



## Monday, 19 August

8am	<b>Registration</b> <i>Aula Parva</i>
8:30am	<b>Opening</b> <i>Aula Parva</i>
9am	<b>Plenary 1 - Synthesis &amp; Processing</b> <i>Aula Parva</i> Chaired by: Prof. Jūras Banys
9am	<b>Nanostructured ferroelectric films by chemical solution deposition</b> » <a href="#">Prof. Mari-Ann Einarsrud</a>
9:45am	<b>Coffee Break</b> <i>Aula Parva</i>
10:15am	<b>S1-01 - Synthesis &amp; Processing</b> <i>Aula Parva</i>
10:15am	<b>Interplay between chemistry and non-conventional sintering processes to design electroceramics at low temperature</b> » <a href="#">Dr. Catherine Elissalde</a> , Dr. U-Chan Chung, Dr. Christopher Castro Chavarria, Ms. Nadia BENCHAREF, Dr. Bernard Plano, Prof. Graziella Goglio, Dr. Thomas Hérisson de Beauvoir, Dr. Claude Estournès, Dr. Mario Maglione, Dr. Hélène Debèda
10:45am	<b>Influence of Dopants on Processing and Properties of Sodium Niobate Ceramics</b> » <a href="#">Prof. Barbara Malič</a> , Ms. Brigita Kmet, Mr. Silvo Drnovšek, Dr. Mojca Otoničar
11am	<b>Preparation of <math>Pb_{1-x}Ba_x(Zr,Ti)O_3</math> piezoceramics through cold-sintering process</b> » <a href="#">Dr. Arun Ichangi</a> , Dr. Andrea Bergamini, Dr. Frank Clemens

11:15am	<b>Optimization challenges of KNN-based piezo ceramics: temperature stability of strain, sintering temperature and scalable processability.</b> » <a href="#">Dr. Paula Huth</a> , Dr. Hannes Engelhardt, Mrs. Antje Kynast, Mr. Faramarz Kazemi Renani, Dr. Arno Görne, Dr. Franz Schubert
11:30am	<b>Low-temperature sintering by SPS of KNN ceramics: A study on transient flux and its effect on grain size and piezoelectric performance for efficient energy harvesting.</b> » <a href="#">Dr. Christopher Castro Chavarria</a> , Dr. U-Chan Chung, Dr. Mario Maglione, Dr. Hélène Debèda, Dr. Catherine Elissalde
10:15am	<b>S2-01 - Functionalities in Electroceramics</b> <i>Theater hall</i> Chaired by: Dr. Mario Maglione
10:15am	<b>Insights into the ultrahigh electrostrain of fine-grained <math>Ba_{0.85}Ca_{0.15}Ti_{0.9}Zr_{0.1}O_3</math> ceramics: relation with its early size effects</b> » Dr. Harvey Amorín, Dr. José E. García, Dr. Diego A. Ochoa, Dr. Pablo Ramos, Dr. Michel Venet, Prof. Alicia Castro, <a href="#">Dr. Miguel Algueró</a>
10:45am	<b>Electrical properties of ceramic-polymer composites based on bismuth manganite</b> » <a href="#">Dr. Anna Szeremeta</a> , Dr. Maciej Zubko, Dr. Andrzej Nowok, Ms. Irena Gruszka, Prof. Sebastian Pawlus, Prof. Andrzej Molak
11am	<b>Sintering and Piezoelectric Properties of 3D-Printed Potassium Sodium Niobate by Binder Jetting</b> » <a href="#">Mr. Francesco Bertolini</a> , Dr. Marco Mariani, Dr. Elisa Mercadelli, Dr. Carlo Baldisserrri, Dr. Carmen Galassi, Mr. Claudio Capiani, Prof. Raffaele Ardito, Prof. Nora Lecis
11:15am	<b>Towards lower annealing temperatures and enhanced properties in aerosol-deposited piezoelectric thick films: a study of the effect of Li additive on <math>BaTiO_3</math> films</b> » <a href="#">Mr. Anass Chrir</a> , Dr. Oscar ROJAS, Ms. Laurence Boyer, Dr. Olivier Durand, Dr. Pascal Marchet



Continued from **Monday, 19 August**

11:30am **Analyzing defect properties in functional oxide ceramics by x-ray photoelectron spectroscopy**

» [Prof. Andreas Klein](#)

11:45am **Lunch - Cafe of Faculty of History**

*Aula Parva*

1:45pm **S3-01 - Theory & Modelling**

*Aula Parva*

1:45pm **Impact of doping conditions on the Fermi level in lead-free (anti)ferroelectrics**

» [Prof. Karsten Albe](#), Dr. Lorenzo Villa, Dr. Leonie Koch

2:15pm **The role of the depolarization field-driven feedback in the stochastic domain formation in uniaxial ferroelectrics**

» [Prof. Yuri Genenko](#), Dr. Olga Mazur, Prof. Leonid Stefanovich

2:30pm **Defect chemistry of ferroelectric perovskite lanthanum tungsten nitride**

» [Dr. Craig Fisher](#), Dr. Takafumi Ogawa, Dr. Hiroki Moriwake

2:45pm **Computational modeling of ferroelectric and piezoelectric plastic crystals**

» [Dr. Elin Sødahl](#), Prof. Julian Walker, Dr. Seyedmojtaba Seyedraofi, Prof. Carl Henrik Gørbtiz, Dr. Manjunath Balagopalan, Prof. Ola Nilsen, Dr. Jesús Carrete, Prof. Georg H. K. Madsen, Prof. Kristian Berland

3pm **Modeling of hysteretic response of porous piezo/ferroelectric ceramics**

» [Mr. Radu Stirbu](#), Prof. Liliana Mitoseriu

1:45pm **S4-01 - Structure-Property Relations**

*Theater hall*

1:45pm **Protons in mixed-conducting perovskites: Why, how many, and how fast?**

» [Dr. Rotraut Merkle](#), Dr. Maximilian Hoedl, Dr. Andrew Chesnokov, Dr. Christian Berger, Dr. Giulia Raimondi, Mr. Tolga Acartürk, Prof. Ulrich Starke, Dr. Denis Gryaznov, Prof. Eugene Kotomin, Prof. Joachim Maier

2:15pm **Microstructure Control of Cathode Particle Coating Layer for Li-ion Batteries**

» [Prof. Tomoya Ohno](#), Prof. Shigeto Hirai, Dr. Jeevan Kumar Padrti, Prof. Takeshi Matsuda, Prof. Hisao Suzuki

2:30pm **Crystallization of Na<sub>3</sub>VTi(PO<sub>4</sub>)<sub>2</sub>F<sub>3</sub> glass: In situ observation of the function of distribution of relaxation times**

» [Dr. Edvardas Kazakevičius](#), Prof. Algimantas Kežionis, Mr. Maciej Nowagiel, Dr. Tomasz Płociński, Prof. Tomasz K. Pietrzak

2:45pm **Charge injection and hysteresis loops of (anti-)ferroelectric PLZT**

» Dr. Binxiang Huang, Prof. Tongqing Yang, [Prof. Andreas Klein](#)

3:15pm **Coffee break**

*Aula Parva*

3:45pm **S5-01 - Applications of Electroceramics**

*Aula Parva*

3:45pm **Ceramics in membrane separation**

» [Prof. Wojciech Kujawski](#), Prof. Joanna Kujawa, Dr. Katarzyna Knozowska, Dr. Guoqiang Li

4:15pm **Fabrication of thermoelectric module using legs produced through economic and easily scalable processes**

» [Prof. Andres Sotelo](#), Mrs. Parisa Amir Khizi, Dr. Maria A. Madre, Prof. Miguel Angel Torres Portero, Dr. Andrei Kovalevsky, Dr. Shahed Rasekh

4:30pm **Tape casting for ultrathin Al<sub>2</sub>O<sub>3</sub> membrane production used in H<sub>2</sub>-low pressure sensors**

» [Mr. Clemens Motzkus](#)



Continued from **Monday, 19 August**

3:45pm **S4-02 - Structure-Property Relations**

*Theater hall*

Chaired by: Prof. Hiroki Taniguchi

3:45pm **Exploring Structure in Lead-Free Ferroelectrics at the Atomic Level**

» [Prof. Andreja Benčan](#), Dr. Oana Condurache, Ms. Katarina Žiberna, Prof. Goran Drazic

4:15pm **Effect of Active Filler Particle Shape on Structure and Properties of Flexible, Lead-free BaTiO<sub>3</sub>-based Piezoelectric Nano Generators**

» Mrs. Buse Muslu Kop, [Dr. Sakhavat Dadashov](#), Mr. Beytullah GÖL, Dr. A. Murat Avci, Dr. Seval Kinden, Prof. Ender Suvaci

4:30pm **S2-02 - Functionalities in Electroceramics**

*Theater hall*

4:30pm **Structural, ferroelectric and magnetic properties of Bi<sub>5</sub>Ti<sub>3</sub>FeO<sub>15</sub> Aurivillius-based multiferroic materials**

» [Dr. Jelena Bobic](#), Dr. Nikola Ilic, Prof. Robertas Grigalaitis, Dr. Adis Džunuzović, Dr. Mirjana Vijatovic Petrovic, Dr. Ivan Stijepović, Dr. Bojan Stojadinovic, Prof. Biljana Stojanović

4:45pm **Poster Session**

*Aula Parva*

**The structural and physical properties of substrate-stressed SrTiO<sub>3</sub> thin films**

» [Mrs. Noelle C. Zanini](#), Dr. Olena Okhay, Dr. Oleksandr Tkach, Prof. Ian M Reaney, Prof. Paula M. Vilarinho

**Enhancing Electroacoustic Performance of Sea-Shell Flexensional Piezoelectric Transducers via Texture Development**

» Dr. Ayse Yavuz, Mrs. Ezgi Yalcin, Dr. Sinan Dursun, [Prof. Sedat Alkoy](#), Prof. Ebru Mensur

**Influence of microstructure on the electrical properties of ceria-based composites for CO<sub>2</sub> separation membranes.**

» Mr. Henrique Tidei, Dr. Tao Yang, [Dr. João Paulo de Freitas Grilo](#)

**Structure and dielectric behavior of BNT-BT piezoceramics obtained by hydrothermally synthesized powders**

» Dr. Andrea Lazić, [Dr. Jelena Vukmirović](#), Dr. Ivan Stijepović, Dr. Marija Milanović, Dr. Branimir Bajac, Mrs. Elvira Toth, Dr. Željka Cvejić, Prof. Vladimir V. Srdić

**Sustainable MXene-reinforced nanocomposites for sensing applications**

» Dr. Ming Dong, [Dr. Dimitrios Papageorgiou](#)

**Stereolithography of silicon carbide-based composite for electronic packages**

» [Mrs. Arpine Gilovyan](#), Mrs. Marina Aghayan

**Polymer/ceramic composite materials with piezoelectric and thermoelectric properties for energy harvesting and conversion**

» Dr. Marco Fortunato, Dr. Riccardo Manfredi, Dr. Maurizio Vignolo, [Dr. Giovanna Canu](#), Prof. Lavinia Petronela Curecheriu, Dr. Andreea Irina Barzic, Dr. Mirjana Vijatovic Petrovic, Dr. Floriana Craciun, Dr. Elisa Mercadelli, Prof. Liliana Mitoseriu, Dr. Vincenzo Buscaglia, Dr. Paola Stagnaro, Dr. Maria Teresa Buscaglia

**Investigation of electrolytes for bipolar Aqueous Sodium Ion batteries**

» [Ms. Dovilė Škarnulytė](#), Mrs. Milda Petrulevičienė, Ms. Jurga Juodkazytė, Dr. Linas Vilčiauskas

**Peculiarities of manganite nanoparticle formation via sol-gel polyacrylamide route**

» [Mr. Evaldas Lugauskas](#), Mr. Dovydas Karoblis, Prof. Gediminas Niaura, Dr. Dominika Zákutná, Prof. Aivaras Kareiva

**Synthesis-Structure-Properties of the Mn-ion Based Perovskite Multiferroics**

» [Prof. Bogdan Dabrowski](#), Dr. J. Więckowski, Prof. A. Szewczyk



Continued from **Monday, 19 August**

**Photolithography of Self-Assembled Monolayers for Selective Area Deposition of Oxides**

» [Ms. Karola Neeleman](#)

**Performance Analysis of Micropatterned Solid Oxide Cells in Dry and Moist Environments**

» [Mr. Mohamed Ahmed Baba](#), Mr. Bartłomiej Bartłomiej, Dr. Mantas Sriubas, Mr. Gazy Khatmi, Dr. Brigita Abakevičienė, Prof. Sigitas Tamulevičius, Prof. Sebastian Molin, Dr. Tomas Tamulevičius

**Design Aspects of the Pulsed Electroacoustic Method for Measuring Space Charge in Ceramics**

» [Mr. Xinyi Ma](#), Dr. Sebastian Stark

**Synthesis and characterization of rare-earth orthoferrite powders, coatings, and nanotubes**

» [Mr. Justinas Januškevičius](#), Dr. Živilė Stankevičiūtė, Prof. Thomas Chung-Kuang Yang, Prof. Aivaras Kareiva

**Electrochemical reduction as potential source of the instability of electrode interface in Na<sub>1/2</sub>Bi<sub>1/2</sub>TiO<sub>3</sub>-BaTiO<sub>3</sub> piezoceramics**

» [Mr. Pengcheng Hu](#), Dr. Binxiang Huang, Dr. Daniel Bremecker, Prof. Jurij Koruza, Prof. Andreas Klein

**Stabilization of the first-order phase transition character and Enhancement of the Electrocaloric Effect by NBT substitution in BaTiO<sub>3</sub> ceramics**

» Dr. Merve Karakaya, Ms. İrem Gürbüz, Dr. Lovro Fulanović, [Dr. Umut Adem](#)

**Structure and electric properties of epitaxial LaMnO<sub>3</sub> based thin film obtained by polymer assisted deposition**

» [Ms. Sara Ioksović](#), Dr. Jelena Vukmirović, Ms. Danica Piper, Dr. Bojan Miljević, Dr. Srđan Rakić, Dr. Marija Milanović, Dr. Mirjana Novaković, Dr. Branimir Bajac, Prof. Vladimir V. Srdić

**Determination the Curie temperature via temperature-dependent X-ray diffraction on barium bismuth potassium titanate**

» [Mr. Swen Subotic](#), Ms. Annika Eberwein, Ms. Tabea Weismann, Dr. Susanne Wagner, Dr. Claudia Bucharsky, Prof. Günter Schell

**Density Functional Theory Study of Mechanical Behavior and Thermophysical Characteristics of Sm<sub>2</sub>Zr<sub>2</sub>O<sub>7</sub> Pyrochlore.**

» [Ms. Muhammad Jahangir Khan](#)

**Defect energy levels of Mn- and Fe-doped BaTiO<sub>3</sub>**

» Dr. Katharina Lohaus, [Mr. Denis Sudarikov](#), Prof. Andreas Klein

**Designing ZnO Nanowall-Based Flexible Piezoelectric Nanogenerators for High Performance Wearable Energy Harvesters**

» [Ms. Gamze Yüksel](#), Mr. Beytullah GÖL, Dr. Seval Kinden, Prof. Ender Suvaci

**Ultrafast and low-cost synthesis route of Ti-based MXenes with high yields**

» Ms. Jovana Paskaš, Mr. Miloš Dujović, Mrs. Elvira Toth, Mr. Marko Radenković, Mr. Milinko Perić, Ms. Milica Govedarica, Dr. Vasa Radonić, Dr. Marko Radović, Prof. Miladin Radović, Prof. Vladimir V. Srdić, [Dr. Nikola Kanas](#)

**Solution-derived BiFeO<sub>3</sub>-based perovskite films with potential applications in emerging technologies**

» Prof. M. Lourdes Calzada, Dr. Iñigo Bretos, Dr. Ricardo Jimenez, Dr. Jesus Ricote, Prof. Rafael Sirera, [Dr. Miguel Algueró](#), Ms. Adriana Barreto, Ms. Maria Echaniz-Cintora, Ms. Y. Andrea Rivas

**A modified solid-state synthesis of positive temperature coefficient of resistance ceramics based on bismuth sodium barium titanate with additions of calcium oxide**

» [Ms. Tabea Weismann](#), Ms. Annika Eberwein, Mr. Swen Subotic, Dr. Susanne Wagner, Dr. Claudia Bucharsky, Prof. Günter Schell



Continued from Monday, 19 August

**Influence of synthesis and sintering on piezoelectric properties of Na<sub>0.5</sub>Bi<sub>0.5</sub>TiO<sub>3</sub>-based ceramics**

» [Dr. Marko Robić](#), Ms. Meryem Lachhab, Prof. Barbara Malič, Dr. Mojca Otoničar

**Fabrication of multilayer textured Sr-doped Ca<sub>3</sub>Co<sub>4</sub>O<sub>9</sub>/Ag laminar composites**

» [Dr. Maria A. Madre](#), Mrs. Parisa Amir Khizi, Prof. Hongchao Wang, Prof. Miguel Angel Torres Portero, Prof. Andres Sotelo, Dr. Andrei Kovalevsky, Dr. Shahed Rasekh

**Investigation of the solid-state formation reactions in (Ba,Ca)(Zr,Ti)O<sub>3</sub> piezoceramics**

» [Ms. Anna Paulik](#), Dr. Marc Widenmeyer, Dr. Marius Kremer, Ms. Anamaria Mihaeljevic, Prof. Jurij Koruza

**Closing the Loop: Maximizing the Potential of Spent Adsorbents in the Circular Economy**

» Dr. Malcolm Watson, Dr. Jasmina Nikic, [Dr. Mirjana Vijatovic Petrovic](#), Dr. Jelena Bobic, Prof. Jasmina Agbaba

**Towards high-end photonics: enhancing orientation in novel CSBN thin layers**

» [Ms. Laura Van Bossele](#), Dr. Hannes Rijckaert, Prof. Jeroen Beeckman, Prof. Klaartje De Buysser

**Towards in-situ XPS Analysis of negative temperature coefficient spinels**

» [Mr. Jakob Konstantin Laux](#), Mr. Gero Pickel, Mr. Pengcheng Hu, Prof. Klaus Reichmann, Prof. Andreas Klein

**Ferroelectric and Magnetic Properties of Substituted BiFeO<sub>3</sub> with Rare Earth Elements**

» [Dr. Marianela Escobar](#), Mr. Ali Alhusein, Dr. Soma Salamon, Dr. Vladimir Shvartsman, Prof. Heiko Wende, Prof. Doru Lupascu

**Negative and zero thermal expansion in K<sub>0.5</sub>Bi<sub>0.5</sub>TiO<sub>3</sub>**

» [Ms. pooja punetha](#), Dr. Gobinda Das Adhikary, Prof. Pavan Nukala, Prof. Rajeev Ranjan

**Structural aspects into polarization, weak-field piezoelectric, and electrostrain responses in ergodic relaxor states of Na<sub>0.5</sub>Bi<sub>0.5</sub>TiO<sub>3</sub>-based systems**

» [Mr. Gudeta Jafo Muleta](#), Dr. Gobinda Das Adhikary, Prof. Rajeev Ranjan

**Dielectric Studies of Bismuth Manganite Ceramic**

» [Dr. Edita Palaimiene](#), Dr. Jan Macutkevicius, Mr. Justas Čiurlys, Prof. Jūras Banys, Prof. Andrzej Molak

**Effect of Bi<sub>2</sub>O<sub>3</sub> additive and sintering temperature on BaCe<sub>0.7</sub>Zr<sub>0.1</sub>Y<sub>0.1</sub>Zn<sub>0.1</sub>O<sub>3-δ</sub> electrolyte material for protonic ceramic fuel cell application**

» [Dr. Pradnyesh Satardekar](#), Mr. Prajval Salgaonkar, Dr. Dario Montinaro

**Investigation of Hexagonal Phase Stability and Ferroic Properties in Mn doped Lutetium Ferrite**

» [Mrs. Andrius Pakalniškis](#), Prof. Gediminas Niaura, Prof. Anna Morozovska, Prof. Eugene Eliseev, Dr. Guillaume Rogez, Dr. Pierre Rabu, Dr. Shih-Wen Chen, Prof. Thomas Chung-Kuang Yang, Prof. Ramūnas Skaudžius, Prof. Aivaras Kareiva

**Forsterite and cordierite electroceramics by 3D printing and ceramization of novel silicone-based blends**

» [Ms. Annalaura Zilio](#), Dr. Hamada Elsayed, Dr. Alberto Conte, Mr. Davide Peroni, Prof. Nicola Bianchi, Prof. Enrico Bernardo

**Influence of chemical composition variations on the properties of positive temperature coefficient of resistance ceramics based on barium titanate-bismuth sodium titanate**

» [Ms. Annika Eberwein](#), Mr. Swen Subotic, Ms. Tabea Weismann, Dr. Susanne Wagner, Dr. Claudia Bucharsky, Prof. Günter Schell



Continued from **Monday, 19 August**

**The Investigation of Impedance Spectroscopy of Various  $\text{La}_{0.67-x}\text{Na}_{3x}\text{TiO}_3$  (with  $0.05 < x < 0.17$ ) Ceramics as Candidates for the Electrostrictive Materials**

» [Dr. Saulius Daugėla](#), Mr. Théo Grivois, Dr. Anthony Rousseau, Dr. Maud Barré

**Solution-derived piezoelectric modified  $(\text{Ba,Ca})(\text{Ti,Zr})\text{O}_3$  film as a lead-free alternative.**

» [Dr. Hannes Rijckaert](#), Prof. Paolo Mele, Prof. Jeroen Beeckman, Prof. Klaartje De Buysser

**Properties of  $\text{La}_{1-x}\text{Na}_x\text{MnO}_3$  thin films deposited on various substrates**

» [Dr. Aleksandar Radojković](#), Dr. Jelena Bobic, Dr. Mirjana Vijatovic Petrovic, Dr. Adis Džunuzović, Prof. Biljana Stojanović, Dr. Nikola Ilić, Dr. Jelena Vukmirović, Dr. Ivan Stijepović, Dr. Bojan Miljević, Prof. Vladimir V. Srdić

**Influence of aliovalent and isovalent dopants on the PTCR effect of  $\text{BaTiO}_3$  based thermistors**

» [Mr. Florian Hortmann](#), Dr. Christian Molin, Dr. Sylvia E. Gebhardt

**Cold Sintering of  $0.5(\text{BaZr}_{0.2}\text{Ti}_{0.8})\text{O}_3-0.5(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$  ferroelectric ceramics with  $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$  as a Transient sintering Aid**

» [Dr. Aadil Abass Shah](#), Mr. Samir Salmanov, Mr. Andrej Debevec, Prof. Barbara Malič, Dr. Mojca Otoničar

**Crystalline and Conductive Properties of  $\text{ITO}/\text{Al}_2\text{O}_3$  Composite Films by Aerosol Deposition**

» [Mr. Kotaro Ogawa](#), Dr. Kenji Sakai, Prof. Shinzo Yoshikado, Prof. Yuuki Sato

**Development and characterization of  $\text{Nd}:\text{YAG}$  laser sensitized uncooled  $\text{PbSe}$  films for enhanced mid-IR sensitivity**

» [Dr. Jovana Stanojević](#), Ms. Sara Joksović, Dr. Branimir Bajac, Dr. Ivana Kundacina, Dr. Jovan Matovic

**Electronic structure, phase formation, and defect distribution in the  $\text{Ba}(\text{Ce,Fe,Acc})\text{O}_3$ -d system**

» [Dr. Rotraut Merkle](#), Dr. Andrew Chesnokov, Dr. Maximilian Hoedl, Dr. Denis Gryaznov, Ms. Christina Nader, Dr. Andreas Egger, Prof. Edith Bucher, Prof. Eugene Kotomin, Prof. Werner Sitte, Prof. Joachim Maier

**Effect of sintering diffuse time on structure of B-Site ordered and electric properties in Li-Substituted  $\text{Pb}(\text{Yb}_{0.5}\text{Nb}_{0.5})\text{O}_3$**

» [Mr. Chen Kaiyuan](#), Prof. Zhang Qi

**Sodium niobate and bismuth manganate composites proposed for energy harvesting**

» [Prof. Andrzej Molak](#)

**Piezoelectric  $\text{BiFeO}_3$  thin films from metalorganic precursor solutions**

» [Mr. Alexander Komar](#), Dr. Nicolas Godard, Dr. Marko Vrabelj, Dr. Thorsten Bayer, Prof. Klaus Reichmann

**Tuesday, 20 August**

8am	<b>Registration</b> <i>Aula Parva</i>
8:30am	<b>Introduction Day 2</b> <i>Aula Parva</i>
9am	<b>Plenary 2 - Applications of Electroceramics</b> <i>Aula Parva</i> Chaired by: Prof. Barbara Malič
9am	<b>Light and Chemical Modulation of Grain Boundaries and Electrochemical Interfaces: New Opportunities for Improved Energy Conversion Devices</b> » <a href="#">Prof. Harry Tuller</a>



Continued from **Tuesday, 20 August**

- 9:45am **Coffee Break**  
*Aula Parva*
- 10:15am **S5-02 - Applications of Electroceramics**  
*Aula Parva*
- 10:15am **Thin films as key functional layers for reversible solid oxide cells**  
» [Prof. Lucile Bernadet](#), Prof. Fjorelo Buzi, Prof. Kosova Kreka, Prof. Natasha Di Benedetto, Prof. Federico Baiutti, Prof. Guilherme Silva, Prof. Jordi Orrit Prat, Prof. Raúl Bonet, Prof. Jaume Caro, Dr. Dario Montinaro, Prof. Marc Torrell, Prof. Alex Morata, Prof. Albert Tarancón
- 10:45am **Analysis of the performance degradation of perovskite oxide electrodes in solid electrochemical cells**  
» [Prof. Jong Hoon Joo](#), Ms. Jinsil Lee, Mr. Yonghun Shin, Mr. Taeyun Kim, Prof. Donghwa Lee, Dr. Wooseon Choi, Prof. Youngmin Kim
- 11am **Exploring CaVO<sub>3</sub>, SrVO<sub>3</sub> and SrMoO<sub>3</sub> Perovskites as Prospective Anode Materials for Biogas-Powered Solid Oxide Fuel Cells**  
» [Mr. Rui Pinto](#), Dr. Aleksey Yaremchenko
- 11:15am **Rare-earth and alkaline-earth vanadates as fuel electrodes for SOFCs**  
» [Dr. Blanca Isabel Arias Serrano](#), Mr. Rui Pinto, Dr. Aleksey Yaremchenko
- 11:30am **Tin-containing Silicon Oxycarbide and Oxycarbonitride Ceramic Nanocomposites as Stable Anodes for Magnesium Ion Batteries**  
» Mr. Wuqi Guo, Dr. Jun Wang, Ms. Oyku Icin, Prof. Cekdar Vakifahmetoglu, Prof. Aleksander Gurlo, [Dr. Maged Bekheet](#)
- 10:15am **S4-03 - Structure-Property Relations**  
*Theater hall*  
Chaired by: Prof. Andreas Klein

- 10:15am **Defect-driven electronic properties at ferroelectric and multiferroic interfaces**  
» [Prof. Dennis Meier](#)
- 10:45am **Effect of pore shape on the dielectric and high field properties of BaTiO<sub>3</sub> ceramics**  
» [Dr. Giovanna Canu](#), Dr. Roland Brunner, Mr. Philipp Aldo Wieser, Dr. Maria Teresa Buscaglia, Dr. Nadejda Horchidan, Prof. Liliana Mitoseriu, Dr. Marco Deluca, Dr. Vincenzo Buscaglia
- 11am **Flash sintering as a method to enhance performance of tunable dielectric Ba<sub>0.6</sub>Sr<sub>0.4</sub>TiO<sub>3</sub> ceramics**  
» [Dr. Oleksandr Tkach](#), Mrs. Camila Ribeiro, Dr. M. Elisabete Costa, Prof. Paula M. Vilarinho
- 11:15am **Decoding structure-property connections in perovskite ferroelectric oxides via total scattering method**  
» [Dr. Kaustuv Datta](#)
- 11:30am **Properties of potassium-sodium niobate processed by ultrafast high-temperature sintering**  
» [Mr. Joao L. Miranda](#), Mrs. Camila Ribeiro, Dr. Oleksandr Tkach, Prof. Ana M. O. R. Senos, Prof. Paula M. Vilarinho
- 11:45am **Lunch - Cafe of Faculty of History**  
*Aula Parva*
- 1:45pm **S5-03 - Applications of Electroceramics**  
*Aula Parva*  
Chaired by: Dr. Giovanna Canu
- 1:45pm **Phosphate Framework Materials for Aqueous Ion Insertion Batteries**  
» [Dr. Linas Vilčiauskas](#)
- 2:15pm **Electrochemical NO<sub>x</sub> removal: overcoming the problem of electrode passivation by oxygen using La<sub>1.5</sub>Ba<sub>0.5</sub>NiO<sub>4±δ</sub> selective electrocatalyst**  
» [Dr. Kiryl Zakharchuk](#), Dr. Aleksey Yaremchenko, Dr. Andrei Kovalevsky



Continued from **Tuesday, 20 August**

2:30pm **Development of lithium-conductive inorganic and composite materials for solid-state batteries**

» [Prof. Anatolii Bilous](#), Dr. Ivan Lisovskyi, Dr. Volodymyr Khomenko, Mr. Serhiy Chernukhin, Prof. Vyacheslav Barsukov, Dr. Natalya Stryzhakova, Prof. Yurii Maletin

2:45pm **Tribo-piezoelectric films for energy harvesting for future applications in wind and wave energy**

» [Mrs. Noelle C. Zanini](#), Ms. Bruna O. Araújo, Dr. Oleksandr Tkach, Prof. Lars R. Jensen, Prof. Paula M. Vilarinho

3pm **Materials and Manufacturing Methods for Electromagnetic Energy Harvesting Devices**

» [Mr. Modestas Sadauskas](#), Dr. Karolis Ratautas, Ms. Justina Žemgulytė, Ms. Viktorija Vrubliauskaite, Dr. Paulius Ragulis, Mr. Leonid Kovalenko, Mr. Oleg V'yunov, Prof. Anatolii Bilous, Dr. Žilvinas Kancleris

1:45pm **S2-03 - Functionalities in Electroceramics**

*Theater hall*

Chaired by: Dr. Jiri Kulda

1:45pm **Large electromechanical coupling in Zr-doped ceria**

» Prof. Anatoly Frenkel, Prof. Yue Qi, Dr. Ellen Wachtel, Dr. David Ehre, [Prof. Igor Lubomirsky](#)

2:15pm **Electro-optic characterization of ferroelectric thin films for nanophotonic integrated circuits**

» [Prof. Jeroen Beeckman](#), Mr. Enes Lievens, Mr. Kobe De Geest, Mr. Ewout Picavet, Prof. Dries Van Thourhout, Prof. Klaartje De Buysser

2:30pm **Functional response of acceptor and donor doped 0.9Pb(Mg1/3Nb2/3)O3-0.1PbTiO3 ceramics**

» [Dr. Andraz Bradesko](#), Dr. Ankita Sarkar, Dr. Lovro Fulanović, Prof. Hana Ursic, Dr. Sarunas Svirskas, Prof. Jūras Banys, Prof. Barbara Malič, Prof. Tadej Rojac

2:45pm **Origin of the enhanced dielectric tunability in antiferroelectric PNZST ceramics**

» [Dr. Nikola Novak](#), Ms. Vida Jurečič, Prof. Hana Ursic, Prof. Tadej Rojac, Prof. Vid Bobnar

3pm **Electromagnetic properties of 3D-printed carbon-BaTiO3 composites**

» [Dr. Jan Macutkevic](#), Dr. Pauline Blyweert, Dr. Darya Meisak, Dr. Alexander Zharov, Dr. Artyom Plyushch, Prof. Jūras Banys, Prof. Vanessa Fierro, Prof. Allain Celzard

3:15pm **Coffee break**

*Aula Parva*

3:45pm **S5-04 - Applications of Electroceramics**

*Aula Parva*

3:45pm **Some Aspects in the Application of Electrically Conducting MAXphase-based NanoCeramics and 2D MXene Layers**

» [Prof. Arunas Ramanavicius](#), Prof. Ilya Navitski, Prof. Sarunas Zukauskas, Prof. Simonas Ramanavicius, Prof. Alma Ručinskienė, Prof. Ernestas Brazys, Prof. Rokas Miksiunas

3:45pm **S2-04 - Functionalities in Electroceramics**

*Theater hall*

3:45pm **Low Temperature Dielectric Relaxations in Ferroelectrics, Relaxor-Ferroelectrics and Canonical Relaxors**

» Ms. Yang Li, [Prof. Andrew J. Bell](#)

4:15pm **Lead-free flexible composite films: properties and potential application**

» [Dr. Mirjana Vijatovic Petrovic](#), Dr. Francesco Cordero, Dr. Elisa Mercadelli, Dr. Nikola Ilic, Dr. Zeljko Despotovic, Dr. Jelena Bobic, Dr. Adis Dzunuzovic, Dr. Carmen Galassi, Dr. Paola Stagnaro, Dr. Giovanna Canu, Dr. Maria Teresa Buscaglia, Dr. Maurizio Vignolo, Dr. Floriana Craciun





Continued from **Tuesday, 20 August**

4:30pm **Homogeneity and Multifunctionality of 0.5Ba(Zr0.2Ti0.8)O3-0.5(Ba0.7Ca0.3)TiO3 Ceramic Thin Films by Chemical Solution Deposition**  
 » [Mr. Sabi William Konsago](#), Ms. Katarina Žiberna, Dr. Jernej Ekar, Dr. Aleksander Matavž, Prof. Janez Kovač, Prof. Andreja Benčan, Prof. Hana Ursic, Prof. Barbara Malič

4:15pm **S6-01 - MEMS, Tunable devices, thermistors, varistors**  
 Aula Parva

4:15pm **lead-free PTC thermistors: high transition temperature and scalable processing**  
 » [Dr. Hannes Engelhardt](#), Dr. Michael Arnold, Mrs. Tashneem Ara Islam, Dr. Arno Görne

4:30pm **Temperature-dependent cation distribution in NTC thermistor spinels probed with neutron diffraction and Seebeck measurements**  
 » Mr. Jan Dinger, [Prof. Jörg Töpfer](#)

**Wednesday, 21 August**

8am **Registration**  
 Aula Parva

8:30am **Introduction Day 3**  
 Aula Parva

9am **Plenary 3 - Functionalities in Electroceramics**  
 Aula Parva  
 Chaired by: Prof. Harry Tuller

9am **Advances in thick-film technology for novel applications**  
 » [Prof. Hana Ursic](#)

9:45am **Coffee break**  
 Aula Parva

10:15am **S2-05 - Functionalities in Electroceramics**  
 Aula Parva  
 Chaired by: Dr. Miguel Algueró

10:15am **Quantum effects in SrTiO3: old single crystals and novel hybrids**  
 » [Dr. Mario Maglione](#), Ms. Marion Baudier-Pons, Prof. Jean-Marc Heintz, Dr. Nicolas Penin, Dr. Catherine Elissalde, Dr. U-Chan Chung, Dr. Jean-Francois Silvain, Dr. Teddy Fournier

10:45am **Impedance spectroscopy study of A0.33BO3 (A – La, Nd, Pr; B – Ta, Nb) perovskites**  
 » [Dr. Tomas Šalkus](#), Dr. Vilma Kavaliukė, Dr. Saulius Daugėla, Prof. Algimantas Kežionis, Dr. Edvardas Kazakevičius, Mr. Théo Grivois, Dr. Anthony Rousseau, Dr. Maud Barré

11am **Ionic and electronic transport in co-substituted CaTi0.9Sc0.1O3-δ perovskites**  
 » [Dr. Aleksey Yaremchenko](#), Mr. Gonçalo Henriques, Mr. Rui Pinto, Dr. Atul Jamale

11:15am **La-doped hafnia thick films prepared by aerosol deposition method**  
 » [Dr. Alaka Panda](#), Prof. Tadej Rojac, Dr. Soukaina Merselmiz, Ms. Ivana Gorican, Prof. Hana Ursic

11:30am **Hafnium zirconium oxide based ferroelectric tunnel junctions**  
 » [Prof. Tseung-Yuen Tseng](#)

10:15am **S1-02 - Synthesis & Processing**  
 Theater hall  
 Chaired by: Prof. Mari-Ann Einarsrud



Continued from **Wednesday, 21 August**

- 10:15am **New insights on the solid-state synthesis of (Ba,Sr)TiO<sub>3</sub> and BiFeO<sub>3</sub> from in situ X-ray diffraction**  
» [Prof. Jacob Jones](#), Dr. Corrado Wesley, Dr. Tom Rowe, Dr. Jennifer Forrester
- 10:45am **Synthesis and characterisation of high-quality single crystals by the contactless floating zone and pedestal methods**  
» [Dr. Milan Klicpera](#)
- 11am **Challenges in producing high-quality Na<sub>0.5</sub>Bi<sub>0.5</sub>TiO<sub>3</sub>-based bulk ceramics and free-standing thick films**  
» [Dr. Marija Dunce](#), Dr. Eriks Birks, Dr. Artyom Plyushch, Dr. Sarunas Svirskas, Mr. Arturs Atvars, Mr. Gusts Agafonovs, Ms. Madara Leimane, Prof. Jūras Banyš
- 11:15am **Ceramic suspensions for vat photopolymerization of (Na<sub>1/2</sub>Bi<sub>1/2</sub>)TiO<sub>3</sub>-based lead-free piezoceramics**  
» Mr. Tobias Pötzelsberger, Dr. Anastasia Kucheryavaya, Dr. Max Schmallegger, Ms. Yue Liu, Dr. Lovro Fulanović, [Prof. Jurij Koruza](#)
- 11:30am **S5-05 - Applications of Electroceramics**  
*Theater hall*
- 11:30am **Impact of the solvent in electrophoretic deposition of protective coating for SOC stacks**  
» [Mrs. Monika Łazor](#), Prof. Yevgeniy Naumovich, Dr. Agnieszka Żurawska, Mr. Leszek Ajdys, Prof. Paulina Wieceńska
- 11:45am **Lunch - Cafe of Faculty of History**  
*Aula Parva*
- 1:45pm **S3-02 - Theory & Modelling**  
*Aula Parva*  
Chaired by: Prof. Yuri Genenko

- 1:45pm **Analysis of local vs. macroscopic properties of porous ferroelectrics based on 3D reconstructed ceramic microstructures**  
» Dr. Leontin Padurariu, Mr. Radu Stirbu, Dr. Fereshteh Falah Chamasemani, Dr. Roland Brunner, Dr. Vlad Alexandru Lukacs, Dr. Cristina Elena Ciomaga, [Prof. Liliana Mitoseriu](#)
- 2:15pm **Diffuse scattering and PDF analysis not only with neutrons**  
» [Dr. Jiri Kulda](#)
- 2:45pm **Influence of the initial disorder on the stochastic formation of ferroelectric domain structure**  
» [Dr. Olga Mazur](#), Prof. Yuri Genenko, Prof. Leonid Stefanovich
- 1:45pm **S1-03 - Synthesis & Processing**  
*Theater hall*
- 1:45pm **Electroceramics by unconventionally low fabrication temperatures, current state and future perspectives**  
» [Prof. Jari Juuti](#), Prof. Mikko Nelo, Prof. Tuomo Siponkoski, Prof. Maria Väättäjä, Prof. Jenni Ylä-Mella, Prof. Eva Pongracz, Prof. Heli Jantunen
- 2:15pm **Adsorption controlled growth of homoepitaxial c-plane sapphire films**  
» [Dr. Felix Hensling](#), Mrs. Lena Majer, Prof. Jochen Mannhart
- 2:30pm **Anisotropic 0-3 Piezocomposites with Anisometric Single-Crystalline Filler Particles Crystallographically Oriented by Dielectrophoresis Method**  
» Mr. Hüseyin Alptekin Sarı, [Prof. Sedat Alkoy](#)
- 2:45pm **Potassium sodium niobate solid-state powder synthesis and its challenges**  
» [Dr. Soňa Hříbalová](#), Ms. Anna Mašlová, Ms. Sofiia Zadniprianska
- 3pm **S2-06 - Functionalities in Electroceramics**  
*Aula Parva*



Continued from **Wednesday, 21 August**

3pm **Electrical conductivity of (Na,Bi)TiO<sub>3</sub> with different BaTiO<sub>3</sub> content**  
 » [Mr. Pengcheng Hu](#), Dr. Daniel Bremecker, Prof. Jurij Koruza, Dr. Mohammad Amirabbasi, Dr. Jochen Rohrer, Prof. Andreas Klein

4:30pm **Visit of the Palace of the Grand Dukes**  
*Aula Parva*

6pm **Gala Dinner - Palace of the Grand Dukes**  
*Aula Parva*

**Thursday, 22 August**

8:30am **Introduction Day 4**  
*Aula Parva*

9am **S4-04 - Structure-Property Relations**  
*Aula Parva*  
 Chaired by: Prof. Andreja Benčan

9am **Defects and domain walls in uniaxial ferroelectrics**  
 » [Prof. Sverre M. Selbach](#)

9:30am **Influence of Redox Treatments on Fermi Level, Electronic and Structural Properties of SrFeO(3-d) Thin Films**  
 » [Mr. Gero Pickel](#), Ms. Yue Liu, Prof. Andreas Klein

9:45am **Fabrication and characterization of highly oriented bilayer thin films based on LaSrMnO<sub>3</sub>/BaSrTiO<sub>3</sub>**  
 » [Ms. Danica Piper](#), Dr. Jelena Vukmirović, Ms. Sara Joksović, Dr. Marija Milanović, Dr. Ivan Stijepović, Dr. Bojan Miljević, Dr. Srđan Rakić, Dr. Mirjana Novaković, Prof. Vladimir V. Srdić

9am **S5-06 - Applications of Electroceramics**  
*Theater hall*

9am **Optical control of dielectric permittivity in widegap aluminates**  
 » [Prof. Hiroki Taniguchi](#)

9:30am **Lead-free Piezoceramic Materials for Transducer Applications**  
 » [Mr. William Schulz](#), Prof. Andrew J. Bell

9:45am **Development of Flexible, Lead Free Piezoelectric Nanogenerators with Improved Properties via BaTiO<sub>3</sub> Nanowires Incorporation into Polyvinyl Chloride Matrix**  
 » [Dr. Sakhavat Dadashov](#), Mr. Beytullah GÖL, Dr. Seval Kinden, Prof. Ender Suvaci

10am **Flexible piezoelectric composite based on lead-free electrospun fibers and PDMS matrix**  
 » [Dr. Frank Clemens](#), Dr. Arun Ichangi, Prof. Sanjay Mathur

10am **S2-07 - Functionalities in Electroceramics**  
*Aula Parva*

10am **Tunable metacomposites properties in Ag-BaTiO<sub>3</sub> CERMETS by microstructural design**  
 » Dr. Ina Turcan, Dr. Vlad Alexandru Lukacs, Mr. Radu Stirbu, Dr. Cristina Elena Ciomaga, [Prof. Liliana Mitoseriu](#), Dr. Donatella Giuranno

10:15am **Design Aspects of the Pulsed Electroacoustic Method for Measuring Space Charge in Ceramics**  
 » [Mr. Xinyi Ma](#), Dr. Sebastian Stark

10:30am **Coffee Break**  
*Aula Parva*

11am **S4-05 - Structure-Property Relations**  
*Aula Parva*



Continued from Thursday, 22 August

- 11am **Electrical conductivity relaxation related to mixed valence ions and a structurally disordered state in Bi-Mn-O-based ceramics proposed for energy harvesting**  
» [Prof. Andrzej Molak](#)
- 11am **S1-04 - Synthesis & Processing**  
*Theater hall*
- 11am **High-Entropy Oxide and Alloy Nanoparticles Synthesized by Continuous Supercritical Hydro/Solvothermal Flow Process**  
» [Prof. Hiroshi Kitagawa](#)
- 11:30am **FAST/SPS as a manufacturing technique for K-ion cell components**  
» [Ms. Wiktoria Krzyżaniak](#), Dr. Mateusz Marczewski, Prof. Jarosław Jakubowicz, Dr. Dariusz Garbiec
- 11:30am **S2-08 - Functionalities in Electroceramics**  
*Aula Parva*
- 11:30am **Electrocaloric properties and phase transition character of the B-site substituted BaTiO<sub>3</sub>-rich BaTiO<sub>3</sub>-Na<sub>0.5</sub>Bi<sub>0.5</sub>TiO<sub>3</sub> solid solutions**  
» Mr. Oğuz Akkaşoğlu, Dr. Merve Karakaya, Dr. Lovro Fulanović, [Dr. Umut Adem](#)
- 11:45am **Influence of Ni-Cu substitution and uneven element content on electrical properties of High Entropy Oxides**  
» [Ms. Daria Pankratova](#), Dr. Khabib Yusupov, Dr. Alberto Vomiero
- 12pm **Study and development of high permittivity dielectric materials for RFID applications**  
» [Mr. Tom Rautureau](#), Dr. Pascal Marchet, Dr. Pierre-Marie Geffroy, Dr. Fabrice Rossignol, Mr. Arnaud carle
- 12:15pm **Investigating point defects, conduction mechanisms and piezoelectricity in 0.67BiFeO<sub>3</sub>-0.33BaTiO<sub>3</sub> ceramics**  
» [Dr. Antonio Iacomini](#), Mrs. Maja Koblar, Prof. Tadej Rojac

- 11:45am **S6-02 - MEMS, Tunable devices, thermistors, varistors**  
*Theater hall*
- 11:45am **Microstructural and electrical characteristics of ZnO-Cr<sub>2</sub>O<sub>3</sub>-based varistor ceramics**  
» [Prof. Slavko Bernik](#), Dr. Tian Tian, Dr. Matejka Podlogar, Dr. Guorong Li
- 12pm **PTCR behavior of lead-free BNBT-based thermistor ceramics**  
» [Mr. Jörg Friedrich](#), Prof. Jörg Töpfer
- 12:30pm **Closing**  
*Aula Parva*