

## POSTER SESSION

### **COST P-01**

#### **SYNTHESIS AND CHARACTERISATION OF ANATASE TITANIUM DIOXIDE NANOPARTICLES VIA A HYDROTHERMAL SYNTHESIS ROUTE**

J. BEUSEN<sup>1</sup>, M. VAN BAEL<sup>1,2</sup>, H. VAN DEN RUL<sup>1,2</sup>, J. D'HAEN<sup>1</sup>, J. MULLENS<sup>1</sup>

<sup>1</sup>Hasselt University - Institute for Materials Research. Agoralaan. Diepenbeek. Belgium.

<sup>2</sup>IMEC VZW - Division IMOMECE. Agoralaan. Diepenbeek. Belgium.

[jorge.beusen@uhasselt.be](mailto:jorge.beusen@uhasselt.be)

### **COST P-02**

#### **STUDY OF THE PROCESSING AND AGING OF (Pb<sub>0.5</sub>Ca<sub>0.5</sub>)TiO<sub>3</sub> PRECURSOR SOLUTIONS USED FOR THE DEPOSITION OF THIN FILMS**

I. BRETOS<sup>1</sup>, R. SIRERA<sup>2</sup>, R. JIMÉNEZ<sup>1</sup>, E. RODRIGUEZ-CASTELLON<sup>3</sup>, M.L. CALZADA<sup>1</sup>

<sup>1</sup>Instituto de Ciencia de Materiales de Madrid (CSIC). Cantoblanco. Madrid. Spain.

<sup>2</sup>Dpt. Química y Edafología. Facultad de Ciencias. Univ. de Navarra. Pamplona. Spain.

<sup>3</sup>Dpt. Química Inorgánica. Facultad de Ciencias. Univ. de Málaga. Málaga. Spain.

[ibretos@icmm.csic.es](mailto:ibretos@icmm.csic.es)

### **COST P-03**

#### **INFLUENCE OF THE POROSITY ON THE SHEAR PIEZOELECTRIC COEFFICIENTS, INCLUDING LOSSES, OF PZT BASED CERAMICS WITH MORPHOTROPIC PHASE BOUNDARY COMPOSITION**

L. PARDO<sup>1</sup>, A. GARCÍA<sup>1</sup>, K. BREBØL<sup>2</sup>, D. PIAZZA<sup>3</sup>, C. GALASSI<sup>3</sup>

<sup>1</sup>Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC). Cantoblanco. Spain.

<sup>2</sup>LIMIEL ApS. Langebæk. Denmark.

<sup>3</sup>Consiglio Nazionale delle Ricerche Institute of Science and Technology for Ceramics. National Research Council. Faenza. Italy.

[lpardo@icmm.csic.es](mailto:lpardo@icmm.csic.es)

### **COST P-04**

#### **CHARACTERIZATION OF BiFeO<sub>3</sub> NANOPOWDER OBTAINED BY MECHANOCHEMICAL SYNTHESIS**

I. SZAFRANIAK<sup>1,2</sup>, B. HILCZER<sup>1</sup>, A. PIETRASZKO<sup>3</sup>, E. TALIK<sup>4</sup>, L. KĘPIŃSKI<sup>3</sup>

<sup>1</sup>Institute of Molecular Physics, Polish Academy of Sciences. Poznań. Poland.

<sup>2</sup>Institute of Materials Science and Engineering, Poznań University of Technology. Poznań. Poland.

<sup>3</sup>Institute of Low Temperature and Structure Research, Polish Academy of Sciences. Wrocław. Poland.

<sup>4</sup>Institute of Physics, Silesian University. Katowice. Poland.

[izabela.szafraniak@put.poznan.pl](mailto:izabela.szafraniak@put.poznan.pl)

### **COST P-05**

#### **STUDY OF x/90/10 PLZT CERAMICS WITH STOICHIOMETRY ACCORDING TO A- AND B-SITE COMPENSATING VALENCY SUBSTITUTIONS**

J. SKRZYPEK<sup>1</sup>, M. KOSEC<sup>2</sup>, Z. SUROWIAK<sup>1</sup>, D. KUSCER<sup>2</sup>

<sup>1</sup>University of Silesia, Faculty of Computer Science and Materials Science. Sosnowiec. Poland.

<sup>2</sup>Jozef Stefan Institute. Ljubljana. Slovenia.

[skrzypek@tech.us.edu.pl](mailto:skrzypek@tech.us.edu.pl)

### **COST P-06**

#### **LOCAL SWITCHING BEHAVIOR AND ELECTRICAL POLARIZATION OF FERROELECTRIC THIN FILMS UNDER NANOINDENTATION**

V. KOVAL<sup>1</sup>, M.J. REECE<sup>2</sup>, A. BUSHBY<sup>2</sup>, J. DUSZA<sup>1</sup>

<sup>1</sup>Institute of Materials Research SAS. Kosice. Slovak Republic.

<sup>2</sup>Queen Mary University of London. London. United Kingdom.

[koval@imrnov.saske.sk](mailto:koval@imrnov.saske.sk), [vkova@imr.saske.sk](mailto:vkova@imr.saske.sk)

#### **COST P-07**

##### **MICROSTRUCTURE OF PURE AND DOPED BARIUM TITANATES**

K. KOVACS, G. SZALONTAI, T. RADOČZY

University of Veszprem. Veszprem. Hungary.

[kris@almos.vein.hu](mailto:kris@almos.vein.hu)

#### **COST P-08**

##### **IMPORTANCE OF PZT PRECURSOR PROPERTIES IN CSD PROCESS**

A. ETIN, G.E. SHTER, G.S. GRADER

Chemical Engineering Dept. TECHNION-Israel Institute of Technology. Haifa. Israel.

[liosha@tx.technion.ac.il](mailto:liosha@tx.technion.ac.il)

#### **COST P-09**

##### **MICROSTRUCTURE EVOLUTION AND PHASE TRANSITION IN La/Mn DOPED BARIUM TITANATE CERAMICS**

L. ŽIVKOVIĆ<sup>1</sup>, V. PAUNOVIĆ<sup>1</sup>, L. VRAČAR<sup>1</sup>, B. STOJANOVIĆ<sup>2</sup>, M. MILJKOVIĆ<sup>3</sup>,

<sup>1</sup>Faculty of Electronic Engineering. Nis. Serbia and Montenegro.

<sup>2</sup>Centre for Multidisciplinary Studying, University of Belgrade. Belgrade. Serbia and Montenegro.

<sup>3</sup>Laboratory for Electron Microscopy. University of Nis. Nis. Serbia and Montenegro.

[ljzivkovic@elfak.ni.ac.yu](mailto:ljzivkovic@elfak.ni.ac.yu)

#### **COST P-10**

##### **CHARACTERIZATION OF LaCoO<sub>3</sub> POWDERS OBTAINED BY WATER-BASED SOL-GEL METHOD WITH CITRIC ACID**

L. PREDOANA<sup>1</sup>, B. MALIĆ<sup>2</sup>, M. KOSEC<sup>2</sup>, M. ZAHARESCU<sup>1</sup>

<sup>1</sup>Institute of Physical Chemistry, "I.G.Murgulescu" Romanian Academy. Bucharest. Romania.

<sup>2</sup>Jozef Stefan Institute. Ljubljana. Slovenia.

[lpredoana@yahoo.com](mailto:lpredoana@yahoo.com)

#### **COST P-11**

##### **SPECTROSCOPY STUDY OF Bi<sub>4</sub>Ti<sub>3</sub>O<sub>12</sub> OBTAINED FROM MECHANICALLY ACTIVATED Bi<sub>2</sub>O<sub>3</sub>-TiO<sub>2</sub> MIXTURES**

N. ROMCEVIĆ<sup>1</sup>, G. STANISIĆ<sup>1</sup>, M. ROMCEVIĆ<sup>1</sup>, B. STOJANOVIĆ<sup>2</sup>, Z. LAZAREVIĆ<sup>1</sup>

<sup>1</sup>Institute of Physics. Belgrade. Serbia and Montenegro.

<sup>2</sup>Center for Multidisciplinary Studies University of Belgrade. Belgrade. Serbia and Montenegro.

[romcevi@phy.bg.ac.yu](mailto:romcevi@phy.bg.ac.yu)

#### **COST P-12**

##### **RECEPTION POWDER GERMANY AND RESEARCH OF ITS SOME ELECTROPHYSICAL PROPERTIES**

N. GORBACHUK

Gostomelskoe Str.,3-79. Kiev-Irpen. Ukraine.

[tdmmikro@irpin.com](mailto:tdmmikro@irpin.com)

#### **COST P-13**

##### **SOL-GEL SYNTHESIS AND STRUCTURE OF CORDIERITE NANOCOMPOSITES**

B. SAMUNEVA<sup>1</sup>, L. PAVLOVA<sup>1</sup>, Y. IVANOVA<sup>1</sup>, I. RADEV<sup>1</sup>, E. KASHCHIEVA<sup>1</sup>, S. VASILEV<sup>2</sup>

<sup>1</sup>University of Chemical Technology and Metallurgy. Sofia. Bulgaria.

<sup>2</sup>Institute of Electrochemistry and Energy Systems. Sofia. Bulgaria.

[samuneva@uctm.edu](mailto:samuneva@uctm.edu)

#### **COST P-14**

##### **MACHINE CUSTOMIZATION FOR COMMINUTION, HOMOGENIZATION AND SOFT-MECHANOCHEMICAL REACTION**

S. NAKAYAMA<sup>1</sup>, S. NAGARE<sup>1</sup>, K. HAMADA<sup>1</sup>, M. SENNA<sup>2</sup>

<sup>1</sup>Nara Machinery Co., Ltd. Tokyo. Japan.

<sup>2</sup>Faculty of Science and Engineering, Keio University. Yokohama. Japan.

[nakayama@nara-m.co.jp](mailto:nakayama@nara-m.co.jp)

#### COST P-15

##### DEPOSITION AND CHARACTERIZATION OF BiFeO<sub>3</sub> THIN FILMS

V. FRUTH<sup>1</sup>, M. POPA<sup>1</sup>, D. BERGER<sup>2</sup>, H. CALDERON MORENO<sup>3</sup>, E. TENEA<sup>1</sup>, M. GARTNER<sup>1</sup>, M. ZAHARESCU<sup>1</sup>, M. ANASTASESCU<sup>1</sup>

<sup>1</sup>Institute of Physical Chemistry I.G. Murgulescu. Bucharest. Romania.

<sup>2</sup>Politehnica University of Bucharest. Bucharest. Romania.

<sup>3</sup>Universidad Politecnica de Catalunya EPSC. Barcelona. Spain.

[vfruth@icf.ro](mailto:vfruth@icf.ro)

#### COST P-16

##### POLYETHYLENE GLYCOL ASSISTED SYNTHESIS OF Y<sub>2</sub>O<sub>3</sub>-Gd<sub>2</sub>O<sub>3</sub>:Eu<sup>3+</sup> NANOPOWDER

Ž. ANDRIĆ, M.D. DRAMIĆANIN, M. MITRIĆ

Laboratory for Radiation Physics and Chemistry, Institute for Nuclear Sciences - Vinča, Belgrade, Serbia & Montenegro

[dramican@vin.bg.ac.yu](mailto:dramican@vin.bg.ac.yu)

#### COST P-17

##### STRUCTURAL AND ELECTRICAL FEATURES OF Bi<sub>2</sub>O<sub>3</sub> - BASED FAST OXIDE ION CONDUCTORS

V. FRUTH<sup>1</sup>, S. PREDA<sup>1</sup>, C. HORNOIU<sup>1</sup>, G. DOBRESCU<sup>1</sup>, A. IANCULESCU<sup>2</sup>, C. ANDRONESCU<sup>1</sup>

<sup>1</sup>Institute of Physical Chemistry I.G. Murgulescu. Bucharest. Romania.

<sup>2</sup>Politehnica University of Bucharest. Bucharest. Romania.

[vfruth@icf.ro](mailto:vfruth@icf.ro)

#### COST P-18

##### AB INITIO STUDY OF 0.5PbMgNb<sub>2</sub>O<sub>3</sub>-0.5Ba<sub>x</sub>Pb<sub>(1-x)</sub>TiO<sub>3</sub> CERAMIC POWDERS: STRUCTURAL CHARACTERIZATION

T.C. BONI<sup>1</sup>, J.C. BRUNO<sup>1</sup>, A.A. CAVALHEIRO<sup>2</sup>, M.A. ZAGHETE<sup>1</sup>, J.A. VARELA<sup>1</sup>

<sup>1</sup>LIEC- IQ-UNESP. Araraquara, Sp. Brasil.

<sup>2</sup>DQB-IBB-UNESP. Botucatu, Sp. Brazil.

[thayzcris\\_boni@yahoo.com.br](mailto:thayzcris_boni@yahoo.com.br)

#### COST P-19

##### NANOSIZED INDIUM OXIDE

T. GRIGORIEVA<sup>1</sup>, E. IVANOV<sup>2</sup>, N. LYAKHOV<sup>1</sup>

<sup>1</sup>Institute of Solid State Chemistry and Mechanochemistry. Novosibirsk. Russia.

<sup>2</sup>TOSOH SMD Inc. Grove City. USA. [grig@solid.nsc.ru](mailto:grig@solid.nsc.ru)