

The 15th ECerS Conference for Young Scientists in Ceramics

Oral Presentations

Preliminary List of Participants (25th July, 2023)

Plenary Talks

1. [Ivano E. Castelli](#)
Department of Energy Conversion and Storage, Technical University of Denmark, Lyngby, Denmark
Computational workflows for an accelerated design of novel materials and interfaces
2. [Erkka Frankberg](#)
Tampere University, Finland
Quest for room temperature ductility in ceramics
3. [Thomas Graule](#)
EMPA, Zurich, Switzerland
Mysteries and pitfalls in ceramics processing
4. [Tadej Rojac](#)
Jožef Stefan Institute, Slovenia
Origins and mechanistic aspects of the high piezoelectricity of lead-based relaxor-ferroelectric ceramics
5. [Markus Winterer](#)
University Duisburg-Essen, Duisburg, Germany
Combining Reverse Monte Carlo analysis of X-ray scattering and extended X-ray absorption fine structure of small nanoparticles

Invited Talks

6. [Maria Canillas Perez](#)
Universidad Politecnica de Madrid, Spain
Laser induced forward transfer for shaping ceramics
7. [Henrik Haspel](#)
Department of Applied and Environmental Chemistry, University of Szeged, Hungary
Title
8. [Jan Hostaša](#)
CNR-ISSMC, Faenza, Italy
Title
9. [Cristina Ojalvo](#)^{1,2}, [Víctor Zamora](#)¹, [Fernando Guiberteau](#)¹, [Angel L. Ortiz](#)¹
¹*Departamento de Ingeniería Mecánica, Energética y de los Materiales, Universidad de Extremadura, Badajoz, Spain*
²*Department of Materials and Ceramic Engineering, CICECO – Aveiro Materials Institute, University of Aveiro, Portugal*
Manufacturing boron carbide at low temperatures by spark plasma sintering with metal disilicides aids

10. Paweł Pęczkowski¹, Piotr Zachariasz²
¹*Institute of Physical Sciences, Faculty of Mathematics and Natural Sciences, School of Exact Sciences, Cardinal Stefan Wyszyński University, Warsaw, Poland*
²*Center for Functional Materials, Łukasiewicz Research Network – Institute of Microelectronics and Photonics, Kraków, Poland*
Degradation of HTS tapes by irradiation with noble gas ions and aging
11. David Rafaja
Technical University Bergakademie Freiberg, Germany
The role of interfaces in ceramic materials
12. Mtabazi G. Sahini¹, Benard S. Mwankemwa², Nikola Kanas³, Samwel D. Lupyana⁴, Kjell Wiik⁵, Julian R. Tolchard⁵, Tor Grande⁵
¹*Department of Chemistry, The University of Dodoma, Dodoma, Tanzania*
²*Department of Physics, The University of Dodoma, Dodoma, Tanzania*
³*University of Novi Sad, Institute BioSense, Novi Sad, Serbia*
⁴*Department of Mining and Mineral Processing Engineering, The University of Dodoma, Dodoma, Tanzania*
⁵*Department of Materials Science and Engineering, NTNU Norwegian University of Science and Technology, Trondheim, Norway*
Thermo-chemical stability aspects of Mixed Ionic-Electronic Conducting (MIEC) ceramic membrane materials
13. Martin A. Schroer
University Duisburg-Essen, Duisburg, Germany
Nanostructure formation revealed by X-ray scattering methods
14. Julian Walker
NTNU Trondheim, Norway
Ionic molecular systems – Next generation “ceramics” for electronic and thermal energy storage applications
15. Jovana Zvicer, Jasmina Stojkowska, Bojana Obradovic
¹*University of Belgrade, Faculty of Technology and Metallurgy, Department of Chemical Engineering, Belgrade, Serbia*
Development and characterization of composites for bone tissue engineering with the aid of biomimetic bioreactors

Advanced Ceramics

16. Jixi Chen, Alessandro Palliotto, Shinhee Yun, Dennis Valbjørn Christensen, Vincenzo Esposito, Nini Pryds
Technical University of Denmark, Lyngby, Denmark
Post-lithiation: A way to control the ionic conductivity of solid-state thin film electrolyte
17. Jan Słomiński, Sebastian Komarek, Dariusz Zientara, Dominika Madej, Agnieszka Gubernat
AGH University of Krakow, Faculty of Material Science and Ceramics, Department of Ceramics and Refractories, Krakow, Poland
Synthesis of ternary boride Cr₃AlB₄ by solid-state reaction

18. Hakim Firas Ibrahim, Shaista Ilyas, Sanjay Mathur
Institute of Inorganic Chemistry, University of Cologne, Cologne, Germany
Fluorometric determination of lysozymes with aptamer modified silica nanoparticles
19. Touraj Karimpour¹, Younes Mousazade², Marcel Risch², Sanjay Mathur¹
¹*Department of Chemistry, Institute of Inorganic Chemistry, University of Cologne, Cologne, Germany*
²*Nachwuchsgruppe Gestaltung des Sauerstoffentwicklungsmechanismus, Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany*
Impact of magnetic field strength on the catalytic activity of chemical vapor deposition (CVD) synthesized CoFe₂O₄ thin films for electrochemical oxidation of nitrogen
20. Amin Hassani Moghaddam
University of Szeged, Szeged, Hungary
Investigating the influence of CeO₂ structures on the conversion of CO₂ to CO through the reverse water gas shift reaction
21. Abdelmajid Agnaou¹, Wafaa Mhaira¹, Rachida Essalim¹, Fabrice Mauvy², Maati Alga¹, Mohamed Zamama¹, Abdelaziz Ammar¹
¹*Laboratory of Materials Sciences and Processes Optimization, Cadi Ayyad University, Faculty of Sciences Semlalia, Marrakech, Morocco*
²*CNRS, Université de Bordeaux, (ICMCB), UMR 5026, 87, Pessac, France*
Structural and electrical studies of silicon-doped Bi₄V₂O₁₁
22. Gamze Yüksel¹, Ceyhun Işık², Aydın Süleyman Güzel³, Yusuf Öztürk³, Ender Suvacı¹
¹*Department of Material Science and Engineering, Eskişehir Technical University, Eskişehir, Turkey*
²*Department of Chemistry, Muğla Sıtkı Koçman University, Eskişehir, Turkey*
³*TÜBİTAK, Marmara Research Center, Materials Institute*
Critical parameters for growth of oriented ZnO nanowire arrays during hydrothermal synthesis
23. Shaista Ilyas¹, Annika Szymura, Sabri E.M. Sahnoun², Pardes Habib³, Felix Mottaghy², Sanjay Mathur¹
¹*Institute of Inorganic Chemistry, University of Cologne, Greinstraße 6, 50939, Cologne, Germany*
²*Department of Nuclear Medicine, University Hospital RWTH Aachen University, 52074 Aachen, Germany*
³*Department of Neurology, University Hospital RWTH Aachen University, 52074 Aachen, Germany*
Drug conjugates for tumor-specific localization and superior therapeutic action
24. Makokha John Wanjala, Imre Szentı, Tamas Boldizsar, Andras Sapi
Department of Applied and Environmental Chemistry, University of Szeged, Szeged, Hungary
SIC particle size effect on ceramic thermomechanical properties
25. Pavlina Bancheva¹, V. Zhelev², P. Petkov¹, T. Petkova²
¹*University of Chemical Technology and Metallurgy, Sofia, Bulgaria*
³*Institute of Electrochemistry and Energy Systems, BAS, Sofia, Bulgaria*
Synthesis and investigating the properties of pure and doped ZnO thin films obtained by spray pyrolysis
26. Danica Piper¹, Jelena Vukmirović¹, Iva Toković¹, Pavla Šenjug², Damir Pajić², Marija Milanović¹, Stevan Armaković³, Zeljka Cvejić³, Vladimir V. Srdić¹
¹*Department of Materials Engineering, Faculty of Technology Novi Sad, University of Novi Sad, Serbia*
²*Department of Physics, Faculty of Sciences, University of Zagreb, Croatia*
³*Department of Physics, Faculty of Sciences, University of Novi Sad, Serbia*

Structure and magnetic properties of epitaxial Sr-doped LaMnO₃ thin films prepared by polymer assisted deposition

27. [Niloofer Bayat](#)¹; Laszlo Kotai², Imre M. Szilagy¹ Otkaz
¹*Department of Inorganic and Analytical Chemistry, Faculty of Chemical Technology and Biotechnology, Budapest University of Technology and Economics, Budapest, Hungary*
²*Institute of Material and Environmental Chemistry, TTK Research Center for Natural Science, Budapest, Hungary*
Synthesis and thermal decomposition of analogous cobalt complexes: NH₄[Co(NH₃)₆]Cl₂ (ClO₄) and K[Co(NH₃)₆]Cl₂(MnO₄)₂
28. [Sumiya Iqbal](#), Shaista Ilyas, Sanjay Mathur
Institute of Inorganic Chemistry, University of Cologne, Cologne, Germany
Tailoring silica nanocarriers to overcome hydrophobic drug challenges: An investigation into enhanced molecular weight and hydrophobicity modulation
29. [Andrzej Kruk](#)
Pedagogical University of Cracow, Poland
Effect of RE³⁺ doping on the magneto-optical and luminescent properties of Y₂O₃
30. [Dániel A. Karajz](#)¹, I.M. Szilágyi¹, D. Cseh¹, Cs. Fónay¹, Z. Kovács¹, B. Párditka², Z. Erdélyi², Cs. Cserhádi², Á. Szegedi³, I. Lukács⁴, P. Márton⁵, Z. Hórvölgyi⁵, K. Hernádi⁶
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⁵*Department of Physical Chemistry and Materials Science, Budapest University of Technology and Economics, Budapest, Hungary*
⁶*Institute of Physical Metallurgy, University of Miskolc, Hungary*
Structural possibilities of inverse opals
31. [Tijana Vlašković](#)¹, Bojana Laban¹, Maja Milošević², Maria Čebela³, Vladimir Dodevski³, Milena Rosić³
¹*University of Priština in Kosovska Mitrovica, Faculty of Sciences and Mathematics, Kosovska Mitrovica, Serbia*
²*Department of Mineralogy, Crystallography, Petrology and Geochemistry, Faculty of Mining and Geology, Belgrade, Serbia*
³*Laboratory for Material Science, Institute of Nuclear Science, „Vinča“, National Institute of the Republic of Serbia, Belgrade Serbia*
Investigation of the structure and the magnetic behavior of nanostructure Ca_{0.9}Er_{0.1}MnO₃ sucrose nitrate procedure
32. [Iva Toković](#)¹, Danica Piper¹, Jelena Vukmirović¹, Marija Milanović¹, Stevan Armaković², Vladimir V. Srdić¹
¹*Department of Materials Engineering, Faculty of Technology, University of Novi Sad, Novi Sad, Serbia*
²*Department of Physics, Faculty of Natural Sciences, University of Novi Sad, Novi Sad, Serbia*
Experimental study and DFT calculation of LaMnO₃ based thin films
33. [Ivana Goričan](#)^{1,2}, Uroš Prah¹, Silvo Drnovšek¹, Matej Šadl¹, Hana Uršič^{1,2}
¹*Electronic Ceramics Department, Jožef Stefan Institute, Ljubljana, Slovenia*
²*Jožef Stefan International Postgraduate School, Ljubljana, Slovenia*
Energy storage properties of (1-x)Pb(Fe_{0.5}Nb_{0.5})O₃-xBiFeO₃ bulk ceramics and ceramic thick films

34. Anass Chrir¹, Oscar Rojas², Laurence Boyer², Olivier Durand², Pascal Marchet¹
¹*Univ. Limoges, CNRS, IRCER, UMR 7315, Limoges, France*
²*Center for Technology Transfers in Ceramics (CTTC), Limoges, France*
Effect of post-annealing on microstructure and ferroelectric properties of lead-free BaTiO₃ thick films elaborated by Aerosol Deposition method
35. Manuel A. García-Galán¹, Victor M. Candelario², Fernando Guiberteau¹, Angel L. Ortiz¹
¹*Departamento de Ingeniería Mecánica, Energética y de los Materiales, Universidad de Extremadura, Badajoz, Spain*
²*Department of Research and Development, LiqTech Ceramics A/S, Denmark*
Evaluating the mechanical integrity and reliability of multi-channelled flat-sheet ceramic membranes for filtration applications
36. Dariia Chernomorets^{1,2}, Pietro Galizia¹, Giacomo Zanetti^{3,4}, Stefano Varas³, Alessandro Chiasera³, Andriana Pinacastelli¹, Jan Hostaša¹
¹*CNR-ISSMC, 64 Via Granarolo, 48018 Faenza (RA), Italy*
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⁴*Department of Physics, University of Trento, Via Sommarive 14, 38123 Povo (TN), Italy*
Solubility of ZrO₂ in yttrium oxide and its influence on transparent ceramics properties
37. Nida Khan^{1,2}, Amit Sinha^{1,2}, V Sudarsan^{1,3}
¹*Homi Bhabha National Institute, Anushakti Nagar, Mumbai, India*
²*Powder Metallurgy Division, Materials Group, BARC, Vashi Complex, Mumbai, India*
³*Chemistry Division, Bhabha Atomic Research Centre, Trombay, Mumbai, India*
Development of porous hyper-stoichiometric lithium titanate (Li₂TiO₃) for tritium breeder application
38. Rui Pinto¹, Blanca Arias-Serrano^{1,2}, Aleksey Yaremchenko¹
¹*CICECO – Aveiro Institute of Materials, University of Aveiro, Aveiro, Portugal*
²*The Iberian Energy Storage Research Center (CIIAE), Cáceres, Spain*
Exploring PrVO_y-CaVO_y oxides: Characterization and performance in solid oxide fuel cells
39. Nyemaga Malima¹, Malik Dilshad², Neerish Revaprasadu², Jonghyun Choi³, Ram Gupta³
¹*Department of Chemistry, College of Natural and Mathematical Sciences, University of Dodoma, Dodoma, Tanzania*
²*Department of Chemistry, University of Zululand, South Africa*
³*Department of Chemistry, Kansas Polymer Research Center, Pittsburg State University, Pittsburg, Kansas, United States*
Composition tunable Ni_{1-x}Mg_xFe₂O₄ (0 ≤ x ≤ 1) ceramic nanocatalysts for enhanced hydrogen evolution and oxygen evolution reactions
40. Maria M. Savanović¹, Stevan Armačić², Lazar Gavanski², Mirjana Šiljegović², Nataša Simić², Sanja J. Armačić¹
¹*University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection, Novi Sad, Serbia*
²*University of Novi Sad Faculty of Sciences, Department of Physics, Novi Sad, Serbia*
Photocatalytic performance of TiO₂-coated aluminum foil for degradation of Rhodamine B in water
41. M.A. Grigoroscuta¹, V. Sandu¹, A. Kuncser¹, I. Pasuk¹, G. Aldica¹, M. Burdusel¹, T.S. Suzuki², O. Vasykiv², P. Badica¹

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Magneto-orientation of bulk MgB₂ superconductor

42. Miguel Vieira, Andrei Kovalevsky, Aleksey Yaremchenko
CICECO - Aveiro Institute of Materials, Department of Materials and Ceramic Engineering, University of Aveiro, 3810-193, Aveiro, Portugal
Hydrothermally activated ceramic membranes for oxygen separation
43. Francis Oseko, Sebastian Wachowski, Tadeusz Miruszewski, Maria Gazda, Aleksandra Mielewczyk-Gryn
Gdańsk University of Technology, Gdańsk, Poland
Leveraging defects to promote dual exsolution on {Ba,La}_{1-x}Ag_xCoFe_{6-δ}
44. Larisa O. Fedorova^{1,2,3}, Y.V. Barnash^{1,2,3}, N.V. Kamanina^{1,2,3}
¹Vavilov State Optical Institute, St. Petersburg, Russia
²Department of Advanced Development, Petersburg Nuclear Physics Institute, National Research Center "Kurchatov Institute", 1 md. Orlova Roshcha, 188300 Gatchina, Russia
³Saint Petersburg Electrotechnical University "LETI, St. Petersburg", Russia
Advanced optical ZnS and MgF₂ ceramics: Modification of the surface by carbon nanotubes
45. Pavĺina Šárfa¹, Eliška Virágová¹, Lenka Novotná¹, Přemysl Šťastný¹, Klára Částková^{1,2}
¹CEITEC – Central European Institute of Technology, Brno, Czech Republic
²Brno University of Technology, Dept. Of Ceramics and Polymers, Faculty of Mechanical Engineering, , Czech Republic
Optimization and bioactivity evaluation of silica-doped hydroxyapatite scaffolds for bone tissue engineering: A direct foaming approach
46. Aleksandra Milojkovic, Kristen Kozielski
Department of Electrical and Computer Engineering, Neuroengineering Materials Group Technical University of Munich, Munich
Tuning the properties of the magnetostrictive cobalt ferrite – A promising candidate for wireless neural stimulation application
47. Alisa Tatarinova¹, Aleksander Maletskyi^{1,2}, Phan Luong Tuan^{1,3}, Boris Oksengendler⁴, Nadejda Nikiforova⁴, Zhanna Mezentseva¹, Le Hong Khiem^{5,6}, Aleksander Tkachenko², Aleksander Doroshkevich^{1,2}
¹Joint Institute of Nuclear Research, Dubna, Russia
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⁵Institute of Physics, Vietnam Academy of Science and Technology, Viet Nam
⁶Graduate University for Science and Technology, Vietnam Academy of Science and Technology, Hanoi, Viet Nam
Features of sintering nanopowders of metastable aluminum oxide doped with stabilized zirconium dioxide
48. Arijit Jana¹, Irina Krалеva¹, Johanna Sanger¹, Josef Schlacher¹, Andreas Egger², Edith Bucher², Raul Bermejo¹
¹Chair of Structural and Functional Ceramics, Montanuniversitaet Leoben, Leoben, Austria
²Chair of Physical Chemistry, Montanuniversitaet Leoben, Leoben, Austria
Effect of thickness on the microstructure, ionic conductivity and strength of tape casted zirconia-based electrolytes for solid oxide fuel cells

49. Eliška Virágová¹, Přemysl Šťastný¹, Novotná Lenka¹, Drdlík Daniel^{1,2}, Klára Částková^{1,2}
¹CEITEC – Central European Institute of Technology, Brno-Medlánky, Czech Republic
²Brno University of Technology, Faculty of Mechanical Engineering, Institute of Materials Science and Engineering, Brno, Czech Republic
Development of ceramic suspensions for lithography based ceramics manufacturing (LCM)
50. Aleksandra Pavlović, Irena Miler, Nikola Knežević
Institute BioSense, University of Novi Sad, Serbia
Novel porous organosilica nanoparticles for UV protection
51. Victor Zamora, Francisco J. Martínez-Vazquez, Fernando Guiberteau, Angel L. Ortiz
Departamento de Ingeniería Mecánica, Energética y de los Materiales, Universidad de Extremadura, 06006 Badajoz, Spain
Departamento de Física de la Materia Condensada, Universidad de Sevilla, Sevilla, Spain
Novel boron carbide composites sintered at low temperature
52. Imane Anasser, Tariq Labbilita, Mohamed Amine Harech, Mohamed Daoud, Abdelouahed Zegzouti
Laboratory of Materials Sciences and processes optimization, Chemistry Department, Faculty of Sciences Semlalia, Cadi Ayyad University, Marrakech, Morocco
Hydrothermal synthesis of SBN Aurivillius ceramics for ferroelectric application
53. Anna Maria Wieclaw-Midor, Pawel Falkowski, Paulina Wiecinska
Warsaw University of Technology, Faculty of Chemistry, Warsaw, Poland
Photocurable, aqueous ceramic dispersions for 3D printing techniques
54. Dawid Kozieln¹, I. Czekaj¹, W. Banaś¹, P. Nieroda², Katarzyna Pasiut¹, Lesze Chlubny¹, Magda Ziąbka¹, Zbigniew Pędzich¹
¹Faculty of Materials Science and Ceramics, AGH University of Science and Technology, Krakow, Poland
²Department of Inorganic Chemistry, Faculty of Materials Science and Ceramics, AGH University of Science and Technology, Krakow, Poland
UHTCs composites based on the boron carbide with intermetallic additives from Ti-Si system
55. Monika Łazor^{1,2,3,4}, Leszek Ajdys^{1,2,3,4}, Blanka Seredyńska⁴, Agnieszka Żurawska^{1,2}, Yevgeniy Naumovich^{1,2}, Paulina Wieceńska⁴
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²Department of High Temperature Electrochemical Processes, Institute of Power Engineering, Warsaw, Poland
³Doctoral School, Warsaw University of Technology, Warsaw, Poland
⁴Chemical Faculty, Warsaw University of Technology, Warsaw, Poland
Impact of the steel pre-oxidation on the quality of MC11- and CMF-based protective layers for SOC interconnects
56. Sergio Moreno-Martínez, Antonia Pajares, Oscar Borrero-López, Pedro Miranda
Departamento de Ingeniería Mecánica, Energética y de los Materiales, Universidad de Extremadura, Badajoz, Spain
Fabrication of bioinspired structures for dental applications by indirect DLP
57. Irmak Su Okten¹, Cem Aciksari¹, Gizem Is¹, Serdar Celebi¹, Eugenio Meloni², Giovanni Festa², Marco Martino², Vincenzo Palma²
¹TUPRAS (Turkish Petroleum Refineries) R&D Center, Kocaeli/Turkey

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Preparation of Pt based hydrotalcite derived Mg(Al)O shaped catalysts via wet impregnation for propane dehydrogenation reaction

58. Tina Tasheva¹, M. Georgieva², D. Tzankov², R. Harizanova¹, I. Mihailova¹, G. Avdeev³, C. Rüssel⁴

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Investigation of the microstructure and magnetic properties of silicate glass-ceramics with high iron oxide concentration

59. Jakub Aleksandrowicz, Piotr Jeleń, Maciej Sitarz

AGH University of Science and Technology, Faculty of Materials Science and Ceramics, Krakow, Poland

Optimization of phenyl ladder-like systems sol-gel synthesis

60. Mechouet Mourad¹, Ghilane Jalal², Bencherif Selma¹, Moussouni Hocine¹

¹Laboratoire de Physique et Chimie des Matériaux (LPCM), University of Mouloud MAMMERI, Tizi-Ouzou, Department of Chemistry, Algeria

²Laboratoire ITODYS, University of Paris, Paris, France

Obtaining a hybrid electrode based on imidazonium ionterminated and metallic nano-clusters and its catalytic activity toward HER

61. Jesús López-Arenal, V. Zamora, F. Guiberteau, A.L. Ortiz

Departamento de Ingeniería Mecánica, Energética y de los Materiales, Universidad de Extremadura, 06006 Badajoz, Spain

An all-carbide triplex particulate ceramic composite for tribological applications

62. Mariam Osman¹, Cristina E. Ciomaga², Nadejda Horchidan², Vlad A. Lukacs¹, Liliana Mitoseriu¹

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²Department of Exact and Natural Sciences, Institute of Interdisciplinary Research, Al. I. Cuza University of Iasi, Carol I, Iasi, Romania

Porosity effects on the functional properties and piezoelectric harvesting performances of BCTZ ceramics

63. Jeevankumar Pallagani, Poly Rose, Pawan Kumar Verma, T. Rajasekharan, V. Seshu Bai

University of Hyderabad, Hyderabad, India

Fabrication of pilot scale Ba_{0.5}Sr_{0.5}TiO₃ ceramics combining gelcasting and Rapid prototyping

64. Álvaro Sánchez, Antonia Pajares, Angel L. Ortiz, Pedro Miranda

Departamento de Ingeniería Mecánica, Energética y de los Materiales, Universidad de Extremadura, Badajoz, Spain

Combining freeze casting with pressure-less spark plasma sintering for the manufacturing of bulk ultra-high temperature ceramics

65. Sanita Ahmetović¹, Zorka Ž. Vasiljević¹, Vladimir Rajić², Dragana Bartolić¹, Mirjana Novaković², Nenad B. Tadić³, Nikola Cvjetičanin⁴, Maria Vesna Nikolić¹

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Investigating the effects of Zr doping on the titanium dioxide nanofibers

66. [Milena Dojčinović](#)¹, Zorka Vasiljević¹, Lazar Rakočević², Vera P. Pavlović³, Souad Ammar-Merah⁴, Jelena Vujančević⁵, Maria Vesna Nikolić¹
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⁴ITODYS Laboratory, Université Paris Cité, CNRS UMR-7086, Paris, France
Magnesium substitution with nickel and its influence on the sensing properties of MgFe₂O₄
67. [Izabela Rutkowska](#), Jakub Marchewka, Maciej Sitarz
Faculty of Material Science and Ceramics, AGH University of Science and Technology, Kraków, Poland
Aluminum oxide layers deposited using pulse direct current electrophoretic deposition
68. [Heloise Orihuel](#)^{1,3}, E. De Sousa^{2,3}, T. Billotte^{1,2}, B. Debord^{1,2}, F. G r me^{1,2}, P. Thomas³, J. Jouin³, F. Benabid^{1,2}
¹GPPMM Group, Xlim Institut, CNRS UMR 7252, Universit  de Limoges, Limoges, France
²GLOphotonics, Limoges, France
³CNRS, Universit  de Limoges, Institut de Recherches sur les C ramiques (IRCER), Centre Europ en de la C ramique, Limoges, France
Solution-based deposition of ceramics on glass substrates for alkali-metal vapor cells
69. [Zofia Kucia](#)¹, Maciej Bik¹, Piotr Jele n¹, Wojciech Wiczorek¹, Daria Paku a², Robert Przekop³, Maciej Sitarz¹
¹Faculty of Materials Science and Ceramics, AGH University of Krakow, Poland
²Faculty of Chemistry, Adam Mickiewicz University in Pozna , Poland
³Centre for Advanced Technologies, Adam Mickiewicz University in Pozna , Poland
Synthesis and structural analysis of polysilazane-derived SiCN with tuneable carbon content
70. [Radu Stefan Stirbu](#)¹, Leontin Padurariu¹, Vlad Alexandru Lukacs¹, Fereshteh Falah Chamasemani², Roland Brunner², Liliana Mitoseriu¹
¹Dielectrics, Ferroelectrics & Multiferroics Group, Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
²Department Materials Center, Leoben Forschung GmbH, Leoben, Austria
Simulation of properties of anisotropic porous ceramics based on 3D reconstructed microstructures
71. [Moussouni Hocine](#)¹; Mechouet Mourad¹; Ghilane Jalal²; Bencherif Selma¹
¹Laboratoire de Physique et Chimie des Mat riaux (LPCM), University of Mouloud MAMMERRI, Tizi-Ouzou, Department of Chemistry, Algeria
²Laboratoire ITODYS, University of Paris, Paris, France
Investigating the reactivity of surface functionalization with ionterminated using scanning electrochemical microscopy (SECM)
72. [Vlad-Alexandru Lukacs](#)¹, Radu Stirbu¹, Lavinia Curecheriu¹, Oana Condurache², Maria Teresa Buscaglia³, Gabriel Caruntu⁴, Liliana Mitoseriu¹
¹Dielectrics, Ferroelectrics & Multiferroics Group, Physics Faculty, Al. I. Cuza Univ. Iasi, Iasi, Romania
²Electronic Ceramics Dept., Jozef Stefan Inst., Ljubljana, Slovenia
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Comparative analysis of BaTiO₃ nanoceramics derived from cuboidal and equiaxed nanoparticles

73. [Klaudia Łyszczarz](#), Piotr Jeleń, Maciej Bik, Jakub Marchewka, Patryk Zając, Maciej Sitarz
Faculty of Materials Science and Ceramics, AGH University of Science and Technology, Krakow, Poland
Bioactivity of SiOCB coatings on metallic substrates
74. [Jakub Marchewka](#), Patryk Bezkosty, Izabela Rutkowska, Justyna Grygierek, Maciej Sitarz
Faculty of Material Science and Ceramics, AGH University of Science and Technology, Kraków, Poland
Preceramic polymers for the preparation of 3D silicon oxycarbide structures by digital light processing
75. [Joanna Tanska](#)¹, Anna Wieclaw-Midor¹, Pawel Falkowski¹, Justyna Zygmuntowicz², Paulina Wiecinska¹
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