



Monday, 12 October

8:15am **Registration**
University of Novi Sad

9am **Welcome Word**
University of Novi Sad

9:15am **Invited Welcome Talks**
University of Novi Sad

9:15am **Ferroelectric and Piezoelectric Ceramics: A Historical Perspective and Recent Developments**
» [Dr. Dragan Damjanovic](#)

9:45am **Electro-Nanoceramics: From Over 45,000 Implanted in Humans to Exploratory Applications**
» [Dr. Thomas Webster](#)

10:15am **Coffee Break**
University of Novi Sad

10:45am **Session 5.4**
University of Novi Sad

10:45am **Processing of Smart Porous Electro-Ceramic Transducers (ProSPECT)**
» [Prof. Chris Bowen](#)

11:15am **Solid-state synthesis of medium entropy rare earth oxide with engineered oxygen vacancies for formaldehyde gas sensing application**
» [Mr. SUBHAJEET SEN](#), Dr. Srinivasan Nedunchezian, Mr. Vishal Nagar, Dr. Ashok Bera

11:30am **Air-Oxygenation-Driven n/p-Type Conversion and Heterojunction-Boosted Gas Sensing in Metal Chalcogenides**
» [Prof. Yun-Hyuk Choi](#)

10:45am Session 5.5

10:45am **Low Temperatures Cofired Ceramics for Electronics Applications**
» [Prof. Hong Wang](#)

11:15am **Effective dielectric properties adjustment through additive manufacturing of single component ceramics for application in microwave dielectric resonator antennas**
» [Dr. Ratiba Benzerga](#), Dr. Claire Le Paven, Mr. Thomas Lavie, Mr. Romain Ammar, Dr. Matthew Julian, Dr. François Cheviré, Dr. Laurent Le Gendre, Prof. Ala Sharaiha

11:30am **Temperature-Stable Microwave Dielectric Ceramics in the BaLiF₃-NaMgF₃ System with Ultralow Sintering Temperature**
» [Prof. Jianjiang Bian](#)

11:45am **Plenary Session 1**
University of Novi Sad

11:45am **The role of chemical, polar and octahedral tilt disorder in high voltage/energy density ceramics**
» [Prof. Ian Reaney](#)

12:30pm **Lunch**
University of Novi Sad



Continued from **Monday, 12 October**

2pm	Session 5.3 <i>University of Novi Sad</i>
2pm	Non-Linear Dielectrics: Bridging Fundamental Physics and Sustainable Technologies » Prof. Paula M. Vilarinho
2:30pm	SPS levers for optimizing the microstructure and piezoelectric properties of screen-printed layers MEMS for energy harvesting » Ms. Nadia BENCHAREF , Dr. U-Chan Chung, Ms. Sonia Buffiere, Mr. Philippe Legros, Mr. Bernard Plano, Dr. Mario Maglione, Ms. Hélène Debeda, Dr. Elissalde Catherine
2:45pm	High piezoelectric response in sol-gel processed epitaxial BiFeO₃ films through post engineering » Mr. Xin Zhang , Prof. Jing-Feng Li
3pm	Tailoring Barium Titanate-based ceramics with low Sn addition for piezoelectric energy harvesting applications » Dr. Nadejda Horchidan , Mr. Cosmin-Petre Lazăr, Dr. Leontin Padurariu, Dr. Vlad Alexandru Lukacs, Dr. Felicia Gheorghiu, Dr. Cristina Elena Ciomaga, Dr. Florin-Mihai Tufescu, Prof. Liliana Mitoseriu
3:15pm	BaTiO₃-rich BaTiO₃-Na_{0.5}Bi_{0.5}TiO₃ relaxor ferroelectrics with double hysteresis loops and high energy density » Mr. Oğuz Akkaşoğlu, Dr. Merve Karakaya, Prof. Umut Adem
3:30pm	NaNbO₃-Based Freestanding Piezoelectric Oxide Membranes for Flexible Electronic Skin Applications » Dr. hangren Li , Prof. Jing-Feng Li

3:45pm	Cryogenic Magnetocaloric Effects in Hexagonal Multiferroic Oxide Ceramics » Mr. Manuel Zahn, Ms. Katharina Wolk, Mr. Ruben Dragland, Mr. Tim Treu, Mr. Karel Prokes, Mr. Yosuke Hamasaki, Dr. Catalina Salazar Mejia, Dr. Elvia Chavez Panduro, Dr. Tino Gottschall, Dr. Yoshitaka Ehara, Prof. Philipp Gegenwart, Prof. Dennis Meier, Dr. Jan Schultheiss
2pm	Session 4.1
2pm	Structural Modulation and Phase Transition in Tetragonal Tungsten Bronze Ferroelectrics » Dr. Xiaoli Zhu
2:30pm	Processing Pathways to Tailored Functional Responses in Lead-Free Bismuth Ferrite Strontium Titanate Ceramics » Mrs. Seham Alamri , Dr. Ge Wang
2:45pm	Processing-structure-property relationship in BMT-doped BiFeO₃-BaTiO₃ ceramics » Mrs. Jannatul Robaiat Mou , Dr. David Hall
3pm	Consistent transition model for Bi_{0.5}Na_{0.5}TiO₃ from temperature-dependent structural and electrical properties » Dr. Thomas Fourgassie , Dr. Cosme Milesi-Brault, Mr. Omar Ibder, Prof. Pascal Andreazza, Mr. Eric Bourhis, Dr. Anna Ott, Prof. Pierre-Eymeric Janolin, Prof. Cecile Autret Lambert
3:15pm	Role of Incommensurate Modulation in Tetragonal Tungsten Bronze Ferroelectrics » Mr. Yibang Ou
3:30pm	Defect engineering in amorphous silica to develop sustainable and cost-effective catalysts for CO₂ methanation » Dr. Rishabh Shukla , Dr. Fabio La Mattina, Dr. Andreas Borgschulte, Dr. Mattia Turchi, Dr. Ivan Lunati, Dr. Michael Stuer
3:45pm	Influence of isovalent doping in BaTiO₃ based PTCR materials for high voltage heaters » Mr. Florian Hortmann , Dr. Christian Molin, Dr. Sylvia Gebhardt



Continued from Monday, 12 October			
4pm	Coffee Break <i>University of Novi Sad</i>		
4:30pm	Session 3.2 <i>University of Novi Sad</i>		
4:30pm	Environmental Effects in Ferroelectrics Probed by SPM » <u>Prof. Brian Rodriguez</u>	4:30pm	Percolation, giant permittivity and metacomposite properties in Ag-BaTiO₃ ceramic-metal structures with variable microstructural characteristics » <u>Prof. Liliana Mitoseriu</u> , Dr. Vlad Alexandru Lukacs, Dr. Ina Turcan, Dr. Leontin Padurariu, Dr. Radu Stefan Stirbu, Dr. Cristina Elena Ciomaga, Dr. Fereshteh Falah Chamasemani, Dr. Roland Brunner, Dr. Donatella Giuranno
5pm	Nonlinear Dielectric Responses and Relaxation Dynamics in Molecular Ferroelectric [HDabco]ClO₄ » <u>Mr. Shuaib Bolaji Issa</u> , Prof. Mari-Ann Einarsrud, Prof. Julian Walker	5pm	Development of a Tactile Sensing Device to Evaluate Self-Powered Piezoelectric TPE Composites » Ms. Sofia Butenko, Mr. Wojciech Kajfosz, Dr. Arun Ichangi, Prof. Bogdan Sapinski, <u>Dr. Frank Clemens</u>
5:15pm	Composition-dependent electromechanical response of DC-bias field hardened ferroelectric ceramics » <u>Dr. Kriti Batra</u> , Mr. Anton J. Heitzmann, Prof. Jurij Koruza	5:15pm	Ag-BaTiO₃ cermet composites with sharp-edged metallic inclusions » <u>Dr. Vlad Alexandru Lukacs</u> , Dr. Ina Turcan, Dr. Cristina Elena Ciomaga, Dr. Felicia Gheorghiu, Dr. George Stoian, Dr. Ioan Dumitru, Prof. Liliana Mitoseriu
5:30pm	Shear Electrostrain Response in Ferroelectrics » <u>Dr. Yizhe Li</u> , Dr. David Hall	5:30pm	Development of a LTCC material with a TEC tailored to Silicon and fabrication of compound materials for hybrid microsystems » <u>Mr. Clemens Motzkus</u>
5:45pm	Analysis of the Charge Transition Level in perovskite-type oxide materials by X-ray photoelectron spectroscopy » <u>Dr. Savita Chaoudhary</u> , Ms. Anna M Paulik, Mr. Niklas Bertelmann, Mr. Denis Sudarikov, Dr. Pengcheng Hu, Prof. Jurij Koruza, Prof. Andreas Klein	5:45pm	High permittivity and low dielectric loss MgO-BaTiO₃ ceramic composites » Mr. Muhammad Wasim, Dr. James Killeen, Dr. Iasmi Sterianou, Dr. Evangelos Kordatos, Dr. Julian Dean, Prof. Derek Sinclair, <u>Prof. Antonio Feteira</u>
6pm	Complete characterization of the dielectric, piezoelectric and elastic properties of a ceramic with a single parallelepiped-shaped sample » <u>Dr. Julien VASSEUR</u> , Dr. Rémi Rouffaud, Dr. Loïck Bonnet, Prof. Isabelle Monot-Laffez, Prof. Franck Levassort	6pm	Anisotropic Response in Ag-BaTiO₃ Composites Textured by Electric Field Assisted Sintering » <u>Ms. Anda Maria Oajdea</u> , Dr. Vlad Alexandru Lukacs, Dr. George Stoian, Dr. Felicia Gheorghiu, Prof. Liliana Mitoseriu
4:30pm	Session 4.4	8pm	YCN Evening <i>University of Novi Sad</i>



Tuesday, 13 October

8:30am

Session 5.3*University of Novi Sad*

8:30am

Solution based metal – metal oxide composites for solar fueled CO₂ conversion» Prof. Marlies K. Van Bael, Dr. Ken Elen, Dr. Bjorn Joos, Prof. Pascal Buskens, Prof. An Hardy

9am

Room-temperature densified Al₂O₃-H₃BO₃ ceramics with excellent microwave dielectric properties and thermal conductivity for chip packaging» Mr. Zeng Zhan, Dr. Jin Cheng, Dr. Xinwei Xu, Dr. Hongye Wang, Ms. Yani Lu, Dr. Liang Sun, Dr. Naichao Chen, Mr. Xiaoyu Li, Mr. Boshen Zhang, Prof. Hong Wang

9:15am

Optimization of printing parameters for DLP 3D-printed potassium sodium niobate (KNN)-based lead-free gyroid scaffolds» Dr. Ertugrul Varlik, Dr. Fatih Kurtuldu, Mr. Dominik Brouczek, Dr. Martin Schwentenwein, Dr. Martin Michálek

9:30am

Reactive flash processing of carbonates for the low temperature densification of lanthanum cerate» Mr. Anant Kumar Gupta, Dr. Devinder Yadav, Dr. Srinivasan Nedunchezian

9:45am

Ultrafast Sintering of Bulk Electrolyte Materials for Ceramic Fuel Cells» Mr. Lourenço Serra, Dr. Antonio Maria Asensio, Dr. Marc Torrell, Prof. Albert Tarancón

10am

Potential of a novel proton-conducting material designed by encapsulation of water vapor into positively charged cages of 12CaO-7Al₂O₃» Prof. Naonori Sakamoto, Mr. Ryota Maruyama, Prof. Takahiko Kawaguchi, Prof. Naoki Wakiya

8:30am

Session 2.3

8:30am

Design of Protective Coatings for Lithium-Ion Battery Cathodes via Wet-Chemical Processing» Prof. Tomoya Ohno, Dr. Padarti Jeevan Kumar, Prof. Shigeto Hirai

9am

MAXIMIZING MASS TRANSPORT IN LITHIUM-ION BATTERIES: THE IMPACT OF GEOMETRY AND INFILL PATTERNS ON 3D-PRINTED NMC-BASED ELECTRODES» Mr. José Ignacio García Jiménez, Mrs. Sabrina Tair, Dr. Juan Ramón Marín Rueda, Dr. Miguel Castro García, Dr. Juan Carlos Pérez Flores, Dr. Jose Fernando Valera Jiménez, Prof. Jesús Canales Vázquez

9:15am

Towards 3D-Printed All-Solid-State Batteries: From Die-Pressing to DLP-Based Ceramic Architectures» Dr. Jérôme Bodart, Mr. Renaud Hastir, Dr. Frederic Boschini, Prof. Rudi Cloots, Dr. Abdelfattah Mahmoud

9:30am

Nano-Engineered thin-film composites for application in oxygen-charged storage energy system» Mr. Andrea Turino, Mr. Dominic Maria Borgialli, Dr. Francesco Chiabrera, Dr. Federico Baiutti, Prof. Albert Tarancón

9:45am

Energy storage density in PMN-33PT dielectric thin film capacitors through synergistic effects» Prof. Matjaž Spreitzer, Dr. Jamal Belhadi, Dr. Zouhair Hanani, Prof. Nina Daneu

10am

Engineering MIEC Oxide Thin Films for Low-Temperature Proton-Coupled Charge Storage» Mr. CHIRAG Chotai, Dr. Francesco Chiabrera, Dr. Alex Morata, Dr. Federico Baiutti, Prof. Albert Tarancón

8:30am

Session 1.4

8:30am

The Evolution of Atomistic Modeling: From Physics-Driven to Data-Driven Materials Research» Prof. Stevan Armaković



Continued from **Tuesday, 13 October**

- 9am **Phase Superposition as a Pathway for Enhancing Functional Properties in Barium Titanate-Based Ceramics**
» Dr. Leontin Padurariu, Dr. Nadejda Horchidan, Dr. Cristina Elena Ciomaga, Dr. Vlad Alexandru Lukacs, Dr. Felicia Gheorghiu, Dr. Radu Sefan Stirbu, Prof. Liliana Mitoseriu
- 9:15am **Moderate-temperature defect chemistry of barium titanate**
» Mr. Denis Sudarikov, Mr. Niklas Bertelmann, Prof. Andreas Klein
- 9:30am **Phase-field simulation of domain wall dynamics and charge compensation in uniaxial ferroelectrics**
» Dr. Olga Yu Mazur, Dr. Yuri Genenko, Dr. Pavel Marton
- 9:45am **Enhanced Prediction of Microwave Dielectric Properties in ABO₃ Perovskite Ceramics via M3GNet-Integrated Machine Learning**
» Mr. Liangyu Mo, Mr. Jincheng Qin, Prof. Mingsheng Ma, Prof. Yongxiang Li, Prof. Zhifu Liu
- 10am **Design of electromechanical transducers based on the nonclassical electrostrictor (Zr_{1-x}Ce_x)O₃**
» Dr. Petr Yudin, Prof. Igor Lubomirsky
- 10:15am **Coffee Break**
University of Novi Sad
- 10:45am **Session 5.2**
University of Novi Sad
- 10:45am **How Semiconducting are ferroelectrics**
» Dr. Pengcheng Hu, Dr. Nicole Bein, Mr. CHINMAY CHANDAN PARHI, Prof. Tadej Rojac, Prof. Barbara Malič, Dr. Mohammad Ammirabasi, Prof. Karsten Albe, Prof. Jurij Koruza, Prof. Andreas Klein

- 11:15am **3D printing of fine-pitch through-ceramic vias (TCVs) for advanced ceramic chip packaging**
» Mr. Boshen Zhang, Dr. Xinwei Xu, Dr. Hongye Wang, Mr. Denghao Ma, Ms. Yani Lu, Mr. Zeng Zhan, Prof. Hong Wang
- 11:30am **Polarization-driven enhancement of photocatalytic activity in porous BCZT ceramics**
» Ms. Laura San-Miguel, Ms. Ana Castellanos-Aliaga, Ms. Romana Boubenicek, Dr. Thomas Konegger, Dr. David G. Calatayud, Dr. Teresa Jardiel, Prof. Jurij Koruza, Dr. Marco Peiteado
- 10:45am **Session 2.3**
- 10:45am **Effects of CuO-TiO₂-Nb₂O₅ composite oxide sintering aids on the sintering behavior and performance of electroceramics**
» Prof. Zhifu Liu
- 11:15am **Unlocking the Potential of LLZO Solid-State Batteries via 3D Printing.**
» Mrs. Sabrina Tair, Mr. José Ignacio García Jiménez, Dr. Jose Fernando Valera Jiménez, Dr. Juan Ramón Marín Rueda, Dr. Miguel Castro García, Dr. Juan Carlos Pérez Flores, Prof. Jesús Canales Vázquez
- 11:30am **Toward 3D-Printable Electroceramic Battery Anodes: Li_{0.5}Ti_{0.5}O₂/Polymer Nanocomposites with Multiscale Carbon Conductive Networks**
» Dr. Muhammad Saqlain Iqbal
- 10:45am **Session 4.2**
- 10:45am **New Generation BiFeO₃-BaTiO₃ Piezoceramics Activated by Bulk Ferroelectric Heterostructures**
» Dr. David Hall, Dr. Yizhe Li
- 11:15am **Engineering Dynamics through Field-Induced Transformations in Lead-Free NBT Piezoelectric Ceramics**
» Ms. Hareem Zubairi, Dr. Ge Wang



Continued from Tuesday, 13 October			
11:30am	Enhancing antiferroelectricity in NaNbO₃-based ceramics » Mr. Anirudh K R, Dr. Lucía Imhoff, Dr. Martin Kempa, Dr. Tetyana Ostapchuck, Dr. Maxim Savinov, Dr. Dmitry Nuzhnyy, Mr. Aadil Abass Shah, Dr. Mojca Otoničar, <u>Dr. Elena Buixaderas</u>	3:15pm	Effect of Particle Size Control on the Densification and Functional Properties of SPS-Sintered Lead-Free KNN Ceramics » <u>Mr. Bouabid Misski</u> , Prof. Mohamed Mouyane, Prof. jacques noudem, Prof. sylvain marinel, Prof. Amine ALOUI-BELGHITI, Prof. Mohamed Rguiti, Prof. Fouad BLEHORA, Prof. jerome Bernard, Prof. David Houivet
11:45am	Plenary Session 2 <i>University of Novi Sad</i>	3:30pm	Tuning the Properties of Magnetoelectric Nanoparticles to Enable Controlled Neural Stimulation » <u>Ms. Aleksandra Milojkovic</u> , Prof. Kristen Kozielski, Ms. Prachi Kumari
11:45am	Interface Engineering in Perovskite-based Nano-complex Ceramics for High Dielectric & Piezoelectric Performances » <u>Prof. Satoshi WADA</u>	3:45pm	Synthesis, structural evolution, sintering behavior and electrical properties of complex (Bi_{0.2}K_{0.2}Ba_{0.2}Sr_{0.2}Ca_{0.2})TiO₃ perovskites » <u>Dr. Vasile-Adrian Surdu</u> , Ms. Mariana-Andreea Marinică, Dr. Roxana-Elena Patru, Prof. Ovidiu-Cristian Oprea, Dr. Adrian Ionuț Nicoară, Dr. Bogdan Vasile, Ms. Roxana Trușcă, Prof. Adelina-Carmen Ianculescu
12:30pm	Lunch <i>University of Novi Sad</i>	2pm	Session 5.6
2pm	Session 2.1 <i>University of Novi Sad</i>	2pm	Ultrafast phononic manipulation of ferroic order » <u>Prof. Andrei Kirilyuk</u>
2pm	Re-engineering Solid-State Synthesis of Perovskites: Precursor Design as a Tool for Chemical Homogeneity and Phase Purity » <u>Prof. Jacob L. Jones</u>	2:30pm	The origin of the exceptional microwave dielectric properties of SrTiO₃-based films and ceramics with a Ruddlesden-Popper structure » <u>Prof. Stanislav Kamba</u>
2:30pm	Phase formation reactions and doping of the (Ba,Ca)(Zr,Ti)O₃ piezoceramic » <u>Prof. Jurij Koruza</u> , Ms. Anna M Paulik, Prof. Andreas Klein, Dr. Marc Widenmeyer, Prof. Oliver Clemens	3pm	Unlocking the potential of solution deposition techniques for production of the epitaxial perovskite thin films » <u>Dr. Jelena Vukmirovic</u> , Ms. Danica Piper, Ms. Iva Tokovic, Dr. Xuyun Guo, Dr. Bojan Miljević, Dr. Marija Milanovic, Prof. Vladimir V Srdić
3pm	Transformation to sustainable processing in electroceramics industry » <u>Prof. Klaus Reichmann</u>	4pm	Coffee Break <i>University of Novi Sad</i>
		4:30pm	Session 2.2 <i>University of Novi Sad</i>



Continued from **Tuesday, 13 October**

- 4:30pm **Barium Titanate-Based Thin Films: Tailoring the Properties by Solution Chemistry, Substrate Choice and Heating Regime**
» Dr. Konsago Sabi William, Prof. Barbara Malič, Dr. Katarina Žiberna, Ms. Maja Koblar, Ms. Brigita Kmet, Dr. Aleksander Matavž, Dr. Barnik Mandal, Dr. Sebastjan Glinšek, Prof. Andreja Benčan Golob
- 5pm **Recent results on Aerosol Deposition (AD) of lead-free ferroelectric - piezoelectric thick films on metallic substrates for flexible devices**
» Prof. Pascal Marchet, Dr. Anass Chrir, Dr. Oscar Rojas, Ms. Laurence Boyer, Dr. Olivier Durand, Prof. Fabrice Rossignol
- 5:15pm **Aerosol deposition of BiFeO₃-PbTiO₃ ferroelectric thick films for multifunctional flexible devices**
» Mrs. Adriana Barreto, Mr. Victor Regis, Dr. Matteo Dangelo, Mrs. Ivana Goričan, Dr. Harvey Amorín, Dr. Ricardo Jiménez, Prof. Barbara Malič, Prof. M. Lourdes Calzada, Prof. Hana Uršič, Dr. Miguel Algueró
- 5:30pm **Self-Assembling Monolayers as a Tool for Selective Chemical Solution Deposition**
» Ms. Karola Neeleman, Mr. Hung Nguyen, Prof. Daniel Rettenwander, Prof. Julia Glaum, Prof. Mari-Ann Einarsrud
- 5:45pm **Ferroelectric solution deposited oxide layers for flexible electronic systems**
» Dr. Íñigo Bretos, Dr. Ricardo Jiménez, Dr. Jesús Ricote, Dr. Miguel Algueró, Mrs. Adriana Barreto, Prof. M. Lourdes Calzada
- 6pm **Na-induced modification of epitaxial LaMnO₃ thin films: Structural and magnetic insights**
» Dr. Jelena Bobić, Dr. Aleksandar Radojkovic, Dr. Mirjana Vijatovic Petrovic, Dr. Jelena Vukmirovic, Dr. Adis Dzunuzovic, Dr. Nikola Ilic, Dr. Marko Boskovic, Prof. Vladimir V Srdić

4:30pm **Session 5.6**

- 4:30pm **Direct and inverse magnetoelectric effects from DC to RF in thin-film heterostructures**
» Prof. Florin Ciubotaru, Prof. Van Meirvenne Emma, Prof. Federica Luciano, Prof. Christoph Adelman
- 5pm **From Short-Range Distortions to Domain Structures: Probing d⁰ Perovskites Across Length Scales with TEM and X-ray Diffraction**
» Dr. Catriona Crawford, Dr. Robin Sjökvist, Prof. Richard Beanland
- 5:15pm **Characterization of ferroelectric domain structures and local switching in modified-(K,Na)NbO₃ single crystals**
» Dr. Thissiana da Cunha Fernandes, Dr. Andrei Ushakov, Dr. Anton Turygin, Prof. José Antônio Eiras, Prof. Vladimir Y. Shur, Dr. Manuel Henrique Lente

Wednesday, 14 October

- 8:30am **Round Table**
University of Novi Sad
- 8:30am **Session 4.2**
- 8:30am **Ferroelectric high Curie temperature perovskite BiMeO₃ (Me: Sc or Fe) based systems at phase instabilities with stable piezoelectric response after ceramic submicrostructuring**
» Dr. Miguel Algueró, Mr. Asier Medel, Dr. Cristina Pascual-González, Prof. Alicia Castro, Dr. Valentina Sessini, Prof. Marta Mosquera, Dr. Harvey Amorín
- 9am **Sintering Driven Structural, Electrical, and Optical Tailoring of lead-free KNN-Based Ceramics**
» Mr. Muhammad Wasim, Dr. Evangelos Kordatos, Prof. Antonio Feteira, Dr. Iasmi Sterianou



Continued from **Wednesday, 14 October**

9:15am **Unveiling multiscale origins of enhanced electrostrain in lead-free BiFeO₃-based ceramics**

» [Dr. Ge Wang](#)

9:30am **Piezoelectric Response of Lead-Free BiFeO₃-BaTiO₃ Relaxor Ferroelectric Ceramics: Composition, Temperature, Frequency and Electric-Field Dependence**

» Dr. Antonio Iacomini, Dr. Mojca Otoničar, Prof. Hana Uršič, Mr. Alberto Giribaldi, [Prof. Tadej Rojac](#)

9:45am **Hybrid improper ferroelectricity and complex phase evolution in La₂SrSc₂O₇-based ceramics**

» [Prof. Xiaoqiang Liu](#), Mr. Zhe Guo, Mr. Cang Huan Ye, Prof. Xiangming Chen

10am **Quasi-Spherical Engineering of Ferroelectric Mesophase Transitions in Molecular Plastic Crystals and Their Structure-Property Relationships**

» [Mr. Shuaib Bolaji Issa](#), Prof. Mari-Ann Einarsrud, Prof. Julian Walker

10:15am **Coffee Break**

University of Novi Sad

10:45am **Session 2.3**

University of Novi Sad

10:45am **Powders synthesis and particle morphology control: a route to explore advanced dielectric and ferroelectric ceramics**

» [Prof. Vincenzo Buscaglia](#)

11:15am **Ultrafast sintering of barium calcium zirconate titanate ceramics: piezoelectric and ferroelectric behaviour of fine-grained ceramics**

» [Mr. Joao L. Miranda](#), Dr. Alexander Tkach, Prof. Paula M. Vilarinho

11:30am

Architected Pb(Zr,Ti)O₃ ceramics by LCM Additive Manufacturing: design-induced anisotropy in piezoelectric and energy harvesting response

» [Dr. Cristina Elena Ciomaga](#), Dr. Nadejda Horchidan, Dr. Felicia Gheorghiu, Dr. Mihai Ciolan, Dr. Radu Stefan Stirbu, Mr. Altan Alpaly Altun, Dr. Serkan Nohut, Dr. Martin Schwentenwein, Prof. Liliana Mitoseriu

10:45am **Session 3.1**

10:45am

Aqueous chemical deposition of thin piezoelectric oxide films

» Dr. Viviann Hole Pedersen, [Prof. Mari-Ann Einarsrud](#)

11:15am

Microstructure engineering in high-entropy perovskite oxides to improve thermoelectric performance

» [Dr. Rishabh Shukla](#), Dr. Michael Stuer

11:30am

Structure -Property Engineering of High-Entropy Perovskite Oxides for High-Temperature Thermoelectric Applications

» [Mr. Asif Ali](#), Dr. Monika Tatarkova, Dr. Hakan Ünsal, Dr. Ondrej Hanzel, Dr. Shima sousani, Dr. Nikola Kanas, Prof. Vladimir V Srdić, Dr. Peter tatarko

10:45am **Session 5.3**

10:45am

Insights into Defects and Polarization in Lead-Free Ferroelectrics by Electron Microscopy, DFT, and Machine Learning

» [Prof. Andreja Benčan Golob](#), Mrs. Janina Roknić, Dr. Katarina Žiberna, Dr. Matic Poberznik, Prof. Anton Kokalj, Dr. Matej Martinc, Prof. Sašo Džeroski, Prof. Goran Dražić

11:15am

Suppressing Leakage Current in AgNbO₃ Thin Films via Defects and Microstructural Engineering

» [Dr. Antonio Iacomini](#), Mr. Blaž Jaklič, Prof. Nina Daneu, Prof. Matjaž Spreitzer

Page 9



Continued from **Wednesday, 14 October**

3:15pm **Partial thermal depolarization driven by long-term annealing of lead-free BF-BT piezoelectric ceramics**

» [Ms. Yuge Yang](#), Dr. Yizhe Li, Dr. David Hall

3:30pm **Antiferroelectrics: An unexpected materials platform for piezocatalysis**

» [Dr. Wafa Amdouni](#), Mr. Cedric Bamberg, Mr. Aadil Abass Shah, Dr. Sangeeta Mahala, Dr. Emre Erdem, Dr. Stephane Fusil, Dr. Vincent Garcia, Dr. Mojca Otoničar, Dr. Sebastjan Glinsek, Prof. Brahim Dkhil

3:45pm **Defect-mediated Piezoelectric Hardening in 0.94(Na_{0.5}Bi_{0.5}TiO₃)-0.06(BaTiO₃) lead-Free Ceramics: Correlation of Phase Evolution, Transport, and Electromechanical Response**

» [Mr. CHINMAY CHANDAN PARHI](#), Dr. Pengcheng Hu, Dr. Shama Perween, Prof. Oliver Clemens, Prof. Andreas Klein, Prof. Jurij Koruza

2:30pm **Untitled Event**

2:30pm **Spark Plasma Sintering of Na_{0.5}Bi_{0.5}TiO₃-BaTiO₃ Ceramics: Relationships between microstructure and functional properties**

» [Ms. Aurélie Lalagüe-Dardant](#), Mr. Erwan Jonin, Prof. Franck Levassort, Prof. Cecile autret lambert, Dr. Thomas Fourgassie, Dr. Mojca Otoničar, Prof. Isabelle Monot-Laffez

2:45pm **Reactive decomposition processing of rare-earth based multi-component oxides**

» Mr. Anant Kumar Gupta, [Dr. Srinivasan Nedunchezian](#)

3pm **Processing and texturation of lead-free KNN-Ta piezoelectric ceramics for ultrasonic applications**

» [Mr. Marco Bencini Bencini](#), Prof. Isabelle Monot-Laffez, Prof. Franck Levassort, Dr. Ana Borta-Boyon

3:15pm **Evaluation of composite CSCO/GDC oxygen electrode deposition via different techniques for optimal solid oxide cell performance**

» [Dr. Artem Glukharev](#), Mr. Tristan Geurts, Dr. Ahmet Can Kirioglu, Dr. Vesna Middelkoop, Dr. Zhiyuan Chen

3:30pm

Growth and characterization of physical properties of (K,Na)NbO₃-based single crystals produced by solid state crystal growth

» Mr. Luiz G. A. de Almeida, Dr. Thissiana da Cunha Fernandes, Dr. Andrei Ushakov, Dr. Anton Turygin, Prof. Vladimir Y. Shur, Prof. José Antônio Eiras, [Dr. Manuel Henrique Lente](#)

3:45pm

Structure-Morphology Relationships in Hydrothermally Synthesized BaTiO₃ Particles for MechanoATRP

» Prof. Klara Castkova, Dr. Premysl Stastny, Dr. Pavel Tofel, Prof. Dinara Sobola, Mr. Jan Pistak, Mr. Tadeas Havran, Dr. Martin Cvek, Dr. Miroslav Mrlik

4pm

Coffee Break

University of Novi Sad

4:30pm

Poster session

University of Novi Sad

Nanoscale Dielectric Breakdown in Ultrathin AlN Ceramic Films: Bridging Defect Physics and Insulation Reliability Across Borders

» [Mr. BABIKER KAMAL BABIKER OMER](#), Dr. Zakhar Kudrynskyi, Dr. Timothy Cooper, Dr. Long Jiang, Dr. Sombel Diahm

BaTiO₃-based Multilayer Ceramic Capacitors with Superior Stability in Energy-storage and Pulse Properties

» [Prof. Xiaohui Wang](#)

Study on property and structure optimization for high-performance SrFe_{0.5}Al_{0.5}O₃ ferrite by machine learning

» [Prof. Jincang ZHANG](#)

Wide-Band Dielectric Resonator Antennas Based on Low Permittivity Mg_{0.5}Nb_{0.5}O₃ Ceramics

» [Mr. Cezar Dragos Geambasu](#), Dr. Lucian Trupina, Dr. Ovidiu-Gabriel Avădanei, Dr. Liviu Nedelcu



Continued from **Wednesday, 14 October**

Spark Plasma Sintering of Corundum-Type $\text{Mg}\square\text{Nb}\square\text{O}\square$ Ceramics for Microwave Applications

» [Dr. Liviu Nedelcu](#), Dr. Mihai-Alexandru Grigoroscuta, Mr. Cezar Dragos Geambasu, Dr. Lucia Nicoleta Leonat, Dr. Petre Badica

Local structure of $(\text{K},\text{Na})\text{NbO}_3$ solid solutions

» [Mr. Jamil Eduardo Flores Gonzales](#), Mr. Zheyi An, Mr. Zeqi Wang, Dr. Nan Zhang, Dr. Marek Paściak

Controlled Assembly of $\text{Ti}_3\text{C}_2\text{T}_x$ MXene Monolayers via Modified Langmuir-Blodgett Technique: Effect of Processing Parameters

» [Ms. Jovana Paskaš](#), Ms. Sara Joksović, Dr. Jovana Stanojev, Prof. Zdeněk Sofer, Dr. Branimir Bajac, Dr. Vasa Radonić, Dr. Venkatadivakar Botcha

What Enables High Energy Storage at Low Electric Fields? The Role of Hybrid Polarization in BNT-Based Relaxors

» [Mr. Ankur Khokhar](#), Mr. Amardeep Narwal, Prof. Kanhaiya Lal Yadav

Growth and characterization of 0.8NBT-20BT thin films

» [Dr. Šarūnas Svirskas](#), Ms. Eglė Martinaitytė, Dr. Vadzim Haronin, Prof. Juras Banys, Dr. Vladimir Shvartsman

The ECO-H2 Project: Electrochemical conversion of energy and hydrogen in reversible solid oxide cells using high-entropy oxides as electrodes

» Ms. José Luis Serrano, Dr. Elena Millan Ordoñez, Dr. Vanessa Cascos, Dr. Judit Medina, Prof. Paloma Adeva, Ms. Cesar Maffiotte, Dr. Esperanza Ruíz, [Dr. María José Escudero](#)

DEVELOPMENT OF METHANE-TOLERANT $\text{Sr}_2\text{Fe}_{1.5}\text{Mo}_{0.5}\text{O}_{6-\delta}$ ELECTRODES FOR SYMMETRIC CELLS FOR CO-ELECTROLYSIS

» [Mrs. Kimberly Toala Escobar](#), Dr. Vladislav Kolotygin, Dr. Marc Torrell, Dr. Albert Taracon

Thermally Driven Structural Transition and Single-Island Electrical Response of Sputtered VO_2 Nano-Islands on Al_2O_3

» [Dr. Lucian Trupina](#), Dr. Claudiu Locovei, Dr. Liviu Nedelcu, Dr. Gabriel Banciu, Mr. Cezar Dragos Geambasu

Synthesis and characterization of the $0.8(\text{Na}_{1/2}\text{Bi}_{1/2})\text{TiO}_3\text{-}0.2\text{BaTiO}_3\text{:xSm}$ solid solution.

» [Dr. Artyom Plyushch](#), Dr. Šarūnas Svirskas, Mr. Žygimantas Logminas, Mr. Ugnius Dominykas Sviackevičius, Dr. Rokas Dobužinskas, Prof. Juras Banys

Electrospun Multi-Chanel SnO_2 Nanofibers: From Synthesis Optimization to Gas-Sensing Applications

» [Dr. Katarina Vojisavljevic](#), Dr. Milica Počuča-Nešić, Dr. Slavica Savić Ružić, Dr. Zorica Marinković Stanojević, Dr. Aleksandar Malešević, Dr. Jelena Mitrović, Mrs. Olivera Zemljak, Dr. Sanja Perać, Dr. Jelena Jovanović, Dr. Matejka Podlogar, Dr. Nan Ma, Dr. Tian Tian, Mr. Aleksa Luković, Dr. Goran Brankovic, Dr. Zorica Brankovic

Advanced Polymer-Derived Ceramic Insulation Systems for High-Temperature Electrical Applications

» [Ms. Annalaura Zilio](#), Prof. Enrico Bernardo

$\text{Ba}_{0.75}\text{Sr}_{0.25}\text{TiO}_3$ (BST25) Ceramics Obtained by Robocasting: Ferroelectric and Pyroelectric Properties with Solid-State Processing as Benchmark

» [Dr. Lucian Pintilie](#), Dr. George Stan, Dr. Liviu Nedelcu, Dr. Mihaela Botea, Dr. Marius Cioangher, Mr. Cezar Dragos Geambasu, Dr. Roxana-Elena Patru, Dr. Viorica Stancu, Dr. Andrei Tomulescu, Dr. Zaineab Mighri, Dr. Lucia Nicoleta Leonat

Comparative study of charge transition level in hexagonal and tetragonal Barium Titanate by X-ray Photoelectron Spectroscopy

» [Mr. Niklas Bertelmann](#), Dr. Savita Chaoudhary, Mr. Denis Sudarikov, Dr. Pengcheng Hu, Prof. Till Frömling, Prof. Andreas Klein

Highly efficient chitosan-modified Bi_2O_3 adsorbent for Reactive Orange 16 dye removal

» [Mrs. Natalija Milojković](#), Dr. Bojana Simović, Dr. Lidija Radovanović, Dr. Goran Brankovic, Dr. Jelena Gulicovski, Dr. Slavica Lazarević, Prof. Aleksandra Dapčević



Continued from **Wednesday, 14 October**

Developing future dielectric ceramic thick film for energy storage applications via aerosol deposition

» Mr. Xiangjie Song, Dr. Ge Wang

Operando Impedance Spectroscopy: a tool to reveal the influence of Cold Sintering Process parameters grain boundary evolution during sintering

» Mr. Emeric SANCHEZ, Dr. Claude Estournès, Dr. Thomas Herisson de Beauvoir

CaTiO₃-derived mixed conductors as anode components for direct-ammonia SOFCs

» Dr. Aleksey Yaremchenko, Mrs. Maliheh Nazari, Dr. Aleksandr Bamburov

Barium hexaferrite composite BaFe₁₂O₁₉ / PVDF characterization and application for low frequency and high voltage electronic components

» Mr. Miroslav Katanic, Dr. Stanko Aleksic, Prof. Mirjana Damjanovic, Dr. Milica Kisic, Mr. Nikola Markovic, Ms. Dragana Tesovic, Mr. Milan Bodić

REFORM-SOFC: Reforming Catalyst-Supported Solid Oxide Fuel Cells for Direct Utilisation of Renewable Fuels

» Dr. Kiryl Zakharchuk, Dr. Aleksandr Bamburov, Dr. Aleksey Yaremchenko, Dr. Blanca I. Arias Serrano

Hybrid Poling Optimization of Lead-Free BT-based Piezoelectric Ceramics for Enhanced Electromechanical Properties

» Mr. Erwan Jonin, Dr. Rémi Rouffaud, Prof. Isabelle Monot-Laffez, Dr. Loïck Bonnet, Prof. Franck Levassort

Processing cellular ceria-based solid electrolyte ceramics for electrochemical removal of NO_x

» Dr. Helena Gomes, Mr. Miguel Vieira, Dr. Aleksandr Bamburov, Dr. Aleksey Yaremchenko

Configurational Disorder in Perovskite Oxides for Advanced Thermoelectrics

» Dr. Hakan Ünsal, Dr. Imrongnaro Longkumer, Dr. Alexandra Kovalčíková, Dr. Ondrej Hanzel, Dr. Monika Tatarkova, Dr. Subrahmanyam Bandaru, Dr. Peter tatarko

Development of core/shell particles with magnetic core and dielectric-electric bilayered shell for water treatment

» Prof. Milan Nikolić, Dr. Slobodanka Stanojević-Nikolić, Prof. Vladimir V Srdić

Overcoming grain-size effects in aerosol deposited BaTiO₃ films by using Polymer-Ceramic composite powders

» Ms. Linh TA, Dr. Anass Chrir, Dr. Oscar Rojas, Ms. Laurence Boyer, Dr. Olivier Durand, Prof. Fabrice Rossignol, Prof. Pascal Marchet

Investigation of Piezoelectric Properties of Sm-doped 70PMN-30PT Piezoceramics for Energy Harvesting Applications

» Dr. Namik Kemal Gozuacik, Ms. Beyza Nur Kaya, Mr. Ömer Coşkun, Prof. Sedat Alkoy

Lead-free ceramics K_{0.5}Bi_{0.5}TiO₃ - technology, properties and applications.

» Dr. Piotr Czaja, Prof. Elżbieta Szostak, Prof. Małgorzata Karolus, Prof. Dariusz Bochenek, Dr. Katarzyna Osińska, Dr. Jarosław Jędryka, Dr. Piotr Rakus, Prof. Bouchta Sahraoui, Dr. Kamila Kluczevska-Chmielarz, Dr. Grzegorz Jagło, Mr. Hubert Grosicki, Mr. Przemysław Gwizd

Comparison of SPS and conventional sintering of BaTiO₃ ceramics synthesized via a modified Pechini route

» Dr. Magdalena Krupska-Klimczak, Prof. Irena Jankowska-Sumara, Dr. Maciej Chrunik, Dr. Paweł Hyjek, Dr. Iwona Sulima

Exploring porosity-induced phase superposition in BaTiO₃-based ferroelectric solid solutions

» Dr. Cristina Elena Ciomaga, Ms. Alexandra Hriscu, Dr. Felicia Gheorghiu, Dr. Nadejda Horchidan, Dr. Mihai Ciolan, Dr. Vlad Alexandru Lukacs, Dr. Leontin Padurariu, Prof. Liliana Mitoseriu



Continued from **Wednesday, 14 October**

Processing-Microstructure-Property Relationships in $\text{CaMgSi}_2\text{O}_7$ Diopside Ceramics: Role of Calcination Temperature and Heating Rate

» Dr. HADI BARZEGARBAFROOEI Microelectronics Unit, Prof. Sami Myllymäki, Prof. Heli Jantunen

Chemical modification of $\text{La}_{0.65}\text{Sr}_{0.30}\text{Cr}_{0.85}\text{Ni}_{0.15}\text{O}_{3-\delta}$ solid oxide cell hydrogen electrode surface to improve stability in electrolysis mode.

» Ms. elisabeth kaldvee, Dr. Indrek Kivi, Mr. Jaan Aruväli, Dr. Kuno Kooser, Prof. Gunnar Nurk

Effects of Zr-substitution on functional performance of BaTiO_3 -based solid solutions

» Dr. Felicia Gheorghiu, Dr. Cristina Elena Ciomaga, Dr. Nadejda Horchidan, Dr. Vlad Alexandru Lukacs, Prof. Liliana Mitoseriu, Dr. Leontin Padurariu

BSnT -polymer composites for mechanical energy recovery through the piezoelectric effect

» Dr. Nadejda Horchidan, Mr. Cosmin-Petre Lazăr, Dr. Cristina Elena Ciomaga, Dr. Vlad Alexandru Lukacs, Dr. Ovidiu-Gabriel Avădanei, Dr. Florin-Mihai Tufescu, Prof. Liliana Mitoseriu

Complexity of phase transitions in $\text{Pb}(\text{Hf}_{0.7}\text{Sn}_{0.3})\text{O}_3$ single crystals

» Prof. Irena Jankowska-Sumara, Prof. Krystian Roleder, Dr. Andrzej Majchrowski

Pronounced and Stable Internal Bias Fields in La-Doped BiFeO_3 - BaTiO_3 Ceramics

» Mr. Jingwei Wei, Dr. David Hall

Alternative explanations for the maximum in the piezoelectric performances of the ferroelectric solid solution $(1-x)\text{BiFeO}_3$ - $x\text{BaTiO}_3$

» Mr. Alberto Giribaldi, Prof. Tadej Rojac

Exploring the mechanical properties of $\text{BaZr}_{0.7}\text{Ce}_{0.2}\text{Y}_{0.1}\text{O}_{3-\delta}$ (BZCY721) proton-conductors produced via cold sintering process

» Mr. Syed Ali Afzal, Dr. Moritz Kindelmann, Dr. Jürgen Peter Gross, Dr. Jürgen Malzbender, Prof. Ruth Schwaiger, Prof. Olivier Guillon, Prof. Martin Bram

Pre-Intercalated Layered MnO_2 Cathodes for Zn-Metal Batteries: Charge Storage and Degradation Mechanisms

» Mr. Elias Bodin, Mr. Patrick Mowe, Prof. Martin Winter, Dr. Kerstin Neuhaus

Synthesis of KNN Nanoparticles by a Low-Temperature Sol-Gel Route and Their Densification into Lead-Free Piezoceramics

» Mr. Bouabid Misski, Prof. Mohamed Mouyane, Prof. ahmad kassas, Prof. sylvain marinel, Prof. jacques noudem, Prof. Amine ALOUI-BELGHITI, Prof. Fouad BLEHORA, Prof. Mohamed Rguiti, Prof. jerome Bernard, Prof. David Houivet

Comparison of Triple-Conducting Electrodes in Proton-Conducting and Dual-Phase Ceramic Membrane Reactors

» Mr. Sebastian Meixner, Dr. Maximilian Weiss, Prof. Alexander K. Opitz, Dr. Wendelin Deibert, Prof. Wilhelm Albert Meulenberg

Unlocking non-linear dielectric character and tailoring functional properties in silver- CaTiO_3 composites

» Dr. Felicia Gheorghiu, Ms. Anda Maria Oajdea, Dr. Vlad Alexandru Lukacs, Dr. Cristina Elena Ciomaga, Dr. Šarūnas Svirskas, Prof. Juras Banys, Prof. Liliana Mitoseriu

Ferroelectric Field-Effect Transistors Based on Complex Oxides Epitaxial Heterostructures

» Ms. Iva Tokovic, Dr. Jelena Vukmirovic, Ms. Sara Joksović, Dr. Ivan Stijepovic, Prof. Srđan Rakić, Prof. Vladimir V Srdić

In-situ monitoring of Ag-BaTiO_3 CerMet sintering process for tuning the metacomposite properties

» Prof. DONATELLA GIURANNO, Mrs. Ioana Raluca Gheatau, Dr. Vlad Alexandru Lukacs, Prof. Leontin Padurariu, Dr. Cristina Elena Ciomaga, Dr. Radu Stefan Stirbu, Prof. Liliana Mitoseriu



Continued from **Wednesday, 14 October**

Encapsulated PICMA Actuators and their Applications

» [Dr. Franziska Dolke](#)

Microstructural Evolution and Functional Properties of BCZT and BCST Lead-Free Piezoceramics Prepared by Ultrafast Sintering

» [Dr. Vladimír Prajzler](#), [Dr. Vojtěch Mařák](#), [Dr. Vijay Bijalwan](#)

Electrical properties and energy harvesting of x(0.75NaBiT-0.25SrT)- (1-x) PVDF flexible composites

» [Dr. Mirjana Vijatović Petrović](#), [Dr. Adis Dzunuzovic](#), [Dr. Jelena Bobić](#), [Dr. Nikola Ilić](#), [Dr. Zeljko Radovanovic](#), [Dr. Zeljko Despotovic](#)

Recycling Approach for Lead-Containing Piezoceramic Tapes

» [Ms. Victoria Löhr](#), [Prof. Jurij Koruza](#), [Dr. Tanja Einhellinger-Müller](#), [Ms. Friederike Assmann](#)

Hierarchically Porous SnO₂ Nanofibers: A Comparative Study of Pristine, Au- and MXene-Modified Variants for H₂S Sensing

» [Dr. Milica Počuča-Nešić](#), [Dr. Slavica Savić Ružić](#), [Dr. Katarina Vojisavljević](#), [Dr. Zorica Marinković Stanojević](#), [Dr. Aleksandar Malešević](#), [Dr. Jelena Mitrović](#), [Mrs. Olivera Zemljak](#), [Dr. Sanja Perać](#), [Dr. Jelena Jovanović](#), [Dr. Matejka Podlogar](#), [Dr. Tian Tian](#), [Dr. Nan Ma](#), [Mr. Aleksa Luković](#), [Dr. Goran Brankovic](#), [Dr. Zorica Brankovic](#)

The electronic structure and magnetoelectric properties of tetracalcium aluminoferrite Ca₂Fe₂-xAl_xO₅ synthesized by mechanochemical process

» [Dr. Bartłomiej Andrzejewski](#), [Dr. Tadeusz Lucinski](#), [Dr. Ewa Markiewicz](#), [Dr. Maria Pugaczowa-Michalska](#), [Dr. Przemysław Skokowski](#), [Dr. Maciej Chrunik](#), [Prof. Barbara Kościelska](#)

Dense LiF microwave dielectric ceramics with near-zero linear shrinkage during sintering

» [Mr. Yingqiang Jia](#), [Mr. Wenbin Hong](#), [Prof. Lei Li](#), [Prof. Shuya Wu](#), [Prof. Bing Liu](#), [Prof. Xiangming Chen](#)

Influence of chemical reactions on grain growth in aerosol deposited films of sodium niobate

» [Mr. Frank Heier](#), [Prof. Kyle G. Webber](#)

TiO₂-ZnO Semiconductor Heterostructures with Engineered Architecture for Photocatalytic Applications

» [Ms. Marta Cama](#), [Dr. David G. Calatayud](#), [Mr. Bruno Prieto](#), [Dr. Raul Gago](#), [Dr. Marco Peiteado](#), [Dr. Teresa Jardiel](#)

Preparation, dielectric and electrical properties of Sodium Niobate based ceramics

» [Dr. Abdul Manan](#), [Ms. Jaweria Wazir](#), [Mr. Umair Khan](#), [Prof. Michael T. Lanagan](#), [Dr. Safeer Ahmad](#)

Flexible PTC Composite with Tunable Switching Temperature for Adaptive Thermal Management Near Room Temperature

» [Ms. Youran Zhang](#), [Ms. Ruiyu Zhao](#), [Prof. Mingsheng Ma](#), [Prof. Jiwei Zhai](#), [Prof. Zhifu Liu](#)

Machine learning assisted τ_f value prediction of ABO₄-type microwave dielectric ceramics

» [Ms. Mingyue Yang](#), [Mr. Liangyu Mo](#), [Mr. Jincheng Qin](#), [Mr. Faqiang Zhang](#), [Prof. Mingsheng Ma](#), [Prof. Yongxiang Li](#), [Prof. Zhifu Liu](#)

Impedance spectroscopic analysis of lead-free piezoceramics obtained by ultrafast high-temperature sintering

» [Mr. Joao L. Miranda](#), [Dr. Alexander Tkach](#), [Prof. Paula M. Vilarinho](#)

Optical Properties of Ti-doped ZnO Ceramics

» [Mr. Hasan Kutay Verim](#), [Dr. Gökhan Hardal](#), [Dr. Berat Yüksel Price](#), [Dr. Caner İldeş](#)

8pm

Conference Dinner

University of Novi Sad



Thursday, 15 October

8:30am

Session 3.1*University of Novi Sad*

8:30am

In Situ Impedance Spectroscopy: Tracking Solid-Liquid Interfaces and Grain Boundary Evolution During Cold Sintering» Dr. Thomas Herisson de Beauvoir

9am

Inter-laboratory reproducibility of piezoelectric ceramic characterization: insights from a European Round Robin study» Mr. Erwan Jonin, Dr. Rémi Rouffaud, Prof. Isabelle Monot-Laffez, Dr. Loïck Bonnet, Dr. Ana Borta-Boyon, Dr. Andraž Bradeško, Mr. Marcello Pasquinelli, Dr. Egon Merks, Dr. Holger Neubert, Prof. Astri Bjørnetun Haugen, Dr. Paula Huth, Prof. Franck Levassort

9:15am

Phosphate Langbeinites as Promising Multifunctional Materials» Ms. Intissar Driouech, Dr. Olivier Toulemonde, Prof. Mohamed Saadi, Prof. Jamal Khmias

9:30am

Multiscale Study of Ti-Doped Alkali Niobate Ceramics» Mrs. Janina Roknić, Dr. Katarina Žiberna, Dr. Andraž Bradeško, Dr. Aljaž Drnovšek, Ms. Maja Koblar, Ms. Brigita Kmet, Mr. Silvo Drnovšek, Prof. Barbara Malič, Prof. Goran Dražić, Prof. Andreja Benčan Golob

9:45am

Electro-Optical Characterization of Carbon Nanotubes via Time-Resolved Orientational Dynamics» Dr. Sinny Trivedi, Dr. Silas O'Toole, Prof. Dominic Zerulla

10am

Energy decoupling in BST nanoceramics: tuning resistive states for neuromorphic synaptic devices» Dr. Roxana-Elena Patru, Dr. Catalina STANCIU, Dr. Elena Mirabela Soare, Dr. Bogdan Vasile, Dr. Nadejda Horchidan, Prof. Liliana Mitoseriu, Prof. Adelina - Carmen Ianculescu, Dr. Lucian Pintilie, Dr. Ioana Pintilie

8:30am

Session 5.3

8:30am

Advanced Electroceramics for Solid Oxide Cells» Prof. Albert Tarancón

9am

A pressing matter: cold sintering-assisted preparation of yttria-stabilized zirconia for solid oxide fuel cell applications» Mr. Žiga Bertalančič, Dr. Kostja Makarovič, Mr. Blaz Perko, Mr. Leon Kavčič, Mrs. Janina Roknić, Ms. Brigita Kmet, Dr. Tecush Mohammadi, Dr. Mojca Otoničar, Prof. Andreja Benčan Golob, Prof. Barbara Malič, Dr. Andraž Bradeško

9:15am

Effect of Si poisoning on the electrochemical and microstructural properties of La_{0.65}Sr_{0.30}Cr_{0.85}Ni_{0.15}O_{3-δ}-Gd_{0.1}Ce_{0.9}O_{2-δ} electrode in electrolysis mode.» Mr. Laur Kristjan Salvan, Dr. Priit Möller, Dr. Sara Paydar, Dr. Valdek Mikli, Prof. Enn Lust, Prof. Gunnar Nurk

9:30am

Impact of the porosity's distribution on electrochemical performances 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

9:45am

Towards Circular Fuel Cell Technologies: Nickel Recovery from End-of-Life MCFCs and SOFCs» Mr. Diogo Sousa, Dr. Aleksandr Bamburov, Dr. Francielly Cesconeto, Dr. Aleksey Yaremchenko

10am

Optimization of Ionic Transport in Bismuth-Based Electroceramics via Liquid-Phase Sintering for SOFC Applications» Dr. Şenel Çobaner, Dr. Önder Albayrak

8:30am

Session 1.1

8:30am

Domain structure evolution in uniaxial ferroelectrics: the role of the depolarization field-driven correlations and of the fluctuations of nonpolar polarization components» Prof. Yuri Genenko, Dr. Olga Yu Mazur

9am

Power Budget Analysis of Piezoelectric Harvester Based on Coupled Bidirectional Transducer Model» Ms. Sumeyya Javaid, Prof. Jens Kirchner, Prof. Georg Fischer



Continued from **Thursday, 15 October**

- 9:15am **First-Principles Insights into Core-Shell Formation in $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3\text{-SrTiO}_3$**
» [Dr. Marc Túnica](#), Dr. Lorenzo Villa, Mr. René Meja, Prof. Karsten Albe
- 9:30am **Modelling of the piezoelectric maxima that can be present at intermediate porosity levels and applied poling fields, in ferroelectric ceramic bulks**
» [Dr. Radu Stefan Stirbu](#)
- 9:45am **Can V^{3+}CT MXene Act as a Non-Plasmonic SERS Substrate? A Resonant Charge-Transfer Model**
» Ms. Elvira Tot, Prof. Mirjana Siljegovic, Dr. Marko Radovic, [Prof. Zeljka Cvejic](#)
- 10am **Coordination-dependent Mn Charge-Transition Levels for Manganese-Based Spinel**
» [Mr. Gero Pickel](#), Mr. Jakob Laux, Mr. Jomins Thomas, Prof. Klaus Reichmann, Prof. Andreas Klein
- 10:15am **Coffee Break**
University of Novi Sad
- 10:45am **Session 3.2**
University of Novi Sad
- 10:45am **Microwave spectroscopy of ceramics relaxors – are they dipolar glasses?**
» [Prof. Juras Banys](#), Dr. Saulius Rudys, Dr. Vidmantas Kalendra, Dr. Šarūnas Svirskas, Dr. Sergejus Balciunas, Prof. Robertas Grigalaitis, Dr. Saulius Lapinskas

- 11:15am **Tactile Sensing and Ferroelectric Behavior of $\text{BaTiO}_3\text{-Elastomer Composites}$**
» [Ms. Sofiia Butenko](#), Prof. Teeranoot Chanthasopeephan, Dr. Frank Clemens
- 11:30am **Tailored Growth of ZnO 1D Nanostructures for Hydrogen-Selective CO Electroreduction**
» Ms. Ana Castellanos-Aliaga, Mr. Elías Rodríguez-Jara, Dr. Érica Corodero-Oyonarte, Dr. David G. Calatayud, Dr. Paula P. Navarro, Dr. Amador C. Caballero, Prof. Keeko Matsumoto, Prof. Kiyoharu Tadanaga, Dr. Carolina Rosero, Dr. Teresa Jardiel, [Dr. Marco Peiteado](#)
- 10:45am **Session 2.2**
- 10:45am **Synthesis and Characterization of High-Entropy Ceramics for Electrocatalytic and Energy Conversion Applications**
» Mr. Y. Sai Swaroop Sarma, Mr. Aaditya Rangan, Mr. Arindam Chatterjee, Mr. N. Sreenivasulu, [Prof. Subramshu S. Bhattacharya](#)
- 11:15am **Exploring high-entropy oxide ($\text{La}_{0.4}\text{Pr}_{0.2}\text{Nd}_{0.2}\text{Sm}_{0.2}\text{Er}_{0.2}\text{CuO}$) as a novel air electrode for solid oxide cells**
» [Dr. María José Escudero](#), Dr. Judit Medina, Dr. Vanessa Cascos, Dr. Elena Millan Ordoñez, Prof. Paloma Adeva, Dr. Esperanza Ruíz
- 11:30am **Influence of Alkali Secondary Phase on the Interfacial Charge Transport and Sinterability of Ceria-Based Ceramics**
» [Mr. Henrique Tidei](#), Dr. João Grilo
- 10:45am **Session 5.1**
- 10:45am **From research to commercialization of thermoelectrics in Europe**
» [Dr. Nikola Kanas](#)
- 11:15am **La-Doped High-Entropy Perovskite Oxides: Design, Electronic Structure, and Thermoelectric Performance**
» Dr. Imrongnar Longkumer, Dr. Subrahmanyam Bandaru, Mr. Asif Ali, Dr. Hakan Ünsal, Dr. Nikola Kanas, Dr. Ondrej Hanzel, Prof. Vladimir V Srdić, Dr. Alexandra Kovalčíková, [Dr. Peter tatarko](#)



Continued from Thursday, 15 October			
11:30am	Tuning Ferroelectric Properties of Bismuth Ferrite Solar Cells » Mr. Marcel Habrik , Dr. Susanne Wagner, Dr. Holger Röhm, Prof. Alexander Colsmann	3:15pm	Development of BaTiO₃-based thermoplastic filaments for Fused Deposition Modelling: towards piezoelectric performance comparable to conventional pressing » Mr. Soufyane Satha , Dr. Mohamed Aymen BEN ACHOUR, Prof. Mohamed Rguiti, Dr. Florian Jean, Dr. Yannick Lorgouilloux, Prof. Christian Courtois
11:45am	Plenary Session 4 <i>University of Novi Sad</i>	3:30pm	Interface-Engineered MgO-Based Low-Temperature Co-Fired Ceramics with Significantly Enhanced High-Strength and Superior High-Thermal-Conductivity » Mr. Mingzhao Xu , Ms. Yani Lu, Dr. Hongye Wang, Dr. Xinwei Xu, Dr. Jin Cheng, Ms. Shan Gao, Mr. Huajiang Jin, Prof. Hong Wang
11:45am	Key Issues and Recent Progresses in Microwave Dielectric Ceramics » Prof. Xiangming Chen	3:45pm	Additive manufacturing of lead-free piezoelectric ceramics using stereolithography (SLA) » Dr. Anass Chrir, Prof. Mohamed Rguiti , Dr. Mohamed Aymen BEN ACHOUR, Dr. Rabie Aloui, Dr. Barbara Lafarge, Dr. Yannick Lorgouilloux, Prof. Christian Courtois
12:30pm	Lunch <i>University of Novi Sad</i>		
2pm	Session 2.3 <i>University of Novi Sad</i>	2pm	Session 5.3
2pm	Downscaling grain size toward the nanometre range – A key-factor for tuning the crystalline structure and functional properties in (Ba,Sr)TiO₃ ceramics » Prof. Adelina - Carmen Ianculescu , Dr. Roxana Patru, Dr. Catalina Stanciu, Dr. Adrian Surdu, Dr. Elena Mirabela Soare, Dr. Adrian Nicoara, Ms. Roxana Trusca, Dr. Bogdan Vasile, Dr. Nadejda Horchidan, Prof. Liliana Mitoseriu, Dr. Ioana Pintilie, Dr. Lucian Pintilie	2pm	Solid Oxide Cells: The Core Component of Power-to-X-to-Power Systems » Prof. Vanja Subotic
2:30pm	Carbon-Based Glass Foam for High-Power Microwave Absorption » Prof. Ratiba Benzerga , Prof. Vincent Laur, Prof. Ronan Lebullenger, Prof. Laurent Le Gendre, Prof. Ala Sharaiha	2:30pm	Direct Electrochemical Synthesis of Ammonia in Protonic Ceramic Cells: Selecting Perovskite-Related Cathode Materials » Dr. Blanca I. Arias Serrano , Dr. Aleksandr Bamburov, Dr. Kiryl Zakharchuk, Mr. Mehdi Hedayati, Dr. Alejandro Natoli Gutiérrez, Dr. Francielly Cesconeto, Dr. Aleksey Yaremchenko
3pm	Additive manufacturing of Cordierite electroceramics with reactive silicone-based binders » Ms. Annalaura Zilio , Prof. Enrico Bernardo	2:45pm	Investigating Sr₃-xR_xFe₂-yNi_yO_{7-δ} Ruddlesden-Popper Materials as Air Electrodes for Proton-Conducting Electrochemical Devices » Mr. Álvaro Vázquez Naval Moral , Dr. Glenn C. Mather, Dr. Adam Halemayehu, Dr. Peter Vang Hendriksen, Dr. Domingo Pérez-Coll
		3pm	From hydration to microstructure: Multimodal Insights into Proton-Conducting Ceramic Electrolytes » Dr. Maximilian Weiss , Dr. Wendelin Deibert, Mr. Andreas Steiger-Thirsfeld, Dr. Jakob Willner, Prof. Andreas Limbeck, Prof. Wilhelm Albert Meulenberg, Prof. Alexander K. Opitz



Continued from **Thursday, 15 October**

3:15pm **Thin film ceramic layers enabling lightweight solid oxide fuel cell for aviation application**
» [Dr. Vignesh Ahilan](#), Dr. Pedro Nehter, Dr. Helge Geisler, Dr. Oliver Rohr, Mr. Christian Metzner

3:30pm **Impact of Sb and Ti B-site doping on the stability and electrochemical performance of SrFeO_{3-δ} based air electrodes for solid oxide cells**
» [Mr. PEDRO LOPEZ-TELLO](#), Dr. Daniel Muñoz-Gil, Dr. Domingo Pérez-Coll

3:45pm **V- and Mo-based perovskites for anodes of biogas-fueled SOFCs: Redox behavior and stability**
» [Dr. Aleksey Yaremchenko](#), Dr. Rui Pinto, Prof. Jorge Frade

2pm **Untitled Event**

2pm **Fluorine-Substituted Na_{0.67}MnO₂-xFx as a Promising Cathode Active Material for High-Performance Sodium-Ion Batteries**
» [Dr. Andreas Paulus](#), Dr. Martin Finsterbusch, Prof. Dina Fattakhova-Rohlfing

2:15pm **Multiscale Regulation of (1-x)BNZT-xSBT Ceramics for Enhanced Low-Field Energy Storage Applications**
» [Mr. AMIYA MANDAL](#), Prof. Kanhaiya Lal Yadav

2:30pm **Development of Ceria-Zirconia (CexZr1-xO2) based-Structured Catalyst: Rheological Optimization, Mechanical Robustness, and Electrocatalytic performances for fuel production**
» [Ms. Rehana Batool](#), Dr. Srinivasan Nedunchezian

2:45pm **Epitaxial La_{1-x}Sr_xMnO₃/Ba_{1-x}Sr_xTiO₃ Ultra-Thin Oxide Heterostructures from the Liquid Phase**
» [Ms. Danica Piper](#), Dr. Jelena Vukmirovic, Dr. Marija Milanovic, Dr. Ivan Stijepovic, Ms. Iva Tokovic, Dr. Xuyun Guo, Prof. Vladimir V Srdic

3pm **Highly Conductive Ti₃C₂T_x (MXene) Monolayer Field-Effect Transistors via a Modified-LB Route: Fabrication, Challenges, and Future Applications**
» Ms. Jovana Paskaš, Ms. Sara Joksović, Dr. Jovana Stanojev, Prof. Zdeněk Sofer, Dr. Branimir Bajac, Dr. Vasa Radonić, [Dr. Venkatadivakar Botcha](#)

3:15pm **Piezoelectric Anisotropy of Bismuth-based Perovskite Piezoelectric Ceramics**
» Mrs. Hongyu Luo, Mr. Yongchen Wang, [Prof. Jinrong Cheng](#)

3:30pm **Cold sintering assisted hybrid sintering of electro-ceramics**
» [Prof. Jing Guo](#)

4pm **Closing**
University of Novi Sad