



Monday, 21 September

8:15am **Registrations**
Padova Congress

8:45am **Opening talk**
Padova Congress

9am **Plenary Talk 1**
Padova Congress

9am **Additive Manufacturing and Microstructural Manipulation of Ceramics**
» [Prof. Eduardo Saiz](#)

9:45am **Session 1.1 DIW Aerospace**
Padova Congress

9:45am **Bioinspired multilayer barriers of 3D-printed lunar regolith simulant-based geopolymers for mechanical and thermal protection**
» [Mr. Feng Zhang](#)

10am **Adaptive Soft Nozzle for Vision-Guided Crack Repair in Lunar 3D Printing**
» [Dr. shengwen wang](#)

10:15am **GLAMS: Geopolymers for Lunar Additive Manufacturing and Sensing**
» [Prof. Giorgia Franchin](#), Dr. Marco D'Agostini, Prof. Carlo Bettanini, Dr. Eva Santini, Mr. Flavio Gioia, Ms. Imene Abidi, Ms. Claudia Esposito, Prof. Luca Valentini

9:45am **Session 1.2 Material Jetting**
Padova Congress

9:45am **Micro Particle Jetting: Opportunities and Applications**
» [Dr. Anna Katharina Hofer](#), Mr. Stefan Waldner

10:15am **Thermoplastic Material Jetting of Multimaterial Al₂O₃-based Ceramic Structures**
» [Dr. Aljaž Iveković](#), Ms. Pia Popovič, Prof. Andraz Kocjan

9:45am **Session 1.3 Bioceramics 1**
Padova Congress

9:45am **3D shaping of polycaprolactone/mesoporous glass nanocomposites into highly intra-porous cotton wool-like microfibers**
» [Dr. Ahmed El-Fiqi](#), Prof. Kim Hae-Won

10am **1.Mitigation of crack formation in polymer-derived 70S30C Bioglass 3D scaffolds via sacrificial PDMS incorporation**
» [Ms. Valeria Diamanti](#), Dr. Manuel Alves, Dr. Hamada Elsayed, Prof. Susana Olhero, Prof. Enrico Bernardo

10:15am **PCL-Chitosan 3D fibrous Scaffolds Loaded with Nanohydroxyapatite as Biomimetic Platforms for Bone Regeneration**
» Mr. André Lopes, Dr. Samuel Guieu, Prof. Maria Helena FV Fernandes, [Dr. José Carlos Almeida](#), Dr. Liliana Grenho, Prof. Pedro Gomes, Prof. Aldo R. Boccaccini, Prof. Vitor Sencadas

10:30am **Coffee Break**
Padova Congress

11am **Session 1.4 DIW Functional Architectures**
Padova Congress



Continued from Monday, 21 September

11am **Architected Ceramics: From Computational Design to Functional Applications**

» [Prof. Alberto Ortona](#)

11:30am **Extrusion-based additive manufacturing of functional SiC-based supports via preceramic polymers processing**

» [Dr. Eduardo Rosado](#), Mr. Dorian Sazarin, Ms. Elodie De Sousa, Dr. Samuel Bernard

11:45am **High-Temperature Latent Heat Thermal Energy Storage through Co-Extruded 3D-Printed Core-Shell Architectures**

» [Prof. Lisa Biasetto](#), Dr. Eugenia Setten, Dr. Anna Stoppato, Dr. SHOROUK EMAD MOHAMED SHALABY, Dr. Simone Mancin

12pm **Core-Shell Robocasting of Multi-Material Ceramics**

» [Dr. Larissa Wahl](#), Ms. Michelle Weichert, Mr. Marco Gradaus, Mr. Edwyn Wolf, Dr. Tobias Fey

12:15pm **Additive manufacturing and post-printing dealumination of geopolymers for methylene blue adsorption**

» [Mrs. Ana Caetano](#), Dr. Nuno Gonçalves, Prof. João Labrincha, Prof. Rui Novais

11am **Session 1.5 Sol-Gel**

Padova Congress

11am **Advanced Ceramic Coatings for Superior Electrocatalysis**

» [Prof. Sanjay Mathur](#)

11:30am **Optimization of sol-gel synthesis and powder processing for high-density magnesium phosphate ceramics**

» [Ms. Albina Murashko](#), Ms. Yulia Rassolova, Ms. Varvara Isaeva, Dr. Yaroslav Filippov, Dr. Elena Klimashina, Dr. Valery Putlayev

11:45am **Multiscale Regulation of (1-x)BNZT-xSBT Ceramics for Enhanced Low-Field Energy Storage Applications**

» [Mr. AMIYA MANDAL](#), Prof. Kanhaiya Lal Yadav

12pm **Sol-gel derived multicomponent ceramic powders for thermal spraying**

» [Mr. Jonas Kral](#), Prof. Stefan Schafföner, Prof. Guenter Motz

12:15pm **High-Throughput-Inspired Mapping of the Spray-Drying Process: Unlocking Morphology, Phase, and Performance Correlations in LNMO Synthesis**

» [Dr. Marc Brunet-Cabré](#), Dr. Michael Stuer

11am **Session 1.6 Bioceramics 2**

Padova Congress

11am **Microtexturing of ceramic surfaces by laser ablation for its application in medical implants**

» Ms. Elisabetta Di Domenico, Ms. Giulia Verlato, Prof. David Muñoz, Dr. Juan José Moreno, Dr. David Canteli, Prof. Enrico Bernardo, Prof. Miguel Morales, Prof. Paolo Colombo, Dr. Hamada Elsayed, [Dr. Maria Canillas](#)

11:15am **Development and Evaluation of Dual Coating and Surface Texturing on Zirconia Dental Implants**

» [Dr. Ioana Mesquita-Guimaraes](#)

11:30am **Ti-based core-shell shaping for Ac-225/Bi-213 separation**

» [Mr. Thomas Staes](#), Prof. Vera Meynen, Prof. Steven Mullens, Prof. Thomas Cardinaels, Prof. Bart Geboes, Mrs. Janne Gys

11:45am **Powder Injection Molding As A Scalable Near Net Shaping Technology for Lithium Disilicate Glass-Ceramics**

» [Dr. Jochen Schilm](#), Mrs. Anne Mannschatz, Dr. Dörte Wagner, Dr. Reinhard Lenk, Mr. Marco Müller, Dr. Stefan Fecher, Dr. Marcel Meegdes, Mr. Thorsten Pitschke, Mrs. Ramona Steber, Mrs. Kerstin Baumann

12pm **Hybrid copper(II)acrylate/silazane thin coatings with hydrophobic and germicidal properties**

» [Mr. Mohamad Zahedtalaban](#), Dr. Mateus Lenz Leite, Mr. Philipp Schlesinger, Mr. Michael Sheridan, Dr. Daniel Seitz, Prof. Stefan Schafföner, Prof. Guenter Motz



Continued from Monday, 21 September

12:15pm

POLY(ϵ -CAPROLACTONE) HYBRID BIO NANOCOMPOSITES FOR TISSUE ENGINEERING APPLICATIONS

» Ms. Carolina Moreira, Ms. Soraia Coelho, Dr. Liliana Grenho, Prof. Pedro Gomes, Prof. Vitor Sencadas, [Dr. José Carlos Almeida](#)

12:30pm

Lunch

Padova Congress

2pm

Session 1.7 DIW Functional Applications

Padova Congress

2pm

Rheology-Controlled Direct Ink Writing of Ceramic-Metal Monolithic Catalysts through One-Step Fabrication and Active-Phase Incorporation

» [Mr. Seved Ali Razavi](#), Dr. Miguel Morales, Ms. Tania Vilella, Ms. Isabel Serrano, Dr. Miguel Laguna-Bercero, Prof. Luis Llanes, Dr. Daniel Rodriguez, Prof. Maria Pau Ginebra, Prof. Jordi Llorca, Dr. Gemma Fargas

2:15pm

Magnetically heated porous ceramics via fused filament fabrication of preceramic polymer/magnetite composites

» [Dr. Milan Vukšić](#), Dr. Vaibhav Pandey, Mr. Mussadiq Shah, Prof. Thomas Konegger, Prof. Sašo Gyergyek, Prof. Andraz Kocjan, Dr. Aljaž Iveković

2:30pm

3D printed waste-derived alkali-activated materials as tunable monolithic sorbents for heavy metal removal from acid mine drainage

» [Ms. Mariana Almeida](#), Dr. Nuno Gonçalves, Prof. Rui Novais

2:45pm

Hybrid additive/subtractive manufacturing of technical ceramics by Pellet Additive Manufacturing and five-axis machining: sintering shrinkage, mechanical properties and surface integrity

» [Dr. Pierre Grimaud](#), Mr. Colin Huart, Dr. Laurent Spitaels, Dr. Enrique Juste, Mr. Didier Fonta, Dr. Edouard Riviere Lorphevre, Dr. Fabrice Petit

3pm

Fabrication of Multi-Scale Porous Silicon Nitride Scaffolds via Direct Ink Writing

» [Dr. yuping Zeng](#)

3:15pm

Additive Manufacturing of Porcelain through Artificial Intelligence and Liquid Deposition Modelling: AI assisted workflows for porcelain design and creation

» [Mr. Gonçalo Fernandes](#), Dr. Daniel Vieira, Prof. João Labrincha, Prof. Susana Olhero

2pm

Session 1.8 Ceramics for Energy

Padova Congress

2pm

Non-Hydrolytic Sol-Gel Chemistry to Materials for Applications in Energy Storage and Conversion

» [Prof. Nicola Pinna](#)

2:30pm

The enhancement mechanism of electromagnetic wave absorption performance regulated by MoS₂ phase engineering

» [Prof. Xiao xiao Huang](#)

2:45pm

Influence of cubic and tetragonal zirconia on the tape casting and mechanical performance of NiO-Zr_{1-x}Y_xO₂ fuel electrodes of solid oxide cells

» [Mr. Antonio Alonso](#), Dr. Domingo Perez-Coll, Dr. Rodrigo Moreno

3pm

Impact of the porosity's distribution on gas transport and mechanical strength of NiO-3YSZ supported SOFC electrode

» [Mr. Clément Guillet](#), Dr. Émilie Béchade, Dr. Emmanuelle Bichaud, Dr. Romain Billard, Dr. Cédric Bourguès, Prof. Pierre-Marie Geffroy



Continued from **Monday, 21 September**

3:15pm **Preparation and properties of biomorphic C-SiC (scaffold)-TiN (particle)/NaCl-KCl composites for thermal energy storage prepared by combined sol-gel and molten salt infiltration methods**

» [Prof. Min Yu](#), Prof. Changhao Xu, Prof. Mengyuan Wang, Prof. Zeya Huang, Prof. Renli Fu, Prof. Zhong Wei, Prof. Zhang Dong, Prof. Paolo Colombo

2pm **Session 1.9 Traditional ceramics**
Padova Congress

2pm **Optimizing Density and Precision: The Technological Transformation of Ceramic Powder Compaction**

» [Mr. Matteo Cova](#)

2:30pm **Development and Analysis of Sustainable Ceramic Formulations Using Ceramic Residues and Machine Learning Models**

» [Mr. Pietro Merlin](#), Prof. Paula M. Vilarinho, Dr. Petia Georgieva

2:45pm **Microwave sintering of waste-derived ceramic compositions from tile manufacturing**

» [Ms. Tulane Rodrigues da Silva](#), Dr. Camila Ribeiro, Mr. Jorge Girão, Prof. Amparo Borrell, Prof. Paula M. Vilarinho

3pm **Formation of Surface Topography in Ceramic Coatings Using Hydrophobic Inkjet Inks**

» [Dr. Berkay Yaziri](#), Prof. Vicente Sanz Solana, Mr. Uğur Taşkıran, Ms. Damla Yazıcı, Dr. Kağan Kayacı, Prof. Enrique Sánchez Vilches

3:15pm **Layered Double Hydroxides for CO2 capture at medium-high temperature: from powder to 3D monoliths**

» [Dr. Margherita Cavallo](#), Dr. Marika Bertolone, Dr. Marco D'Agostini, Mr. Natale Gabriele Porcaro, Prof. Paolo Colombo, Prof. Giorgia Franchin, Prof. Francesca Bonino, Prof. Valentina Crocellà

3:30pm **Coffee Break**
Padova Congress

4:30pm **Session 1.10 DIW Process and Environmental**
Padova Congress

4:30pm **Direct synthesis and Additive Manufacturing of binderless Zeolite A monoliths for efficient CO2 capture**

» [Dr. Marco D'Agostini](#), Dr. Margherita Cavallo, Mr. Natale Gabriele Porcaro, Dr. Andrea Rizzetto, Prof. Marco Piumetti, Prof. Paolo Colombo, Prof. Francesca Bonino, Prof. Valentina Crocellà, Prof. Giorgia Franchin

4:45pm **Additive manufacturing of continuous-fiber reinforced CMCs**

» [Mr. Riccardo Giometti](#), Dr. Anna De Marzi, Dr. Alessandro De Zanet, Dr. Abhishek Kumar, Prof. Giorgia Franchin, Prof. Paolo Colombo

5pm **Filament Gap Control for Fine Dense Layer Formation in 3D-Printed Chitosan-Geopolymer Structures**

» [Dr. Angelo Oliveira Silva](#), Mr. Felipe Di Nisio, Prof. Neri Volpato, Dr. Marco D'Agostini, Prof. Dachamir Hotza, Prof. Paolo Colombo

5:15pm **Mitigation of Staircase Effect in DIW-Printed Alumina Parts by Post-Printing Processing**

» [Mr. Bekir Gürkan Kaynak](#), Ms. İrem Sude Geven, Prof. Simge Cinar Aygun

5:30pm **Modeling of Ceramic Suspension micro extrusion using a Volume of Fluid (VOF) approach**

» [Dr. Gweni Alonso Aruffo](#), Dr. Philippe Michaud, Dr. Lisa Giardi, Dr. Julie Bourret, Prof. Vincent Pateloup

5:45pm **From Polypropylene Fiber to Carbon Fiber Reinforcement: Optimization of Geopolymer Inks and Structures for Direct Ink Writing**

» [Ms. Chuhui Qin](#), Prof. Paolo Colombo

6pm **Fabrication of CaTiSiO₃ (Sphene) Scaffolds via Material Extrusion of Customized Pellets**

» [Mrs. Vanessa Gastaldi](#), Prof. Lisa Biasetto, Dr. Hamada Elsayed, Dr. Ana Ferrández Montero, Prof. Begoña Ferrari



Continued from Monday, 21 September

4:30pm **Session 1.11 Colloidal processing**
Padova Congress

- 4:30pm **Transparent YAG ceramics by gelcasting: Benefits and problems**
» [Prof. Martin Trunec](#), Dr. Premysl Stastny
- 4:45pm **From Slurry to Cake: In Situ OCT Visualization of Consolidation in Alumina Slip Casting**
» [Prof. Junichi Tatami](#), Ms. Akari Honda, Ms. Mizuki Izawa, Prof. Motoyuki Iijima
- 5pm **Colloidal processing of ZrO₂/ZrSiO₄ ceramic composites**
» Dr. Eduardo Rosado, [Dr. Rodrigo Moreno](#)
- 5:15pm **Effect of controlled capillary force variation on particle alignment and mechanical strength in slip-cast bimodal alumina**
» [Dr. Erin Valenzuela-Heeger](#), Prof. Jon Binner
- 5:30pm **Gel-Casting of Non-Oxide Ceramics for High Temperature Applications**
» [Mr. Ethan Ellis](#)
- 5:45pm **Inkjet printing under electric field**
» [Mr. Dorian Tourtouro](#), Dr. Marguerite Bienia, Prof. Arnaud Videcoq
- 6pm **High-precision ceramic molding: producing next-generation filters and membranes**
» [Dr. Romain Trihan](#), Mr. Benjamin Minnig, Mr. Umut Taylan, Mr. Nicolas Zaugg, Prof. Patrik Hoffmann, Dr. Michael Stuer

4:30pm **Session 1.12 Innovative processing 1**
Padova Congress

4:30pm

Shaping of Sitinakite into porous monoliths for strontium removal in fixed-bed columns

» [Ms. oumaima zriouil](#), Ms. Cyrielle Rey, Dr. Mythili PRAKASAM, Dr. Catherine ELISSALDE, Dr. Xavier Deschanel, Dr. Vanessa Proust

4:45pm

The effect of sintering temperature and compaction pressure on the microstructure and mechanical strength of porous B4C supports for filtration applications

» [Mr. Juan Ramón Madrigal Martínez](#), Dr. Víctor Manuel Candelario, Dr. Víctor Zomora, Prof. Ángel Luís Ortiz

5pm

'Mild' Alkali Activation of Glass Waste and Volcanic Ash for the Development of Sustainable Functional Materials

» [Mr. Francesco Carollo](#), Prof. Enrico Bernardo

5:15pm

Transparent laser ceramics through non-conventional shaping.

» [Dr. Francesco Picelli](#), Dr. Jan Hostaša, Dr. Guido Toci, Dr. Laura Esposito

5:30pm

Ceramic waveguides as laser gain media formed by complex YAG-based structures

» [Dr. Laura Esposito](#), Dr. Jan Hostaša, Dr. Francesco Picelli, Dr. Barbara Patrizi, Dr. Guido Toci

5:45pm

Influence of post-thermal nitridation on AZO films

» [Ms. Malihe Ghaffari](#), Dr. Omid Sharifahmadian, Dr. Iryna Matsukevich, Dr. Franziska Scheffler, Dr. Alexis Duval, Prof. Jose Velazquez, Prof. Lothar Wondraczek, Prof. Dušan Galusek, Dr. Orhan Sisman

6pm

Microstructure Regulation, Densification Mechanism, and Mechanical Properties of High-Entropy Carbide Ceramics

» [Prof. Yujin Wang](#), Prof. Lei Chen, Dr. Wen Zhang, Dr. Wentao Su, Dr. Qingyi Kong, Prof. Yu Zhou



Tuesday, 22 September

9am	Plenary 2 <i>Padova Congress</i>
9am	Shaping and sintering of transparent ceramics for different applications » Prof. Shiwei Wang
9:45am	Session 2.1 PDCs 1 <i>Padova Congress</i>
9:45am	Processing of carbon/ceramic hybrid materials for fiber manufacturing » Prof. Guenter Motz , Dr. Jakob Denk, Dr. Xiaojian Liao, Prof. Seema Agarwal, Prof. Stefan Schafföner
10am	Polymer-Fueled Flash Annealing of Metal Oxides » Prof. Thomas Berger , Dr. Hasan Razouq, Ms. Kerstin Neuhauser, Dr. Gregor Zickler, Prof. Oliver Diwald
9:45am	Session 2.2 AM for aerospace <i>Padova Congress</i>
9:45am	Research on Preparation of SiBCN Ceramics and Their High-Temperature Pressure Sensor Application » Prof. Dechang Jia
10am	Multi-Functional Ceramic Architectures for Aerospace and Energy Systems » Dr. Marco Pelanconi , Dr. Andrea Contaldo, Dr. Clara Pirovano, Prof. Alberto Ortona

10:15am	Multi-material direct ink writing for the fabrication of plasma antenna electrodes » Dr. Anna De Marzi , Ms. Anna Scomparin, Dr. Mirko Magarotto, Dr. Elena Colusso, Dr. Paola De Carlo, Prof. Giorgia Franchin, Prof. Alessandro Martucci, Prof. Paolo Colombo, Prof. Antonio Daniele Capobianco, Mr. Simone Pizzurro
9:45am	Session 2.3 Porous ceramics <i>Padova Congress</i>
9:45am	Porous ceramic supports shaped by the drop casting method » Dr. Pawel Falkowski , Mrs. Amelia Golach, Prof. Paulina Wiecinska, Dr. Anna Wieclaw-Midor, Mrs. Blanka Seredynska, Dr. Piotr Wiecinski, Dr. Michal Mlotek
10am	Porous aggregates for light-weight thermal-shock resistant alumina castables » Dr. Tilo Zienert , Mrs. Christina Faßauer, Mr. Gökhan Günay, Prof. Christos Aneziris
10:15am	Innovative Shaping of Double-Walled Ceramic Aerogels via Template-Derived In-Situ Confinement for Extreme-Temperature Thermal Superinsulation » Mr. Haodong Gu
10:30am	Coffee Break <i>Padova Congress</i>
11am	Session 2.4 PDCs 2 <i>Padova Congress</i>
11am	The Polymer-Derived Ceramics (PDC) concept towards functional inorganic materials for energy » Mr. Dorian Sazarin, Dr. Eduardo Rosado, Dr. Samuel Bernard



Continued from Tuesday, 22 September

11:30am **A novel curing process for manufacturing silicon carbide based fibers by polysilsesquioxanes only**

» [Dr. Ken'ichiro KITA](#), Dr. Chihiro URATA

11:45am **2.Extensive Comparison of Melt-derived and Polymer-derived 38S55C6P Bioglass: from Additive Manufacturing to Biological Activity**

» [Ms. Valeria Diamanti](#), Dr. Manuel Alves, Dr. Hamada Elsayed, Prof. Susana Olhero, Prof. Enrico Bernardo

12pm **Shaping novel monolithic and microspherical SiOC catalyst carriers by photopolymerization-assisted solidification templating**

» [Dr. Katharina Rauchenwald](#), Ms. Romana Boubenicek, Prof. Karin Föttinger, Prof. Thomas Konegger

12:15pm **SiOC/Si-based alloys as composite materials for HT-LHTES**

» [Prof. DONATELLA GIURANNO](#), Dr. Rafal Nowak, Dr. mattia biesuz, Prof. Giandomenico Soraru

11am **Session 2.5 GPs & AAMs 1**

Padova Congress

11am **Industrial Geopolymers: Real-World Commercial Applications Across Multiple Sectors**

» [Mr. Ralph Davidovits](#)

11:30am **Optimization of calcium-modified metakaolin geopolymers activated with hybrid alkali silicates**

» [Mr. Samam Nadeem](#), Dr. Anas Driouich, Mr. Giovanni Michiara, Dr. Laura Bergamonti, Dr. Claudia Graiff

11:45am **Research and Application Prospects of 3D-Printed Geopolymers Based on Precision Control and Structural Optimization**

» [Prof. Siqi Ma](#)

12pm **Turning Ceramic Waste into Sustainable Lightweight Alkali-activated materials: Thermal, Mechanical and Durability Performance**

» [Mr. Ali Hasnain](#), Dr. Medhi Chougan, Dr. Riccardo Maddalena, Dr. Thomas Kronberg

12:15pm **Porous Geopolymer Monoliths as a Novel Bulk Solid Adsorbent for CO₂ Capture**

» [Dr. Youssef Ettahiri](#), Dr. Raul Vico Lujano, Prof. Dolores Eliche Quesada, Prof. Luis Perez Villarejo

11am **Session 2.6 Powder-based AM**

Padova Congress

11am **Old understandings applied to new challenges: why do colloidal layers crack upon drying—and what can we do about it in slurry-based ceramic additive manufacturing?**

» [Dr. Andrea Zocca](#), Prof. Jens Günster

11:15am **Thermal Anisotropy in Chopped Cf Reinforced SiC Composites by Laser Printing and Polymer Infiltration-Pyrolysis Techniques**

» [Dr. Huisheng Tian](#), Dr. Yan Zhou, Dr. Jie YIN, Dr. Buhao Zhang, Dr. Li Wang, Dr. Jiayi Geng, Dr. Zhengren HUANG

11:30am **Additive Manufacturing of Silicon Carbide through In-Situ Reaction and Consolidation in Laser Powder Bed Fusion**

» [Dr. Tsovinar Ghaltaghchyan](#), Mr. Khachik Nazaretyan, Mrs. Ani Khachikyan, Dr. Marina Aghayan

11:45am **Direct selective laser sintering and properties of SiC ceramics doped with Al₂O₃-Y₂O₃**

» [Dr. Jiayi Geng](#), Dr. Jie YIN, Dr. Li Wang, Dr. Huisheng Tian, Dr. Zhongming Chen, Dr. Xuejian Liu, Dr. Zhengren HUANG

12pm **Additive Manufacturing of alumina using Binder Jetting: microstructural, mechanical and dielectric characterizations**

» [Mrs. Marie Beaujard](#), Mr. Matthieu Deltrel, Mr. Rémi Perin, Mr. Hugo Luis, Dr. Zarel Valdez-Nava, Dr. Régis Delsol



Continued from Tuesday, 22 September

12:15pm **Reactive LPBF as a Route to Next-Generation Ceramic and Ultra-High-Temperature Materials**
» [Dr. Marina Aghayan](#), Dr. Tsovinar Ghaltaghchyan, Mrs. Ani Khachikyan

12:30pm **Lunch**
Padova Congress

2pm **Session 2.7 Composites 1**
Padova Congress

2pm **Automated fiber spraying of oxide/oxide ceramic matrix composites**
» [Prof. Stefan Schafföner](#), Dr. Lukas Wagner, Dr. Georg Puchas, Mr. Fabian Viessmann, Prof. Dominik Henrich

2:30pm **Temperature-Time Control of CVD Pyrolytic Carbon Fiber-Interface Coatings for High-Temperature Ceramic Matrix Composites**
» [Mr. Hossein Libre](#), Prof. Jeremy Watts, Dr. Eric Bohannon, Prof. David Lipke, Prof. Gregory Hilmas, Prof. Jason Loneragan

2:45pm **Fabrication of Alumina short fibre reinforced Alumina ceramic matrix composites**
» [Mr. Durga Raju](#), Prof. Bharat Panigrahi, Mrs. Priyanka Ninawe

3pm **Morphology-controlled Mechanical Performance in Nacre-like Glass Composites**
» Mrs. Emma Luitjens, Mr. Keno Šahman, [Prof. Tommaso Magrini](#)

3:15pm **Approaches to fabrication of MXene-based ceramic composites**
» [Dr. Barak Ratzker](#), Dr. Or Messer, Mr. Bar Favelukis, Mr. Mathias Krämer, Dr. Alex Upcher, Dr. Nitzan Maman, Prof. Dierk Raabe, Dr. Baptiste Gault, Prof. Maxim Sokol

2pm **Session 2.8 GPs & AAMs 2**
Padova Congress

2pm **Porous geopolymers in novel catalytic and adsorptive applications**
» [Prof. Tero Luukkonen](#), Mr. Akram Hossain, Mr. Faysal Hossain

2:30pm **Foamed Na13X zeolite-geopolymer composite for CO2 adsorption and related environmental performance**
» [Dr. Valentina Medri](#), Dr. Cristina Di Pietro, Mr. Walter Cossio Gusman, Dr. Elena Landi, Dr. Elettra Papa, Dr. Francesco Miccio, Dr. Alessandro Francini, Prof. Roberto Rosa, Prof. Anna Maria Ferrari, Prof. Matteo Minelli

2:45pm **Lightweight Alkali-Activated Slag-Based Materials with Enhanced Thermo-Mechanical Performance**
» [Dr. Edoardo Verza](#), Dr. Claudia Graiff, Dr. Laura Bergamonti, Dr. Elena Michellini, Dr. Luca Laghi, Dr. Simone Bandini

3pm **Direct foaming process for the production of diatomite-based geopolymer granules**
» [Dr. Elettra Papa](#), Dr. Chiara Capacci, Dr. Annalisa Natali Murri, Dr. Elena Landi, Dr. Valentina Medri

2pm **Session 2.9 Innovative processing 2**
Padova Congress

2pm **Investigating Laser Processing of Quartz**
» [Dr. Arish Naim](#), Dr. Nazar Fatima Khan

2:15pm **Phase diagram and thermo-mechanical properties of the La2O3-Yb2O3-ZrO2-CeO2 system**
» [Prof. Wei pan](#)

2:30pm **Bioinspired Bifunctional Neural Architectures from Multiscale Nanocomposites for Superior Microwave Absorption**
» [Dr. Lin Ma](#), Prof. Song Ma



Continued from Tuesday, 22 September

- 2:45pm **Structural Design and Mechanism Study of Carbon Nanotube/Graphene/h-BN Composite Microwave Absorbing Materials**
» [Dr. Beibei Wang](#), Mr. Xiaochao Wang, Mr. Lexuan Li, Mr. Shouyang Han, Prof. Fangli Yu, Prof. Xin Li
- 3pm **Annotation-Free SEM Microstructure Analysis for Ceramics Shaping: Synthetic SEM Generation toward Defect Statistics and Strength Prediction**
» [Dr. Manabu Fukushima](#), Prof. Kimiya Aoki, Prof. Shingo Ozaki, Mr. Yuya Akiba, Mr. Takashi Murakami, Dr. Taiyo Maeda, Dr. Minh Chu NGO, Dr. Kiyoshi Hirao
- 3:30pm **Coffee Break**
Padova Congress
- 4pm **Poster Session**
Padova Congress
- Development of Tailored Ceramic Matrix Composites For Lightweight Aerospace Structures**
» [Mr. Kieran Nash](#), Prof. Jon Binner
- 3D-printed structures based on carbon nanotubes/polylactide composites modified with hydroxyapatite**
» [Prof. Maciej Sitarz](#), Dr. Jakub Marchewka
- Temperature-Time Control of CVD Pyrolytic Carbon Fiber-Interface Coatings for High-Temperature Ceramic Matrix Composites**
» [Mr. Hossein Libre](#), Prof. Jeremy Watts, Dr. Eric Bohannon, Prof. David Lipke, Prof. Gregory Hilmas, Prof. Jason Lonergan
- Ceramic catalysts for ammonia decomposition: characterization using a dual-beam microscope combined with TOF-SIMS**
» [Dr. Piotr Wiercinski](#), Dr. Pawel Falkowski, Mrs. Blanka Seredynska, Dr. Anna Wieclaw-Midor, Prof. Paulina Wiercinska

In situ Raman studies for high temperature applications of PDC interlayers in thermal barrier coating systems

» [Dr. Piotr Jeleń](#), Dr. Maciej Bik, Prof. Maciej Sitarz

3D-printed zeolite/polylactide systems for removing pharmaceuticals from water

» [Dr. Jakub Marchewka](#), Prof. Maciej Sitarz

Recycled Aggregates from CDW: a novel approach for properties tuning

» [Dr. Chiara Molinari](#), Mrs. Sonia Javed, Dr. Sonia Conte, Dr. Chiara Zanelli

Gel-Casting of Non-Oxide Ceramics for High Temperature Applications

» [Mr. Ethan Ellis](#)

3D-printed catalysts for efficient CO_x-free hydrogen production

» [Dr. Joanna Tanska](#), Dr. Piotr Wiercinski, Ms. Zofia Skowronska, Mrs. Blanka Seredynska, Ms. Weronika Goral, Dr. Michal Mlotek, Dr. Pawel Falkowski, Dr. Anna Wieclaw-Midor, Prof. Paulina Wiercinska

Porous alumina beads obtained by drop-casting as potential catalyst supports for ammonia decomposition

» [Ms. Zofia Skowronska](#), Ms. Kinga Kucinska, Dr. Joanna Tanska, Dr. Piotr Wiercinski, Dr. Anna Wieclaw-Midor, Mrs. Blanka Seredynska, Prof. Paulina Wiercinska, Dr. Pawel Falkowski

Ceramic supports for anchoring catalysts for hydrogen production from ammonia

» [Prof. Paulina Wiercinska](#), Dr. Pawel Falkowski, Dr. Anna Wieclaw-Midor, Mrs. Blanka Seredynska, Ms. Zofia Skowronska, Dr. Joanna Tanska, Dr. Piotr Wiercinski

Drop casting of ceramic microbeads with tunable size and performance

» [Mrs. Blanka Seredynska](#), Dr. Radoslaw Zurowski, Dr. Anna Wieclaw-Midor, Dr. Joanna Tanska, Dr. Piotr Wiercinski, Ms. Zofia Skowronska, Dr. Pawel Falkowski, Prof. Paulina Wiercinska



Continued from Tuesday, 22 September

Calcination-Driven Evolution of Tetragonal Coherence in Microwave-Derived CuCr_2O_4 Spinel Powders

» Ms. Marcela Sagrilo Frizzo, Ms. Tatiane Strelow Lilge, Prof. Antonio Pedro Novaes de Oliveira, [Prof. João Batista Rodrigues Neto](#), Dr. Rodrigo Moreno

ML-Driven Patient-Specific Gyroid Bone Scaffolds: From DEXA/CT Classification to Micro-CT Validated Additive Manufacturing

» [Dr. Joana Mesquita-Guimaraes](#)

In-situ monitoring of Ag-BaTiO₃ CerMet sintering process for tuning the metacomposite properties

» [Prof. DONATELLA GIURANNO](#), Mrs. Ioana Raluca Gheatau, Prof. Vlad Lukacs, Prof. Leontin Padurariu, Prof. Radu Stefan Stirbu, Prof. Cristina Ciomaga, Prof. Liliana Mitoseriu

Feasibility of 3D printing SiC from submicrometer powder

» [Prof. Carlos Fortulan](#), Prof. Advait Rau, Prof. Cesar Foschini, Prof. Mateus Morais, Prof. Italo Camargo, Prof. Carlos Suchicital

Cyclic Warm Isostatic Pressing of Ceramic Powders for Enhanced Green Density and Homogeneity

» [Ms. Rio Tatami](#), Prof. Motoyuki Iijima, Prof. Junichi Tatami

Integrated X-ray Computed Tomography, Additive Manufacturing, and Geopolymer Casting for Cultural Heritage Conservation

» [Ms. Ekaterina Sokolova](#), Dr. Lidija Korat Bensa, Dr. Maurizio Bellotto, Ms. Nina Zbona, Mr. Marco Gatta, Dr. Rožle Repič, Dr. Lucia Mancini

Tuning freezing behavior and granule properties of silicon nitride slurries by polyethyleneimine-oleic acid complexes in spray freeze granulation drying

» [Ms. Riko Yamazaki](#), Prof. Junichi Tatami, Prof. Motoyuki Iijima, Mr. Shinya Kawaguchi, Dr. Naoki Kondo

Development of an alumina-based ceramic slurry with a safer visible-light photoinitiating system for Digital Light Processing (DLP) Additive Manufacturing

» [Dr. Enrico Leoni](#), Dr. Federica Di Pietrantonio, Dr. Gioia Musiu, Dr. Paride Fabbri, Prof. Stefano Caramori, Dr. Francesca Mazzanti

New Generation Micro Gas Turbine Ceramic Recuperators: Design for Fabrication via Digital Light Processing (DLP)

» [Dr. Francesca Mazzanti](#), Dr. Tiziano Delise, Dr. Alessandra Strafella, Mrs. Anna Viola Vandelli

Towards Optimal Bone Regeneration: Scaled-Up Bioactive Glass Production for Additive Manufacturing of amorphous 3D parts by DLP

» [Mr. Guillaume Marchal](#), Dr. Nicolas Somers, Dr. Frederic Boschini, Prof. Rudi Cloots

Engineering polymer-derived nanoemulsions to reinforce bioactive glass-ceramic bone scaffolds

» [Dr. Barbora Nikendey Holubova](#), Dr. Hamada Elsayed, Prof. Enrico Bernardo

Empowering Sustainability Through Green Additive Manufacturing Education "Edu-GArD3n"

» [Dr. Hamada Elsayed](#), Dr. Edgar Montufar, Prof. Roman PEREZ ANTONANZAS, Prof. Oguzhan Gunduz

Edu-GArD3n: Education for Sustainable Ceramic 3D Printing

» [Dr. Carolina Oliver-Urrutia](#), Dr. Karel Slamecka, Dr. Edgar Montufar

From vat photopolymerization to pyrolysis: key parameters affecting printability and carbon segregation in polysiloxane-derived ceramics

» [Ms. Angelina Pronina](#), Dr. Abhijeet Lale, Dr. Martin Schwentenwein, Prof. Thomas Konegger

Room-temperature Consolidated Calcium Phosphate Bioceramics as Drug Delivery Systems

» [Ms. Linda Dauge](#), Prof. Jānis Ločs



Continued from Tuesday, 22 September

Polyethyleneimine-assisted sulfation of DLP-3D printed zirconia for structured solid acid catalysts

» [Mr. Akihito Ide](#), Prof. Junichi Tatami, Prof. Motoyuki Iijima

DLP 3D printing of complex-shaped copper oxide/ porous alumina catalysts via interparticle photo-cross-linkable suspensions

» [Mr. Fumiya Yokomori](#), Prof. Junichi Tatami, Prof. Motoyuki Iijima

Tracking curing gradients in photocurable suspensions for DLP printing via optical coherence tomography

» [Ms. Misato Takahashi](#), Prof. Junichi Tatami, Prof. Motoyuki Iijima

Geometry-Microstructure Coupling in DLP-Printed SiOC/a-SiC TPMS Diamond Metastructures for Broadband Electromagnetic Absorption

» [Dr. IUNBIN LU](#), Prof. Hongyu Gong, Prof. Paolo Colombo

DLP Printing of SiO₂ Fiber-Reinforced PEGDA-Based Composites

» Mrs. Hasmik Simonyan, Ms. Liana Mkhitarian, [Ms. Viktorya Rstakyan](#)

Preparation of Highly Filled Suspensions for Digital Light Processing of SiC Ceramics

» [Mr. Tomaž Ivančič](#), Dr. Aljaž Iveković

Densification mechanisms and kinetics of various ceramics during cold sintering

» [Dr. Vojtěch Nečina](#), Mr. Matyáš Mikula

Extruder with Variable Nozzle Diameter for Robotic 3D Printing of Refractory Materials

» [Dr. Adam Boleslavský](#), Dr. Milan Mihola, Dr. Hana Ovcacikova, Dr. Michaela Topinkova, Dr. Jakub Mlotek

Development of low-carbon 3D-printed permanent formworks for complex refractory precast components

» [Dr. Camille Zoude](#), Dr. Sandra Abdelouhab

Design of Interior Elements from Waste Materials Using 3D Ceramic Printing Technology

» [Dr. Hana Ovcacikova](#), Mrs. Ivana Vlčková, Dr. Adam Boleslavský, Dr. Jakub Hlosta, Dr. Michaela Topinkova

Processing and Properties of 3D Printed MgO-CaO Waste Refractories

» [Dr. Hana Ovcacikova](#), Dr. Michaela Topinkova, Dr. Jiří Fiedor, Dr. David Žurovec, Dr. Jakub Hlosta, Mr. Jiří Rozbroj, Mrs. Ivana Vlčková

Effect of Calcination Temperature on the Rheological behaviour of Hydroxyapatite Slurries for Digital Light Processing

» [Ms. Elham Zafarrazaghnia](#), Prof. Stuart Hampshire, Dr. Aran Rafferty, Prof. Dermot Brabazon, Dr. Eamonn De Barra, Dr. Maura C. Kelleher

3D printing of porous waste-glass architectures: From designed gyroids to foamed hierarchical structures

» [Dr. Uroš Hribar](#), Mr. Jošt Oblak, Prof. Matjaž Spreitzer, Dr. Jakob König

Influence of Printing Parameters on the Structural Integrity of Dense Alumina and Zirconia Ceramics Produced by FFF

» Mr. Thales Andrade, Prof. Mateus Morais, Prof. Italo Camargo, Prof. Carlos Fortulan, [Prof. Ana Paula da Luz](#)

Investigating Oxygen-Mediated Ionic Conductivity in Mo-Doped K₂ZnV₂O₈: A Promising Solid Oxide Electrolyte

» [Mr. Deepanshu Kaneria](#), Prof. Kanhaiya Lal Yadav

Engineered binder-modified diopside glass suspensions for dense, low-defect glass-ceramics via vat photopolymerization

» [Ms. Ana Caroline Batista Pires](#), Prof. Enrico Bernardo, Prof. Eduardo Bellini Ferreira

3D PRINTED ALKALI ACTIVATED STRUCTURES FOR APPLICATIONS IN THE CONSERVATION AND RESTORATION OF STONE-BASED MATERIALS

» [Ms. Alice Greguoldo](#), Dr. Nuno Gonçalves, Prof. Rui Novais, Prof. Robert Carlyle Pullar



Continued from **Tuesday, 22 September**

Challenges in Co-Axial Direct Ink Writing of Metal-Ceramic Core-Shell Structures

» Mrs. Vanessa Gastaldi, Prof. Lisa Biasetto, Prof. Gabriella Bolzon, Mrs. Masoomah Farrokhtar

Manufacturing of ceramic membranes for hydrogen separation from syngas

» Dr. Vittoria Marzaroli, Dr. Veronica Nigroni, Dr. Paolo Fedeli, Mr. Enrico Malgrati

Effect of Surface Morphology on Osteoblast Behavior and Mechanical Properties of Alumina-toughened Zirconia

» Prof. Satoshi Kobayashi, Ms. Mai Kinashita

Ti-based core-shell shaping for Ac-225/Bi-213 separation

» Mr. Thomas Staes, Prof. Vera Meynen, Prof. Steven Mullens, Prof. Thomas Cardinaels, Prof. Bart Geboes, Mrs. Janne Gys

"Exploring the influence of Sr phase in the properties of Multicomponent Oxides"

» Ms. Nela Bojarun

7pm

Gala Dinner - Only for registered participants!

Padova Congress

Wednesday, 23 September

9am

Session 3.1 VPP Biomedical I

Padova Congress

9am

Novel Glass-bonded 3D-Printed Phosphate Bioceramics Supported by Silicone-based Emulsions

» Ms. Manon Bouchet, Dr. Barbora Nikendey Holubova, Prof. Enrico Bernardo

9:15am

High-Precision Additive Manufacturing of Advanced Oxide Ceramics

» Dr. Wenyan Duan

9:30am

Hybrid Direct Ink Writing Of Polymer-Derived Baghdadite Scaffolds

» Ms. Linda Furlan, Dr. Hamada Elsayed, Prof. Enrico Bernardo

9:45am

Influence of Microneedles Spacing on Human Fibroblasts Response on Hydroxyapatite Patches for Oral Applications

» Mr. Luís Pereira, Dr. Rainer Detsch, Mr. Jahid Alakbarli, Mr. João Pereira, Prof. David Herrera, Dr. Joana Mesquita-Guimaraes, Prof. José Martinho Oliveira, Prof. Aldo R. Boccaccini

10am

TPMS Calcium Phosphate Scaffolds via Vat Photopolymerization: Structure- Property Relationships for Bone Regeneration

» Ms. Giulia Verlato, Dr. Luca Grigolato, Prof. Gianpaolo Savio, Prof. Enrico Bernardo, Dr. Hamada Elsayed

10:15am

Tailored pre-polymer blends for the development of zirconia-based photocurable resins: The key to highly translucent dental prostheses by DLP

» Mr. Patrick Vieira, Dr. Manuel Alves, Dr. Carlos Elias, Dr. Claudinei Santos, Prof. Susana Olhero

9am

Session 3.2 Sintering 1

Padova Congress

9am

From powders to microstructures: challenges and opportunities of non-conventional sintering

» Dr. mattia biesuz, Dr. Subhadip Bhandari, Prof. Giorgia Franchin

9:30am

Physics-Informed Machine Learning for Simulation and Optimization of Ceramic Sintering

» Dr. Wolfgang Hoffmann, Dr. Mehdi Elasmî, Mr. Jens Landgraf



Continued from Wednesday, 23 September

9:45am **Processing and pressureless densification of TiB₂ using Ti as a sintering additive**
» [Mr. Álvaro Sánchez-Gómez](#), Prof. Antonia Pajares, Prof. Pedro Miranda

10am **Effect of c-BN addition on the Thermal Reactivity and Sintering Behaviour of Y-TZP Ceramics**
» [Ms. Ana Henriques](#), Dr. José Carlos Almeida, Prof. Ana Senos

10:15am **Microstructure and high-temperature strength of Pr₃Si₂C₂-assisted sintered SiC ceramic**
» [Mr. Xu Shen](#)

9am **Session 3.3 Innovative Processing 3**
Padova Congress

9am **Intelligent Creation of Materials**
» [Dr. Nian Ran](#)

9:15am **Sintering shrinkage behavior, microstructure evolution and property relationships in Gd₂O₃-MgO infrared transparent composite ceramics**
» [Dr. Buhao Zhang](#), Dr. Xiaojian Mao, Dr. Jian Zhang, Prof. Shiwei Wang

9:30am **Temperature-Dependent Electrocaloric and Energy Harvesting Properties of 0.925BNT-0.075BT Ceramics and Piezocomposites**
» [Mrs. EZGİ YALÇIN](#), Prof. EBRU MENŞUR

9:45am **Shaping Functional Interfaces: Cold-Sprayed Al- and Ti-Based Interlayers for Laser Joining of Alumina to Metals**
» [Dr. Heloisa Ramlow](#), Mr. Matěj Smutný, Dr. Hossein Ghasemi-Tabasi, Dr. Marek Vostrak, Dr. Gurdial Blugan

10am **BaTiO₃ Nanoparticle-Derived Ceramic Microstructures produced by Polymer-fueled Flash Annealing**
» [Ms. Kerstin Neuhauser](#), Mr. Guillem Vives Ollé, Prof. Gilles Bourret, Dr. Gregor Zickler, Prof. Thomas Berger, Prof. Oliver Diwald

10:15am **Electrical and Infrared Properties of SiC-TiB₂ Composites**
» [Dr. Ming Zhu](#)

10:30am **Coffee Break**
Padova Congress

11am **Session 3.4 VPP Biomedical II**
Padova Congress

11am **Fabrication of biomimetic shark skin structures via ceramic-loaded vat photopolymerization**
» [Mrs. India Marshall](#)

11:15am **VAT-printing of high-strength, high-fidelity Hydroxyapatite with low cost hobby SLA printers**
» [Dr. Gurdial Blugan](#), Mr. Denis Elmazi, Ms. Dagmara Uhl, Dr. Tamanna Thakur, Dr. Heloisa Ramlow

11:30am **From Highly Loaded Zirconia Resins to Ceramic Bone Implants: 3D Printing, Debinding, and Sintering of Complex Geometries**
» [Dr. Weronika Wałczyk](#), Dr. Magdalena Jankowska, Dr. Klaudia Trembecka, Dr. Andrzej Swiezy, Dr. Joanna Ortyl

11:45am **ZnO 3D-printed porous structures for NH₃ sensing**
» [Ms. Wallia Majeed](#), Prof. Bartolomeo Coppola, Prof. Jean-Marc Tulliani, Prof. Paola Palmero

12pm **Fabrication of High-Performance SOFCs Monolithic Assemblies via Multi-Material DLP 3D Printing**
» [Dr. Anastasiia Novokhatska](#), Dr. Serkan Nohut, Mr. Sebastian Geier, Dr. Glenn C. Mather, Dr. Victor Zapata-Ramírez, Dr. Domingo Perez-Coll, Dr. Martin Schwentenwein, Dr. Jozef Kraxner, Dr. Martin Michálek



Continued from Wednesday, 23 September

12:15pm **Additive manufacturing of Cordierite electroceramics with reactive silicone-based binders**
» [Ms. Annalaura Zilio](#), Prof. Enrico Bernardo

11am **Session 3.5 Sintering 2**
Padova Congress

11am **Innovative Developments in Spark Plasma Sintering (SPS) Equipment Driven by Application Demands**
» [Mr. Damian Karpowicz](#)

11:15am **Improving Thermoelectric Efficiency by Texturing Using Electrospun Nanoribbons and Spark Plasma Processing**
» [Dr. Gideon Grader](#), Dr. Armin Feldhoff

11:30am **Towards Laser-Grade Nd:YAG Transparent Ceramics by Spark Plasma Sintering**
» [Dr. Dariia Chernomorets](#), Dr. Sanae Koizumi, Dr. Hiroaki Furuse

11:45am **Metal-Ceramic Laminates processed by Selective Powder Deposition and FAST/SPS sintering**
» Prof. Fei Zhang, [Dr. Bram Neirinck](#), Prof. Jozef Vleugels

12pm **Optimization of Ultrafast High-Temperature Sintering for Gradient-Free Alumina Microstructures and Mechanical Performance**
» [Dr. Aditya Arun](#), Dr. mattia biesuz, Prof. Vincenzo Sglavo

12:15pm **Ultrafast High-temperature Sintering of ceramic-metal composites: simulation and experimental testing**
» [Mr. Ricardo Mineiro](#), Prof. Julian Dean, Prof. Ángel Luís Ortiz, Prof. Paula M. Vilarinho, Prof. Ana Senos

11am **Session 3.6 AM Process Development I**
Padova Congress

11am **A feasibility study of applying cellulose fiber as rheology modifiers of ceramic paste for direct ink writing**
» [Dr. Ying Chung](#), Dr. Akihiro Shimamura, Dr. Naoki Kondo

11:15am **Optimization of a Hybrid MEX Printing-Milling Process for Commercial CIM Feedstocks**
» [Dr. Silvio Tisato](#), Ms. Johanna Bock, Dr. Arun Ichangi, Prof. Antje Liersch, Dr. Frank Clemens

11:30am **Multifunctional Roles of Binders in Alumina Direct Ink Writing**
» [Mr. Bekir Gürkan Kaynak](#), Mr. Ömer Faruk Oğuz, Prof. Cekdar Vakifahmetoglu, Prof. Simge Cinar Aygun

11:45am **Optimization of a Partially Water-Soluble Highly Filled Alumina Feedstock for Ceramic Fused Filament Fabrication**
» [Mr. Thomas Heim](#)

12pm **Tailoring Debinding Behaviour in Ceramic Vat Photopolymerization via Optimised Binder Additives**
» [Ms. Maral Afshar](#), Dr. Vahid Nekouie

12:15pm **3D printing of geopolymer and its composites**
» [Prof. Peigang He](#)

12:30pm **Lunch**
Padova Congress

2pm **Session 3.7 VPP for Energy and Electronics**
Padova Congress

2pm **Additive Manufacturing of Aluminum Nitride Ceramics for Advanced Thermal Management Applications**
» [Dr. Martin Schwentenwein](#), Dr. Abhijeet Lale, Mrs. Lisa Mikiss



Continued from **Wednesday, 23 September**

- 2:30pm **Digital Light Processing of Barium Titanate Structures for Miniaturization in Electronics**
» Dr. POLY ROSE, Prof. Ravi Kumar N V
- 2:45pm **Carbide targets for ISOL Facilities via Digital Light Processing: Fabrication and Performance Evaluation of TiC/C and SiC/C Nanocomposites**
» Mr. Luca Avanzi, Dr. Michele Ballan, Dr. Sara Carturan, Dr. Stefano Corradetti, Dr. Mattia Manzolaro, Prof. Paolo Colombo, Prof. Giorgia Franchin
- 3pm **Digital light processing 3D-printed Copper/SiOC ceramic log-pile scaffolds metamaterials for electromagnetic wave absorption**
» Ms. XUEHAN MA, Mr. Heqiang Liu, Dr. Xingmin Liu, Prof. Paolo Colombo
- 3:15pm **Additive manufacturing of multifunctional micro-architected ZnO**
» Mr. Peiren Wang, Prof. Eduardo Saiz
- 2pm **Session 3.8 Sintering 3**
Padova Congress
- 2pm **Tetradecylamine-MgO Shape-Stabilized Phase Change Materials: A Comparative Study of Cold Sintering Process and Uniaxial Pressing**
» Ms. Cristina Aguirado Montero, Mr. Salvador Rea, Dr. Yanio E Milian Rodriguez, Prof. Paula M. Vilarinho
- 2:15pm **Quartz ceramics: Revisiting pressure solution of quartz sand in the context of cold sintering**
» Dr. Vojtěch Nečina, Prof. Willi Pabst
- 2:30pm **Cooling Pressure Controls Microstructure and Mechanical Properties in Cold-Sintered ZnO**
» Mr. Salvador Rea, Dr. Camila Ribeiro, Prof. Ian Reaney, Prof. Elisabete Costa, Prof. Paula M. Vilarinho

- 2:45pm **Simplified Low-Temperature Fabrication of NiO-YSZ/YSZ/LSM-YSZ Full SOFCs via Spray Coating and Cold Sintering Process**
» Mrs. Tuğçe Uçun Demirsöz, Prof. Hüseyin Yılmaz
- 3pm **Cold Sintering of Metakaolin-Based Geopolymers**
» Ms. Giovanna Rubo de Rezende, Prof. Paolo Colombo, Dr. Agusti Sin, Dr. Lorenzo Lattanzi
- 3:15pm **Transparent CaF₂ ceramics by cold sintering: The effect of liquid phase chemistry**
» Mr. Matyáš Mikula, Dr. Vojtěch Nečina
- 2pm **Session 3.9 AM Process Development II**
Padova Congress
- 2pm **3D structuring of ZSM-5 zeolite bodies using interparticle photo-cross-linkable suspension and their catalytic performance**
» Mr. Shogo Tsutaki, Mr. Tatsuru Sato, Dr. Sheng-Xiang Zhang, Prof. Satoshi Inagaki, Prof. Junichi Tatami, Prof. Motoyuki Iijima
- 2:15pm **Visualizing microstructural heterogeneity in DLP-3D printed transparent ceramic green bodies**
» Prof. Motoyuki Iijima, Ms. Misato Takahashi, Prof. Junichi Tatami
- 2:30pm **Water-based ceramic slurries for VAT Photopolymerization**
» Mr. Diego Velasco, Mrs. María Valero Saiz, Dr. Rodrigo Moreno, Dr. Mario Borlaf
- 2:45pm **Vat Photopolymerization of Low Stabilized Zirconia**
» Ms. Dagmara Uhl, Dr. Heloisa Ramlow, Mr. Denis Elmazi, Prof. Dariusz Kata, Dr. Gurdial Blugan
- 3pm **Overcoming Debinding Limitations in Ceramic Vat Photopolymerization**
» Mr. Jošt Oblak, Dr. Jakob König, Prof. Matjaž Spreitzer
- 3:15pm **Influence of Coloring Metal-Oxide Additives on Robocasting and Vat Photopolymerization of Ceramic Parts**
» Mrs. Swantje Funk, Dr. Larissa Wahl, Mr. Tim Stötzel, Dr. Tobias Fey



Continued from Wednesday, 23 September			
3:30pm	Coffee Break <i>Padova Congress</i>		
4pm	Session 3.10 AM Process Development III <i>Padova Congress</i>		
4pm	Fast laser processing of silicon carbide ceramic materials » Dr. Jie YIN , Dr. Zhongming Chen, Dr. Xuejian Liu, Dr. Zhengren HUANG	5:30pm	Design and Optimisation of Photocurable Binders for Ceramic Additive Manufacturing via Vat Photopolymerization » Dr. Vahid Nekouie , Ms. Maral Afshar
4:15pm	The Duality of Ceramic Suspensions in Stereolithography: Slurries vs. Pastes » Mr. Petar Kotevski , Dr. Sylvain Fournier, Dr. Sandrine Cottrino, Dr. Stéphane Schweizer, Dr. Helen Reveron, Prof. Jérôme Chevalier, Prof. Guilhem Baeza	4pm	Session 3.11 Emerging AM Technologies <i>Padova Congress</i>
4:30pm	A COMPREHENSIVE MECHANICAL CHARACTERISATION OF ALUMINA ADDITIVELY MANUFACTURED VIA STEREO LITHOGRAPHY » Mr. Jacob Bilsborough, Mr. Matthew Drane, Mr. Giorgio Ciencia, Prof. Elsa Antunes	4pm	3D-printed bone substitutes: From pore-based to Triply periodic minimal surface-based microarchitectures » Prof. Franz Weber
4:45pm	Material design and optimization of additive manufacturing silica-based ceramic core » Dr. Qiaolei Li , Prof. Jingjing Liang, Prof. Lisa Biasetto, Prof. Yizhou Zhou, Prof. Paolo Colombo, Prof. Jinguo Li	4:15pm	Additive manufacturing of glass materials using binder jetting » Dr. Enrique Juste , Dr. Christine Kermel, Dr. Fabrice Petit
5pm	Performance optimization of vat photopolymerization 3D printed SiO₂-based ceramic cores » Dr. Jiachen Teng, Dr. Qiaolei Li, Mrs. Xinyan Yue	4:30pm	Development of Aqueous Zirconia Suspensions for Vat Photopolymerization » Mrs. María Valero Saiz , Dr. Rodrigo Moreno, Dr. Mario Borlaf
5:15pm	Additive manufacturing of calcium carbonate corals for coralporosis studies » Prof. Mateus Morais , Prof. Carlos Fortulan, Prof. Marta Peña Fernández, Dr. Kristina Beck, Dr. Sebastian Hennige	4:45pm	Additively Manufactured 2Y-TZP Zirconia Dental Ceramics: Influence of Building Orientation on Mechanical Properties and Low-Temperature Degradation » Ms. Tjaša Okleščen , Prof. Peter Jevnikar, Prof. Andraz Kocjan
		5pm	Additively Manufactured Pyrolytic Carbon/SiOC Ceramic Hierarchical Hybrid Metamaterials for Ultra-Broad Electromagnetic Absorption » Mr. Heqiang Liu , Dr. Kai Huang, Dr. Xingmin Liu, Prof. Paolo Colombo
		5:15pm	3D Printed Chain-mail Metamaterials with Tunable Stiffness via Granular Jamming » Dr. Genrong Zhang
		5:30pm	Development of Ceramic-Based Photocurable Resin Systems for Additive Manufacturing of High-Performance Dual-Use Components » Dr. Joanna Ortyl , Dr. Andrzej Swiezy, Dr. Filip Petko, Dr. Magdalena Jankowska, Dr. Malgorzata Noworyta, Dr. Weronika Wąlczyk, Dr. Pawel Niezgoda



Continued from **Wednesday, 23 September**

4pm	Session 3.12 Innovative Processing 4 <i>Padova Congress</i>
4pm	Attempts to Flash-Sinter Doped and Undoped MgO: Defect Effects, Hotspots, and Breakdown Channels » Prof. Yoed Tsur , Dr. Rawan Halabi
4:15pm	Rapid sintering of additive manufactured multi-material ceramic parts » Mr. Tobias Prötsch , Dr. Serkan Nohut, Dr. Josef Schlacher, Mrs. Irina Kraveva, Dr. Martin Schwentenwein, Prof. Raul Bermejo
4:30pm	Sintering of low expansion ceramics from glass powders » Dr. Mihails Kusnezoff , Dr. Jochen Schilm, Dr. Dörte Wagner, Dr. Mykola Vinnichenko, Dr. Christoph Baumgärtner, Mr. Eric Schwarzer-Fischer, Dr. Yaroslav Federov, Dr. Marcel Meegdes, Dr. Stefan Fecher
4:45pm	Shaping Glass-Ceramic Composites with Tunable Energy Dissipation for Dynamic High-Temperature Environments » Ms. Bianka Pajo , Dr. Carlos Martinez
5pm	Nb-Al₂O₃ composites used as high-temperature heating elements for refractory applications » Dr. Tilo Zienert , Dr. Marie Oppelt, Dr. Nora Franke, Mrs. Christina Faßauer, Dr. Jana Hubáľková, Prof. Christos Aneziris
5:15pm	Multi-Material Zirconia Ceramics with Improved Flexural Strength Obtained by Selective Powder Deposition » Dr. Berfu Göksel, Dr. Bram Neirinck , Prof. Jozef Vleugels, Prof. Annabel Braem
5:30pm	Design and Mechanical Properties of a Novel Integrated bionic Thin-Walled Energy Absorption Structure » Dr. Xiaodi Feng