The Thirteenth Conference for Young Scientists in Ceramics, CYSC-2019

Call for Abstracts

http://www.tf.uns.ac.rs/cysc

Young Ceramists Network

Faculty of Technology, University of Novi Sad

October 16-19, 2019.
Novi Sad, Serbia

Scope of the Meeting

The main goals of this traditional Meeting are the promotion of the work by young researchers and closer international contacts amoung students from different universities and institutes, through exchange of knowledge, ideas and experiences in the field of ceramics. The main authors of all presented papers will be students (primarly focused on masters, Ph.D. and young postdoctoral students but there is no limitation on categories and age of the participants).

International Scientific Committee

Carmen Baudin	Instituto de Cerámica y Vidrio-CSIC, Madrid, Spain
Jon Binner	University of Birmingham, United Kingdom
Davide Bossini	Technical University Dortmund, Germany
Francis Cambier	Belgian Ceramic Research Center, Mons Belgium
Dragan Damjanović	Ecole Polytechnique Fédérale de Lausanne, Switzerland
Konstantinos Giannakopoulos	National Center for Scientific Research "Demokritos", Greece
Horst Hahn	Karlsruhe Institute of Technology (KIT), Germany
Andraž Kocjan	Jožef Stefan Institute Ljubljana, Slovenia
Akoš Kukovecz	University of Szeged, Hungary
Anne Leriche	University of Valenciennes and Hainaut-Cambresis, France
Karel Maca	Brno University of Technology, Czech Republic
Branko Matovic	Institute for Nuclear Sciences “Vinca”, Serbia
Marija Milanović	University of Novi Sad, Serbia
Liliana Mitoseriu	University A“l.I. Cusa”, Romania
Zbigniew Pedzich	AGH - University of Science and Technology, Krakow, Poland
Mitar Perusic	University of East Sarajevo, Bosnia & Herzegovina
Alexandro Simoes	Universidade Estadual Paulista UNESP, Brazil
Vladimir V. Srdić	University of Novi Sad, Serbia
Biljana Stojanović	University of Belgrade, Serbia
Paula Vilarinho	University of Aveiro, Portugal
Kjell Wiik	Norwegian University of Science & Technol., Trondheim, Norwey
Louis Winnubst	University of Twente, The Netherlands
Markus Winterer	University of Duisburg-Essen, Germany

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Đorđije Tripković	Karlsruhe Institute of Technology, Germany
Jelena Vukmirović	University of Novi Sad, Serbia

Secretary

Ivan Stijepović
Department of Materials Engineering
Faculty of Technology, University of Novi Sad
Bul. Cara Lazara 1, 21000 Novi Sad, SERBIA
tel: +381 21 485 3750, fax: +381 21 450 413
e-mail: sm@tf.uns.ac.rs

General Information

Location

- Novi Sad - Vojvodina - Serbia

Deadlines

- June 15, 2019. Submission of Abstract (Registration form)

Topics

- Advanced ceramics
- Traditional ceramics
- Ceramics composites

Presentation

- All presentations will be oral
- Papers should be presented by students
- Beside experimental, results and discussion, presentation should consists of theoretical background, as well as good introduction to the specific subject
- Authors are provided with 15 minutes for presentation of results and disscusion

Invited talks

- Well recognized experts are invited to give lectures/tutorials in different topics on synthesis, processing, characterization and application of ceramics materials

Student Competition

- Awards dedicated to Prof. Paolo Nanni (~300 EUR) will be given for three best presentations

Language

- The official language of the Meeting is English

Abstract

- Title: short, informative, centered (Times New Roman 14, Bold)
- Authors: first name, last name (Times New Roman 14)
- Addresses of all authors (Times New Roman 12)
- Abstract (maximum one A4 page) should be typed in Times New Roman font with a font size of 12 pts. Top, bottom, left and right margins should be 3.5 cm.

Publications

- Programme and Book of Abstract

Conference Fee

- **No Conference fee**

Financial Support

- There is possibility to apply for financial support for travel and accommodation costs. Please contact Ivan Stijepovic at sm@tf.uns.ac.rs

Registration

- On-line registration form is avaiable on our web-site: http://www.tf.uns.ac.rs/cysc

Accommodation

- Student accommodation (limited number of rooms, please reserve them in advance – conntact person Ivan Stijepovic sm@tf.uns.ac.rs)
- Hotels (list is avaiable on our web-site).

The 13th Conference for Young Scientists in Ceramics

Oral Presentations

Preliminary List of Participants (10th May, 2019)

Invited Speakers

Preliminary List of Participants (10th May, 2019)

1. Subbu S. Bhattacharya, *Department of Metallurgical and Materials Engineering, IIT Madras, India*
2. Igor Djerd, *Department of Chemistry, University of Josip Jurij Strossmayer, Osjek, Croatia*
3. Davide Bossini, *Technische Universität Dortmund, Faculty of Physics, Dortmund, Germany*
4. Vincenzo Buscaglia, *National Research Council, Institute of Condensed Matter Chemistry and Technologies for Energy, Genoa, Italy*
5. Horst Hahn, *Karlsruhe Institute of Technology (KIT), Institute of Nanotechnology, Karlsruhe, Germany*
6. Akoš Kukovecz, *Faculty of Science and Informatics, Department of Applied and Environmental Chemistry, University of Szeged, Hungary*
7. Cristina Leonelli, *Dipartimento di Ingegneria "Enzo Ferrari", Universita' degli Studi di Modena e Reggio Emilia, Modena, Italy*
8. Paula Vilarinho, *Department of Materials and Ceramics Engineering, University of Aveiro, Portugal*
9. Markus Winterer, *Nanoparticle Process Technology, Department of Engineering Sciences, University Duisburg-Essen,* Duisburg, Germany

Advanced Ceramics

1. A. Robles[1], A. Orera[1], R.I. Merino[1], P.R. Slater[2]
   [1]Instituto de Ciencia de Materiales de Aragón, CSIC-Universidad de Zaragoza, Zaragoza, Spain
   [2]School of Chemistry, University of Birmingham, Birmingham, United Kingdom
   Suitability of Sr and Co-free lanthanum perovskite materials as cathodes for IT-SOFC with a lanthanum silicate apatite-type electrolyte

2. J. Lelièvre, P. Marchet
   CNRS – Université de Limoges, Institut de Recherche sur les CERamiques, UMR 7315, Centre Européen de la Céramique, Limoges, France
   Structure and properties of the lead-free perovskite compounds $(Na_{1/2}Bi_{1/2})ZrO_3$ (NBZ) and $(K_{1/2}Bi_{1/2})ZrO_3$ (KBZ)

3. E. Eray[1,2], G. Magnacca[3], V. Boffa[2], V. Candelario[1]
   [1]Liqtech International A/S, Ballerup, Denmark
   [2]Aalborg University, Section of Chemistry, Aalborg, Denmark
   [3]University of Turin, Department of Chemistry, Turin, Italy
   New generation silicon carbide ultrafiltration membranes for water purification

4. M. Stan[1], R. Lach[1], K. Wojciechowski [1], Ł. Łańcucki [2], M.M. Bucko[1]
   [1]AGH University of Science and Technology, Faculty of Materials Science and Ceramics, Dept. Ceramics

and Refractories, Cracow, Poland
[2]AGH University of Science and Technology, Faculty of Materials Science and Ceramics, Dept. Inorganic Chemistry, Cracow, Poland
Sintering and preparation of polycrystals gadolinium-iron garnet ($Gd_3Fe_5O_{12}$) by the solid-state reaction

5. A.U. Rehman[1,2,3], T. Liu[1,2], M.U. Salamci[3], F. Pitir[4], G. Küçüktürk[3], K. Zhang[1,2], W. Liao[1,2], C. Zhang[1,2]
[1]School of Mechanical Engineering, Nanjing University of Science and Technology, Jiangsu, PR China
[2]Jiangsu Engineering Laboratory of High-end Manufacturing Equipment and Technology, Nanjing University of Science and Technology, Jiangsu, PR China
[3]Mechanical Engineering Department, Gazi University, Turkey
[4]Research and Development Department, ERMAKSAN, Turkey
Additive manufacturing of magnesia and alumina eutectic composites

6. D. Don López[1,2,3], N. Lotfibakhshaiesh[3], A.P. Tomsia[2], F. Guitián Rivera[1]
[1]Instituto de Cerámica de Galicia, Universidade de Santiago de Compostela, Spain
[2]Lawrence Berkeley National Laboratory, USA
[3]Tehran University of Medical Science, Iran
Freeze casting and 3D printing of ceramic and polymer composites for bone tissue regeneration: Bioactive glass and silk

7. M. Jakab, M. Enisz-Bódogh
University of Pannonia, Intitute of Materials Engineering, Veszprém, Hungary
The development and structure of biotemplate ceramics

8. F.R. Estrada, A. Iglessias, C.B. Rodella
Brazilian Synchrotron Light Source, Campinas, Brazil
In-situ structural analyses in electroceramics using high resolution synchrotron X ray diffraction

9. V. Mackert, M. Winterer
Nanoparticle Process Technology and CENIDE, University of Duisburg-Essen, Duisburg, Germany
Probing sonication of colloidal SnO_2 by in situ small-angle X-ray scattering

10. M. Temnikova, A. Glukharev, O. Kurapova, V. Konakov
Saint Petersburg State University Saint-Petersburg, Russia
Synthesis, phase composition and microstructure of ZrO_2-Y_2O_3-rGO composite precursors obtained by sol-gel synthesis

11. D.A. Rayan[1,2], M.A. Zayed[3], G. Mahmoud[3]
[1]Central Metallurgical Research and Development Institute (CMRDI), Cairo, Egypt
[2]The British University in Egypt, El-Sherouk City, Suez Desert Road, Cairo, Egypt
[3]Chemistry Department, Faculty of Science, University of Cairo, Giza, Egypt
Comparative study of La and Zn ions co-doped magnetite nanostructures synthesized in oxygen and inert atmosphere

12. M.O. Kuzmenko[1,2], O.A. Kyzyma[1,2], T.V. Tropin[1], O.I. Ivankov[1,3]
[1]Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research, Dubna, Russia
[2]Physics Department, Kyiv Taras Shevchenko National University, Kyiv, Ukraine
[3]Institute for Safety Problems of Nuclear Power Plants, NAS Ukraine, Chornobil, Ukraine
Structural study of a fullerene-based colloidal mixture

13. I.V. Gapon[1,2], L.A. Bulavin[2,3], M.V. Avdeev[1]
[1]Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research, Dubna, Russia
[2]Institute for Safety Problems of Nuclear Power Plants, NAS Ukraine, Chornobil, Ukraine

[3]Physics Department, Kyiv Taras Shevchenko National University, Kyiv, Ukraine
Investigation of layered nanostructures in colloidal mixtures by neutron reflectometry

14. I. Vorona, L. Kravchenko, R. Yavetskiy, S. Parkhomenko, A. Doroshenko, O. Kryzhanovska, N. Dulina, A. Balabanov
Institute for Single Crystals NAS of Ukraine, Kharkiv, Ukraine
Influence of Si^{4+}, Mg^{2+} additives on the structure and properties of YAG-based laser ceramics

15. J.F. Valera, J.R. Marín,J.C. Pérez, M. Castro, J. Canales
Institute Energías Renovables, University of Castilla La Mancha, Albacete, Spain
3D printing and characterisation of lithium-ion battery electrodes via fused deposition modelling

16. D. Szalbot, M. Adamczyk-Habrajska, J.A. Bartkowska, M. Bara, K. Feliksik
Institute of Technology and Mechatronics, Faculty of Computer Science and Material Science, University of Silesia in Katowice, Sosnowiec, Poland
Magnetoelectric properties of multiferroic Aurivillius type $Bi_7Fe_3Ti_3O_{21}$ ceramics modified by strontium

17. Ł. Rakoczy[1], R. Cygan[2], M. Grudzień-Rakoczy[3]
[1]AGH University of Science and Technology, Faculty of Metals Engineering and Industrial Computer Science, Department of Physical and Powder Metallurgy, Krakow, Poland
[2]Consolidated Precision Products Corporation, Investment Casting Division, Rzeszow, Poland
[3]Lukasiewicz Research Network-Foundry Research Institute, Krakow, Poland
Application of shell molds strengthened by metal powders and glass fibres in the fabrication of jet engines components

18. A. Policicchio[1,2,3], A.-M. Putz[5], S. Stelitano[1,4], C. Ianăşi[5], G. Conte[1], R.G. Agostino[1,2,3]
[1]Dipartimento di Fisica, Università della Calabria, Arcavacata di Rende, Italy
[2]CNISM - Consorzio Nazionale Interuniversitario per le Scienze fisiche della Materia, Roma, Italy
[3]Consiglio Nazionale delle Ricerche, Istituto di Nanotecnologia (Nanotec) – UoS Cosenza, Arcavacata di Rende, Italy
[4]RINA Consulting – CSM S.p.A., Zona Industriale San Pietro Lametino, Lamezia Terme, Italy.
[5]"Coriolan Drăgulescu" Institute of Chemistry, Timisoara, Romania
Organically functionalised mesoporous silica synthetize for hydrogen storage application

19. F. Elyseu, L.J. Jaramillo Nieves, B.N. de Souza, A.M. Bernardin, A.G. Dal Bó
Universidade do Extremo Sul Catarinense, Santa Catarina, Brazil
Electrical properties of $SiO_2{\cdot}Na_2O{\cdot}LiO_2{\cdot}Bi_2O_3$ conductive glasses

20. C. Belkessam, M. Mechouet, J. Ghilane, N. Djelali, N. Idiri
Université de Tizi Ouzou, Tizi-Ouzou, Algérie
Precursors effect on $Ni_{0.3}Co_{2.7}O_4$ oxide electrocatalytic activity

21. M. Merse
University of Pannonia, Intitute of Materials Engineering, Veszprém, Hungary
Immobilization of simulated radioisotopes in alkali activated inorganic polymers

22. Z. Sarkadi, É. Kristófné Makó, K. Tamás
University of Pannonia, Intitute of Materials Engineering, Veszprém, Hungary
Experimental and theoretical examination of kaolinite-organosylanes

23. Z.Z. Vasiljevic, M. Dojcinovic, I. Jankovic-Castan, J. Vujancevic, N. Tadic, M.V. Nikolic
Institute of Technical Sciences of SASA, Belgrade, Serbia
Institute for Multidisciplinary Research, University of Belgrade, Serbia
Faculty of Technology and Metallurgy, University of Belgrade, Serbia

Faculty of Physics, University of Belgrade, Serbia
Structural and photocatalytic properties of sol-gel synthesized pseudobrookite

24. M. Dojhcinovic, Z.Z. Vasiljevic, J. Vujancevic, V.B. Pavlovic, S. Markovic, N.d Tadic, M.V. Nikolic
Institute for Multidisciplinary Research, University of Belgrade, Serbia
Institute of Technical Sciences of SASA, Belgrade, Serbia
Faculty of Mechanical Engineering, University of Belgrade, Serbia
Faculty of Physics, University of Belgrade, Serbia
Visible light photocatalytic activity of nanocrystalline $Co_xMg_{1-x}Fe_2O_4$ (x=0-1)

25. P. Akman, A. Yılmaz
Middle East Technical University, Ankara, Turky
Luminescent and magnetic, Ce and Tb doped $GdBO_3$ core, mesoporous silica shell nanoparticles: Application on Celecoxib drug delivery

26. A. Sapi, Á. Kukovecz, Z. Kónya
University of Szeged, Hungary
Unconcetional catalyst based on noble-metal free spinel structures for CO2 activation reactions

27. A. Boros, T. Korim
Institute of Materials Engineering, University of Pannonia, Veszprém, Hungary
Photochemical activity of metakaolin based geopolymer foams

28. A. Sedegov, V. Tsybulin, D. Pankratova, A. Taranova, K. Kuskov, S. Vorotylo, D. Moscovskikh, A. Rogachev, A. Mukasian
NUST "MISiS", Moscow, Russia
Selfpropagating high-temperature synthesis and study of carbides and diborides based on refractory high-entropy alloy HfTaTiNbZr

29. S. El Bekkari, M. Elaatmani, A. Tachafine
Cadi Ayyad university, Marrakech, Morocco
Elaboration of ferroelectric materials for energy strorage

30. M. Rashwan[1,2], N. Karpukhina[1], R.G. Hill[1]
[1]Centre for Oral Bioengineering, Barts and the London, School of Medicine and Dentistry, Queen Mary University of London, United Kingdom
[2]Department of Conservative Dentistry, Faculty of Dentistry, Alexandria University, Alexandria, Egypt
The effect of the particle size on synthesis and crystallization of potassium fluormica glass-ceramics

31. S. Hříbalová, W. Pabst
Department of Glass and Ceramics, University of Chemistry and Technology, Prague, Czech Republic
Light scattering in transparent ceramics: Use and validity of Mie theory approximations

32. J. Geiss, M. Winterer
Nanoparticle Process Technology (NPPT), University of Duisburg-Essen, Duisburg, Germany
Structural characterization of $LaFeO_3$ perovskite nanoparticles

33. J. Zaffran, M.C. Toroker
Technion of Haifa, Israel
Designing efficient catalysts for solar water splitting: Metallic doping of NiOOH material

34. C. Gorynski[1], L. Engelke[2], D.E. Wolf[2], U. Anselmi-Tamburini[3], M. Winterer[1]
[1]Nanoparticle Process Technology, Department of Mechanical Engineering and CENIDE, University of Duisburg-Essen, Duisburg, Germany

[2]*Computational and Statistical Physics, Department of Physics and CENIDE, University of Duisburg-Essen, Duisburg, Germany*
[3]*Laboratory for Advanced Materials Synthesis and Characterization, Department of Physical Chemistry, University of Pavia, Pavia, Italy*
Influence of electric current on microstructure of Al doped ZnO

35. V.S. Buinevich[1], A.A. Nepapushev[1], G.V. Trusov[1], D.O. Moskovskikh[1], A.S. Rogachev[2], A.S. Mukasyan[3]
[1]National University of Science and Technology MISiS, Moscow, Russia
[2]Merzhanov Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka, Moscow, Russia
[3]Department of Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, IN, USA
Self-propagating high-temperature synthesis and mechanochemical synthesis of ultra-high temperature ceramics Hf-C-N for exploitation in extreme conditions

36. Y. Tabak[1], A. Kılıç[1], Ş. Polat[2], B.K. Vatansever[1], H. Ünsal[1,3]
[1]*TUBITAK MRC Materials Institute, Gebze, Kocaeli, Turkey*
[2]*Kocaeli University, Department of Metallurgical and Materials Engineering, Kocaeli, Turkey*
[3]*Slovak Academy of Sciences, Institute of Inorganic Chemistry, Bratislava, Slovakia*
Production of Si_3N_4 ceramic tapes by tape casting method for artificial bone application

37. V. Nečina[1], T. Uhlířová[1], W. Pabst[1], P. Diblíková[2]
[1]Department of Glass and Ceramics, University of Chemistry and Technology, Prague, Czech Republic
[2]Department of Organic Technology, University of Chemistry and Technology, Prague, Czech Republic
The effect of heating rate on the grain growth of alumina prepared via electric current assisted sintering (ECAS)

38. I. Dinic[1], M. Vukovic[1], P. Vulic[2], M. Nikolic[3], L. Mancic[4], O. Milosevic[4]
[1]*Innovation Center of the Faculty of Chemistry, University of Belgrade, Serbia*
[2]*Faculty of Mining and Geology, University of Belgrade, Serbia*
[3]*Photonic Center, Institute of Physics Belgrade, University of Belgrade, Serbia*
[4]*Institute of Technical Sciences of SASA, Belgrade, Serbia*
Effects of citric ion on hexagonal $NaYF_4$: Yb/Er phase formation during solvothermal synthesis

39. S.K Behara, T. Thomas
Department of Metallurgical and Materials Engineering, Indian Institute of Technology Madras, Chennai, India
Theoretical investigation of crystal structure prediction using Bond-valence (BV) modelling

40. Ö.U. Kudu[1,2], T. Famprikis[1,3,4], E. Suard[5], M.-D. Braida[6], T. Le Mercier[6], B. Fleutot[1,2], C. Masquelier[1,2,3]
[1]*Laboratoire de Réactivité et de Chimie des Solides, UMR CNRS 7314, UPJV, Amiens, France*
[2]*Réseau sur le Stockage Électrochimique de l'Énergie, FR CNRS 3459, Amiens, France*
[3]*ALISTORE European Research Institute, FR CNRS 3104, Amiens, France*
[4]*Department of Chemistry, University of Bath, Bath, United Kingdom*
[5]*Institut Laue-Langevin, BP 156, Grenoble, France*
[6]*Solvay R&I, Aubervilliers, France*
Inorganic Li-ion conductors for all solid state batteries: Crystal chemistry and transport properties in the Li2S – P2S5 system

41. M.J. Silvister Raju, J.U. Nandhini, S.S. Bhattacharya
Nano Functional Materials Technology Centre, Department of Metallurgical & Materials Engineering, Indian Institute of Technology Madras, Chennai, India
Structural and functional characterization of antimony doped tin oxide powders produced by one-step synthesis method

42. J. Mrówka, J. Partyka, M. Hasik
AGH University of Science and Technology, Kraków, Poland
Thermal properties and ceramic yield of porous poly(methylvinylsiloxane) cross-linked with 1,3,5,7-tetramethylcyclotetrasiloxane before and after deposition of palladium nanoparticles

43. V.A. Lukacs[1], L.P. Curecheriu[1], J.L. Jones[2], L. Mitoseriu[1]
[1]Dielectrics, Ferroelectrics & Multiferroics Group, Faculty of Physics, "Al. I. Cuza" University of Iasi, Iasi, Romania
[2]Department of Materials Science and Engineering, North Carolina State UniversityRaleigh, USA
Scale dependent phenomena in $BaTiO_3$-based ceramics

44. T. Lomakina, O. Kurapova, V. Konakov
St. Petersburg University, St. Petersburg, Russia
Hydrolysis processes and phase equilibria in ZrO_2 and $4Y_2O_3$-$96ZrO_2$ precursors (mol.%), obtained by reversed co-precipitation

45. A. Levish, M. Winterer
Nanoparticle Process Technology, University of Duisburg and Essen, Germany
Iron(III)acetylacetonate vapor studied by X-ray absorption

46. D. Kozień, M.M. Bućko
AGH University of Science and Technology, Faculty of the Materials Science and Ceramics, Krakow, Poland
Sintering of non-stoichiometric boron carbide powders

47. J. Gonciarczyk[1], K. Stec[2], A. Bobrowski[1], A. Królicka[1]
[1]Faculty of Building Materials, Department of Materials Science and Ceramics, AGH University of Science and Technology, Kraków, Poland
[2]Refractory Materials Division, Institute of Ceramics and Building Materials, Gliwice, Poland
Application of ICP AES method and microwave digestion to routine analysis of corundum materials

48. A.G. Glukharev, O.Y. Kurapova, V.G. Konakov
Saint-Petersburg State University, Saint-Petersburg, Russia
The development of the novel ternary Y_2O_3-CeO_2-ZrO_2 and TiO_2-CeO_2-ZrO_2 solid electrolytes via cryochemical route

49. G. Conte[1], A. Policicchio[1,2,3], A.-M. Putz[5], C. Ianăşi[5], S. Stelitano[1,4], R.G. Agostino[1,2,3]
[1]Dipartimento di Fisica, Università della Calabria, Arcavacata di Rende, Italy
[2]CNISM - Consorzio Nazionale Interuniversitario per le Scienze fisiche della Materia, Roma, Italy
[3]Consiglio Nazionale delle Ricerche, Istituto di Nanotecnologia (Nanotec) – UoS Cosenza, Arcavacata di Rende, Italy
[4]RINA Consulting – CSM S.p.A., Zona Industriale San Pietro Lametino, Lamezia Terme, Italy
[5]"Coriolan Drăgulescu" Institute of Chemistry, Timisoara, Romania
The hydrogen storage capacity of organically functionalised mesoporous silica

50. A.-M. Putz[1], A. Policicchio[2,3,4], R.G. Agostino[2,3,4], S. Stelitano[2,5], G. Conte[2], C. Ianăşi[1]
[1]"Coriolan Drăgulescu" Institute of Chemistry, Timisoara, Romania
[2]Dipartimento di Fisica, Università della Calabria, Arcavacata di Rende, Italy
[3]CNISM - Consorzio Nazionale Interuniversitario per le Scienze fisiche della Materia, Roma, Italy
[4]Consiglio Nazionale delle Ricerche, Istituto di Nanotecnologia (Nanotec) – UoS Cosenza, Arcavacata di Rende, Italy
[5]RINA Consulting – CSM S.p.A., Zona Industriale San Pietro Lametino, Lamezia Terme, Italy
Organically functionalised mesoporous silica with gas storage properties synthesis and characterization

51. J. Aleksić[1], T. Barudžija[2], D. Jugović[3], M. Mitrić[2], M. Bošković[2], Z. Jagličić[4], S. Gyergyek[5], Lj. Kostić[1]
[1]Faculty of Sciences and Mathematics, University of Niš, Serbia
[2]Institute of Nuclear Sciences "Vinča", University of Belgrade, Serbia
[3]Institute of Technical Sciences of SASA, Belgrade, Serbia
[4]Institute of Mathematics, Physics and Mechanics, Ljubljana, Slovenia
[5]Jožef Stefan Institute, Ljubljana, Slovenia
Synthesis, structural and magnetic properties of $Y_{1-x}Yb_xF_3$ solid solution

52. C. Aciksari[1,2], S. Pelin Erden[1], I. Gozde Tuncolu[3], U. Savacı[1], S. Turan[1], E. Ozel[1], E. Suvaci[1]
[1]Department of Material Science & Engineering, Eskisehir Technical University, Eskisehir, Turkey
[2]TUPRAS R&D Center, Kocaeli, Turkey
[3]Fematek Uluslararası Ticaret AŞ, Izmir, Turkey
Synthesis of zinc tin oxide (Zn_2SnO_4) particles by various methods used as ceramic target for sputter technique

53. A. Pahomi[1,2], V. Chiriac[1,2], G. Vlase[1], T. Vlase[1], P.I Albu[1], G. Ilia[2,3]
[1]West University of Timisoara, Research Center for Thermal Analysis in Environmental Problems, Timişoara, Romania
[2] Faculty of Chemistry, Biology, Geography, Department of Biology-Chemistry, West University of Timişoara, Romania
[3]Institute of Chemistry Timisoara of Romanian Academy, Timisoara, Romania
Structural and thermic investigation on a novel method of synthesis for hydroxyapatite

54. T. Boteva, P. Petkov, V. Lilova
Physics Department, TFT Lab, University of Chemical Technology & Metallurgy, Sofia, Bulgaria
Vapour deposition of photosensitive molecules (MnPhthalocyanine) on diamond electrodes for electrochemical reduction of nitrates

55. P. Szołdra, W. Pichór
AGH University of Science and Technology, Kraków, Poland
TiO_2-based photocatalytic coating for ceramic materials

56. P. Czaja[1], J. Suchanicz[1], M. Karolus[2], M. Adamczyk-Habrajska[3], D. Bochenek[3]
[1]Institute of Technology, Pedagogical University, Kraków, Poland
[2]Institute Materials of Science, University of Silesia, Chorzów, Poland
[3]Institute of Technology and Mechatronics, University of Silesia, Sosnowiec, Poland
Influence ball milling time on preparation and dielectric properties of lead free $K_{0.5}Bi_{0.5}TiO_3$ ceramics

57. M.M. Ismail[1], D.A. Rayan[2]
[1]Biophysics Branch and Physics Department, Faculty of Science, Al-Azhar University, Cairo, Egypt
[2]Central Metallurgical Research & Development Institute (CMRDI), Cairo, Egypt
Structure, magnetic properties and induction heating ability studies for hyperthermia treatment of tumours by Mn substitution $CuFe_2O_4$ nanoparticles

Ceramic Composites

58. D.A. Rayan[1], A.M. Abdelghany[2], Abdallah Elshourbgy[3,4], S.H. Moustafa[4]
[1]Central Metallurgical Research & Development Institute, Egypt
[2]Spectroscopy Department, Physics Division, National Research Centre, Cairo, Egypt
[3]Giza Higher Institute for Engineering & Technology, Giza, Egypt
[4]Physics Department, Faculty of Science, Helwan University, Cairo, Egypt
Remarkable impact for optical properties of samarium doped aluminum sodium phosphate glass for visible devices

59. R.M.G. De Meyere, T.J. Marrow, D.E.J. Armstrong
Department of Materials, University of Oxford, Oxford, United Kingdom
Micro-mechanical testing of the BN interlayer in SiC_f/SiC composites for aero-propulsion

60. P. Zachariasz[1], P. Pęczkowski[2], P. Konieczny[3], K. Kluczewska-Chmielarz[4], P. Czaja[4], D. Bochenek[5], S. Baran[6]
[1]Department of Microelectronic, Łukasiewicz Research Network - Institute of Electron Technology, Kraków, Poland
[2]Department of Physics, Cardinal Stefan Wyszyński University, Warszawa, Poland
[3]Department of Magnetic Materials and Nanostructures, Henryk Niewodniczański Institute of Nuclear Physics PAN, Kraków, Poland
[4]Institute of Technology, Pedagogical University, Kraków, Poland
[5]Institute of Technology and Mechatronics, University of Silesia, Sosnowiec, Poland
[6]Marian Smoluchowski Institute of Physics, Jagiellonian University, Kraków, Poland
Magnetic and ferroelectric properties of SCTO-(C,M)FO multiferroics

61. H. Ünsal[1], I. Shepa[2], O. Hanzel[1], E. Múdra[2], J. Dusza[2], P. Tatarko[1]
[1]Institute of Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Slovakia
[2]Institute of Materials Research, Slovak Academy of Sciences, Kosice, Slovakia
The effect of field assisted sintering parameters on processing of in-situ formed B_4C-TiB_2 ceramics

62. G. Can Tatlisu[1,3], C. Aciksari[1,2], Y. Teke[2], C. Karakaya[2], O. Akarcay[2], E. Keles[1,3], S. Celebi[2], S. Turan[1,3]
[1]Department of Material Science & Engineering, Eskisehir Technical University, Eskisehir, Turkey
[2]TUPRAS R&D Center, Kocaeli, Turkey
[3]Ceramic Research Center, Eskisehir, Turkey
Fabrication of powder based ceramic insulation material for high temperature applications

63. Á. Szamosvölgyi, A. Sápi, Á. Kukovecz, Z. Kónya
Department of Applied and Environmental Chemistry, University of Szeged, Szeged, Hungary
Examination of the role and behaviour of mesoporous support materials in CO_2 hydrogenation

64. P. Svera[1,2], C. Ianasi[3]
[1]National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara, Timis, Romania
[2]University Politehnica Timisoara, Timisoara, Romania
[3]Coriolan Dragulescu, Institute of Chemistry Timisoara of Romanian Academy, Timișoara, Romania
Study on the photocatalytic behavior of Zn based semiconductor in the presence of organic stabilizator and co-catalyst

65. A. Skawińska[1], P. Pichniarczyk[1], Ł. Kotwica[2]
[1]Institute of Ceramics and Building Materials, Division of Glass and Building Materials in Cracow, Poland
[2]AGH University of Science and Technology, Faculty of Materials Science and Ceramics, Cracow, Poland
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66. R.M. Guillén Pineda[1], L. Gil[1], M.D. Salvador[1], A. Borrell[1], F.L. Penaranda-Foix[2], C.F. Gutiérrez-González[3]
[1]Instituto de Tecnología de Materiales (ITM), Universitat Politècnica de València, Valencia, Spain
[2]Instituto de Aplicaciones de las Tecnologías de la Información y de las Comunicaciones Avanzadas (ITACA). Universitat Politècnica de València, Valencia, Spain
[3]Nanoker Research S.L. Polígono Industrial Olloniego, Oviedo, Spain
Properties of Nb_2O_5 composite doped with ZrO_2 sintered by microwave

67. A. Alshoaibi
Physics Department, Faculty of Science, King Faisal University, Saudi Arabia

Study of the doping effect of yttrium on the electrical properties of $BaTiO_3$ synthesized by spark plasma sintering

68. N.Ilić, J. Bobić, M. Vijatović Petrović, A. Džunuzović, B. Stojanović
Institute for Multidisciplinary Research, University of Belgrade, Belgrade
Serbia Photocatalytic activity of yttrium and cobalt doped $Bi_5Ti_3FeO_{15}$ powders

69. I. Turcan, L. Curecheriu, L. Padurariu, L. Mitoseriu
Department of Physics, "Alexandru Ioan Cuza" University of Iasi, Romania
Ag-$BaTiO_3$ composite ceramics with multiple percolative behavior

70. I. Polishko[1], Y. Brodnikovskyi[1], N. McDonald[2], D. Brodnikovskyi[1], I. Brodnikovska[1], M. Brychevskyi[1], N. Lysunenko[1], L. Kovalenko[3], O. Vasylyev[1], A. Belous[3], R. Steinberger-Wilckens[2]
[1]Frantsevich Institute for Problems of Materials Science, Ukraine
[2]University of Birmingham, United Kingdom
[3]Vernadsky Institute of general and inorganic chemistry, Ukraine
Propreties of advanced yttria- and Scandia-stabilized zirconia composite for solid oxide fuel cell application

71. P. Pęczkowski[1], P. Zachariasz[2], C. Jastrzębski[3], B.C. Camargo[4], M. Muzyk[1]
[1]Cardinal Stefan Wyszyński University, Faculty Mathematics and Natural Science, School of Exact Sciences, Department of Physics, Warsaw, Poland
2Department of Microelectronic, Łukasiewicz Research Network - Institute of Electron Technology, Cracow, Poland,
[3]Warsaw University of Technology, Department of Physics, Warsaw, Poland
[4]Institute of Physics Polish Academy Society, Division of Radiation Physics and Spectroscopy, Group of Physics of Strongly Correlated Materials, Warsaw, Poland
Characterization of superconductor-multiferroic heterostructures

72. M. Pantović Pavlović[1,2], M. Pavlović[1], S. Eraković[1], T. Barudžija[3], J. Stevanović[1,2], N. Ignjatović[4], V. Panić[1,2]
[1]Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Serbia
[2]Centre of Excellence in Environmental Chemistry and Engineering - ICTM, University of Belgrade, Serbia
[3]Vinča Institute of Nuclear Sciences, University of Belgrade, Serbia
[4]Institute of Technical Science of the Serbian Academy of Sciences and Arts, Belgrade, Serbia
***In situ* synthesis and characterization of hydroxyapatite/titanium oxide coatings derived by anodization and anaphoretic deposition**

73. A. Novokhatska[1], G. Akimov[1], L. Kovalenko[2]
[1]Donetsk Institute for Physics and Engineering named after O.O.Galkin of NAS of Ukraine, Kiyv, Ukraine
[2]Vernadsky Institute of general and inorganic chemistry of NASU, Kyiv, Ukraine
The study of ceramic composites based on zirconia and manganite with excess manganese for cathode of SOFCs

74. M. Abedi[1], D. Moskovskikh[1], A. Mukasyan[2]
[1]National University of Science and Technology MISiS, Moscow, Russia
[2]Department of Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, IN, USA
Fabrication of silicon nitride reinforced by silicon carbide by flash spark plasma sintering

75. A. Martiz[1,2], A.M. Keszler[1]
[1]Institute of Materials and Environmental Sciences, Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest, Hungary
[2]Laboratory of Plastics and Rubber Technology, Department of Physical Chemistry and Material Science, Budapest University of Technology and Economics, Budapest, Hungary
Development of ZrC-based ceramic nanocomposites

76. M. Kosiorek[1,2], A. Żurawska[1], M. Błesznowski[1]
[1]Institute of Power Engineering - Research Institute, Department of High Temperature Electrochemical Processes, Warsaw, Poland
[2]Institute of Heat Engineering, Warsaw University of Technology, Warsaw, Poland
Rheological properties of glass-ceramic seals for SOC application fabricated by tape casting

77. M. Jahanara Mohammad, H. Ramachandran, P. Swaminathan
Department of Metallurgical & Materials Engineering, IIT Madras, Chennai India
Electrical characterization of metal oxide composites prepared through physical and chemical routes

78. R. Gorle, K. Vasanthakumar, S.R. Bakshi
Department of Metallurgical and Materials Engineering, Indian Institute of Technology Madras, Chennai, Tamil Nadu, India
Densification of B_4C composite through reactive spark plasma sintering using mechanically activated Ti-B reactive mixture as a sintering aid

79. K. Dudek[1], M. Dulski[2], A. Nowak[3]
[1]Lukasiewicz Research Network, Institute of Ceramics and Building Materials, Refractory Materials Division in Gliwice, Gliwice, Poland
[2]Institute of Material Science, University of Silesia in Katowice, Chorzow, Poland
[3]A. Chelkowski Institute of Physics, University of Silesia in Katowice, Katowice, Poland
Fabrication and characterization of multifunctional hybrid layers on NiTi shape memory alloy

80. D. Danilović[1], D.K. Božanić[1], R. Dojčilović[1], V. Vodnik[1], A. Milosavljević[2], C. Nicolas[2], L. Nahon[2], G. Garcia Macias[2], V. Djoković[1]
[1]Vinca Institute of Nuclear Sciences, University of Belgrade, Belgrade, Serbia
[2]Synchrotron SOLEIL, l'Orme des Merisiers, Gif sur Yvette Cedex, France
Photoemission spectroscopy on isolated silver-based hybrid nanostructures: A novel approach to understand fundamental properties of solar cell absorber material

81. E.-M. Picioruş[1], C. Ianăşi[1], R. Nicola[1], M. Ciopec[2], A. Negrea[2], A.l Len[3], L. Almásy[4,5], A.-M. Putz[1]
[1]"Coriolan Drăgulescu" Institute of Chemistry, Timisoara, Romania
[2]Politehnica University of Timişoara, Faculty of Industrial Chemistry and Environmental Engineering, Timişoara, România
[3]Centre for Energy Research, Hungarian Academy of Sciences, Budapest, Hungary
[4]Wigner Research Centre for Physics, Institute for Solid State Physics and Optics, Hungarian Academy of Sciences, Budapest, Hungary
[5]State Key Laboratory of Environment-Friendly Energy Materials, Southwest University of Science and Technology, Mianyang, Sichuan, China
Adsorption studies of cadmium (II) from aqueous solutions using inorganic porous nanocomposites

82. S. Ilies[1], C. Ianasi[1], F. Manea[2], A.-Baciu[2], C. Delcioiu[2]
[1]"Coriolan Drăgulescu" Institute of Chemistry, Timisoara, Romania
[2]"Politechnica" University of Timişoara, Faculty of Industrial Chemistry and Environmental Engineering, Timişoara, Romania
Humic acid removal from water using α -Fe_2o_3 nanomaterial by sorption and photocatalysis under Vis irradiation

83. R. Nicola[1], C. Ianăși[1], M. Picioruș[1], S. Ilieș[1], A.-M. Putz[1], R. Lazău [2], A. Ercuţa[3]
[1]"Coriolan Drăgulescu" Institute of Chemistry, Timişoara, Romania
[2]"Politehnica" University of Timişoara, Faculty of Industrial Chemistry and Environmental Engineering Vasile Timişoara, Romania

[3]*West University of Timisoara, Faculty of Physics, Timişoara, Romania*
Magnetic nanocomposites containing iron oxide@SiO_2 obtained via conventional or ultrasonic method

84. J. Zou, M. Porter, X.-Y. Lu, Y.-L. Chiu, J. Binner
School of Metallurgy and Materials, University of Birmingham, United Kingdom
Characterisation of SiC_f/SiC composites densified by microwave assisted chemical vapour infiltration

85. P. Piotrkiewicz[1], J. Zygmuntowicz[1], A. Miazga[1], M. Wachowski[2], W. Kaszuwara[1]
[1]*Faculty of Materials Science and Engineering Warsaw University of Technology, Warsaw, Poland*
[2]*Military University of Technology, Faculty of Mechanical Engineering, Warsaw, Poland*
The Al_2O_3-Cu-Cr composites – microstructure and selected properties

86. C. Belkessam[1], M. Mechouet[2], J. Ghilane[3], N. Djelali[1], N. Idiri[2]
[1]*Department of chemistry, University of M'Hamed BOUGARA, Boumerdes, Algeria,*
[2]*Department of chemistry, University of Mouloud MAMMERI, Tizi-Ouzou, Algeria,*
[3]*University of Paris Diderot, 15 rue Jean-Antoine de Baïf, 75013, Paris, France*
$Ni_{0.3}Co_{2.7}O_4$ spinel oxide immobilized in teflon cavity electrode for environmental applications

87. L.J. Jaramillo Nieves[1], F. Elyseu[1], E. Zabot[1], M. Souza[1], L. Zilli[2], M. Damazio[2], S. Martins[1], G.C. Bellettini[1], S. Goulart[1], A.M. Bernardin[1]
[1]*Grupo de Materiais Cerâmicos, Universidade do Extremo Sul Catarinense, Santa Catarina, Brazil*
[2]*Instituto Federal de Santa Catarina, campus Criciúma, Santa Catarina, Brazil*
Synthesis of coal ash based geopolymers: Influence of NaOH concentration and solid fraction

88. A. Oufakir, M. Afqir, N. Tahiri, M. Elaatmani
Laboratoire Sciences des Matériaux Inorganiques et leurs Applications, Faculté des Sciences Semlalia, Université Cadi Ayyad Marrakech, Morocco
Contribution to the improvement of the properties of SiO_2-based polymer composites materials

89. N. Lysunenko[1], V. Mokiichuk[2]
[1]*Frantsevich Institute for Problems of Materials Science of NASU, Kyiv, Ukraine*
[2]*National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Kyiv, Ukraine*
The comparative study of SOFCs made of different yttria stabilized zirconia powders

90. J. Zygmuntowicz, P. Piotrkiewicz, W. Kaszuwara
Faculty of Materials Science and Engineering, Warsaw University of Technology, Warsaw, Poland
Processing and characterization of Al_2O_3-Cu-Ni composites

91. A. Efremova, A. Sápi, M. Orosz-Ábel
Department of Applied and Environmental Chemistry, University of Szeged, Szeged, Hungary
Pt nanoparticles-supported and pristine mesoporous metal oxides as efficient catalysts for CO_2 activation

92. P. Staciwa, U. Narkiewicz, D. Sibera
West Pomeranian University of Technology Szczecin, Faculty of Chemical Technology and Engineering, Szczecin, Poland
Preparation of iron/carbon composites

93. T.S.R.C. Murthy[1,2], V. Venkatachalam[1], J. Zou[1], J.n Binner[1]
[1]*School of Metallurgy and Materials, University of Birmingham, United Kingdom*
[2]*Materials Group, Bhabha Atomic Research Centre, Mumbai, India*
Sol-gel-based interfacial coatings of rare earth oxides on 2.5D carbon fibre preforms

94. Y.V. Yurchenko, O.A. Korniienko, O.I. Bykov, A.V. Sameljuk, E.R. Andrievskaya
Institute of Materials Science Problems, National Ukrainian Academy of Sciences, Kiev, Ukraine
PHASE RELATIONS AND ADVANCED MATERIALS IN THE ZrO_2-La_2O_3-Gd_2O_3 SYSTEM

95. M. Wachowski[1], L. Śnieżek[1], W. Kaszuwara[2], K. Konopka[2], J. Zygmuntowicz[2]
[1]Military University of Technology, Faculty of Mechanical Engineering, Warsaw, Poland
[2]Warsaw University of Technology, Faculty of Materials Science and Engineering, Warsaw, Poland
Effect of metal particles size on microstructure of ZrO_2-Ni composite fabricated by CSC in magnetic field

96. O. Okhay
University of Aveiro, Portugal
Composites with reduced graphene oxide for thermoelectric application

97. C. Ianasi, A.-M. Putz
"Coriolan Drăgulescu" Institute of Chemistry, Timisoara, Romania
Evaluation of the morpho-textural and magnetic parameters of the SiO_2-Fe_2O_3 system

98. A. Džunuzović, M. Vijatovic Petrovic, J. Bobic, N. Ilic, B. Stojanovic
Institute for Multidisciplinary Research, University of Belgrade, Serbia
Influence of ferrites phase on properties of the barium zirconium titanate based multiferroic composites

99. D. Brodnikovskyi[1], Y. Tymoshenko[1], M. Pinchuk[1], S. Tkachenko[2], L. Čelko[2], I. Brodnikovska[1], Y. Brodnikovskyi[1]
[1]Frantsevich Institute for Problems of Materials Science of NASU, Kyiv, Ukraine
[2]Central European Institute of Technology, Brno University of Technology, Brno, Czech Republic
Advanced Ti-Si-C-based composite material for SOFC application

Traditional Ceramics

100. J. Michałek, K. Kaczmarczyk, K. Pasiut, J. Partyka
AGH University of Science and Technology, Kraków, Poland
Primary research on porcelain waste utilisation

101. M. Parfenova[1], V. Lutsyk[2,3]
[1]Tomsk State University of Control Systems and Radio-electronics, Russia
[2]Institute of Physical Materials Science SB RAS, Russia
[3]Banzarov Buryat State University, Russia
Ceramics microstructure simulation on the isothermal sections of T-x-y diagram by means of Excel sheets and AutoCAD software

102. R. Kusiorowski
Łukasiewicz Research Network, Institute of Ceramics and Building Materials, Refractory Materials Division in Gliwice, Poland
Effect of titanium oxide addition into magnesia refractories

103. K. Kaczmarczyk, J. Michałek, K. Pasiut, J. Partyka
AGH University of Science and Technology, Faculty of Materials Science and Ceramics, Department of Ceramics and Refractory Materials, Poland
Effect of $ZrSiO_4$ addition on sintering of glass-ceramic materials form the SiO_2-Al_2O_3-Na_2O-K_2O-CaO-MgO-BaO system

104. K. Rajczyk, A. Kaliciak, G. Janus, D. Brukhanska
Łukasiewicz Institute of Ceramics and Building Materials, Division of Material, Process and Environmental Engineering in Opole, Opole, Poland
Cementless concrete composite from kaolinite and alumino-silicate waste materials

105. D. Blaskova-Kochnitcharova[1], L. Fachikov[1], T. Petkova[2], E. Lefterova[2], D. Vladikova[2], E. Mladenova[2], B. Burdin[2]
[1]*University of Chemical Technology and Metallurgy, Sofia, Bulgaria*
[2]*Institute of Electrochemistry and Energy Systems, BAS, Sofia, Bulgaria*
Structural and electrical properties of TiO_2-V_2O_5-P_2O_5 oxides

106. A. Kovács, É. Makó
University of Pannonia, Institute of Materials Engineering, Veszprém, Hungary
Preparation of kaolinite-methanol and kaolinite-cetyltrimethylammonium chloride complexes

107. T. Labbilta, M.A. Harech
Laboratoire Sciences des Matériaux Inorganiques et leurs applications: Equipe Chimie de la Matière Condensée et de l'Environnement, ECMCE, FSSM, Université Cadi Ayyad, Morocco
Study of the effect of calcium substitution by magnesium in a glass-ceramic fertilizer

108. Ali Alzahrani
Department of Basic Oral Medicine and Allied Dental Sciences, College of Dentistry, Taif University, Taif, Saudi Arabia
Effect of sintering temperature on crystallisation of nepheline-leucite glass-ceramics

109. Y.H. Elbashar[1,2], D.A. Rayan[3]
[1]*Department of Physics and Chemistry, Faculty of Education, Matrouh University, Matrouh, Egypt*
[2]*Egypt Nanotechnology Center (EGNC), Cairo University, Giza, Egypt*
[3]*Central Metallurgical Research & Development Institute, Cairo, Egypt*
Color and optical spectroscopic analysis of Cu_2O-K_2O-ZnO-P_2O_5 glass matrix