital light processing (DLP) technique
14:50 – 15:10	Marian Janek (Slovakia) – The effect of sintering temperature on material properties of 3D printed hydroxyapatite scaffolds:
15:10 – 15:30	Nathalie Douard (France) – Investigation of the microwave sintering of carbonated hydroxyapatite
15:30 – 15:50	Erica Roitero (France) – 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
15:50 – 16:10	Qaisar Nawaz (Germany) – Bioactive glass-based composite scaffolds incorporating gelatin/manganese doped mesoporous bioactive glass nanoparticles for bone tissue regeneration
16:10 – 16:30	Michal Gorbar (Switzerland) – Development of Yb2O3-based ceramics for indirect production of ¹⁷⁷ Lu used in targeted radionuclide therapies:
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium H
17:00 – 17:20	Ali Alzahrani (Saudi Arabia) – Sinter-Crystallization of Nepheline Glasses for Dental Application
17:20 – 17:40	Monika Furko (Hungary) – Bioactive ions doped carbonated hydroxyapatite-biopolymer composite coatings for orthopaedic implants
17:40 – 18:00	Islam Bouakaz (Belgium) – The effect of TPMS design and pores size on biological and mechanical properties of Calcium Phosphate bone graft
18:00 – 18:20	Erika Iveth Cedillo- González (Italy) – Sanitization of different porcelain stoneware tiles after bacterial contamination

Hall S4B

08:30 – 10:20	Symposium B
08:30 – 09:00	Invited presentation: Sylvain Fournier (France) – Paste rheology, photopolymerization and mechanical behaviour of tough ceramics prepared by Stereolithography
09:00 – 09:20	Farid Salari (Italy) – Development of printing resolution for binder jet 3D printing of cement-based inorganic materials: Implementing in-situ control of binder flow rate during printing
09:20 – 09:40	Piotr Wicinski (Poland) – Improving the properties of ceramic materials by doping combined with colloidal processing
09:40 – 10:00	Holger Friedrich (Germany) – Efficient optimization of thermal processes in ceramic processing
10:00 – 10:20	Peter Veteška (Slovakia) – Upcycling of waste glass in development of FFF ceramic material
10:30 – 11:00	Coffee break
11:00 – 12:50	Symposium E
11:00 – 11:30	Invited presentation: Anatolii Belous (Ukraine) – Functional materials based on the oxide magnetic nanosystems
11:30 – 11:50	Andrea Nesterović (Serbia) – Investigaton of phase formation, structure and functional properties of bismuth sodium titanate based piezoceramics
11:50 – 12:10	Brenda Carreño-Jiménez (Mexico) – Characterization of BaZrO3 doped-KNLNS ceramic
12:10 – 12:30	Nikola Kanas (Serbia) – Boosting zT of CaMnO3-based ceramics by controlled micro-structuring

12:30 – 12:50	Armin Feldhoff (Germany) – Electrospun $\text{Ca}_3\text{Co}_4\text{O}_9+\delta$ ceramics from nanofiber mats: Investigation of the microstructure and thermoelectric properties
13:00 – 14:30	Lunch
14:30 – 16:10	Symposium B
14:30 – 14:50	Vojtěch Nečina (Czech Republic) – The role of fluoride additives in the densification of ceramics – How does it work?
14:50 – 15:10	Patrick Höhne (Germany) – Optimized spray granules for dry pressing by means of slurry destabilization and ultrasonic atomization
15:10 – 15:30	Martin Trunec (Czech Republic) – Defect-free drying of large fine-particle ceramic bodies prepared by gelcasting method
15:30 – 15:50	Julian Fanghanel (United States) – Using Organic Acids to Densify Ceramics
15:50 – 16:10	Mikolaj Szafran (Poland) – Challenges in designing of advanced ceramics and composites obtained by colloidal processing
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium B
17:00 – 17:20	Jens Huber (Germany) – Graded ceramic solid-state electrolytes as an example of FAST/SPS-based research and production
17:20 – 17:40	Nicolas Somers (United States) – Fabrication of doped β -tricalcium phosphate bioceramics by robocasting for bone repair applications
17:40 – 18:00	Kyriakos Didilis (Denmark) – Enhancing the geometrical capabilities and performance of functional ceramics fabricated with Freeform Injection Molding
18:00 – 18:20	Anna Galotta (Italy) – Mechanochemical synthesis and cold sintering of mussel shell-derived hydroxyapatite nano-powders for biomedical applications
Hall S4C	
08:30 – 10:00	Symposium E
08:30 – 09:00	Invited presentation: Ann-Katrin Fetzer (Germany) – Transmission electron microscopy study of the local structure in $\text{Na}_{1/2}\text{Bi}_{1/2}\text{TiO}_3\text{-BaTiO}_3$ ceramics
09:00 – 09:20	Fangping Zhuo (Germany) – Effect of temperature on permittivity and piezoelectric response in mechanically deformed BaTiO_3 single crystals
09:20 – 09:40	David Menne (Germany) – Tuning Functional Properties in Porous Electroceramics through 3D Printing of Capillary Suspensions
09:40 – 10:00	Marion Höfling (Denmark) – Mechanical dislocation imprint as tool to control the polarization in ferroelectric BaTiO_3 single crystals
10:30 – 11:00	Coffee break
11:00 – 12:50	Symposium J
11:00 – 11:30	Invited presentation: Chiara Molinari (Italy) – Method for Viscosity Measurement of Silicate Melts by Hot Stage Microscopy
11:30 – 11:50	Ewelina Kłosek-Wawrzyn (Poland) – Preparation and properties of new thermal-insulating building materials with high content of coffee grounds
11:50 – 12:10	Sonia Conte (Italy) – Mobility of hazardous elements in ceramic bodies
12:10 – 12:30	Eugeni Cañas (Spain) – Gibbsite-based ceramics for humidity control tiles

12:30 – 12:50	Florica Măţău (Romania) – Insights into the firing technology of the Cucuteni pottery
13:00 – 14:30	Lunch
14:30 – 16:30	Symposium K
14:30 – 15:00	Renaud Batier (Belgium) – Ceramic Roadmap to 2050
15:00 – 15:30	Jerzy Czechowski (Poland) – The refractory industry in the EU - as it stands and in view of future expectations
15:30 – 16:00	Thomas Kronberg (Finland) – Ceramic demolition waste in the circular economy
16:00 – 16:30	Zbigniew Woźniak (Poland) – The waste glass as a base of the lining tiles: The results of the POIR project
16:30 – 17:00	Coffee break
17:00 – 18:00	Symposium E
17:00 – 17:20	Daniel Breamecker (Germany) – Tailoring of electrical and electromechanical properties in Mg-doped $0.94\text{Na}1/2\text{Bi}1/2\text{TiO}3\text{-}0.06\text{BaTiO}3$
17:20 – 17:40	Lucas Lemos da Silva (Germany) – Field-induced ferroelectric phase transformation in barium titanate
17:40 – 18:00	Emmanuel Iii Ricohermoso (Germany) – High-temperature giant piezoresistivity of SiOC film for strain gauge application
Hall S4D	
08:30 – 10:10	Symposium D
08:30 – 09:00	Invited presentation: Mathias Herrmann (Germany) – Diamond-SiC composites with excellent wear resistance and thermal properties
09:00 – 09:30	Invited presentation: Anna Kozłowska (Poland) – Multilayer ceramic as a novel functional material for lightning and sensing platform
09:30 – 09:50	Edgar B. Montufar (Czech Republic) – Microstructural features of plasma electrolytic oxidation ceramic coatings on titanium scaffolds
09:50 – 10:10	Jallouli Necib (Estonia) – Developing zinc aluminate and zinc silicate ceramic films by a cost-efficient screen printing method assisted by a molten salt flux
10:30 – 11:00	Coffee break
11:00 – 12:50	Symposium D
11:00 – 11:30	Invited presentation: Samuel Bernard (France) – Mesoporous $\text{Si}_3\text{N}_4(\text{C},\text{O})$ Encapsulated Co or Ni nanocatalysts: from design to application in catalyst-assisted reactions in alkaline media
11:30 – 11:50	Oliver Preuß (Germany) – Dislocation Toughening in Oxide Perovskites
11:50 – 12:10	Victoria Vilchez (United Kingdom) – Quantifying local fracture toughness in nacre-like ceramics
12:10 – 12:30	Barbara Putz (Austria/Switzerland) – Mechanical Properties of $\text{Al}_2\text{O}_3/\text{Y}_2\text{O}_3$ Nanolaminate Films on Aluminum towards Protective Coatings
12:30 – 12:50	Alina Makudera (Ukraine) – Interaction in cerium oxide (+3) and oxides of yttrium subgroup systems
13:00 – 14:30	Lunch

14:30 – 16:20	Symposium D
14:30 – 15:00	Invited presentation: Laura Silvestroni (Italy) – Boride hierarchical composites for ultra-high temperature applications
15:00 – 15:20	Pietro Galizia (Italy) – Disclosing residual thermal stresses in fiber-reinforced ceramic composites
15:20 – 15:40	Arno Görne (Germany) – Sputtered tungsten trioxide for scalable hydrogen modules with separate hydrogen and oxygen evolution
15:40 – 16:00	Karina Trevino Rodríguez (Mexico) – Photovoltaic glass waste recycling in the development of substrates for photovoltaic applications
16:00 – 16:20	Carmen Muñoz-Ferreiro (Spain) – Dependence of the tribological behavior of graphene-based ceramic composites on the graphene structure:
16:30 – 17:00	Coffee break
17:00 – 18:00	Symposium D
17:00 – 17:20	Jean-Régis Martinet (France) – Valorisation of local residues, by-products and wastes into ceramic materials for civil engineer application
17:20 – 17:40	Tamás Csanádi (Slovakia) – Strengthening and plasticity in a (Hf-Ta-Zr-Nb)C high-entropy carbide
17:40 – 18:00	Chengying Bai (China) – Fly ash-based porous geopolymer - A review
Hall S4E	
08:30 – 10:00	Symposium A
08:30 – 09:00	Invited presentation: Samuel Bernard (France) – Highly crystalline boron nitride powders by pyrolysis and mechanochemical synthesis of ammonia borane and alkali metal-containing precursors
09:00 – 09:20	Benedicte Vertruyen (Belgium) – High temperature X-ray diffraction to study the formation of sodium titanates from spray-dried mixtures
09:20 – 09:40	Chandima Pradeep Ellawala Kankanamge (Denmark) – Stirring-hydrothermal Synthesis of Uniformity Improved Plate like Potassium-Sodium Niobate (KNN) Templates
09:40 – 10:00	Kamil Domaradzki (Poland) – Low-temperature synthesis of nanocrystalline high-entropy oxides and effect of heat treatment on structural changes
10:30 – 11:00	Coffee break
11:00 – 12:40	Symposium A
11:00 – 11:20	Manuella Cerbelaud (France) – Study of heteroaggregation between silica particles modified by polyelectrolyte multilayers
11:20 – 11:40	Marta Lubszczyk (Poland) – Study of wet chemistry methods for fabricating potassium sodium niobate materials
11:40 – 12:00	Kamil Wojteczko (Poland) – Effect of Y2O3 additive on morphology and phase composition of zirconia solid solutions
12:00 – 12:20	Katarina Mužina (Croatia) – Copper doped ceria nanocatalyst for VOCs oxidation
12:20 – 12:40	Václav Tyrpekl (Czech Republic) – Oxalate salts: From oxide powder synthesis to field assisted sintering studies
13:00 – 14:30	Lunch

14:30 – 16:10	Symposium C
14:30 – 15:00	Invited presentation: Fumihiko Wakai (Japan) – Rigid body motion of multiple particles in solid-state sintering
15:00 – 15:30	Invited presentation: Zdeněk Chlup (Czech Republic) – Fracture behaviour in the vicinity of Curie temperature of BaTiO ₃ piezoceramic
15:30 – 15:50	Bjoern Mieller (Germany) – Numerical study of electric field distribution in breakdown strength testing of ceramics
15:50 – 16:10	Kirsten Schulze (Germany) – Thermal shock characterization of refractories and ceramics using improved in-situ methods
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium C
17:00 – 17:20	Soňa Hříbalová (Czech Republic) – Light scattering predictions for transparent ceramics with birefringent grains
17:20 – 17:40	Leontin Padurariu (Romania) – Modeling of the dielectric properties in ferroelectric-based composites by a new dynamic finite element method
17:40 – 18:00	Ivan Zorin (Austria) – Mid-IR OCT imaging as a method for studying additive manufactured ceramics
18:00 – 18:20	Katharina Marquardt (United Kingdom) – 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

Hall S1

08:30 – 10:15	L-ECerS and JECS Trust Awards Ceremony
08:30 – 08:40	Short introduction: Francis Cambier (Belgium) – Jon Binner (United Kingdom) – Zbigniew Pędzich (Poland)
08:40 – 09:10	Stuijts award: Jérôme Chevalier (France) – Zirconia for dental applications: what can we do with the 'ceramic steel'?
09:10 – 09:40	Richard Brook award: Bikramjit Basu (India) – Bioceramics for Healthcare: Where the future lies?
09:40 – 10:10	JECS Trust Award: Ralf Riedel (Germany) – 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 (Italy)
11:00 – 11:30	Young Scientist Award: Ondřej Jankovský (Czech Republic) – Unique properties of layered inorganic materials
11:30 – 11:45	2021 Students Speech Contest Winner: Maximilian Staudacher (Austria) – 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 (USA)
11:55	Presentation of Lyon 2023
12:00	Closure of the ceremony
12:30 – 13:00	Poster Session
13:00 – 14:30	Lunch
14:30 – 16:10	Symposium B
14:30 – 14:50	Alberto Ortona (Switzerland) – Fabrication of dense SiC ceramics by a novel hybrid additive manufacturing process
14:50 – 15:10	Stefan Pfeiffer (Switzerland) – Customized ceramic granules for laser powder bed fusion of crack-reduced aluminum oxide components
15:10 – 15:30	Claude Estournes (France) – Engineering of ceramic oxides microstructures using low temperature reactive sintering processes and Flash SPS
15:30 – 15:50	Jean-Marc Chaix (France) – Effect of physical and geometrical parameters on the stability of flash sintering and the quality of flash sintered parts
15:50 – 16:10	Larissa Wahl (Germany) – Multi- material printing of reaction bonded carbides by robocasting
16:30 – 17:00	Coffee break

17:00 – 18:00	Symposium B
17:00 – 17:20	Farid Salari (Italy) – Effect of binder flow rate on the product quality of binder jet 3D printed magnesium oxychloride cementitious materials
17:20 – 17:40	Giorgia Franchin (Italy) – Fast and high resolution volumetric 3D printing of SiOC components
17:40 – 18:00	Darya Farrokhnemoun (Turkey) – Effect of Sodium on phase transformation of alumina

Hall S2

14:30 – 16:10	Symposium B
14:30 – 14:50	Anis Aliouat (France) – Ignition of densification mechanisms through applied electric/ electromagnetic fields during spark plasma sintering -application to a pre-oxidized copper powder
14:50 – 15:10	Christian Bechteler (United Kingdom) – Formation and influence of plasma in flash sintering of ceramics
15:10 – 15:30	Berfu Göksel (Belgium) – Optimization of Alumina Toughened Zirconia Inks for Direct Ink Writing Applications: Rheological Characterization And Printability
15:30 – 15:50	Nicolas Preux (Belgium) – Versatility of direct-ink writing for the manufacturing of lattice ceramic truss
15:50 – 16:10	Radosław Żurowski (Poland) – Rheological aspects in designing the functional properties of ceramic-matrix- composites
16:30 – 17:00	Coffee break
17:00 – 18:00	Symposium B
17:00 – 17:20	Mattia Biesuz (Italy) – Gadolinium-doped ceria electrolytes by ultrafast high-temperature sintering
17:20 – 17:40	Tianhui Jiang (United Kingdom) – Hierarchical compositional control of ceramic composites
17:40 – 18:00	Anna Wieclaw-Midor (Poland) – Photocurable ceramic dispersions of different compositions for additive manufacturing techniques

Hall S3A

14:30 – 15:30	Symposium F
14:30 – 14:50	Temesgen Zate (South Korea) – Outstanding Unipolar Strain of Textured $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3\text{-PbZrO}_3\text{-PbTiO}_3$ Piezoelectric Ceramics Manufactured by Particle Size Distribution Control of the Plate-like BaTiO_3 Template
14:50 – 15:10	Maryam Azadeh (Germany) – Effect of doping on the electrical and electrochemical characteristics of Potassium sodium niobate ceramics
15:10 – 15:30	Vladislav Kolotygin (Spain) – Electrochemical behaviour of dry-processed and slurry-casted all-solid-state batteries with argyrodite electrolyte
16:30 – 17:00	Coffee break

17:00 – 18:20	Symposium I
17:00 – 17:20	Alena Stein (Germany) – Influence of Thermal Pre-Treatment on the Efficiency of Iron Leaching in Non-Refractory Grade Raw Bauxite
17:20 – 17:40	Simone Taraborelli (Italy) – Improvement of the mechanical properties of TiB ₂ for armour applications using different additives and sintering techniques
17:40 – 18:00	Jan Urbánek (Czech Republic) – Phosphate-bonded refractory materials with controlled setting and adhesive properties
18:00 – 18:20	Eva Bartonickova (Czech Republic) – Rein forced porous mullite ceramics via sol gel impregnation

Hall S3B

14:30 – 16:30	Symposium I
14:30 – 14:50	Annamaria Naughton Duszova (Slovakia) – Sintering of ZRB ₂ based UHTC composites by SPS technique
14:50 – 15:10	Johanna Schmidt (Germany) – SiC/SiC ceramic fibre composites for turbine applications
15:10 – 15:30	Antonio Vinci (Italy) – Synthesis and mechanical characterization of YB ₂ C ₂ -based ceramics
15:30 – 15:50	Enrico Storti (Netherlands) – The importance of the ceramic strut morphology: mechanical and physical characterization of Al ₂ O ₃ -C foam filters produced by distinct processing routes
15:50 – 16:10	Lisa Audouard (France) – Manufacturing and characterisation of fully stabilized hafnia by FAST and natural sintering
16:10 – 16:30	Enrico Storti (Netherlands) – Metal- ceramic beads containing Nb and alumina produced by alginate gelation
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium I
17:00 – 17:20	Ilona Jastrzębska (Poland) – Corrosion of MgO-Cr refractory by PbO-rich copper slags by various corrosion methods
17:20 – 17:40	Rafael Vargas (Brazil) – Effect of Sintering Temperature on Fracture parameters for an alumina-mullite-zirconia refractory via Wedge Splitting Tests at 600°C
17:40 – 18:00	Roberto D'Ambrosio (Italy) – Control of the sample temperature profile in pilot-scale Microwave-assisted Chemical Vapor Infiltration reactors by means of multiport/multifrequency excitation
18:00 – 18:20	Adéla Jiříčková (Czech Republic) – Carbon-bonded alumina refractories reinforced with graphene oxide

Hall S4A

14:30 – 16:30	Symposium E
14:30 – 14:50	Mattia Biesuz (Italy) – Novel Entropy-stabilized NiO-free Rock Salt Ceramic
14:50 – 15:10	Venkata Raveendra Nallagatla (Austria) – Perovskite thin films for high energy density capacitor devices from chemical solution deposition
15:10 – 15:30	Shuang Gao (Germany) – Microstructure and growth mechanism of LiNbO ₃ hardening precipitate in Li-doped NaNbO ₃
15:30 – 15:50	Pinar Kaya (Germany) – Linking Microstructure and Transport Properties in Sm/Yb-doped AlN Ceramics

15:50 – 16:10	Lovro Fulanović (Germany) – A novel indentation method for dielectric breakdown strength investigation
16:10 – 16:30	Viviann Hole Pedersen (Norway) – In situ studies of crystallization and texturing in $Sr_xBa_{1-x}Nb_2O_6$ thin films prepared by aqueous chemical solution deposition
16:30 – 17:00	Coffee break
17:00 – 18:00	Symposium E
17:00 – 17:20	Javier Mena-Garcia (United States) – Integration and Characterization of a Ferroelectric Polymer PVDF-TrFE into the Grain Boundary Structure of ZnO via Cold Sintering
17:20 – 17:40	Roxana Elena Patru (Romania) – Low and high field electrical properties of dense fine-grained ferroelectric ceramics prepared via sol-gel method
17:40 – 18:00	Farrukh Erkinov (Uzbekistan) – Effect of CuO added BNST-BF lead-free piezoelectric ceramics

Hall S4B

14:30 – 16:30	Symposium B
14:30 – 14:50	Andrea Zocca (Germany) – Additive Manufacturing of advanced ceramics by layerwise slurry deposition and binder jetting (LSDprint)
14:50 – 15:10	Paweł Falkowski (Poland) – Additive manufacturing-assisted shaping of ceramics with complex shape
15:10 – 15:30	Marco D'Agostini (Italy) – Net-shape zeolite monoliths by bulk crystallisation of 3D printed aluminosilicate slurries
15:30 – 15:50	Fateme Sarraf (Switzerland) – Fabrication of Polymer Derived Mullite Ceramics Made by Pellet Extrusion 3D Printer
15:50 – 16:10	Andrea Bartoletti (Italy) – 3D printed proton-conducting substrates for hydrogen separation
16:10 – 16:30	Kinga Sztymela (France) – Cathode ink formulation for inkjet printing technology
16:30 – 17:00	Coffee break
17:00 – 18:00	Symposium B
17:00 – 17:20	Luboš Bača (Slovakia) – Additive manufacturing of ceramic components by fused deposition modelling technology:
17:20 – 17:40	Johannes Homa (Austria) – Successful Use Cases of LCM Ceramic 3D Printing in Industrial Mass Production
17:40 – 18:00	Amy Knorpp (Switzerland) – Hydrothermal synthesis of multi-cationic high-entropy layered double hydroxides

Hall S4C

14:30 – 16:30	Symposium G
14:30 – 14:50	Muhammad Imran Asghar (Finland) – Additive manufacturing of ceramic nanocomposite fuel cells
14:50 – 15:10	Nur Sena Yüzbaşı (Switzerland) – Virus retention of porous and granular Al_2O_3 modified with $MgAl_2O_4$ for drinking water production
15:10 – 15:30	Rosa I. Merino (Spain) – Ceramic supports with highly dense and aligned pores for molten-carbonate based CO_2 separation membranes

15:30 – 15:50	Tomasz Brylewski (Poland) – Functional steel/composite ceramics layered systems for interconnects applied in electrochemical energy conversion devices
15:50 – 16:10	Magdalena Kosiorek (Poland) – 3D printing as an economical and efficient method for fabricating solid oxide cell (SOC) stacks sealings
16:10 – 16:30	Sherly Novia Sari (Poland) – The influence of sintering method on electrical properties of BaCeO ₃ -based composite protonic conductors
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium G
17:00 – 17:20	Arijeta Bafti (Croatia) – Development of geopolymer network and following influence on conductivity properties
17:20 – 17:40	Kiryl Zakharchuk (Portugal) – Synthesis and characterization of Ba(Fe,Zr,Ni)O ₃ perovskites for potential application in electrochemical NO _x decomposition
17:40 – 18:00	Zoltán Lenčéš (Slovakia) – Translucent/transparent spinel phosphors for solid state lighting and photocatalytic applications
18:00 – 18:20	Donatella Giuranno (Italy) – Polymer-Derived Ceramic materials for novel ultrahigh-temperature latent-heat thermal energy storage device

Hall S4D

14:30 – 16:30	Symposium D
14:30 – 14:50	Mattia Muracchioli (Italy) – High Shear Wet Granulation of Geopolymer and Geopolymer-Zeolite powders for CO ₂ adsorption
14:50 – 15:10	Souhaila Nider (Belgium) – Creation of porous ceramics with hierarchical pores using capillary suspensions for bone tissue engineering
15:10 – 15:30	Kevin Tedjokusuma (Germany) – Filtration Performance of Highly Porous Glass Filters Made from Capillary Suspensions
15:30 – 15:50	Eveline Zschippang (Germany) – Influence of cost-efficient Si ₃ N ₄ powders on the microstructure formation of alpha/beta Sialons prepared via an aqueous processing route
15:50 – 16:10	Moritz Weiß (Germany) – FastCast – open porous ceramics
16:10 – 16:30	Xinyu Li (China) – Porous metakaolin/slag-based geopolymer adsorbent synthesized by a water-soluble template
16:30 – 17:00	Coffee break
17:00 – 18:20	Symposium D
17:00 – 17:20	Pedro Henrique Da Rosa Braun (Germany) – Designing the pore morphology of SiOC freeze-cast structures using solvent mixtures
17:20 – 17:40	Christos Agrafiotis (Germany) – Reticulated porous perovskite structures for implementation of cyclic redox-based thermochemical gas-solid reactions
17:40 – 18:00	Swantje Simon (Germany) – Additive Manufactured Replica Foams
18:00 – 18:20	Cristina Elena Ciomaga (Romania) – Influence of porosity on dielectric, ferroelectric and pyro-, piezoelectric properties for Ba _{0.85} Ca _{0.15} Ti _{0.90} Zr _{0.10} O ₃ porous ceramics

Hall S4E

Hall S4E	
14:30 – 16:50	Symposium J
14:30 – 15:00	Invited presentation: Michele Dondi (Italy) – Porcelain versus porcelain stoneware: so close, so different: Sintering kinetics, phase evolution, and vitrification pathways
15:00 – 15:30	Invited presentation: Katarzyna Pasiut (Poland) – Characterization of raw strontium glazes with changing the molar ratio of Na ₂ O/K ₂ O
15:30 – 15:50	Paolo Scanferla (France) – Effect of potassium and additives concentration on alkali-based geopolymers for high temperature applications
15:50 – 16:10	Gisèle Laure Lecomte-Nana (France) – Influence of the freeze tape casting process on the properties of use of kaolinite and halloysite-based ceramics
16:10 – 16:30	Karolina Kaczmarczyk (Poland) – Nanomechanical properties of glass-ceramic materials from the SiO ₂ -Al ₂ O ₃ -Na ₂ O-K ₂ O-MgO system with an addition of CaO
16:30 – 16:50	Janusz Partyka (Poland) – The impact of the Na ₂ O/K ₂ O molar ratio on the properties of ceramic glazes

Thursday – July 14, 2022

Hall S1

11:20 – 11:50 **Closing Ceremony**

11:50 – 13:20 Lunch

Hall S2

09:00 – 10:20 **Symposium I**09:00 – 09:20 **Witold Nawrot** (Poland) – Application of stereolithography-based ceramic additive manufacturing in microsystems09:20 – 09:40 **Simone Failla** (Italy) – Lightweight Alumina-B4C composites for structural and functional applications09:40 – 10:00 **Zuzana Kováčová** (Austria) – Oxidation performance of ZrB2-SiC composites tested above 2000°C and effect of Y containing additives10:00 – 10:20 **Stefano De la Pierre** (Italy) – Pressure-less glass-ceramic joining of SiC/SiC nuclear fuel clads for Light Water Reactors

Hall S3A

09:00 – 10:20 **Symposium I**09:00 – 09:20 **Young-Wook Kim** (South Korea) – High-Temperature Strength of Liquid-Phase Sintered Silicon Carbide Ceramics09:20 – 09:40 **Felix Wich** (Germany) – Reactivity, pyrolysis, mass-loss kinetics and carbon residue of phenol-formaldehyde resins with different hexa-contents09:40 – 10:00 **Thorsten Opel** (Germany) – Development and Tribological Studies of an Aluminium-CMC Hybrid Brake Disc10:00 – 10:20 **Mohammad Bavand-vandchali** (Iran) – The effect of Nano-Iron on phase and microstructural evolution of MgO-C refractories

Hall S3B

09:00 – 10:40 **Symposium G**09:00 – 09:20 **Katrin Schönfeld** (Germany) – New ceramic heating elements based on zirconium carbide09:20 – 09:40 **Alper Güneren** (Slovakia) – Self-healing binder adaption to silicon-graphite blended anodes09:40 – 10:00 **Gurdial Blugan** (Switzerland) – Material design and optimization of ternary silicon oxycarbide/graphite/tin nanocomposite ceramics for anodes in Li-ion batteries10:00 – 10:20 **Valeriu Mereacre** (Germany) – Enhanced performance of high-voltage batteries by the coating of spinel LiNi0.5Mn1.5O4 with different Li-containing oxides10:20 – 10:40 **Aleksey Yaremchenko** (Portugal) – Sr0.7 Ce0.3MnO3-δ as anode material for fuel-assisted solid oxide electrolysis cells

Hall S4A

09:00 – 10:00	Symposium H
09:00 – 09:20	Marcela Arango-Ospina (Germany) – Comparison of the in vitro activity of silicate-based bioactive glasses and silicon oxycarbide systems for bone regeneration
09:20 – 09:40	Andrzej Kruk (Poland) – Synthesis and magneto-optical properties of rare- earth co-doped Y2O3
09:40 – 10:00	Mastura Aripova (Uzbekistan) – Synthesis of bioactive materials based on Zn3(PO4)2 – Ca5(PO4)3F – CaAl2Si2O8 system for dentistry applications

Hall S4B

09:00 – 10:20	Symposium H
09:00 – 09:20	Joanna Czechowska (Poland) – Biomicroconcretes containing hydroxyapatite/chitosan hybrid granules for bone tissue regeneration
09:20 – 09:40	Premysl Stastny (Czech Republic) – Highly translucent and strong 3Y-TZP ceramics for dental applications
09:40 – 10:00	Przemysław Gołębiewski (Poland) – The effect of boron oxide doping on the properties of alkali-free bioactive glasses designed for the production of microfibers for bone regeneration
10:00 – 10:20	Amund Ruud (Norway) – Crystal structure and mechanical properties of yttria-stabilized zirconia for dental applications

Hall S4C

09:00 – 10:00	Symposium G
09:00 – 09:20	Maksim Strykevich (Portugal) – Novel electrolyte for composite CO2 separation membranes:
09:20 – 09:40	Aikai Yang (Germany) – Towards viable solid-state batteries: electrochemical studies and amplifying fabrication for a silicate-based Na superionic conductor
09:40 – 10:00	Agnieszka Zurawska (Poland) – Composite glass-zirconia sealing for SOC technology

Hall S4D

09:00 – 10:20	Symposium D
09:00 – 09:20	Johannes Eßmeister (Austria) – Lithography-based additive manufacturing of polymer-derived SiOC/SiC composites
09:20 – 09:40	Eveline Zschippang (Germany) – Modified silicon nitride for high temperature bearing applications
09:40 – 10:00	Floren Radovanović-Perić (Croatia) – β -TCP porous scaffolds with controllable macro-porosity prepared by PU replication method assisted by vacuum
10:00 – 10:20	David Köllner (Germany) – Prediction of crack propagation in honeycomb ceramics by polarimetry and digital image correlation

Hall S4E	
09:00 – 10:20	Symposium C
09:00 – 09:20	Roman Papšík (Austria) – Modelling of Hertzian crack initiation in brittle materials using a stress-energy criterion
09:20 – 09:40	Mehdi Mazaheri (Netherlands) – Damage propagation in Silicon Nitride ceramics under cyclic indentation
09:40 – 10:00	Divyansh Mittal (India) – Response surface methodological (RSM) model for optimizing erosion response of WC reinforced SiC ceramics
10:00 – 10:20	Pedro Rivero-Antúnez (Spain) – The dispersion and aggregation problems of the carbon nanotubes as reinforcing phase assessed by computer simulation

Poster Session

Symposium A: Synthesis of powders

A1	Transition between two solid-solutions: effective and easy way for fine Ce _{1-x} Gd _x O _{2-x/2} powders preparation	Adam Alemayehu
A2	Microfluidic synthesis of amino- and carboxyl-functionalized magnetite nanoparticles	Cristina Chircov
A3	Powder based on ReB ₂	Kinga Czechowska
A4	Preliminary Study of the Cold Sintering Process (CSP) for Geopolymer Powders	Lorenzo Lattanzi
A5	Low-temperature synthesis of britholite-(La) by sol-gel method	Thanyarat Phutthaphongloet
A6	Bio-inspired nanoplatelet-like particles of hydroxyapatite	Nilza Ribeiro
A7	Novel MAB phases	Jan Słomiński
A8	Synthesis of high entropy carbide (Ti, Zr, Hf, Nb, Ta)C	Pavlna Šolcová
A9	Homogeneous precipitation of lanthanide oxalates	Anastasiya Zakharanka
A10	Effects of temperature, aging time, and method of introducing stabilizer oxide into solid solution on properties of Mg-PSZ materials.	Marek Grabowy

Symposium B: Ceramic processing

B1	Exploring the potential of Calcia (CaO) dopant for the stabilization of Tetragonal and Cubic ZrO ₂ nanoceramics as an alternative to Yttria (Y ₂ O ₃)	Aditya Arun
B2	Role of atmosphere during flash sintering of NiO/8YSZ composite	Subhadip Bhandari
B3	New water-thinnable acrylic polymeric binders in processing of BST/polymer composites	Weronika Bulejak
B4	LTCC tapes for a new generation of SICER silicon-ceramics composite substrates	Beate Capraro
B5	The study of diamond regrowth in High-Pressure High-Temperature sintered polycrystalline diamond materials	Tuoran Chen
B6	The investigation of ZnO dopant on flash sintering of 3YSZ: Grain growth with electrochemical reactions	Ammar Eqbal
B7	Mechanical activation and HIP of ZrB ₂ -TiB ₂ based composites for hypersonic system	Suzana Filipović
B8	Homogeneous densification of large YSZ cylinders by Flash Sintering	Caroline Gajdowski
B9	Ceramic cores for reproducing internal cooling channels in high pressure turbine aircraft blades	Magdalena Gromada
B10	Reactive Laser Sintering of SiC coatings on Inconel 625 substrate	Jan Huebner
B11	Microstructural evolution of Inconel 625 – WC system in different heating condition	Jan Huebner
B12	Obtaining high fire resistance, backing material clinker using local raw materials - dolomite, quartz ore sand (Georgia) and production waste	Zviad Kovziridze
B13	Ceramic-graphene composites obtained by slip casting: rheological studies and analysis of possible interactions	Michał Kukielski
B14	'Shape strain' in Nanoceramics	Lakshaman Kumar

B15	Influence of temperature gradients on flash sintering onset and quality	Daniil Lewin
B16	Discontinuous Powder Aerosol Deposition Method: Formation of ceramic films at room temperature using small powder quantities	Mario Linz
B17	Flash sintering of BZT-BCT ceramics: tuning the microstructure for properties enhancement	Samuel López Blanco
B18	Hard ferromagnetic ink-jet printed CoFe ₂ O ₄ thin films	Marco Mariani
B19	Shaping KNN powder by binder jetting	Marco Mariani
B20	Novel approach to fabrication of porous polymer-derived SiOC ceramics by 3D printing of High Internal Phase Emulsions	Jan Mrówka
B21	Impact of high-energy ball milling on piezoelectric properties of the “lead-free” BCTZ (Barium Calcium Zirconate Titanate) piezoceramics	Mazia Mureddu
B22	Understanding the flash sintering mechanisms through the electric current parameterization	Diego Alejandro Ochoa Guerrero
B23	Optimization of Si ₃ N ₄ -based feedstock for direct ink writing	Susana Olhero
B24	Effect of printing variables on the voids elimination for manufacturing highly dense bulk mullite-based ceramics via Fused Filament Fabrication	Martina Orlovská
B25	Effect of feedstock properties and process parameters on the quality of parts prepared with thermoplastic 3D printing	Ipeknaz Özden
B26	Additive manufacturing of feldspar for tooth implants by layerwise slurry deposition	Nicole Panzier
B27	Effect of microwave heating on spinel formation	Clémence Petit
B28	Conventional and high-speed microwave sintering of robocast porcelain	Clémence Petit
B29	Development of a New Range of Large Ceramic Tiles in Bla-group Stoneware Technology conforming to EN 14411, with Unique Full-body Ornaments Resembling the Patterns of Natural Materials, Including e.g. Stone or Wood	Anna Poddebniak
B30	Reactive sprak plasma sintering of B ₄ C composites using B ₄ C-Ti-B powder mixtures	Gorle Revathi
B31	FLASH sintering applied to porcelain production: Development of Processing Maps	Camila Ribeiro
B32	Laser surface modification of Inconel 625 by molybdenum and titanium carbides	Paweł Rutkowski
B33	The microhardness improvement of titanium alloy by ZrO ₂ particles addition	Paweł Rutkowski
B34	Spark plasma sintering of Inconel 625 - Ti/Zr mixed carbides	Paweł Rutkowski
B35	ZrO ₂ -Mo composites fabricated by aqueous colloidal processing with the use of metallic precursor	Joanna Tańska
B36	SLA printed part exhibiting biomimetic nacre like structure	Amélie Touvet
B37	Fused Deposition Melting of Carbon Fibre Reinforced Ultra-High Temperature Ceramics Matrix Composites	Daorong Ye
B38	A novel approach to processing of doped hafnia ceramics	Laurent Brissonneau
B40	Novel hybrid method to additively manufacture graphite structures by Binder Jetting	Daniel Safranchik
B41	Structural Investigation of 3D Printed Reaction Bonded Silicone Carbide	Denis Zolotaryov
B42	Processing and mechanical evaluation of oxide-oxide ceramic matrix composites manufactured using automated fibre placement	Thomas Nelson

Symposium C: Modelling, Simulation, characterization and digitalization of materials and processes

C1	Dark-Field X-ray microscopy for the determination of oxygen vacancies	Antonella Gayoso Padula
C2	Can indentation cracks describe residual/internal stresses in Al ₂ O ₃ /ZrO ₂ laminates?	Hynek Hadraba
C3	Structural changes of Al ₂ TiO ₅ - MgTi ₂ O ₅ solid solutions resulting from heterogeneous nucleation	Kamil Kornaus
C4	Processing variables influencing the relative density of Alumina-Zirconia ceramic materials: statistical evidence learned from the literature	Susana Olhero

Symposium D: Structural ceramics / Ceramic coatings / Porous ceramics

D1	Improvements to the performance of alumina-based ceramics through the reaction sintering of alumina-mullite nanocomposites	Douglas Andrews
D2	Investigation of energy harvesting properties in porous Ba _{0.85} Ca _{0.15} Ti _{0.90} Zr _{0.10} O ₃ ceramics with enhanced piezoelectric figure of merits	Cristina Ciomaga
D3	Taguchi's method applied to manufacture of porous alumina by reactive spark plasma sintering and sacrificial carbon template	Manuela González-Sánchez
D4	Dielectric strength analysis of Al ₂ O ₃ anodic layer deposited on Al substrate	Mykola Maksymuk
D5	Interface optimization of hybrid polymer-ceramic microdevices for transdermal applications.	Susana Olhero
D6	Utilization of waste diatomaceous earth for cellular glass fabrication	Martin Sedlačík
D7	Characterization of transparent conducting ITO-Al ₂ O ₃ composite thin films deposited by aerosol deposition	Kazuki Shinozuka
D8	Mechanical properties and hydrothermal aging of ATZ composites prepared from zirconia powders with different yttria content	Agnieszka Wilk
D9	Microstructural evaluation of zinc oxide thin films deposited by aerosol deposition method	Yumeng Zheng

Symposium E: Functional ceramics

E1	Ferroelectric properties and phase transitions dynamics of Ag _{1-x} Li _x NbO ₃ (x ≤ 0.08) ceramics	Juras Banyś
E2	Spectroscopic investigation of glassy carriers of cobalt ions for plants	Anna Berezicka
E3	Photoluminescence studies of Eu- and Tb-doped (1-x)Na _{0.5} Bi _{0.5} TiO ₃ - xBaTiO ₃ ceramics	Vincenzo Buscaglia
E4	Effect of Zr content on the wetting of BaTi _{1-x} Zr _x O ₃ perovskites by Ag-based liquids	Vincenzo Buscaglia
E5	Towards a light-driven actuator based on ferroelectric ceramics	José E. García
E6	UHTC composites in the system 40% vol. ZrB ₂ - 40% vol. HfB ₂ - 20% vol. MX (MX= SiC, B ₄ C, WC, MoSi ₂ and CrSi ₂)	Agnieszka Gubernat
E7	Broadband dielectric investigations of 0.7BiFeO ₃ -0.3BaTiO ₃ ceramics	Vadzim Haronin

E8	Revealing defects and domains in bulk ferroelectrics with dark-field X-ray microscopy	Marion Höfling
E9	Microstructure properties and thermal conductivity of PbTe nanopowder prepared by Pulsed Plasma in Liquid technique	Rafał Knura
E10	Obtaining and Study Nanocomposites in the B4C-SiC-Si-Al-Al2O3 –Carbon fiber System	Zviad Kovziridze
E11	Investigation of electrical properties of potassium sodium niobate ceramics obtained via the sol-gel method	Marta Lubczyk
E12	Nanogenerators based on BaTiO3/PDMS composites for high-frequency applications	Darya Meisak
E14	How the addition of chemically synthesized powder affects the final properties of KNN ceramics	Elisa Mercadelli
E15	Robocasting of Alkaline Niobate-based Piezoelectric Ceramics	Mahmoud Mobin
E16	Effect of B2O3 and/or Sb2O3 addition on microwave dielectric properties of Ba(Mg1/3Ta2/3)O3	Kento Onogi
E17	Synthesis and characterization of 0.15SrTiO3-0.85BaTi0.95Zr0.05O3 composites	Leontin Padurariu
E18	BaTiO3 – CoFe2O4 unsintered magnetoelectric composites	Artyom Plyushch
E19	Paper-templated, porous piezoceramics as functional platforms	Kevin Pree
E20	Scanning Thermoelectric Microscope - characterization of electronic properties of functional materials	Maja Sajdak
E21	Quantitative mapping of nanotwin variants in the bulk of ferroelectric/ferroelastic materials	Jan Schultheiß
E22	BaTiO3-based thermistor hollow fibers prepared using a phase inversion spinning process for energy efficient gas sorption	Michael Stuer
E23	Magnetic performance of SrFe12O19 magnets consolidated by Sintering by Intense thermal radiation (SITR)	Aleksander Učakar
E24	Synthesis and Photoluminescent Properties of Pr3+-Doped (Ba,Ca)Ti _x Zr _(1-x) O ₃ Perovskite Diphasic Ceramics Obtained by the Modified Pechini Method	Agnieszka Wilk
E25	Effect of sintering temperature on microstructure and thermoelectric properties of pure and Al-doped n-type ZnO	Alan Wilmański
E26	Fabrication and Evaluation of Composites of Sendust-Al ₂ O ₃	Yoshiaki Yamane
E27	Thermoelectric Properties and Phase Analysis of Cu-Rich Tetrahedrite Prepared by Solvothermal Synthesis	Karolina Zazakowny
E30	Synthesis and characterization of 50% vol. GdIG-50% vol. YIG ceramic material fabricated by a new reactive sintering method	Magdalena Stan

Symposium F: Electronic Ceramics

F1	Broadband dielectric spectroscopy of BaTi1-xSnxO3 solid solutions	Jūras Banys
F2	Ultra-thin zirconia diaphragm for electromechanical sensors	Achim Bittner
F3	Analytical modeling of the effective properties of lead-free piezoelectric ceramics	Soňa Hříbalová
F4	Investigation of Structural Properties of Celsian Ceramics in the BaO-Al2O3-SiO2 System	Zviad Kovziridze
F5	Elaboration of complete PCFCs and study of their performances.	Victoire Lescure

F6	Tuning the Electro-Catalytic Properties of Mixed Conducting Perovskite-Type Oxides	Melanie Maurer
F7	Investigation of the transport mechanism in $(\text{Ba})_{(0.5)}(\text{La})_{(0.5)}(\text{Co})_{(0.5-x)}(\text{Fe})_{(0.5)}(\text{Zn})_x\text{O}_{(3-\delta)}$	Francis Oseko
F8	Characterization and stability of metal exsolved perovskites as sofc electrodes	Juan Carlos Pérez-Flores
F9	The role of the electrolyte for the oxygen exchange mechanism close to the triple phase boundary of Pt YSZ microelectrodes	Kirsten Rath
F10	Composition-dependent characteristics of sol-gel $\text{BaTi}_{1-x}\text{Hf}_x\text{O}_3$ ceramics	Cătălina-Andreea Stanciu
F11	Temperature dependent dielectric behavior of $(\text{Ba,Sr})\text{TiO}_3$ solid solutions sintered from sol-gel derived powders	Cătălina-Andreea Stanciu
F12	Tuning Oxygen Non-Stoichiometry in Spark Plasma Sintered $\text{LiNi}_0.5\text{Mn}_{1.5}\text{O}_4$ High Voltage Cathode Materials	Michael Stuer
F13	Laminated lithium-conducting oxide ceramics for use as solid state electrolytes	Leonhard Tannesia
F14	Developing Composition Stability of $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$ (LSCF) Under Reducing Conditions by Molybdenum Doping for Anode Applications in LT-SOFCs	Kimia Yousefi Javan
F15	The effect of synthesis method and Sr-dopant amount on the electrical conductivity of strontium-doped lanthanum manganites	Andreja Žužič

Symposium G: Ceramics for energy and environmental technology / Membranes

G1	The effect of manganese dioxide on dielectric properties of 0.3BT – 0.1BMT – 0.6BF composite	Sergejus Balčiūnas
G2	Synthesis method as a factor controlling phase composition and ionic conductivity of $\text{Na}_3\text{Zr}_2\text{Si}_2\text{P}_2\text{O}_{12}$ NASICON – Towards improved electrolyte for sodium-metal solid state battery	Aleksandra Boroń
G3	Synthesis and characterization of Nano TiO_2 /Expanded Perlite applied to the photocatalytic degradation of 4-nitrophenol.	Antonia Ekonomakou
G4	Improved performance of Ni-rich NMC using a chemically activated coating process	Yiran Guo
G5	High power factor in isovalently substituted $\text{Ca}_3\text{Co}_4\text{O}_9$ ceramic through a rapid preparation method	Maria A. Madre
G6	Deep eutectic solvents as possible electrolytes for Al-ion cells	Magda Mączka
G7	Suppression of interfacial reactions in lithia-based cathodes for lithium ion batteries	Yong Joon Park
G8	The influence of preparation conditions and microstructure of hydrothermally derived MnO_2 electrode materials on electrochemical performance of pseudocapacitors	Paweł Pasierb
G9	TiO_2 nanotubes on translucent spinel substrate: degradation of different pollutants under UVA irradiation in water	Patrícia Petrisková
G10	Phase relationships, electrical transport properties and redox behavior of oxides in the PrVO_4 - $\text{Ca}_2\text{V}_2\text{O}_7$ system for SOFC applications	Rui Pinto
G11	Formation mechanism of organosilica layers towards periodic porosity	Marie Alix Pizzoccaro-Zilamy

G12	Substrate-induced modification of microstructure and thermoelectric properties in Sr-doped Ca ₃ Co ₄ O ₉ thick films	Andres Sotelo
G13	Thorough understanding of degradation in composite CO ₂ separation membranes	Maksim Strykevich
G14	Investigation and characterization of SrTiO ₃ thin films for high temperature solar cells	Stefanie Taibl
G15	Alginate-derived activated carbon hybridized with NiMn ₂ O ₄ for use in supercapacitors	Milena Dojcinovic

Symposium H: Ceramics and glasses for healthcare, Bioceramics and Optical ceramics, Bio-Electroceramics

H1	Ceramic 3D printing with adjustable multi-scale porosities	Gyubin Choe
H2	Influence of ceramic slurry composition on the physicochemical properties of bioceramic scaffolds	Ewelina Cichoń
H3	Modification of the surface layer of silicon nitride using oxyacetylene flame	Guido Manuel De la Torre Olvera
H4	YAG-based transparent ceramics: study of nanopowders synthesis by batch or continuous co-precipitation	Florian Delaunay
H5	Co and Zn co-doped bioactive glasses: comparison between standard sol-gel method and sol-gel combined with solvent evaporation-induced self-assembly (EISA) synthesis	Michał Dziadek
H6	Photocurable 3D plotting technique for microporous shell / hollow core hydroxyapatite scaffolds using core-shell feedrod	Jong Won Jeon
H7	Production of high translucent 5Y PSZ dental applications with high strength using DLP technique	Jaemin Jung
H8	Characterization and Environmental-friendly preparation of Calcium-Silicates	Maroua Houria Kaou
H9	Local controlled "Cancerthermia" for treating cancer diseases	Zviad Kovziridze
H10	Surface modification of boron-rich boron carbide as a potential carrier in Boron Neutron Capture Therapy	Dawid Kozięń
H11	Influence of various liquid phases on properties of α -TCP based bioactive bone cements	Piotr Pańtak
H12	YAG-based transparent ceramics: comparison between HIP and SPS post-sintering treatments	Francesco Picelli
H13	Biological evaluation of ZrO ₂ ceramic scaffolds with biomimetic and nanoparticle coating as drug delivery systems	Iwona Pudełko
H14	Optimization of additively manufactured Si/Hydroxyapatite scaffolds by selective laser melting for bone tissue engineering applications	Antonia Ressler
H15	Toughening robocast chitosan/ceramic composite scaffolds with silk fibroin	Nilza Ribeiro
H16	Borate bioactive glasses: the effect of synthesis method on structural and bioactive properties	Szymon Salagierski
H17	Composite scaffolds based on β tricalcium phosphate and short and medium chain length polyhydroxyalkanoates for bone tissue regeneration	Szymon Skibiński
H18	Structural role of sulfur in the soil active glasses	Justyna Sułowska
H19	LiF as a luminescence component of the oxyfluoride glass and glass-ceramics	Marcin Środa

H20	Production and characterisation of dense Nd: Y2O3 ceramics as a potential candidate for a solid-state laser	Łukasz Zych
H21	Boron carbide nanoparticles as potential carriers in boron-neutron capture therapy – physicochemical characterization	Paulina Żeliszewska

Symposium I: HT materials / Refractories / Composites

I1	Additive manufacturing of CMCs by Direct Ink Writing	Filippo Da Rin Betta
I2	Magnetic Biasing and Magnetocaloric Effect in a Large Temperature Window in Magnetic Composite of Alloy and Oxide	Subhadeep Datta
I3	Development of new tool materials synthesized from WC-Ti composite powders by HEBM and SPS	Dariusz Garbiec
I4	Efficient experimentally-based exploration of the High Entropy Alloys as fillers, brazers and coating materials for CMCs: the FCC-CoCrFeMnNi alloy as case study.	Donatella Giuranno
I5	Wetting, interfacial reaction and joining of monolithic SiC and Cf/SiC composites by ZrSi2 alloy	Naser Hosseini
I6	The reactive sintering composites of B4C with additives consolidated by hot-pressing and pressureless sintering	Dawid Koziń
I7	Modification of the microwave heating properties of alumina fibre preforms by microwave absorbing coatings	Zhongmin Li
I8	Thermoelectric properties of conductive polymer/ceramic composites	Adrianna Lis
I9	High Performance Steel Ceramic Composites for Refractory Applications in Molten Aluminum Alloys	Piotr Malczyk
I10	Enhancement of reduced remanent and magnetic energy product through exchange spring phenomenon in BaFe12O19+CoFe2O4 composite	Murli Kumar Manglam
I11	Synthesis of fireproof gels based on organic polymers and soluble silicates	Joanna Mastalska-Popławska
I12	Oxidation of Fe-16Cr ferritic steel modified with gadolinium oxide nanoparticles in different atmospheres	Łukasz Mazur
I14	SiC materials based on binder from MgO-SiO2-H2O phase system	Ryszard Prorok
I15	Spark plasma sintering of B4C- boride ceramics	Paweł Rutkowski
I16	Pressureless and spark plasma sintering of composites in B4C-Ta-B system	Paweł Rutkowski
I17	Development of a shear thinning gel for the purpose of composite production	Becky Steadman
I18	The RF-CVI Optimization on Cf/ZrB2 Composites Production	Shaokai Tang
I19	Ceramic Matrix Composites (CMCs) for Ultra High Temperature Applications	Ertug Ihsan Tanisan
I20	Effect of stoichiometry of magnesium-aluminum spinel on mechanical and thermomechanical properties of no-cement and ultra-low cement refractory castables	Karina Warmuz
I21	The Influence of High Temperature on the SiC/SiC Composites	Paulina Wójcik
I22	Polymer Derived Ceramics For High Temperature Applications	Muhammed Younas
I23	Polymer-derived Ultra-High Temperature Ceramic Matrix Composites	Elia Zancan
I24	Theoretical predictions and synthesis of high-entropy diboride systems with different molar ratios of transition metals	Inga Zhukova

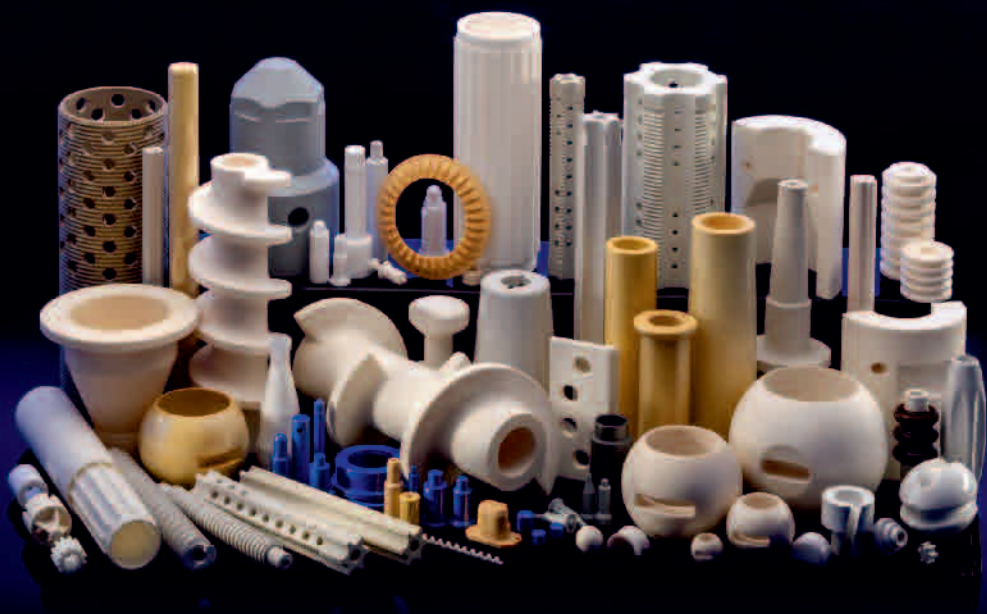
Symposium J: Silicate/Traditional ceramics, Arts + Design

J1	Decreasing Usage of Zinc Oxide and Zircon in Sanitaryware Glazes	Ebru Çırakman
J2	Determination of the subcritical crack growth parameters in C130 electroporcelain	Michał Krasnopolski
J3	Processing and properties of use of porous silicate ceramics using kaolinitic and illitic clay with peanut shells addition	Gisele Lecomte-Nana
J4	Physical, chemical and thermal properties of fly ashes with various grain sizes	Paweł Murzyn
J5	Scale and Agglomeration dust for preparing ceramic glaze	Hana Ovčáčíková
J6	An impact of strontium oxide addition on the crystallization of zirconium glazes	Katarzyna Pasiut
J7	Characteristics of ceramic masses as materials for the construction of a violin resonance body	Katarzyna Pasiut
J8	Development of an innovative, environment-friendly production technology of large-format, deeply structured ceramic tiles using a pioneering method of recycling green scraps generated at the product forming stage	Izabela Puchyrska
J9	Suitability research of waste material from hard coal beneficiation process in the production of traditional porous ceramics	Michał Pyzalski
J11	Elastic property evolution of silicate ceramics in the CaO–Al ₂ O ₃ –SiO ₂ system determined via temperature-dependent impulse excitation	Petra Šimonová
J12	The impact of the addition of different grain size of limestone to cream-firing clays on the color properties of sintered ceramics	Kornelia Wiśniewska
J13	Ring shear based powder analyzer as a device for testing the rheological properties of granules for the production of ceramic tiles	Łukasz Wójcik

CEREL

1 EN ODDZIAŁ CERAMIKI

In ceramic
we can make everything...
nearly everything



WWW.CEREL.PL

Council Meetings

ECerS PEC Meeting

Date: Sunday – July 10, 2022
Hall: Council Room – level 0
Time: 09:00

ECerS Council Meeting

Date: Sunday – July 10, 2022
Hall: Council Room – level 0
Time: 14:00

Electroceramics Committee

Date: Monday – July 11, 2022
Hall: Council Room – level 0
Time: 17:00

ICF Executive Meeting

Date: Tuesday – July 12, 2022
Hall: Council Room – level 0
Time: 13:00

ICF Council Meeting

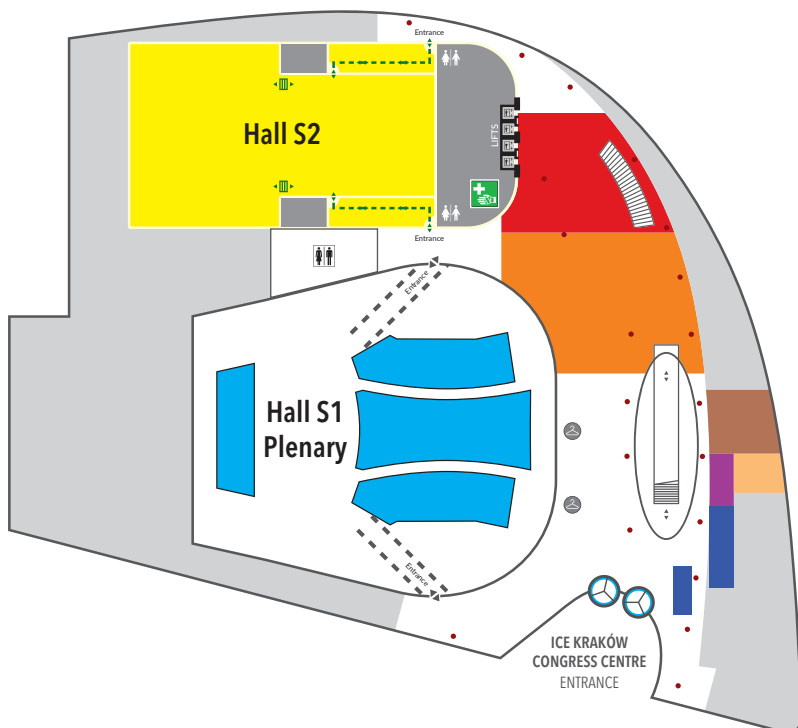
Date: Tuesday – July 12, 2022
Hall: Council Room – level 0
Time: 16:00

International Advisory Board of ECerS

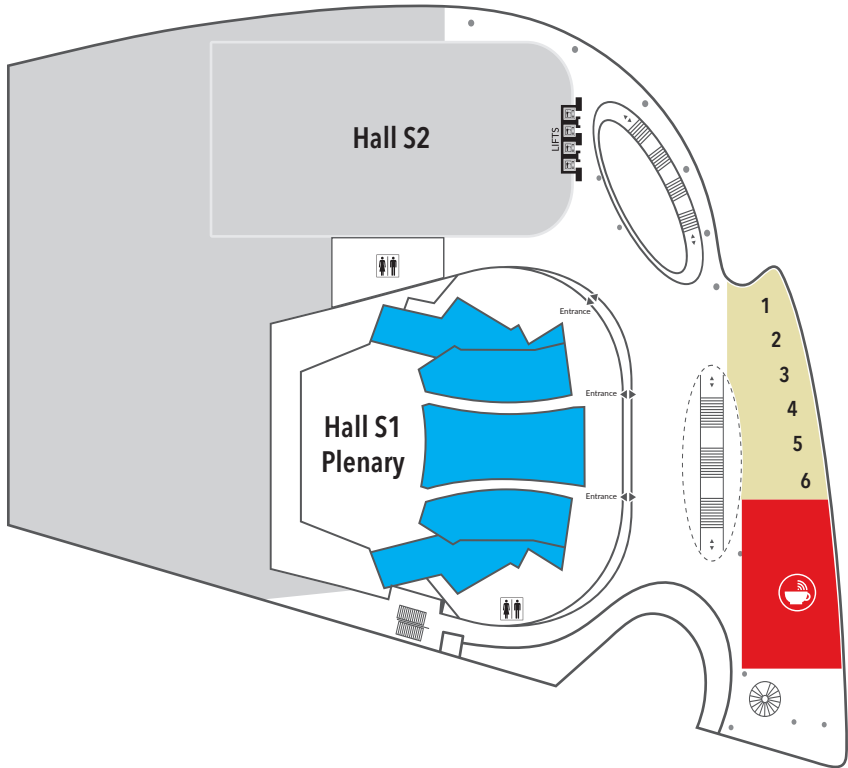
Date: Wednesday – July 13, 2022
Hall: Council Room – level 0
Time: 16:00

Floor Plan and Exhibition

Level 0



- | | |
|---|---|
|  Hall S1 Plenary |  Registration and Information Desk |
|  Hall S2 |  Speaker Ready Room |
|  Slide Center |  Council Room |
|  Poster Area |  First Aid |
|  Catering |  Toilets |
| |  Lifts |



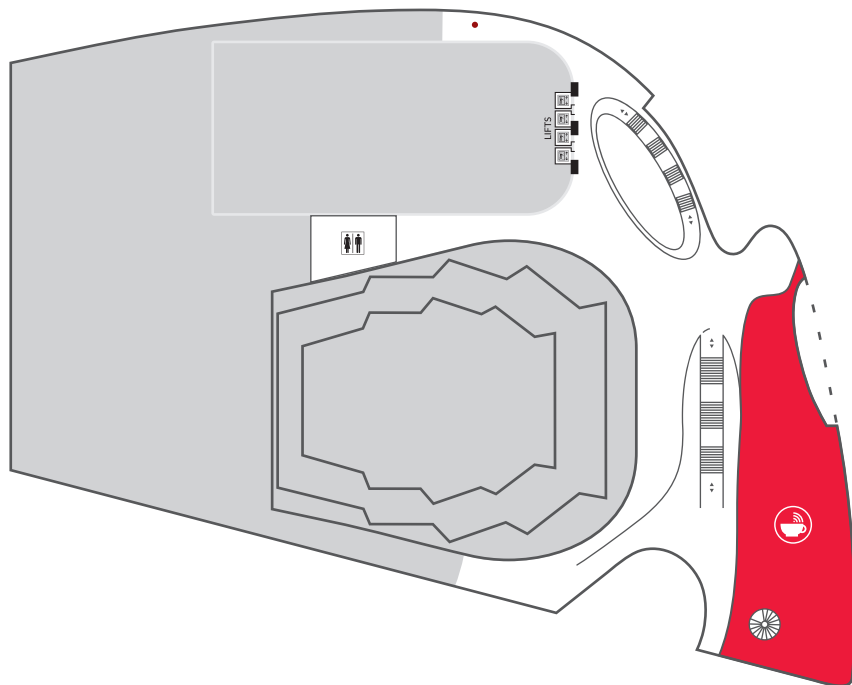
- Hall S1 Plenary
- Hall S2
- Exhibition Area
- Catering

-  Toilets
-  Lifts

Exhibitors:

1. LITHOZ
2. NETZSCH
3. GENICORE
4. CERPOTECH
5. 3DCERAM
6. ECERS

Level 2

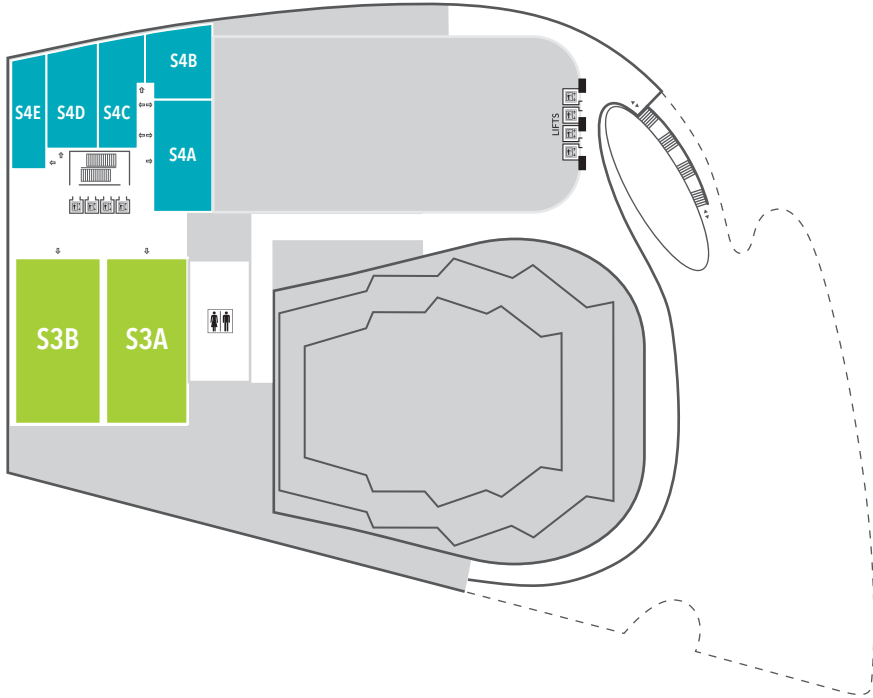



 Catering

 Toilets


 Lifts

Level 3



 Hall S3A, S3B

 Toilets

 Hall S4A - S4E

 Lifts

Sponsors and Exhibitors

Platinum Sponsor



Lithoz GmbH is the world and technology leader for high-performance ceramic materials and 3D printers. Founded in 2011, Lithoz is committed to breaking the boundaries of ceramic production and expanding manufacturing opportunities for the ceramic industry. The company has an export share of almost 100%, almost 100 employees and subsidiaries worldwide.

Lithoz GmbH – Sales Team

Mollardgasse 85a/2/64-69, 1060 Wien, Austria

Tel: +43 1 9346612 200, e-mail: office@lithoz.com, lithoz.com/en/

Gold Sponsors



CEREL is a Polish producer focused on machined parts and elements manufactured from advanced structural ceramic like alumina, zirconia, as well as carbides or nitrides. In our portfolio you can also find electrical insulators, thermocouple protection tubes, advanced refractories for investment castings and many others. Our competencies have allowed our partners and customers to design a wide variety of complex and extremely difficult to machine items for ceramic engineered components, allowing machine performance to achieve previously unachievable levels. Our engineers, technicians and support personnel are extremely experienced in manufacture and development of the highest quality ceramic components and processes. The majority of CEREL's products are machined to a very high dimensional accuracy, so are controlled to the highest possible standards.

Instytut Energetyki Oddział Ceramiki CEREL w Boguchwałe

Techniczna 1 Street, 36-040 Boguchwała, Poland

ph: +48 17 87 27 175, e-mail: cerel@cerel.pl, www.cerel.eu



Łukasiewicz

Institute
of Ceramics
and Building
Materials

A leading research unit in the field of building materials, glass, ceramics, refractory materials and environmental protection. Many years of experience in cooperation with the industry in the field of research projects and industrial implementations pays off the perception of the Institute as a credible, reliable business partner. Thanks to the highly qualified team of scientists, the Institute is the creator of many innovative technological solutions that have been patented and implemented in the industry.

It has many prestigious national and European authorizations confirming the high quality of research on advanced materials and technologies, including as the EU Notified Body No. 1487, Technical Assessment Unit, PCA AC 008 Certification Body and PCAAB 054 accredited laboratory.

Sieć Badawcza Łukasiewicz – Instytut Ceramiki i Materiałów Budowlanych

Cementowa 8 Street, 31-983 Kraków, Poland

Tel: +48 12 683 79 11, e-mail: info@icimb.lukasiewicz.gov.pl, www.icimb.pl

Wi-Fi Partner



GeniCore as a material engineering-based company provides unique sintering technologies for a variety of innovative materials and applications. As it is its highest priority, GeniCore works to produce groundbreaking inventions in order to deliver competitive advantage for customer applications. SPS technology (Spark Plasma Sintering) also called FAST technology (Field Assisted Sintering Technology) enables effective consolidation of pure metal powders, metal alloys, and ceramic and metal composites using pulsed direct current.

GeniCore Sp. z o.o. – Wólczyńska 133 Street, Building 5 Room 23, 01-919 Warsaw, Poland, Tel: +48 789 221 553, e-mail: genicore@genicore.pl, genicore.eu

Exhibitor profiles



3DCeram Sinto constantly innovates following is motto « From lab to mass production » and offers a range of 3D printers with building platform going from 100x100x150 mm (C100 EASY) to 600x600x300 mm (C3600 ULTIMATE), the biggest building platform on the market for technical ceramics ! As process provider, 3DCeram stands by its customers, and develops new mix formulas as Silicon Nitride, Aluminum Nitride and other technical ceramics with high performance properties or « on-demand » mix for customers and their specific uses and services to transfer technology through a portfolio of trainings and after sales services.

3DCERAM-SINTO – 4, rue du Parc Maison Rouge, ZA Maison Rouge 87270 Bonnac La Cote, Tel: +33 5 55 04 10 90, Mob. +33 6 31 56 63 60
e-mail: rouslan.svintsitski@3dceram.com (Rouslan Svintsitski – Area Sales Manager)
www.3DCeram.com, www.linkedin.com/company/3dceram



Cerpotech is specialized in the production of advanced ceramic powders for functional materials. The company was founded in Trondheim Norway in 2007 as a spin-off company from the Norwegian University of Science and Technology. With our unique production process, we synthesize high quality ceramic powders tailored to specific processing requirements and end-product functionalities of our customers including many different applications possible in 3D printing. The main applications are electro-ceramics and piezoceramics, solid oxides cell materials, membranes, catalysts, battery materials etc.

Ceramic Powder Technology AS – Kvenildmyra 6, 7093 Tiller, Norway
Tel: +47 916 71 332, e-mail: anne@cerpotech.com, www.cerpotech.com



At NETZSCH, you will find solutions for Thermal Analysis, thermo-physical properties testing, cure monitoring, dynamic-mechanical testing, rheology, multiple module and accelerating rate calorimetry as well as for fire testing. NETZSCH Analyzing & Testing develops sensitive, versatile, and reliable instrumentation for research and development, quality control, process safety and failure analysis. We offer our customers broad applications knowhow through publications, demonstrations, contract testing, seminars and users' meetings.

NETZSCH-Gerätebau GmbH – Wittelsbacherstraße 42 95100 Selb, Germany
Tel: +49 9287 881-0, e-mail: at@netzsch.com, www.netzsch.com

Social Program

◆ Welcome Reception

Date: Sunday - July 10, 2022

Time: 19:00 - 21:30

Venue: ICE Kraków Congress Centre, level 2

Included in the registration fee.

Dress code: casual



◆ Gala Dinner

Date: Wednesday – July 13, 2022

Time: 20:00 – 24:00

Venue: Old Tram Depot (Stara Zajezdnia)

Address: Św. Wawrzyńca 12, 31-060 Kraków

Not included in the registration fee, 80 EUR per person

Dress code: business casual



Old Tram Depot – Stara Zajezdnia Kraków is a historic building in the centre of Krakow's Kazimierz district. The Hall was built in 1913 and was once a tram depot. The renovated building is a unique facility and an example of rare wooden skeleton architecture in Krakow with brickwork, commonly called "Prussian Wall". It gives the interior an unusual character and makes it a place with soul and original atmosphere.

Stara Zajezdnia also offers its own microbrewery, and the beer produced here is a remarkable attraction.

General Information

◆ Badges

Each participant receives a name badge upon check-in at the registration desk. This badge should be worn at all times in order to gain access to the session rooms and other events. Please note that access to the conference areas will not be permitted without an official conference badge. If you have lost your badge, a new one can be reprinted (with proof of your original registration) at the Registration Assistance Desk for an extra fee.

◆ Bank / ATM Machine

ATM Machines are available at the venue. The nearest banks are located around 250 meters from ICE Krakow.

◆ Certificate of Attendance

The Certificate of Attendance will be provided after the conference in digital form by email.

◆ Cloakroom

A cloakroom is located in the registration area. It is free of charge for conference attendees.

Opening hours:	Sunday, 10 July 2022	18:00 – 22:00
	Monday, 11 July 2022	08:00 – 18:45
	Tuesday, 12 July 2022	08:00 – 18:45
	Wednesday, 13 July 2022	08:00 – 18:45
	Thursday, 14 July 2022	08:30 – 14:00

◆ COVID-19

From 28 March 2022 all restrictions are lifted, which means that wearing a mask is not obligatory in Poland.

COVID Testing point (walking distance from conference venue):

Hotel Forum – 28, Marii Konopnickiej Street, Kraków

Opening hours: 10:00 – 18:00 every day

The staff speaks English; payment with credit card is available.

◆ Currency

The local currency is the Polish Zloty (PLN). The closest currency exchange office is Kantor CFS Exchange Krakow. Average rate (1 EUR = 4.6 PLN).

◆ Emergencies / First Aid

Dial 112 for emergencies. Please contact the registration desk or any staff member for assistance.

◆ **First Aid Room**

In ICE Krakow, the First Aid room is located on level 0.

◆ **Exhibition**

Join us in meetings with key industry experts to, exchange knowledge on different areas of development and research in Ceramics. The Industry Exhibition will be organized in ICE Krakow on the level 1.

Opening hours:	Monday, 11 July 2022	08:00 – 18:45
	Tuesday, 12 July 2022	08:00 – 18:45
	Wednesday, 13 July 2022	08:00 – 18:45
	Thursday, 14 July 2022	09:00 – 14:00

◆ **Food and Beverages**

Catering services are provided on levels: 0, 1 and 2.

◆ **Language**

The official language of Ceramics in Europe 2022 is English.

◆ **Lost and Found**

The Lost and Found office is located at the Registration Assistance counter in the registration area.

◆ **Mobile Phone Policy**

Please respect the meeting policy and switch your mobile phones to silent in all meeting rooms.

◆ **Public Transportation Pass**

The public transportation pass entitling to free use of public transport on July 10-14 in Kraków, will be available at the reception desk for participants with full participation July 10-14, 2022.

◆ **Poster Area**

The Poster session area is located on level 0. Posters set up will be available from 12:00 on July 10, 2022 with poster dismantling by 13:00 on July 14, 2022 at the latest. Those posters which remain in the poster area after its closing will be discarded. Posters can be viewed during breaks and lunch time throughout the entire Conference.

◆ Post Office

The nearest post office (Poczta Polska) is located about 200 meters from ICE Krakow at ul. Wierzbowa 4, 30-300 Krakow, Poland.

◆ Registration Desk

The Registration desk is located at the main conference entrance. Please use the self-registration kiosks provided on both sides of the entrance area. In case of any technical problems, please contact the main registration desk. Conference bags will be distributed at the main registration desk.

Opening hours of the main registration desk:

Sunday, 10 July 2022	09:00 – 21:00
Monday, 11 July 2022	08:00 – 18:45
Tuesday, 12 July 2022	08:00 – 18:45
Wednesday, 13 July 2022	08:00 – 18:45
Thursday, 14 July 2022	08:30 – 14:00

◆ Smoking Policy

Smoking is prohibited in the conference venue.

◆ Slide Centre

The Speaker Service Centre is located in the registration area.

Opening hours:	Sunday, 10 July 2022	12:00 – 19:00
	Monday, 11 July 2022	08:00 – 17:00
	Tuesday, 12 July 2022	08:00 – 17:00
	Wednesday, 13 July 2022	08:00 – 17:00
	Thursday, 14 July 2022	08:00 – 12:00

◆ Speaker Ready Room

The Speaker ready room is located backstage of the registration desk. Computer equipment is available for speakers to manage their presentations.

◆ Telephone

The international access code for Poland is +48. In case of emergency, call 112.

◆ WiFi Access

Free WiFi access is available inside the venue. Choose the "Ceramics" network. No password is required.

Notes

LITHOZ®

We are ceramic 3D printing.



**CERAFAB
MULTI 2M30**



**GEAR FROM ZTA &
ALUMINA**



MULTI-MATERIAL 3D PRINTING

COMBINE CERAMIC & CERAMIC

Design different properties in a single component, such as conductive and insulative, bioresorbable and bioinert, and many more.

Find us on:   Lithoz GmbH /  @LithozAustria