Poster session I – Monday, June 14, 16:00-18:00

Poster#		Abstract#
1	Rebecca Thorne, Andrew Dent, Paolo Bombelli, Laurence Peter, Adrian Fisher, *University of Bath, UK* **Optimisation of porous ceramic electrodes for bio-photovoltaic cells**	307
2	Guttorm E. Syvertsen, Tor Grande, Mari-Ann Einarsrud *Norwegian University of Science and Technology, NORWAY* **Effects of small variations in the stoichiometry of proton-conducting $LaNbO_4$**	456
3	Vegar Øygarden, Tor Grande, Hilde Lea Lein *Norwegian University of Science and Technology, NORWAY* **Development of oxide cathode materials for SOFCs based on $LaNbO_4$**	464
4	Alexander Arakaki, Walter Yoshito, Valter Ussui, Dolores Lazar, Eliana Muccillo, *Energy and Nuclear Research Institute – IPEN, BRAZIL* **Influence of coprecipitation route on electrical conductivity of ceria-based ceramics**	443
5	Marie-Laure Fontaine, Thijs Peters, Yngve Larring, Camilla Haavik, Marit Stange, *SINTEF Materials and Chemistry, NORWAY* **Novel oxygen transport membranes for applications at intermediate temperatures**	280
6	Érica Caproni, Douglas Gouvêa, Reginaldo Muccillo *Energy and Nuclear Research Institute, BRAZIL* **Electrical behavior of electrophoretically deposited yttria-stabilized zirconia ceramics**	259
7	Marcos Berton, Jéssica Silva, Carlos Garcia, Eliana Muccillo, Reginaldo Muccillo, *Instituto de Tecnologia para o Desenvolvimento, BRAZIL* **Electrical conductivity of Gd and La co-doped ceria based solid electrolyte**	323
8	Antoni Pawlowski, Anna Gagor, Adam Pietraszko *Institute of Molecular Physics, Polish Academy of Sciences, POLAND* **Conductivity and XRD studies of Ag_3AsS_3 at high temperatures**	162
9	Fernando Marques, Ana Sofia Ferreira, Filipe Figueiredo *University of Aveiro, PORTUGAL* **Ceria-based composite electrolytes for fuel cells**	189
10	Juan Claudio Nino, Jungbae Lee, *University of Florida, USA* **Crystal structure and conductivity across the disorder-order phase transitions in doped ceria electrolytes**	213
11	Emiliana Fabbri, Daniele Pergolesi, Enrico Traversa, Silvia Licoccia *National Institute for Materials Science (NIMS), JAPAN* **Does Large Y-Dopant Concentration Improve the Proton Conductivity of $BaZr_{1-x}Y_xO_{3-\delta}$ Fuel Cell Electrolytes?**	218
12	Elena Palacios, Pilar Leret, José F. Fernández, Antonio H. De Aza, Miguel A. Rodríguez, *Instituto de Cerámica y Vidrio, CSIC, SPAIN* **Synthesis of iron based phosphates for lithium secondary batteries**	243
13	Mona Shirpour, *Max Planck Institute, GERMANY* **Blocking grain boundaries in the intermediate-temperature proton conductor $BaZrO_3$**	136
14	Markus Kessel, Roger De Souza, Han-Ill Yoo, Manfred Martin, *RWTH Aachen University, GERMANY* **Diffusion Processes in Multi-Layer Ceramic Capacitors**	141

15	Eliana Muccillo, Tatiane Porfírio, Camila Campos, Reginaldo Muccillo, *Energy and Nuclear Research Institute, BRAZIL* **Electrical conductivity of yttria-stabilized zirconia and gadolinia-doped ceria with lithium addition**	118
16	Teresa Hernandez, Eva Chinarro, Berta Moreno, Jose Ramon Jurado, *CIEMAT, SPAIN* **Impedance Measurements in Powders: An Approach in Lithium Silicates**	89
17	Anna Shlyakhtina, Stas Savvin, Lidia Shcherbakova, *Semenov Institute of Chemical Physics, Russian Academy of Sciences, RUSSIA* **Some fundamental principles behind the design of solid oxide ion conductors with pyrochlore-like structure**	108
18	Ørjan Fossmark Lohne, Kjell Wiik, Tor Grande, Hilde Lea Lein, Henny J.M. Bouwmeester, *NTNU, NORWAY* **An experimental investigation of the oxygen transport properties of $La_{0.2}Sr_{0.2}Fe_{1-x}Ta_xO_{3-\delta}$ (x=0.1 and 0.2)**	478
19	Tan Nhut Pung, Ørjan Fossmark Lohne, Chung-Yul Yoo, Kjell Wiik, Henny J.M. Bouwmeester, *University of Twente, THE NETHERLANDS* **Oxygen surface exchange kinetics of $La_{0.2}Sr_{0.2}Fe_{1-x}M_xO_{3-\delta}$ (M=Fe, Cr, Ga, Ti, Zr, Nb, Ta)**	484
20	Anna Magrasó, Nebojsa Cebasek, Reidar Haugsrud, Truls Norby, *University of Oslo, NORWAY* **Characterization by electron back-scattered diffraction (EBSD) of reaction-grown $La_2NiO_{4+\delta}$ layers**	355
21	Peter Hammer, Leandro Lopes, Sandra Pulcinelli, Celso Santilli *Unesp – Univ Estadual Paulist, Institute of Chemistry, BRAZIL* **Structural properties of alumina template grown carbon nanotubes and silver nanowires with anisotropic conduction**	357
22	Renata Ayres Rocha, Elisabeth Djurado, Eliana N. S. Muccillo, Reginaldo Muccillo, *Energy and Nuclear Research Institute, BRAZIL* **Zirconia based ceramics prepared by the spray pyrolysis technique**	294
23	Daniel Zanetti de Florio, F. C. Fonseca R. Muccillo, *UFABC, BRAZIL* **Electrical Properties of Yttria-Stabilized Zirconia/Nickel/Zinc Oxide composites**	382
24	Thijs Peters, Marie-Laure Fontaine, Izumi Kumakiri, Rune Bredesen *SINTEF Materials and Chemistry, NORWAY* **CO_2 selective dual phase membranes: materials, fabrication and transport properties**	417
25	Maria Morozova, Elena Buyanova, Julia Emelyanova, Zoya Mihailovskaya Anastasia Shatohina, *Ural State University, RUSSIA* **Structure, thermal properties and stability of BIMEVOX**	231
26	Marcos Berton, Viviane Utumi, Carlos Garcia, Eliana Muccillo, Reginaldo Muccillo, *Instituto de Tecnologia para o Desenvolvimento, BRAZIL* **Combustion synthesis of doubly doped (Y and La) ceria-based solid electrolyte**	324
27	Jeong Seog Kim, Kyoung Ho Lee, Ki Woong Chae, Chae Il Cheon *Hoseo University, SOUTH KOREA* **Effect of crystal structural environment of Pr^{3+} on photoluminescence characteristics in alkali double tungstate $ALnW_2O_8$**	223
28	Horia Alexandru, Ciceron Berbecaru Silviu Polosan, *University of Bucharest, ROMANIA* **Investigation of incipient transition in Bi_2O_3-GeO_2 glasses**	192

29	Danijela Lukovic Golic, Zorica Brankovic, Aleksander Recnik, Maja Scepanovic, Katarina Vojisavljevic *Institute for Multidisciplinary Research, SERBIA* **Structural characterization of self-assembled ZnO nanoparticles obtained by sol-gel method**	375
30	Rubens Chiba, Reinaldo Azevedo Vargas, Emília Satoshi, Miyamaru Seo, Marco Andreoli, *Nuclear and Energy Research Institute, IPEN – CNEN/SP, BRAZIL* **Strontium-doped lanthanum manganite: synthesis by citrate technique and deposition by wet powder spraying**	475
31	Ragnhild Sæterli, Bjørn Gunnar Soleim, Antonius T.J. van Helvoort *Norwegian University of Science and Technology, NORWAY* **TEM sample preparation of surface nanostructures using Focused Ion Beam**	470
32	Speranta Tanasescu, Dana Berger, Cornelia Marinescu, Ancuta Sofronia, Alina Botea. *Institute of Physical Chemistry, ROMANIA* **Effects of the conditions of synthesis on the thermodynamic data of Al_2O_3 and ZrO_2 nanopowders**	488
33	Luminita Predoana, Barbara Malic, Maria Zaharescu *Institute of Physical Chemistry, ROMANIA* **Influence of the precursors on the properties of $La_{0.5}Sr_{0.5}CoO_3$ obtained by water-based sol-gel method**	489
34	Marina Villegas, Amador C. Caballero, Fernando Cusso, Marta Quintanilla Eugenio Cantelar, *Instituto de Ceramica y Vidrio CSIC, SPAIN* **Upconverting $LiNbO_3$:Er/Yb Nanoparticles fabricated by a "Top-Down" approach**	179
35	Carlos Mario Garcia, Marcos Antonio Coelho Berton, Cristiane Gusso Margarida Juri Saeki, *LACTEC - Research Institute for Development, BRAZIL* **The behavior of BCG20/LSM interface in synthetic air by EIS measures**	322
36	Tor Olav L. Sunde, Mari-Ann Einarsrud, Tor Grande, *Norwegian University of Science and Technology, NORWAY* **The sintering mechanism of transparent conducting indium-tin-oxide**	454
37	David Houivet, Regis Quercioli, Jerome Bernard, Jean-Michel Reboul *University of Caen Basse Normandie, FRANCE* **Decreasing of $MgTiO_3$ sintering temperature with glass frit addition**	432
38	Marzena Mitoraj, Luc Imhoff, Bruno Domenichini, Paul Maurice Peterlé Sylvie Bourgeois, *Institut Carnot de Bourgogne, FRANCE* **CVD elaboration of nanometric barium silicate films**	270
39	Sandra Helena Pulcinelli, Renata Cristina K. Kaminski, Celso Valentim Santilli, *Instituto de Química, UNESP, BRAZIL* **Thermo-stability of surface modified nanocrystalline anatase xerogels**	341
40	Esther Enríquez, Miguel Angel de la Rubia, Miguel Ángel García, José Francisco Fernández, *Instituto de Ceramica y Vidrio (CSIC), SPAIN* **Physico-chemical influences in hybrid sol-gel coatings for application in light guides**	69
41	Cristina Jinga, Ecaterina Andronescu, Sorin Jinga, Daniela Berger, Cristian Matei, *"Politehnica" University of Bucharest, ROMANIA* **From Pechini nanopowders to $BaMg_{1/3}(Nb_xTa_{1-x})_{2/3}O_3$ ceramics**	65
42	Uwe Scheithauer, Falko Schlenkrich, Lisett Kretzschmann, Andreas Schönecker, Alexander Michaelis, *TU Dresden, GERMANY* **Low-Temperature Sintering of SKN-doped PZT-Fibres**	244

43	Israel Lorite, Miguel Angel Rodriguez ,Ferindoon Azough, Robert Freer, Jose Francisco Fernandez, *Instituto de Ceramica y Vidrio, SPAIN* **Properties of $ZnAl_2O_4$ and $(X)ZnAl_2O_4/(1-X)M_2TiO_4$ sintered by Hot Pressing and Spark Plasma Sintering**	22
44	Huey-Ru Chen, Ying-Chung Chen, Yeh-Wu Lao, Ruey-Tzong Chang, Tsung-Lin Tsai, *National Sun Yat-Sen University, TAIWAN* **Sintering investigation of the co-fired NiCuZn ferrite / microwave dielectric by multilayer stacking structure**	226
45	Viktor Sokolov, Anatolii Druzhinin, Nikita Gruzdev, Alexandr Dejneka, Olexandr Churpita, *Institute of Physics ASCR, CZECH REPUBLIC* **Optical evidences of strong valence band holes and delocalized spins coupling in $Zn_{1-x}Mn_xO$**	269
46	Marcos Borro Berta Moreno, Angel Adolfo Del Campo, José Ramón Jurado, Eva Chinarro, *CSIC, SPAIN* **New hybrid membranes based on natural rubber for Nafion® replacement In PEMFC**	271
47	Raquel Román, María González, Teresa Hernández, Eva Chinarro *CIEMAT, SPAIN* **Microstructural effect of C secondary phases on the electrical properties of sinterHIPed Al_2O_3 ceramics**	274
48	Sandra Helena Pulcinelli, Bruno Leonardo Caetano, CelsoValentim Santilli, Florian Meneau, Valerie Briois, *Instituto de Quimica, UNESP, BRAZIL* **In situ monitoring of ZnO nanoparticles genesis**	339
49	David Houivet, Ahmad Kassas, Celine Lelievre, Yannick Guhel, Jerome Bernard, *University of Caen Basse Normandie, FRANCE* **Preparation of $MgTiO_3$ - 2% LiF thick film on Al_2O_3 substrate using scleroglucan**	434
50	Miguel Angel de la Rubia, Pilar Leret, Juan José Romero, José de Frutos, José, Francisco Fernández, *Instituto de Ceramica y Vidrio (CSIC), SPAIN* **Effect of the synthesis route and the TiO_2 polymorph in the electric properties of $CaCu_3Ti_4O_{12}$**	33
51	Jose Luis, San Emeterio, *Consejo Superior Investigaciones Cientificas, (CSIC), SPAIN* **Effects of different types of losses on high frequency piezoelectric resonances**	35
52	Chang Joo Lee, Chang Hoon Kim, In Hyung Lee, Sang Hoon Kwon, Kang Heon Hur, *Samsung Electro-Mechanics, SOUTH KOREA* **Residual Stresses in Multilayer Ceramic Capacitors**	38
53	Jae-Ho Jeon, Byeong-Jae Shin, Si-Young Choi, Jong-Bong Lim, *Korea Institute of Materials Science, SOUTH KOREA* **Hydrothermal Synthesis and Characterization of Lead-free $(K,Na)NbO_3$ Powders**	77
54	Leticia Martín, Miguel Algueró, Alicia Castro, *Instituto de Ciencia de Materiales de Madrid, CSIC, SPAIN* **A novel lead-free system with potential high piezoelectricity: $(1-x)\ Bi_{1/2}K_{1/2}TiO_3$ - x $BiScO_3$**	88
55	Anna Shlyakhtina, Dmitriy Belov, Sergey Stefanovich, Igor, Kolbanev Olga *Karyagina, Semenov Institute of Chemical Physics Russian Academy of Sciences, RUSSIA* **Study of phase transitions order-disorder type δ –phase– defect fluorite $Ln_4M_3O_{12}$ in the Ln_2O_3-MO_2 (Ln- Tm, Lu, Sc; M-Zr, Hf) systems**	147

56 Ruud Steenwelle, Matthijn Dekkers Guus Rijnders, *University of Twente, THE NETHERLANDS* 150
All-oxide piezoMEMS: The role of Strain and Crystal Orientation on Piezomechanical Properties of $Pb(Zr,Ti)O_3$

57 Elmar Voelkl Till Froemling, Lukas Andrejs, Jürgen Fleig, *Vienna University of Technology, AUSTRIA* 160
On the conductivity variation of donor-doped PZT under high-field stress

58 Jean-François Trelcat, Sophie D'Astorg, Christian Courtois, Philippe Champagne, Mohamed Rgutti, *Laboratoire des Matériaux et Procédés, EA 2443 – UVHC, FRANCE* 185
Influence of hydrothermal synthesis conditions on BNT-based piezoceramics

59 Juan J Romero, Alvaro Martinez, Pilar Leret, Miguel A de la Rubia, Patricia Crespo, *Instituto de Ceramica y Vidrio, CSIC, SPAIN* 187
Evolution of the dielectric, magnetic and optical properties of iron doped $CaCu_3Ti_4O_{12}$ ceramics with the sintering time

60 Olena Vedmedenko, Thorsten Steinkopff, Barbara Kaltenbacher *Siemens AG, Corporate Technology, GERMANY* 214
Computational investigations on linear and non-linear piezoelectric features of realistic 3D thin film models

61 Jeong-Ho Cho, Yong-Hyun Lee, Myoung-Pyo Chun, Joong-Hee Nam, Byung-Ik Kim, *Korea Institute of Ceramic Engineering & Technology, SOUTH KOREA* 222
Domain Size Effect on the Coercive Field of Orthorhombic Li-modified KNN Ceramics

62 Sedat Alkoy, A. Serkan Tekdas Emre Tekel, *Gebze Institute of Technology, TURKEY* 227
Preparation and characterization of solid and hollow piezoelectric fibers and 1-3 piezocomposites

63 Ebru Mensur Alkoy, Ayse Berksoy, Melih Papila *Maltepe University, TURKEY* 230
Electrical properties of CuO and Li-added lead-free potassium sodium niobate ceramics and piezocomposites

64 Pilar Leret Moltó, Miguel Ángel de la Rubia, Juan José Romero, José Francisco Fernández, *Instituto de Cerámica y Vidrio (CSIC), SPAIN* 234
Effect of the intergranular phase on the electrical properties of $CaCu_3Ti_4O_{12}$ ceramics

65 Branislav Zlatkov, Maria Nikolic, Lazar Lukic, Helmut Loibl, Obrad Aleksic 242
Institute for Multidisciplinary Research, SERBIA
Characterization of $PbZrO_3$ ceramics shaped by CIM technology aimed for manufacturing of piezo sensors and transducers

66 Jörg Töpfer, Steffen Römhild, Gunnar Picht 249
Univ. Appl. Sciences Jena, GERMANY
Low temperature firing behaviour of dielectric ca-Cu titanate

67 Fernando Rubio-Marcos, Juan.J Romero, José F Fernández 255
Instituto de Cerámica y Vidrio, CSIC, SPAIN
Some clues about the synthesis and properties of the lead-free KNN–modified piezoceramics

68 Nina Obradovic, Maria Vesna Nikolic, Obrad Aleksic, Vladimir Pavlovic, Miodrag Mitric, *Institute of Technical Sciences SASA, SERBIA* 265
Influence of mechanical activation on the synthesis and electrical properties of sintered barium-zinc-titanate ceramics

69 Annie Simon, Dominique Michau, Mario Maglione, 275
ICMCB – CNRS, FRANCE
Relaxor behaviour in new lead free thin films with tetragonal tungsten bronze symmetry

70 Izabela Szafraniak-Wiza, Maria Połomska, Bartłomiej Andrzejewski, 289
Bożena Hilczer, Adam Pietraszko, *Poznan University of Technology, POLAND*
Properties of nanopowders of $BiFeO_3$ and its solid-solutions obtained mechanochemical synthesis

71 Santosh Babu Gunda, *University of Nova Gorica, SLOVENIA* 295
Structure, Raman spectra and dielectric characterization of $Bi_{1.528}Fe_{1.428}Te_{0.571}O_{6.15}$ pyrochlore

72 Daan Dewulf, An Hardy, Sven Van Elshocht, Christoph Adelmann, 297
Jules Mullens, *University of Hasselt (Uhasselt), BELGIUM*
Insight in Gd(III)-Nb(V)-oxides: high-k materials screened by aqueous CSD

73 Andrey N. Rybyanets, Evgenii I. Sitalo, Anastasija A. Rybyanets, Marija A. 298
Lugovaja, *Southern Federal University, RUSSIA*
Complete characterization of porous piezoceramics including losses and dispersion

74 Antonin Klic, Ivan Rychetsky 303
Institute of Physics, ASCR, CZECH REPUBLIC
Effective permittivity of the multi-component grainy samples determined By the finite element analysis

75 Andrey N. Rybyanets, Tamara V. Domashenkina, Anastasija A. Rybyanets 311
Marija A. Lugovaja, *Institute of Physics, Southern Federal University, RUSSIA*
Elastic properties of ceramic piezocomposites

76 Andrey N. Rybyanets, Anastasija A. Rybyanets, Marija A.Lugovaja, 312
Tamara V. Domashenkina, *Southern Federal University, RUSSIA*
Complex material constants for ceramic piezocomposites

77 Ferenc Tasndi, Björn Alling, Carina Höglund, Gunilla Wingqvist, Jens Birch 317
Linköping University, SWEDEN
Origin of the anomalous piezoelectric response in wurtzite ScAlN alloys

78 David Houivet, Jerome Bernard, Nouara Lamrani, Brahim Itaalit, Mohamed 473
Aliouat, *University of Caen Basse Normandie, FRANCE*
Influence of Li_2CO_3 and V_2O_5 additions on the sintering and dielectric properties of $Ca_{0.5}Sr_{0.5}TiO_3$ ceramics synthesised by sol-gel method

79 Michael Edwards, Christopher Bowen, Andrew Dent, Duncan Allsopp, 327
Chaowang Liu, *University of Bath, UK*
High temperature characterization of Gallium Nitride (GaN) using Dynamic Mechanical Thermal Analysis (DMTA)

80 Valdirlei Freitas, Ivair Santos, José Eiras, Ducinei Garcia 333
Universidade Estadual de Maringá, BRAZIL
Piezoelectric characterization of $(0.6)BiFeO_3 – (0.4)PbTiO_3$ Multiferroic Ceramics

81 Jacob Jones, John Daniels, Wook Jo, Jürgen Rödel, 351
University of Florida, USA
A combinatorial investigation of the electric-field-induced behavior of BNT-BT-KNN lead-free piezoelectric ceramics

82 Jacob Jones, Elena Aksel Torsten Granzow Rüdiger Eichel 352
University of Florida, USA
Impact of Defect Chemistry on Structure and Ferroelectric Properties of Sodium Bismuth Titanate

83	Haixue Yan, *Queen Mary University of London, UK* **Piezoelectric Ceramics with Super-High Curie Points**	337
84	Vesna Vukotic, Goran Brankovic, Slavko Bernik, Katarina Vojisavljevic, Zorica Brankovic, *Institute for Multidisciplinary Research, SERBIA* **AC Impedance Spectroscopy of Mechanochemically Synthesized $CaTiO_3$**	380
85	Silvania Lanfredi, Marcos A. L. Nobre, *Faculdade de Ciências e Tecnologia – FCT, Univ Estadual, Paulista – UNESP, BRAZIL* **Hysteretical thermal behaviour of the dielectric permeability at cryogenic-temperature of potassium strontium niobate**	416
86	Fangyuan Zhu, Thomas Skidmore, Timothy Comyn, Steven Milne *Institute of Materials Research, UK* **Dielectric and Piezoelectric Properties in the System $Na_{0.5}K_{0.5}NbO_3$-$BiScO_3$-$LiTaO_3$**	420
87	Fangyuan Zhu, Timothy Comyn, Steven Milne, Andrew Bell *Institute of Materials Research, UK* **Phase Analysis and Dielectric Properties in the System $Na_{0.5}K_{0.5}NbO_3$-$BiInO_3$ Lead-free Ceramics**	422
88	Eugenia Rabanal, Luz Gómez, Olivera Milosevic, Katarina Marinkovic *Carlos III University, SPAIN* **Nanostructured ceramic particles with functional properties synthesized at intermediate temperature by aerosol route**	431
89	Piyi Du, Ning Ma, Zongrong Wang, Tao Hu, Liwen Tang, *Zhejiang University, CHINA* **Percolation property of Ag-$PbTiO_3$ thin film with nanosized conductive Ag particles**	446
90	Cheng-Liang Huang, Jhih-Yong Chen *National Cheng Kung University, TAIWAN* **Dielectric Characteristics and Phase Evolution of $Mg(Ta_{1-x}Nb_x)_2O_6$ (x=0-0.16) Ceramics at Microwave Frequencies**	430
91	Spela Kunej, Asja Veber, Danilo Suvorov, *Jozef Stefan Institute, SLOVENIA* **Sol-gel synthesis and electrical properties of the Bi_2O_3-TiO_2-Nd_2O_3 pyrochlore solid solution**	435
92	Eva-Maria Anton, Wook Jo, Jacob L. Jones, Dragan Damjanovic, Jürgen Rödel, *Technische Universität Darmstadt, GERMANY* **Properties and depolarisation temperature of lead-free KNN-modified BNT-BKT ceramics**	440
93	Mirza Kurbanov, Azad Bayramov, Nuru Safarov, Irada Sultanahmedova, Farida Tatardar, *Azerbaijan National Academy of Sciences, AZERBAIJAN* **Formation of the piezoelectric and electret effect in composites of polymer-piezoceramic crystallized in a plasma of electric discharge**	445
94	Insung Kim, Hyeonkyu Joo, Soonjong Jeong, Minsoo Kim, Jaesung Song *Korea Electrotechnology Research Institute/KERI, SOUTH KOREA* **Evaluation of Piezoelectric Transformer with High Voltage Electrical Properties**	455
95	Niranjan Prakash, Jeff T.C. Tsai, Fu-Thang Shiao, Ying-Chung Chen *NSYSU, TAIWAN* **Structural and dielectric properties of duel material (Mn and Si) coated $BaTiO_3$ nano-powders**	459
96	Ralf Steinhausen, Sabine Kern, Christoph Pientschke, Horst Beige, Frank Clemens, *Martin-Luther-University Halle-Wittenberg, GERMANY* **Low-field measurement of piezoelectric properties of PZT single fibres**	476

97 Thomas Skidmore, Timothy Comyn, Steven Milne, Andrew Bell 463
Institute for Materials Research, UK
Phase analysis and Temperature Stability of Piezoelectric Properties of a 0.93[$Na_{0.5}K_{0.5}NbO_3$] - 0.07[$LiTaO_3$] Pb-free Ceramic

98 Mariana Irina Toacsan, Andrei Ioachim, Liviu Nedelcu, Paul Ganea, 472
Sorin Jinga, *National Institute of Materials Physics, ROMANIA*
The effects of processing parameters on the dielectric properties of $BaMg_{1/3}Ta_{2/3}O_3$ ceramics

99 Stefan Denneler, Carsten Schuh, Katrin Benkert, Ralf Moos, 485
Siemens AG, GERMANY
Piezoelectric ceramic compositions for oxygen poor sintering conditions

100 Andrei Ioachim, Mariana Irina Toacsan, Liviu Nedelcu, Lucian Mihut, 490
Sorin Jinga, *National Institute of Materials Physics, ROMANIA*
Raw materials influence on microwave dielectric property of barium zinc tantalate ceramics

101 Noriyuki Ikeda, Hirotaka Ogawa, Yoshihiro Terakura, Akihiro Fujita, 505
Akinori Kan, *Meijo University, JAPAN*
Electroluminescence Properties of MGa_2O_4:In (M=Zn, Mg) Phosphor by Sol-Gel and Spray Methods

102 Jan Petzelt, Dmitri Nuzhnyy, Martin Kempa, Vincenzo Buscaglia, 258
Maria Teresa Buscaglia, *Institute of Physics ASCR, CZECH REPUBLIC*
High-frequency dielectric spectroscopy of $BaZrO_3$ and $Ba(Zr,Ti)O_3$ ceramics: incipient, relaxor and diffuse ferroelectric behaviour

103 Andreja Eršte, Brigita Kužnik, Barbara Maliè, Marija Kosec, Vid Bobnar, 28
Jozef Stefan Institute, SLOVENIA
Dielectric properties of $CaCu_3Ti_4O_{12}$ thin films

104 Sorin Jinga, Ecaterina Andronescu, Cristina Jinga, Andrei Ioachim, 64
"Politehnica" University of Bucharest, ROMANIA
Characterization of $Ba(Mg_{1/3}Ta_{2/3})O_3$ thin films

105 Viorica Stancu, Cristina Dragoi, Aurelian Catalin Galca, Lucian Trupina, 83
Roxana Radu, *National Institute of Material Physic, ROMANIA*
Stuctural and optical properties of $BaTiO_3$/ZnO and $(Pb,La)(Zr,Ti)O_3$/ ZnO heterostructures for potential applications in transparent electronics

106 Stephane Pignard, Cecile Girardot, Jens Kreisel, *Grenoble Institute of* 82
Technology, FRANCE
Influence of substrate on the metal-insulator transition of $RNiO_3$ epitaxial thin films

107 Hitham El hosiny ali, Ricardo. Jiménez, Jesus Ricote, Miguel Algueró,M. 178
Lourdes Calzada, *Instituto de ciencia de Materiales de Madrid – CSIC, SPAIN*
Enhanced functional properties in $0.65Pb(Mg_{1/2}Nb_{2/3})O_3$ – $0.35PbTiO_3$/$PbTiO_3$ multilayer composite thin films.

108 Jarkko Pekka, Juhani Puustinen, Jyrki Lappalainen, Marianne Hiltunen, 305
Jussi Hiltunen, *University of Oulu, FINLAND*
Integrating sphere measurements of $Pb(Zr_xTi_{1-x})O_3$ films

109 Ciceron Berbecaru, Liviu Nedelcu, Horia Alexandru, Andrei Ioachim, 290
Mariana I. Toacsan, *University of Bucharest, ROMANIA*
BZT thin films for microwave applications - synthesis and characterization

110 Dagmar Chvostova, Alexandr Dejneka, Lubomir Jastrabik, Ilze Aulika, 277
Gunnar Suchaneck, *Institute of Physics of the AS CR, CZECH REPUBLIC*
VUV ellipsometry applied to PZT films: influence of composition and deposition technique

111 Vincenzo Buscaglia, Sabrina Presto, Damien Giraud, Maria Teresa Buscaglia, Massimo Viviani, *National Research Council, ITALY* 264
Growth of $Ni(OH)_2$ films from aqueous solution

112 Alja Kupec, Barbara Malic, Marija Kosec, Brigita Rožiè, Zdravko Kutnjak 254
Jozef Stefan Institute, SLOVENIA
Chemical Solution Deposition of PLZT Thin Films Exhibiting a Giant Electrocaloric Effect

113 Hsuan-Chung Wu, Huey-Jiuan Lin, Te-Hsun Liao 220
National United University, TAIWAN
Structure and Potocatalysis of N-doped Titanium Dioxide Thin Film

114 Seung-Yup Lee, Chul-Hwan Choi, Kyung-Am Kim, Se-Han Kwon 309
LG innotek, SOUTH KOREA
Preparation and characterization of $CuInSe_2$ thin films deposited by sol-gel method

115 Goran Brankovic, Katarina Vojisavljevic, Vladimir Milosavljevic, Dusan Popovic, Zorica Brankovic, *Institute for Multidisciplinary Research, SERBIA* 364
DC Plasma Etching of PZT/LNO/Si(100) Thin Films

116 Marie Bousquet, Jean-rené Duclere, Corinne Champeaux, Pascal Marchet, Aying Wu, *SPCTS UMR 6638 CNRS FRANCE* 316
Lead-free ferroelectric $Na_{0.5}Bi_{0.5}TiO_3$ thin films grown by pulsed laser deposition on epitaxial platinum bottom electrodes

117 Janne Narkilahti, Maxim Plekh, Marina Tyunina, 449
University of Oulu, FINLAND
$KNbO_3$ thin films: study of microstructure and polarization state

118 Janne Narkilahti, Maxim Plekh, Marina Tyunina, 450
University of Oulu, FINLAND
Perovskite-structure films of $KTaO_3$

119 Janne Narkilahti, Maxim Plekh, Alexandr Dejneka, Dagmar Chvostová, Vladimir Trepakov, *University of Oulu, FINLAND* 451
Epitaxially induced transitions in ultrathin $SrTiO_3$ films

120 Susana Mihaiu, Irina Atkinson, Alexandra Toader, Florin Comanescu, Mihai Gabor, *Institute of Physical Chemistry, ROMANIA* 468
Influence of Al_2O_3 concentration on the electrical and optical properties of the ZnO thin film obtained by sol gel method

121 Niranjan Prakash, You Chieh Chun, Ying-Chung Chen 457
NSYSU, TAIWAN
Atmosphere effect on the optical and electrical properties of In-doped ZnO films prepared by sol gel method

122 Jin-Seong Kim, Kyung-Hoon Cho, Tae-Geun Seong, Jong-Woo Sun, Chong-Yun Kang, *Korea University, SOUTH KOREA* 436
Electrical properties of $Bi_5Nb_3O_{15}$ thin films grown on $Cu/Ti/SiO_2/Si$ substrate at room temperature

123 Liviu Nedelcu, Mariana Irina Toacsan, Andrei Ioachim, Adrian Kiss, Viorel Braic, *National Institute of Materials Physics, ROMANIA* 491
Thin films from barium magnesium tantalate obtained by RF-magnetron sputtering

124 Shuo Jin, *Aveiro University CICECO, PORTUGAL* 494
Synthesis and properties of $Sr_{n-3}Bi_4Ti_nO_{3n+3}$ (n=5,6) thin films obtained by chemical solution deposition

125 J. Valente, Aiying Wu, *University of Aveiro PORTUGAL* 498
Improvement of dielectric properties of CCTO films by modified preparation procedure

126 Raluca Frunza, Radu Apetrei, Ioana Ciuchi, Dan Ricinschi, Dumitru Luca 142
"Al. I. Cuza" University Iasi, ROMANIA
PZT Thin Films prepared by RF magnetron sputtering

127 Yu-Feng Liu, Weng-Sing Hwang, *National Cheng Kung University, TAIWAN* 117
Fabrication of TiO_2 Thin Film for Dye-sensitized Solar Cells by Inkjet Printing

128 Mimoun El Msrddi, Jamal Belhadi, Yaovi Gagou, François De Guerville, 183
Yassine El Mendli, *Université de Picardie Jules Vern, FRANCE*
Ferroelectric/paraelectric and ferroelectric/relaxor superlattices: X-ray diffraction, Dielectric and Raman spectroscopy

129 Murilo Rodolfo Cândido, José de los Santos Guerra, *Universidade Federal de* 74
Uberlandia, BRAZIL
Mathematical modeling of the dielectric response in ferroelectric materials

130 Marco Deluca, Raúl Bermejo, Martin Pletz, Peter Supancic, Robert Danzer, 94
Materials Center Leoben Forschung GmbH, AUSTRIA
Characterisation and modelling of the mechanical reliability of semiconductor components for Printed Circuit Boards

131 Chi-Hsiung Hsi, Yung-Sheng Chen, Hui-Ju Hsu, Huy-Zu Cheng, Moo-Chin 124
Wang, *National United University, TAIWAN*
Magnetic Property of a Li_2O-MnO_2-Fe_3O_4-CaO-P_2O_5-SiO_2 Glass-Ceramics

132 Carlos Moure, Octavio Peña, Alberto Moure, Jesus Tartaj, *Instituto de* 130
Cerámica y Vidrio, CSIC, Madrid, SPAIN
Crystalline behaviour and electrical properties of manganese perovskites substituted on A or B sites: $ErMnO_3$ modified by Ca and $EuMnO_3$ modified by Co

Poster session II – Tuesday, June 15, 16:00-18:00

Poster#		Abstract#
1	Andrés Sotelo, Shahed Rasekh, Emmanuel Guilmeau, María Antonieta Madre, Sylvain Marinel, *ICMA (CSIC-Universidad de Zaragoza), SPAIN* **Improved thermoelectric properties in laser textured $Bi_2Sr_2Co_{1.8}O_x$ ceramics by Pb for Bi substitution**	81
2	Marija Prekajski, Milena Rosic, Biljana Babic, Viktor Fruth, Aleksandar Kremenovic, *Vinca Istitute for Nuclear Science, SERBIA* **Synthesis and characterization of nanosized Bi_2O_3**	92
3	Yu-Lun Chang, Hsing-I, *Hsiang National Cheng Kung University, TAIWAN* **Effect of starting material properties on the synthesis of $SrAl_2O_4$ powders**	104
4	R. Muccillo, João Roberto Carmo *Energy and Nuclear Research Institute, BRAZIL* **Synthesis, characterization and properties of Ca-Sr-Ti-Fe-O compounds**	111
5	Raluca Frunza, Ioana Ciuchi, Vincenzo Buscaglia, Adelina Ianculescu, Alessio Bassano, Lavinia Petronela Curecheriu, Postolache Petronel, Radu Tanasa, Liliana Mitoseriu, *University Alexandru Ioan Cuza, ROMANIA* **Preparation and properties of $Ba_{12}Fe_{28}Ti_{15}O_{84}$ naturally self-assembled layered system**	115
6	R. Muccillo, Tiago Andrade, Olavo Oliveira *Energy and Nuclear Research Institute, BRAZIL* **Effect of boron oxide and zinc oxide additions on sintering yttrium-doped barium zirconate solid electrolytes**	110
7	Adelina Ianculescu, Daniela Berger, Cristian Matei, Nadejda Horchidan, Liliana Mitoseriu, *Polytechnics University of Bucharest, ROMANIA* **Microstructure and electrical behaviour of $BaTi_{1-x}Sn_xO_3$ ceramics prepared by the modified Pechini method**	116
8	Adelina Ianculescu, Liliana Mitoseriu, Roxana Trusca, Lavinia Curecheriu, Bogdan Vasile, *Polytechnics University of Bucharest, ROMANIA* **Lanthanum - Doped $BaTiO_3$ Ceramics Prepared by Alternative Methods**	447
9	Lidija Mancic, Katarina Marinkovic, Bojan Marinkovic, Miroslav Dramicanin, Olivera Milosevic, *Institute of Technical Science of the Serbian Academy of Science and Arts, SERBIA* **Soft chemistry routes for synthesis of rare earth oxide nanoparticles with well defined morphological and structural characteristics**	119
10	Ilze Smeltere, Maija Antonova, Maris Livinsh, Marija Dunce, Vismants Zauls, *Institute of Solid State Physics University of Latvia, LATVIA* **Effect of MnO_2 and WO_3 addition on sintering and properties of lead-free KNN ceramics**	144
11	Andris Shutka, Gundars Mezinskis, Santa Lagzdina *Institute of Silicate Materials, Riga Technical University, LATVIA* **Structural and electric properties of combustion synthesis derived nano-crystalline $Ni_{0.3}Zn_{0.7}Fe_2O_4$ - investigation of optimal calcination process**	146
12	Helena Xuriguera, Anna Magrasó, Mercè Segarra *Department of Chemistry, University of Oslo, NORWAY* **Effect of alloying additions on textured Ag substrates for superconducting tapes**	356
13	Dong-Hun Yeo, Zee-Hoon Park, Hyo-Soon Shin, Youn-Woo Hong *Korea Institute of Ceramic Engineering & Technology, SOUTH KOREA* **Suppression of Shrinkage Mismatch in Hetero-Laminates between Different Functional LTCC Materials**	260

14	Sebastjan Glinsek, Barbara Malic, Tadej Rojac, Cene Filipic, Marija Kosec *Jozef Stefan Institute, SLOVENIA* **Synthesis of $KTaO_3$ Ceramics from Mechanochemically Activated Powders**	186
15	Marco Peiteado, Marina Villegas, Amador Caballero, Elvira Paz, Francisco Javier Palomares, *Insituto de Ceramica y Vidrio, CSIC, SPAIN* **Some clues on the formation and stabilization of Co^{2+}:ZnO solid solutions**	190
16	Teresa Jardiel, Marina Villegas Olatz Adarraga Nieves Murillo *Instituto de Ceramica y Vidrio (CSIC), SPAIN* **Processing of electrospun PZT nanofibers**	308
17	Nigel Van de Velde, Isabel Van Driessche, Oliver Brunkahl *Ghent University, BELGIUM* **Synthesis and characterization of metaloxide buffer layers by an aqueous sol-gel chemistry for coated conductors**	208
18	Pantelija Nikolic, Maria Nikolic, Tamara Ivetic, Herbert Danninger, Erich Halwax, *Institute for Multidisciplinary Research, SERBIA* **Synthesis and characterization of NiO doped α-Fe_2O_3**	283
19	Samir Boulfrad, Mark Cassidy John Irvine, *University of St-Andrews, UK* **Pre-coating of functional material powders as a scalable alternative to the classical impregnation technique.**	288
20	Slavica Savic, Lidija Mancic, Goran Stojanovic, Goran Brankovic, Zorica Brankovic, *Institute for Multidisciplinary Research, SERBIA* **Microstructural and electrical changes in nickel manganite powder induced by additional mechanical activation**	300
21	Edison Laurindo, Gisele Gasparotto, Marco Cebim, Maria Zaghete, José Varela, *Universidade Estadual Paulista "Júlio de Mesquita Filho, BRAZIL* **Preparation and preliminary characterization of nanostructured pure $LiTaO_3$ and $LiTaO_3$:Eu^{3+} obtained by the Pechini's method at low temperatures**	338
22	Marija Dunce, Reinis Taukulis, Eriks Birks, Ilze Aulika, Armin Fuith *Institute of Solid State Physics of University of Latvia, LATVIA* **Thermal expansion and electromechanical properties in $Na_{1/2}Bi_{1/2}TiO_3$-$SrTiO_3$-$PbTiO_3$ solid solutions**	156
23	Branko Matovic, Biljana Babic, Milena Rosic, Jelena Dukic, Ana Radosavljevic-Mihajlovic, *Institute for Nuclear Sciences Vinca, SERBIA* **Synthesis and characterization of (Ba, Yb) doped ceria electrolytes**	133
24	Rubens Chiba, Reinaldo Azevedo Vargas, Emília Satoshi, Miyamaru Seo, Marco Andreoli, *IPEN – CNEN/SP, BRAZIL* **Characteristics of strontium-doped neodymium manganite obtained by the standard ceramic technique**	474
25	Carlos Moure, Alberto Moure, Jesus Tartaj *Instituto de Cerámica y Vidrio, CSIC, Madrid, Spain, SPAIN* **Synthesis, sintering and ionic conductivity of Scandia-doped Ceria nanopowders obtained by a coprecipitation procedure**	129
26	Mojtaba Ghatee, John Irvine, S*hahrood University of Technology, IRAN* **Preparation of cubic/tetragonal composite electrolytes through stabilizer coating method using zirconium solution**	175
27	Teresa Jardiel, Maria Teresa Caldes Gilles Gauthier Olivier Joubert *Instituto de Ceramica y Vidrio (CSIC), SPAIN* **Synthesis and Characterization of New Ni-substituted LSCM-based compounds**	301

28	Annika Eriksson, Mari-Ann Einarsrud Tor Grande, *NTNU NORWAY* **Ceramic processing of dense tubular membranes of perovskite related materials for oxygen separation**	483
29	Heike Störmer, Annika Utz, Ellen Ivers-Tiffée, Dagmar Gerthsen *Karlsruher Institute of Technology (KIT), GERMANY* **Microstructure and impurity analysis of patterned Nickel anodes for SOFC**	245
30	Marie-Laure Fontaine, Yngve Larring, Sen Mei, Paul Inge Dahl, Camilla Haavik, *SINTEF Materials and Chemistry, NORWAY* **Fabrication of novel metal supported cells integrating proton conducting electrolytes**	247
31	Rémi Costa, Zeynep Ilhan, Norbert Wagner, Asif Ansar *German Aerospace Center, GERMANY* **LSCF cathodes obtained by colloidal suspension spraying**	285
32	Daniela Berger, Cristian Matei, Stefania Stoleriu, Victor Fruth *University Politehnica of Bucharest, ROMANIA* **Studies on the synthesis and properties of $La_{0.6}Sr_{0.4}Fe_{0.8}Co_{0.2}O_{3-\delta}$ as cathode material for solid oxide fuel cells**	363
33	Fabio Fonseca, Shayenne Nobrega, Natalia Monteiro, Marcia Escote *IPEN, BRAZIL* **Synthesis and characterization of Fe-doped lanthanum nickelates**	366
34	Jairo Alberto Gómez Cuaspud, Jesús Sigifredo Vlencia Ríos, Juan Bautosta Carda Castelló, *Universidad Nacional de Colombia, COLOMBIA* **Auto-combustion synthesis and characterization of lanthanum strontium chromites**	397
35	Jairo Alberto Gómez Cuaspud, Jesús Sigifredo Vlencia Ríos, Juan Bautosta Carda Castelló, *Universidad Nacional de Colombia,COLOMBIA* **Synthesis and characterization of lanthanum and strontium chromites modified with Iron for SOFC´s anodes**	426
36	Marián Palcut, Lars Mikkelsen, Ming Chen, Kai Neufeld, Peter Vang Hendriksen, *Technical University of Denmark, DENMARK* **Corrosion stability of ferritic stainless steels for SOEC interconnects**	34
37	Annika Utz, Heike Störmer, André Weber, Ellen Ivers-Tiffée *IWE,; Karlsruher Institut für Technologie, GERMANY* **Study on Ni patterned anode reaction kinetics by detailed analysis of the activation energy**	161
38	Jesus Tartaj, Jose Manuel Perez-Falcon, Alberto Moure, *ICV-CSIC, SPAIN* **Sinterability, microstructures and electrical properties of Co-doped Ferrites $La_{0.6}Sr_{0.4}Fe_{1-x}Co_xO_{3-\delta}$ (x=0-0.2) used as cathodes for IT-SOFC**	154
39	Barbara Scherrer, Anja Bieberle-Hütter, Sebastian Heiroth, Julia Martynczuk, Jennifer Rupp, *Nonmetallic Inorganic Materials, SWITZERLAND* **Microstructures of YSZ thin films deposited by spray pyrolysis for micro-solid oxide fuel cells**	373
40	Laura Villaseca, Berta Moreno, José Ramón Jurado, Eva Chinarro, *CSIC, SPAIN* **Synthesis and Characterisation of Tungsten nitride as a possible catalyst for HighTemperature PEMFC**	268
41	Celso V. Santilli, Renata Ferreira Lins da Silva, Sandra Helena Pulcinelli *Instituto de Quimica-UNESP, BRAZIL* **TiO_2 ceramic foams hierarchically textured produced by the sol-gel method**	330
42	Tai-Fa Young, Cheng-Hau Li , *National Sun Yat-sen University, TAIWAN* **Formation and characteristics of the P type ZnNO thin films**	172

43	Agnese Pavlova, Liga Berzina-Cimdina, Dmitrijs Stepanov,s Janis Barloti, Valdis Teteris, *Riga Technical University, LATVIA* **Thermal processing parameters effect on the ceramics properties composed of titanium oxides**	266
44	Mustafa H. Balci, Malin Sletnes, Urd S. Olden, Per Martin Rørvik, Mari-Ann Einarsrud, *Norwegian University of Science and Technology, NORWAY* **Wet Chemical Synthesis of Silicon Quantum Dots for Photovoltaic Applications**	438
45	Madars Reimanis, Agnese Pavlova, Juris Malers, Liga Berzina-Cimdina, Jurijs Ozolins, *Riga Technical University, LATVIA* **Electrical conductive Ti_nO_{2n-1} ceramic extraction and use for water treatment with electrolysis**	151
46	Biljana Babic, Branko Matovic, *Vinca Institute for Nuclear Sciences, SERBIA* **Synthesis and Characterization of Nanosized Titanium Oxide Doped with Iron**	79
47	Piero Lupetin, Giuliano Gregori, Joachim Maier *Max Planck Institute for Solid State Research, GERMANY* **Size effect driven p-n behaviour in nanocrystalline strontium titanate**	48
48	Matteo Ferroni, Alice Orsi, Elisabetta Comini, Giuliano Gregori, Andrea Ponzoni, *Università di Brescia, ITALY* **Tin oxide nanowires as sensitive and robust devices**	203
49	Horng-Yi Chang, Chen-Yu Wu *National Taiwan Ocean University, TAIWAN* **Inorganic Photosensitive Coating on TiO_2 Nanotube Arrays**	126
50	Hyo-Soon Shin, Sin-Il Gu, Youn-Woo Hong, Dong-Hun Yeo, Jong-Hee Kim *Korea Institute of Ceramic Engineering & Technology, KOREA SOUTH* **Synthesis and sintering of $CuIn_{1-x}Ga_xSe_2$ particle for the solar cell**	263
51	Tao Zeng, *Queen Mary Univeristy of London, UK* **Piezoelectric and Ferroelectric Properties of Bismuth Tungstate Ceramics Fabricated by Spark Plasma Sintering**	335
52	Cernea Marin, Galassi Carmen, Vasile Bogdan, Trusca Roxana, Fochi Fabio *National Institute of Materials Physics, ROMANIA* **Piezoelectric material based on BNT-BT0.11 prepared by sol-gel method**	59
53	Feng Chen, Robert Schafranek, Wenbin Wu, Andreas Klein *Technische Universität Darmstadt, GERMANY* **Formation and modification of Schottky barriers at the PZT/Pt interface**	169
54	Etienne Savary, Sylvain Marinel, Alain Pautrat *CRISMAT Laboratory, FRANCE* **Microwave and SPS sintering of ZnO-based varistors**	58
55	Viacheslav Lavrinenko, Viktor Bovtun, *Institute of Physics, CZECH REPUBLIC* **Direct drive piezoelectric motors based on PZT ceramics**	96
56	Hannes Grünbichler, Raül Bermejo, Marco Deluca, Robert Danzer *Materials Center Leoben Forschung GmbH, AUSTRIA* **Strength and fracture characteristics of metal-piezoceramic multilayers for actuator applications**	30
57	Jérôme Acker, Ebru Erünal, Hans Kungl, Rüdiger-A. Eichel, Michael J. Hoffmann, *Karlsruhe Institute of Technology (KIT), GERMANY* **Formation of $K_4CuNb_8O_{23}$ secondary phase and its impact on sintering behavior and dielectric properties in KNN-Cu ceramics**	61

58	Li-Then Mei, Hsing-I Hsiang, Hon-Wen Lo *National Cheng Kung University, TAIWAN* **Effects of the addition of Fe_2O_3 on the microstructure and varistor properties of ZnO-Pr_5O_{11}-Co_3O_4 based varistors**	39
59	Shu Miao, J Pokorny, U Pasha, O Thakur, Ian Reaney *University of Sheffield, UK* **Phase Transitions, Raman Spectroscopy and Diffuse Scatter in Zr-doped $BaTiO_3$**	57
60	José de los Santos Guerra, Carolina Hathenher, Eudes Borges de Araüjo, Elton Carvalho de Lima, Cristiano Alves Guarany *Universidade Federal de UberlÃ¢ndia, BRAZIL* **DC electric field induced dielectric anomalies in PMN-PT ferroelectric ceramics**	66
61	Mie Marsilius, Kyle Webber, Torsten Granzow *Technische Universität Darmstadt, GERMANY* **Temperature dependant ferroelastic/ferroelectric properties of soft and hard PZT**	50
62	Shunyi Li, Cosmina Ghinea, Andre Wachau, Robert Schafranek, Andreas Klein, *Technische Universitaet Darmstadt, GERMANY* **Energy level alignment and electric and dielectric properties of BST with ITO electrodes**	73
63	Carolina Hathenher Rodrigues, José de los Santos Guerra, *Universidade Federal de UberlÃ¢ndia, BRAZIL* **Dielectric response and complex impedance spectroscopy analysis of PLZT ferroelectric ceramics**	76
64	Nadejda Horchidan, Fabio Fochi, Carmen Galassi, Liliana Mitoseriu, Laurentiu Stoleriu, *Alexandru Ioan Cuza University, ROMANIA* **Ferroelectric-antiferroelectric crossover in PLZT ceramics investigated by first-order reversal curves method**	206
65	Elena Buixaderas, Dmitri Nuzhnyy, Premsyl Vanek, Jiri Hlinka, Jan Petzelt *Institute of Physics ASCR, CZECH REPUBLIC* **Effects of doping on the lattice dynamics and dielectric behaviour in soft and hard PZT**	207
66	Sonia M Zanetti, Maria Gabriela S Pereira, Elson Longo *SENCER Ltda, BRAZIL* **Structural characteristics and properties of nanocrystalline WO_3/TiO_2-based humidity sensors prepared by high energy activation**	216
67	Jeong Seog Kim, A Young Kim, Seung Ho Han, H.-W. Kang, Chae Il Cheon *Hoseo University, SOUTH KOREA* **Crystal structure transitions and ferroelectric- weak ferromagnetic properties of (1-x)$BiFeO_3$-x$SrTiO_3$**	224
68	Youn-Woo Hong, Jae-Ho Lee, Hyo-Soon Shin, Dong-Hun Yeo, Jong-Hee Lee *Korea Institute of Ceramic Engineering & Technology, SOUTH KOREA* **Effects of MgO on the grain and grain boundary characteristics of CaO-based ZnO varistor**	233
69	Ismail Ozgur Ozer, Ender Suvaci, Slavko Bernik *Anadolu University, TURKEY* **Effects of Inversion Boundaries on Texture Development in ZnO-Based Varistors Produced via Templated Grain Growth Technique**	367
70	David Houivet, Jerome Bernard, Ahmad Kassas, *University of Caen Basse Normandie, FRANCE* **Humidity sensitive MgO-TiO_2-LiF ceramics materials**	321

71 Katarina Vojisavljevic, Maja Scepanovic, Lidija Mancic, Goran Brankovic, Tatjana Sreckovic, *Institute for Multidisciplinary Research, SERBIA* 299
Correlation between mechanically induced defects and photoluminescence in ZnO ceramics

72 Premysl Vanek, Dmitry Nuzhnyy, Josef Bursik, Jan Petzelt, Radmila Krupkova 304
Institute of Physics ASCR, CZECH REPUBLIC
Processing and spectroscopic characterization of $BaTiO_3$ confined in various silica glasses

73 Lubomir Jastrabik, Andrey Badalyan, Maxim Savinov, Alexandr Dejneka, Vladimir Trepakov, *Institute of Physics AV CR, CZECH REPUBLIC* 314
EPR- and dielectric spectroscopy of chromium doped $SrTiO_3$ single crystals

74 Tatjana Sreckovic, Maria Vesna P. Nikolic, Katarina Vojisavljevic, Pantelija M. Nikolic, Momcilo M. Ristic 325
Institute for Multidisciplinary Research, University of Belgrade, SERBIA
Photoacoustic characterization of mechanically activated zinc oxide ceramics

75 Robertas Grigalaitis, Juras Banys, Sarunas Bagdzevicius, Andris Sternberg, Karlis Bormanis, *Vilnius University, LITHUANIA* 343
Broadband dielectric studies of dipolar glass-like perovskite $0.75SrTiO_3$-$0.25BiTiO_3$ ceramic

76 Robertas Grigalaitis, Maksim Ivanov, Saulius Rudys, Juras Banys, Jing Li 346
Vilnius University, LITHUANIA
Dielectric spectroscopy of cubic BZN ceramics containing fluorine

77 Robertas Grigalaitis, Juras Banys, Andris Sternberg, Karlis Bormanis 358
Vilnius University, LITHUANIA
Broadband Dielectric Studies of Relaxor PMN-PT Ceramics

78 Miguel Angel Ramirez, Thiago Barbosa, Elson Longo, José Varela 360
São Paulo State University, BRAZIL
Nonohmic behavior of $CaCu_3Ti_4O_{12}$ thin films grown on Pt/Ti/SiO_2/Si substrates by the soft chemical method

79 Fernando Andrés Londono Badillo, Eriton Botero, Jose Eiras, Ducinei Garcia 379
Universidade Federal de São Carlos, BRAZIL
Optical and electro-optical characteristics of hot pressed PLMN-PT ferroelectric ceramics

80 Vamsi Krishna Palukuru, Jarkko Puustinen, Jyrki Lappalainen, Heli Jantunen 390
University of Oulu, FINLAND
Microwave dielectric properties of nanocrystalline PZT thin films

81 Simoni Maria Gheno, Vinícius Lago Pimentel, Márcio Raimundo Morelli, Pedro Iris Paulin Filho, *Federal University os Sao Carlos, BRAZIL* 394
Potential barrier analysis of BiCuVOX materials

82 Yoon Jung Rag, Lee Chang Bae Lee Heun Young 419
SAMWHA capacitor, SOUTH KOREA
Design and fabrication of multi-layered disk type piezoelectric transformers

83 Ronaldo Santos da Silva, Zélia Soares Macedo, David Vieira Sampaio, Jerre Cristiano Alves dos Santos, Antonio Carlos Hernandes 398
Federal University of Sergipe, BRAZIL
Synthesis and PTCR characterization of Ca-doped $BaTiO_3$ ceramics

84 Ronaldo Santos da Silva, Antonio Carlos Hernandes 413
Federal University of Sergipe, BRAZIL
Dielectric characterization of laser sintered $Ba_{1-x}Ca_xTiO_3$ ($0 \leq x \leq 0.30$) ceramics

85 Huanpo Ning, Haixue Yan Michael Reece 399
Queen Mary University of Londo, UK
Piezoelectric Strontium Niobate and Calcium Niobate Ceramics with Super-High Curie Points

86 Silvania Lanfredi, Diego H. M. Gênova, Marcos A. L. Nobre 415
FCT, Univ Estadual, Paulista – UNESP, BRAZIL
High Temperature Electrical Properties in a Nickel doped Potassium Sodium Niobate with tetragonal Tungsten Bronze Structure

87 Igor Zajc, Mihael Drofenik, *Jožef Stefan Institute, SLOVENIA* 418
$SrNb_2O_6$ ceramics with the PTCR

88 Saulius Rudys, Robertas Grigalaitis, Juras Banys, Maksim Ivanov, Nikolai Vyshatko, *Vilnius University, LITHUANIA* 428
Dielectric spectroscopy of xNBT–(1-x)LMT ceramics

89 Rauf Sardarli, Oktay Samedov, Azad Bayramov, Adil Abdullayev, Famin Salmanov, *Institute of Radiation Problems ANAS, AZERBAIJAN* 429
Nanodomain relaxor states in layered $TlInS_2$<Me> ferroelectrics

90 Juan Carlos Diez, Shahed Rasekh, Maria Antonieta Madre, Andres Sotelo 433
ICMA (CSIC-Universidad de Zaragoza), SPAIN
Enhancement of the electrical properties in directionally grown $Bi_2Sr_2Co_{1.8}O_x$ ceramics by Ag addition

91 Astri Bjørnetun Haugen, Lars-Petter Bjørkeng, Tor Grande, Mari-Ann Einarsrud, *Norwegian University of Science and Technology, NORWAY* 439
Lead-free piezo- and ferroelectric materials based on $(K,Na)NbO_3$

92 Igor Bykov, Anatolyi Kalinichenko, Aleksandr Brik, Evgenyi Paschenko, Oleksandr Pasenko, *Institute for Problems of Materials Science NAN of Ukraine, UKRAINE* 441
By NMR method is investigated nanoscale particles of ZrO with impurities Sc, Y, Ce, hydroxyl groups and water molecules

93 Emmanuel Arveux, Robert Schafranek, Sandrine Payan, Mario Malione, Andreas Klein, *ICMCB-CNRS, FRANCE* 442
Energy band alignment at the heterointerfaces $SrTiO_3/BaTiO_3/Pt$ determined by in-situ photoelectron spectroscopy

94 Istek Erdag, Idil Ayan, Cihangir Duran, 453
Gebze Instýtute of Technology, TURKEY
Dielectric, Piezoelectric and Electromechanical Properties of doped $Pb(Zr_{0.52}Ti_{0.48})O_3$ ceramics

95 Maria de Jesus Gomes, José Silva, Anatoli Khodorov, Mário Pereira 493
University of Minho, PORTUGAL
Ferroelectric Properties of $Ba_{0.8}Sr_{0.2}TiO_3$ films deposited by Pulsed Laser Ablation

96 Diego A. Ochoa José E. García, Yurimiler Leyet, Fidel Guerrero, Vicente Gomis, *Universitat Politècnica de Catalunya, SPAIN* 499
Nonlinear dielectric and piezoelectric responses in nanostructured soft PZT obtained by spark plasma sintering

97 Toru Moriyama, Hirotaka Ogawa, Akinori Kan, *Meijo University, JAPAN* 502
Crystal structure and ferroelectric properties of Mg - substituted $Ca(Cu_{3-x}Mg_x)Ti_4O_{12}$ ceramics

98 Akinori Kan, Hirotaka Ogawa, Yuki Inami, Ryosuke Komori, Toru Moriyama, *Meijo University, JAPAN* 503
Synthesis and ferroelectric properties of bismuth layerstructured $(Bi_{7-x}Sr_x)(Fe_{3-x}Ti_{3+x})O_{21}$ solid solutions

99 Francesco Madaro, Mari-Ann Einarsrud Tor Grande, *NTNU, NORWAY* 462
Preparation of textured KNN ceramics

100 Hirotaka Ogawa, Akinori Kan, Yuki Inami, *Meijo University, JAPAN* 504
Influence of hot forging on orientation and ferroelectric properties of $Bi_9NaNb_4O_{30}$ ceramic

101 P.S.Srinivas Babu, D.V.Rama Koti Reddy, K.Sarat Kumar, A.Daisy Rani 506
Lakireddy Bali Reddy College of Engineering, INDIA
Some Simulated and Experimental Studies on Packaged MEMS capacitive based acceleration Sensor

102 Piotr Guzdek, Jan Kulawik, Dorota Szwagierczak, Agata Stoch 62
Institute of Electron Technology, POLAND
Characterization of bulk and layered multiferroics based on cobalt ferrite-lead iron niobate composites

103 Cornelia Marinescu, Ancuta Sofronia, Speranta Tanasescu, Adelina Ianculescu, Liliana Mitoseriu, *Institute of Physical Chemistry, ROMANIA* 500
The manganese influence on the thermodynamic properties of $Bi_{0.9}La_{0.1}Fe_{1-x}Mn_xO_3$ (x=0-0.5)

104 Luiz Fernando Cotica, Ivair A. Santos, Valdirlei F. Freitas, Paulo V. Sochodolak, Fernando J. Rodrigues, *Universidade Estadual de Maringa, BRAZIL* 385
Chemical processing of $BiFeO_3$ Ceramics

105 Gustavo Dias, Valdirlei Freitas, Ivair Santos, Ducinei Garcia, José Eiras 342
Universidade Estadual de Maringá, BRAZIL
Structural, Microstructural and Ferroic Properties of Rapid Sintered and Quenched $BiFeO_3$ Multiferroic Magnetoelectric Compound

106 Piyi Du, Ning Ma Xuhui Zhang, *Zhejiang University, CHINA* 427
Synthesis and properties of multiferroic BTO-NZFO composite ceramics

107 Harvey Amorín, Miguel Algueró Alicia Castro 282
Instituto de Ciencia de Materiales de Madrid. CSIC, SPAIN
Processing and Properties of Laminated $BiScO_3$-$PbTiO_3$/$(Co,Ni)Fe_2O_4$ Composites Obtained by a New Approach

108 Cristinan Elena Ciomaga, Iordan R. Alexandra, Airimioaei Mirela, Galassi Carmen, Ianculescu Adelina, *Alexandru Ioan Cuza University, ROMANIA* 87
In-situ preparation and functional properties of PZT –$NiFe_2O_4$ magnetoelectric composites

109 Gustavo Dias, Valdirlei Freitas Ivair Santos Ducinei Garcia José Eiras 359
Universidade Estadual de Maringá, BRAZIL
Hot Pressing Synthesis of $Bi_{1-X}La_XFeO_3$ Multiferroic Magnetoelectric Ceramics

110 Zorica Marinkovic Stanojevic, Zorica Brankovic, Lidija Mancic, Marko Jagodic, Zvonko Jaglicic, *Institute for Multidisciplinary Research, SERBIA* 238
Effect of La- and Sr-doping on the magnetic properties in bismuth manganite

111 Zorica Marinkovic Stanojevic, Lidija Mancic, Eva Markiewicz, Bartolomej Andrzejewski, Biljana Stojanovic, *Institute for Multidisciplinary Research, SERBIA* 240
Magnetic and dielectric properties of multiferroic $BiFeO_3$ ceramics obtained from mechanochemically synthesized powders

112 Natalya Zyrulnikova, Marina Safronenko, Elena Fortalnova, Ekaterina Politova, Nikolai Venskovskii, *Peoples' Friendship University of Russia, RUSSIA* 212
Phase formation and properties of bismuth ferrite-based solid solutions

113 Mara Bernardo, Teresa Jardiel Marina Villegas 173
Instituto de Ceramica y Vidrio (CSIC), SPAIN
The role of donor dopants in the stabilization of multiferroic $BiFeO_3$

114 Ricardo Augusto Mascarello Gotardo, Ivair Aparecido dos Santos, Fabio Zabotto, Ducinei Garcia, Jose Antonio Eiras 199
Universidade Estadual de Maringá, BRAZIL
Anisotropy effects on structural and ferroic properties of $TbMnO_3$ multiferroic ceramics

115 Ricardo Gotardo, Ivair Aparecido dos Santos, Luiz Fernando Cotica, Ducinei Garcia, Jose Antonio Eiras, *Universidade Estadual de Maringá, BRAZIL* 200
Effect of Cm phase on structural and magnetic properties of $(1-x)BiFeO_3$ - $(x)BaTiO_3$ multiferroics

116 Alicia Castro, Jorge Hernandez-Velasco, Miguel Alguero, Eladio Vila 55
Instituto de Ciencia de Materiales de Madrid, CSIC, SPAIN
The x $BiCoO_3$ – (1-x) $PbTiO_3$ solid solution: a new multiferroic system

117 Felicia Prihor, Adelina Ianculescu, Petronel Postolache, Ioan Dumitru, Dorin Cimpoesu, *Alexandru Ioan Cuza University, ROMANIA* 91
Preparation, structural and functional properties of $BiFeO_3$–based ceramics

118 Ekaterina Politova, Sergey Ivanov, Galina Kaleva, Per Nordblad, Roland Mathieu, *Karpov Institute of Physical Chemistry, RUSSIA* 99
Synthesis, structure and magnetic phase transitions in Mn_2BSbO_6 oxides (B=Sc, In, Fe, Co, Gd, Eu)

119 Carlos Moure, Alberto Moure, Luis Pascual, Jesus Tartaj 131
Instituto de Cerámica y Vidrio, CSIC, SPAIN
A comparative study of the preparation of multiferroic $Bi_{0.6}Sr_{0.4}FeO_{13}$ nanopowders by two different routes

120 An Hardy, Thomas Vranken, Ricardo Jimenez, Joost Demeter, Ricardas Sobiestianskas, *Hasselt University, BELGIUM* 148
Lead and bismuth iron oxides synthesized from aqueous solution-gel routes

121 Zorica Lazarevic, Cedomir Jovalekic, Nebojsa Romcevic, Miodrag Pavlovic, Biljana Stojanovic, *Institute of Physics Belgrade, SERBIA* 113
Spectroscopic study manganese ferrite obtained by soft mechanochemical synthesis

122 Sylvain Marinel, Etienne Savary, Emmanuel Guilmeau, Ryoji Funahashi, Atsuko Kosuga, *CRISMAT Laboratory, FRANCE* 163
Microwave sintering of $CaMnO_3$ thermoelectric nanoceramics

123 Zorica Brankovic, Katarina Djuris Zvonko Jaglicic Marko Jagodic Goran Brankovic, *Institute for Multidisciplinary Research, SERBIA* 370
Magnetoresistance in sol-gel derived Ca, Sr - doped $LaMnO_3$ ceramics

124 Luiz Fernando Cotica, Ivair A. Santos, Valdirlei F. Freitas, Marcia F. Bini, Ducinei Garcia, *Universidade Estadual de Maringa, BRAZIL* 386
Structural and Microstructural properties of $FeAlO_3$ magnetolectric Compound

125 Piotr Guzdek, *Institute of Electron Technology, POLAND* 132
Magnetoelectric effect in NiZnCu ferrite-PFT relaxor structures