

## **Programme**

**4th Workshop COST 539**

***Fabrication, Properties and Applications of  
Eelectroceramic Nanostructures***

**THURSDAY, JUNE 26<sup>th</sup> – Afternoon****14:30 Welcome**

G. Bignardi, Chancellor, University of Genoa  
G. Vernazza, Dean Faculty of Engineering, University of Genoa  
S. Daolio, Director IENI - CNR  
B. Stojanović, Chair COST 539, University of Belgrade, Serbia

**SESSION 1 (15:00-16:40)**

**CHAIRS:** B. Stojanović and D. Hesse

**15:00-15:40 COST-PI-01 PLENARY LECTURE**

AN OVERVIEW OF NANO-FERROELECTRICS AND MULTIFERROICS

J.F. Scott

*Centre for Ferroics, Earth Sciences Dept., Cambridge University, UK*

**15:40-16:10 COST-I-01 INVITED**

GIANT MAGNETOELECTRIC EFFECT INDUCED BY INTRINSIC SURFACE STRESS IN FERROIC NANORODS

M.D.Glinchuk<sup>1</sup>, E.A.Eliseev<sup>1</sup>, A.N. Morozovska<sup>2</sup>, R.Blinc<sup>3</sup>

<sup>1</sup>*Institute for Problems of Materials Science, NAS of Ukraine, Kiev, Ukraine*

<sup>2</sup>*V. Lashkarev Institute of Semiconductor Physics, NAS of Ukraine, Kiev, Ukraine*

<sup>3</sup>*Jozef Stefan Institute, Ljubljana, Slovenia*

**16:10-16:40 COST-I-02 INVITED**

ATOMIC ORDERING IN ELECTROCERAMIC NANOSTRUCTURES BY HIGH-ENERGY X-RAY DIFFRACTION

V. Petkov

*Central Michigan University, Department of Physics, Mt. Pleasant, USA*

**16:40-17:00 COFFEE BREAK****SESSION 2 (17:00-18:40)**

**CHAIRS:** M. Kosec and M. Algueró

**17:00-17:30 COST-I-03 INVITED**

CHARACTERIZATION OF FERROIC NANOPOWDERS OBTAINED BY MECHANOSYNTHESIS

B. Hilczer<sup>1</sup>, I.Szafraniak-Wiza<sup>1-2</sup>, B.Andreyejewsk<sup>1</sup>, W.Bednarski<sup>1</sup>, A.Pietraskzko<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 Temperatures and Structure Researches, PAS, Wrocław, Poland*

**17:30-18:00 COST-I-04 INVITED**

FORMATION OF NANOSTRUCTURED METAL OXIDE ELECTROCERAMICS FROM WATER BASED CHEMICAL SOLUTIONS

M.K. Van Bael<sup>1,3</sup>, A. Hardy<sup>1,2,3</sup>, H. Van den Rul<sup>1,3</sup>, J. Mullens<sup>1</sup>

<sup>1</sup>Hasselt University, Inorganic and Physical Chemistry group -Institute for Materials Research, Diepenbeek, Belgium

<sup>2</sup>XIOS Hogeschool Limburg, Department IWT, Diepenbeek Belgium

<sup>3</sup>IMEC, Division IMOMECE, Diepenbeek Belgium

**18:00-18:20 COST-O-01**

ROOM TEMPERATURE FERROMAGNETISM IN A NEW BIFERROIC THIN FILM MATERIAL: YbCrO<sub>3</sub>

K.V. Rao

Royal Institute of Technology, Stockholm, Sweden

**18:20-18:40 COST-O-02**

MICROWAVE AND DIELECTRIC HEATING IN FERROELECTRIC NANOSTRUCTURED CERAMICS

C.Leonelli, A.Rizzuti, P.Veronesi

Department of Material and Environmental Engineering, University of Modena and Reggio Emilia, Modena, Italy.

**FRIDAY, JUNE 27<sup>th</sup> – Morning****SESSION 3 (09:00-10:50)**

**CHAIRS:** M.D. Glynchuk and J.F. Scott

**9:00-9:40 COST-PI-02 PLENARY LECTURE**

FERROELECTRIC NANOSTRUCTURES: SYNTHESIS AND MICROSTRUCTURE-PROPERTY RELATIONS

D.Hesse, I.Vrejoiu, K.Boldyreva, W.Lee, H.Han<sup>+</sup>, A.Lotnyk, M.Alexe

Max Planck Institute of Microstructure Physics, Halle, Germany

<sup>+</sup> also with Dept. of Mater. Sci. & Eng., Pohang University of Sci. and Tech., Pohang, Korea

**9:40-10:10 COST-I-05 INVITED**

NANOPILLAR AND NANOSHEET COMPOSITE STRUCTURES: FABRICATION, PROPERTIES, AND POSSIBLE APPLICATIONS

I.Stolichnov, S.Riester, J.Trodahl, T.Yamada, M.Gureev, C.Sandu, V. Cherman,

A. K.Tagantsev, N.Setter

Ceramics Laboratory, EPFL – Swiss Federal Institute of Technology, Lausanne, Switzerland

**10:10-10:30 COST-O-03**

EFFECTIVE DIELECTRIC, THz AND INFRARED RESPONSE OF SEVERAL  
BaTiO<sub>3</sub>-CONTAINING NANOCOMPOSITES

D. Nuzhnyy<sup>1</sup>, J.Petzelt<sup>1</sup>, S.Kamba<sup>1</sup>, I.Rychetsky<sup>1</sup>, M.Polomska<sup>2</sup>, J.Kulek<sup>2</sup>, B.Hiczer<sup>2</sup>, C.Elissalde<sup>3</sup>,  
U.Chung<sup>3</sup>, C.Bousquet<sup>3</sup>, C.Aymonier<sup>3</sup>, M.Maglione<sup>3</sup>, V.Buscaglia<sup>4</sup>, M.T.Buscaglia<sup>4</sup>, P.Nanni<sup>4</sup>

<sup>1</sup>*Institute of Physics, Acad. of Sciences of the Czech Republic, Praha, Czech Republic*

<sup>2</sup>*Institute of Molecular Physics, Polish Academy of Sciences, Poznań, Poland*

<sup>3</sup>*Inst. Chimie Matière Condensée, Bordeaux-CNRS, Univ. Bordeaux I, Pessac, France*

<sup>4</sup>*Institute for Energetics and Interphases, National Research Council, Genoa, Italy*

**10:30-10:50 COST-O-04**

PHASE DIAGRAM OF (1-x)(K<sub>0.5</sub>Na<sub>0.5</sub>)NbO<sub>3</sub>-xLiNbO<sub>3</sub> (0≤x≤0.1)

N.Klein<sup>1</sup>, D.Damjanovic<sup>1</sup>, H.J.Trodahl<sup>1</sup>, N.Setter<sup>1</sup>, M.Kuball<sup>2</sup>, P.Gemeiner<sup>3</sup>, B.Dkhil<sup>3</sup>

<sup>1</sup>*Ceramics Laboratory, EPFL, Lausanne*

<sup>2</sup>*Applied Spectroscopy Group, H.H. Wills Physics Laboratory, University of Bristol.*

<sup>3</sup>*Laboratoire Structures, Propriétés et Modélisation des Solides, Ecole Central Paris*

**10:50-11:10 COFFEE BREAK****SESSION 4 (11:10-12:50)**

**CHAIRS:** B. Hilczer and N. Setter

**11:10-11:40 COST-I-06 INVITED**

FIRST ORDER REVERSAL CURVES DIAGRAMS FOR DESCRIBING FERROELECTRIC SWITCHING  
CHARACTERISTICS

L.Mitoseriu<sup>1</sup>, L.Stoleriu<sup>1</sup>, A.Stancu<sup>1</sup>, C.Galassi<sup>2</sup>, V.Buscaglia<sup>3</sup>

<sup>1</sup>*A.I. Cuza University, Dept. of Solid State & Theor. Physics, Iasi, Romania*

<sup>2</sup>*ISTEC-CNR, Faenza (Ravenna), Italy*

<sup>3</sup>*IENI-CNR, Genoa, Italy*

**11:40-12:10 COST-I-07 INVITED**

DYNAMICS OF FERROELECTRIC NANODOMAINS AND POLAR NANOREGIONS

M. Tyunina

*University of Oulu, Microelectronic and Material Physics Laboratories, Oulun yliopisto, Finland*

**12:10-12:30 COST-O-05**

HYPERTHERMIC EFFECT OF MAGNETIC NANOPARTICLES UNDER ELECTROMAGNETIC FIELD

G.Baldi<sup>1</sup>, D.Bonacchi<sup>1</sup>, G. Lorenzi<sup>1</sup>, C. Ravagli<sup>1-2</sup>

<sup>1</sup>*Centro Ricerche Colorobbia, Sovigliana – Vinci (Florence), Italy*

<sup>2</sup>*INSTM – Dept. of Chemistry, University of Florence, Sesto Fiorentino, (Florence), Italy*

**12:30-12:50 COST-O-06**

POSSIBLE APPLICATIONS OF ELECTROCERAMICS IN CARBON NANOTUBE BASED SENSOR  
DEVICES

Á.Kukovecz, R.Smajda, M.Oze, H.Haspel, Z.Konya, I.Kiricsi

*Department of Applied and Environmental Chemistry, University of Szeged, Szeged, Hungary*

**13:00-14:30 LUNCH**

**FRIDAY, JUNE 27<sup>th</sup> – Afternoon****SESSION 5 (14:30-16:20)****CHAIRS:** L. Mitoşeriu and M. Tyunina**14:30-15:00 COST-I-08 INVITED**PHOTOCONDUCTIVITY AND GAS SENSING BEHAVIOUR OF RF SPUTTERED  $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$  THIN FILMSM.A.Ramirez, P.R.Bueno, E.Longo, J.A.Varela*Chemistry Institute, Universidade Estadual Paulista – UNESP***15:00-15:20 COST-O-07**BaTiO<sub>3</sub> THICK FILMS OBTAINED BY TAPE CASTING FROM NANOPOWDERS PREPARED BY THE OXALATE ROUTEA.Ianculescu*Department of Oxide Materials Science & Engineering, Faculty of Applied Chemistry and Materials Science, Polytechnics University of Bucharest, Bucharest, Romania***15:20-15:40 COST-O-08**

SYNTHESIS OF NANOCRYSTALLINE OXIDE POWDERS: COMPARISON OF WET-CHEMICAL AND CHEMICAL VAPOUR SYNTHESIS TECHNIQUES

V.V. Srdic<sup>1</sup>, M.Winterer<sup>2</sup><sup>1</sup>*Department of Materials Engineering, Faculty of Technology, University of Novi Sad, Serbia*<sup>2</sup>*Nanoparticle Process Technology, Dept. Engineer. Sciences, University Duisburg-Essen, Germany***15:40-16:00 COST-O-09**

SYNTHESIS OF SODIUM POTASSIUM NIOBATES FROM POWDER MIXTURES

B.Malič, D.Jenko, J.Cilenšek, M.Kosec*Jožef Stefan Institute, Ljubljana, Slovenia***16:00-16:20 COST-O-10** $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$  FERROELECTRIC THIN FILMS GROWN BY SOL-GEL ROUTE AND PULSED LASER DEPOSITIONM.Bousquet, J.R.Duclère, F.Rémondrière, C.Champeaux, P.Marchet*SPCTS, Université de Limoges, CNRS, Limoges, France***16:20-16:40 COFFEE BREAK****16:40-18:30 POSTER SESSION**

**SATURDAY, JUNE 28<sup>th</sup> – Morning****SESSION 6 (9:00-12:00)****CHAIRS:** M.K. Van Bael and J.A. Varela**9:00-9:30 COST-I-09 INVITED**

CERAMIC POWDER SYNTHESIS BY HIGH ENERGY MILLING

M.Kosec, T.Rojac, D.Kuščer, J.Holc, B.Malič.*Jožef Stefan Institute, Ljubljana, Slovenia***9:30-9:50 COST-O-11**

MICROSTRUCTURE EVOLUTION DURING PRESSURELESS AND SPARK PLASMA SINTERING OF BULK NANOCERAMICS

K.Maca<sup>1</sup>, M.Trunec<sup>1</sup>, Z.Shen<sup>2</sup><sup>1</sup> *Department of Ceramics and Polymers, Brno University of Technology, Brno, Czech Republic*<sup>2</sup> *Department of Inorganic Chemistry, Arrhenius Laboratory, Stockholm University, Stockholm, Sweden***9:50-10:10 COST-O-12**

SYNTHESIS AND IONIC CONDUCTIVITY OF BULK FULLY DENSE NANOCRYSTALLINE CERAMIC MATERIALS PREPARED BY HIGH-PRESSURE SPARK PLASMA SINTERING

U.Anselmi-Tamburini<sup>1,2</sup>, F.Maglia<sup>1</sup>, Z.A.Munir<sup>2</sup><sup>1</sup> *Department of Physical Chemistry, University of Pavia, Italy*<sup>2</sup> *Department of Chemical Engineering and Materials Science, University of California Davis, USA.***10:10-10:30 COFFEE BREAK****10:30-11:00 COST-I-10 INVITED**

PROCESSING AND PROPERTIES OF SUBMICRO- AND NANOSTRUCTURED CERAMICS OF PEROVSKITE RELAXOR-BASED MPB MATERIALS OBTAINED BY MECHANOSYNTHESIS

M. Algueró*Institute of Material Science, CSIC, Cantoblanco, Madrid, Spain***11:00-11:20 COST-O-13**

SCALING EFFECTS ON THE CRYSTALLOGRAPHY AND POLARITY OF LEAD-FREE PIEZOCERAMICS BASED ON ALKALINE NIOBATES

Christian Pithan<sup>1</sup>, Yosuke Shiratori<sup>2</sup>, Arnaud Magrez<sup>3</sup>, Werner Fischer<sup>4</sup>, Minoru Kato<sup>5</sup>,Kunihiro Kasezawa<sup>5</sup>, Rainer Waser<sup>1,6</sup><sup>1</sup> *Institut für Festkörperforschung, Forschungszentrum Jülich GmbH, Jülich, Germany*<sup>2</sup> *Department of Chemical System Engineering, The University of Tokyo, Tokyo, Japan*<sup>3</sup> *Laboratoire des Nanostructures et des Nouveaux Matériaux Electroniques, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland*<sup>4</sup> *Institut für Energieforschung, Forschungszentrum Jülich GmbH, Jülich, Germany*<sup>5</sup> *Department of Applied Chemistry, Ritsumeikan University, Shiga, Japan*<sup>6</sup> *Institut für Werkstoffe der Elektrotechnik, RWTH Aachen, Aachen, Germany***11:20-12:00 FINAL REMARKS – FAREWELL****14:30 – 18:30 Management Committee Meeting**

**POSTER SESSION****COST-P-01**

A NOVEL MECHANISM TO EXPLAIN WAFER BENDING DURING THE GROWTH OF SiC on Si

B.E.Watts, G.Attolini, M.Bosi, C.Frigeri

*Istituto IMEM - CNR, Fontanini (Parma), Italy***COST-P-02**COMPOSITION AND GRAIN SIZE-DRIVEN FERROELECTRIC-RELAXOR CROSSOVER IN Ba(Zr,Ti)O<sub>3</sub> CERAMICSC.Ciomaga<sup>1</sup>, M.T.Buscaglia<sup>2</sup>, M.Viviani<sup>2</sup>, V.Buscaglia<sup>2</sup>, L.Mitoseriu<sup>1</sup>, P.Nanni<sup>2,3</sup>, C.Galassi<sup>4</sup><sup>1</sup>*Dept. of Solid State & Theor. Physics, Al.I. Cuza Univ., Iasi, Romania*<sup>2</sup>*ENI-CNR, Genoa, Italy*<sup>3</sup>*Dept. Process & Chem. Engineer., Genoa Univ., Genoa, Italy*<sup>4</sup>*ISTEC-CNR, Faenza (Ravenna), Italy***COST-P-03**TEMPERATURE DEPENDENT TUNABILITY IN THE PARAELECTRIC STATE OF PMN and BaTiO<sub>3</sub> SOLID SOLUTIONSL.P.Curecheriu<sup>1</sup>, L.Mitoseriu<sup>1</sup>, F.M.Tufescu<sup>1</sup>, A.Ianculescu<sup>2</sup><sup>1</sup>*Dept. of Solid State & Theor. Physics, Al.I. Cuza Univ., Iasi, ROMANIA*<sup>2</sup>*Polytechnics Univ. Bucharest, Bucharest, ROMANIA***COST-P-04**

GROWTH AND CONTROL OF PZT ONE-DIMENSIONAL NANOSTRUCTURES

Jin Wang, A.Durussel, S.Cosmin, N.Setter

*Ceramics Laboratory, EPFL – Swiss Federal Institute of Technology, Lausanne, Switzerland***COST-P-05**

DEPOSITION OF SEMICONDUCTING NON MAGNETIC OXIDES FOR EPITAXIAL SPIN INJECTION HETEROSTRUCTURES

I.Pallecchi, E.Bellingeri, L.Pellegrino, A.S.Siri, D.Marré

*CNR-INFN LAMIA, Genova, Italy***COST-P-06**

FERROELECTRIC NANORIBBONS AND HOLLOW PARTICLES BY SOLID-STATE REACTION

M.T.Buscaglia<sup>1</sup>, V.Buscaglia<sup>1</sup>, M.Viviani<sup>1</sup>, M.Bassoli<sup>1</sup>, C.Bottino<sup>1</sup>, P.Nanni<sup>1,2</sup><sup>1</sup>*Institute for Energetics and Interphases, CNR, Genoa, Italy*<sup>2</sup>*Genoa University, Department of Chemical and Processing Engineering, Genoa, Italy***COST-P-07**

CORE-SHELL STRUCTURES BY SURFACE COATING OF OXIDE NANOPARTICLES WITH DIFFERENT MATERIALS

A.Bassano<sup>1,2,4</sup>, V.Buscaglia<sup>2</sup>, M.T.Buscaglia<sup>2</sup>, M.Viviani<sup>2</sup>, P.Nanni<sup>1,2,4</sup>, R. Marazza<sup>3,4</sup><sup>1</sup>*Dept. of Process & Chem. Engineering, Genoa University, Genoa, Italy*<sup>2</sup>*Inst. for Energetics & Interphases, Genoa Dept., National Research Council, Genoa, Italy*<sup>3</sup>*Dept. of Chem. & Ind. Chem., Genoa University, Genoa, Italy*<sup>4</sup>*Ital. Interuniversity Consortium Mater. Sci. & Technology, Firenze, Italy*

**COST-P-08**

MIST DEPOSITED LEAD ZIRCONATE TITANATE THIN FILMS

V.Koval<sup>1</sup>, S.S.N.Bharadwaja<sup>2</sup>, S.Trolier-McKinstry<sup>2</sup><sup>1</sup>*Institute of Materials Research SAS, Kosice, Slovak Republic*<sup>2</sup>*Materials Research Institute, The Pennsylvania State University, University Park, U.S.A.***COST-P-09**PERCOLATIVE BaTiO<sub>3</sub>-Ni NANOCOMPOSITES FROM ALKOXIDE-MEDIATED SYNTHESIS:  
TOWARDS A GENERAL STRATEGY FOR A CERAMIC-METAL COMPOSITE POWDERS.Yoon<sup>1</sup>, J.Dornseiffer<sup>2</sup>, T.Schneller<sup>3</sup>, D.Hennings<sup>1</sup>, C.Pithan<sup>1</sup>, R.Waser<sup>1,3</sup><sup>1</sup>*Institut für Festkörperforschung, Forschungszentrum Jülich GmbH, Jülich, Germany*<sup>2</sup>*Institut für Chemie und Dynamik der Geosphäre, Forschungszentrum Jülich GmbH, Jülich, Germany*<sup>3</sup>*Institut für Werkstoffe der Elektrotechnik, RWTH Aachen, Aachen, Germany***COST-P-10**

BROADBAND DIELECTRIC SPECTROSCOPY OF RELAXOR PMN-PT CERAMICS

R.Grigalaitis<sup>1</sup>, J.Banys<sup>1</sup>, A.Brilingas<sup>1</sup>, K.Bormanis<sup>2</sup>, A.Sternberg<sup>2</sup>, V.Zauls<sup>2</sup><sup>1</sup>*Faculty of Physics, Vilnius University, Vilnius, Lithuania*<sup>2</sup>*Institute of Solid State Physic, University of Latvia, Riga, Latvia***COST-P-11**BROADBAND DIELECTRIC SPECTRA OF 0.95 BaTiO<sub>3</sub>- 0.05 La(Mg<sub>1/2</sub>Ti<sub>1/2</sub>)O<sub>3</sub> CERAMICSP.Keburis<sup>1</sup>, J.Banys<sup>1</sup>, A.Brilingas<sup>1</sup>, A.N.Salak<sup>2</sup>, V.M.Ferreira<sup>2</sup><sup>1</sup>*Physics Faculty of Vilnius University, Vilnius, Lithuania*<sup>2</sup>*Department of Ceramics and Glass Engineering/CICECO, University of Aveiro, Portugal***COST-P-12**STRUCTURAL CHARACTERIZATION AND PHASE TRANSFORMATIONS IN METAL OXIDE FILMS  
SYNTHESIZED BY SILD METHODG.S. Korotcenkov<sup>1,2</sup>, Sang Do Han<sup>2</sup>, V.Tolstoy<sup>3</sup><sup>1</sup>*Technical University of Moldova, Chisinau, Moldova*<sup>2</sup>*Korea Institute of Energy Research, Daejeon, Korea*<sup>3</sup>*St. Petersburg State University, St. Petersburg, Russia***COST-P-13**

PROPERTIES OF LANTHANUM DOPED BARIUM TITANATE PRODUCED FROM NANOPOWDERS

M.M.Vijatović<sup>1</sup>, J.D.Bobić<sup>1</sup>, M.A.Zaghetė<sup>2</sup>, Lj.M.Živković<sup>3</sup>, B.D.Stojanović<sup>1</sup><sup>1</sup>*Institute for Multidisciplinary Researches, Belgrade, Serbia*<sup>2</sup>*Instituto de Quimica - UNESP, Araraquara, Brazil*<sup>3</sup>*Faculty of Electronic Engineering, University of Niš, Niš, Serbia***COST-P-14**RAMAN STUDY OF FERROELECTRIC BISMUTH LAYER-OXIDE ABi<sub>4</sub>Ti<sub>4</sub>O<sub>15</sub> PREPARED BY THE  
MECHANOCHEMICAL SYNTHESISZ.Ž.Lazarević<sup>1</sup>, N.Ž.Romčević<sup>1</sup>, J.Bobić<sup>2</sup>, N.Paunović<sup>1</sup>, Z.Mitrović-Dohčević<sup>1</sup>, B.D.Stojanović<sup>2</sup><sup>1</sup>*Institute of Physics, Belgrade, Serbia*<sup>2</sup>*Institute for Multidisciplinary Researches, Belgrade, Serbia*

**COST-P-15**

CHARACTERIZATION OF BARIUM BISMUTH TITANATE PREPARED BY MECHANICAL ASSISTED SYNTHESIS

J.D.Bobić<sup>1</sup>, B.D.Stojanović<sup>1</sup>, M.M.Vijatovic<sup>1</sup>, T.Rojac<sup>2</sup>

<sup>1</sup>*Institute for Multidisciplinary Researches, Belgrade, Serbia*

<sup>2</sup>*Jozef Stefan Institut, Ljubljana, Slovenia*

**COST-P-16**

PHASE FORMATION AND ELECTRICAL PROPERTIES OF THE LaCoO<sub>3</sub> OBTAINED BY WATER-BASED SOL-GEL METHOD WITH CITRIC ACID

Luminița Predoana<sup>1</sup>, Barbara Malić<sup>2</sup>, Marija Kosec<sup>2</sup>, Mariana Scurtu<sup>1</sup>, Monica Caldararu<sup>1</sup>, Maria Zaharescu<sup>1</sup>

<sup>1</sup>*"Ilie Murgulescu" Institute of Physical Chemistry, Romanian Academy, Bucharest, Romania*

<sup>2</sup>*Jozef Stefan Institute, Ljubljana, Slovenia*

**COST-P-17**

NANOSTRUCTURED SOLID SOLUTIONS OF THE FLUORITE AND PEROVSKITE TYPE CRYSTAL STRUCTURES

S.Bošković<sup>1</sup>, D.Djurović<sup>1</sup>, S.Zec<sup>1</sup>, B.Matović<sup>1</sup>, M.Zinkevich<sup>2</sup>, F.Aldinger<sup>2</sup>, M.Vlajić<sup>3</sup>, V.Krstić<sup>3</sup>, Lj.Živković<sup>4</sup>

<sup>1</sup>*Institute of Nuclear Sciences Vinca, Serbia*

<sup>2</sup>*Max-Planck Institut, PML, Stuttgart, Germany,*

<sup>3</sup>*Queen's University, Kingston, Canada*

<sup>4</sup>*Faculty of Electronic Engineering, University of Niš, Serbia*

**COST-P-18**

UV-ASSISTED RT ON AQUEOUS SOLUTION-GEL PbTiO<sub>3</sub> PRECURSORS

C.De Dobbelaere<sup>1</sup>, A.Hardy<sup>1,2,3</sup>, J.D'Haen<sup>4</sup>, H.Van den Rul<sup>1,2</sup>, M.K.Van Bael<sup>1,2</sup>, J.Mullens<sup>1</sup>

<sup>1</sup>*Hasselt University, Institute for Materials Research, Inorganic and Physical Chemistry group, Diepenbeek, Belgium*

<sup>2</sup>*IMEC vzw, division IMOMECE, Diepenbeek, Belgium*

<sup>3</sup>*XIOS Hogeschool Limburg, Department IWT, Diepenbeek, Belgium*

<sup>4</sup>*Hasselt University, Institute for Materials Research, Materials Physics group, Diepenbeek, Belgium*

R.Jiménez, J.Ricote, M.L.Calzada

*Instituto de Ciencia de Materiales de Madrid (CSIC), Cantoblanco, Madrid, Spain*

**COST-P-19**

BARIUM AND STRONTIUM ZIRCONATE AND NIOBATE SYNTHESIS BY AN AQUEOUS SOLUTION-GEL ROUTE

A.Hardy<sup>1,2,3</sup>, J.D'Haen<sup>3,4</sup>, S.Van Elshocht<sup>5</sup>, S.De Gendt<sup>5</sup>, M.Heyns<sup>5</sup>, M.D'Olieslaeger<sup>5</sup>,

H.Van den Rul<sup>1,3</sup>, M.K.Van Bael<sup>1,3</sup>, J.Mullens<sup>1</sup>

<sup>1</sup>*Hasselt University, Inorganic and Physical Chemistry group -Institute for Materials Research, Diepenbeek, Belgium*

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<sup>3</sup>*IMEC, Division IMOMECE, Diepenbeek Belgium*

<sup>4</sup>*Hasselt University, Materials Physics group-Institute for Materials Research, Diepenbeek, Belgium*

<sup>5</sup>*IMEC, Heverlee, Belgium*

**COST-P-20**

ALUMINA –DOPED AND UNDOPED ZINC OXIDE FILMS OBTAINED BY SOFT CHEMISTRY

M.S.Mihaiu<sup>1</sup>, Al.Toader<sup>1</sup>, M.Anastasescu<sup>1</sup>, T.Petrisor jr.<sup>2</sup>, MStoica<sup>1</sup>, M.Gabor<sup>2</sup>, and M. Zaharescu<sup>1</sup><sup>1</sup>*“Ilie Murgulescu” Institute of Physical Chemistry of the Romanian Academy, Spl. Independentei 202, Ro-060021 Bucharest, Romania*<sup>2</sup>*Tehcnical University of Cluj-Napoca, Materials Science Laboratory-Thin Films, George Baritiu 26-28, Ro-400027 Cluj –Napoca, Romania***COST-P-21**

SINTERING OF CERAMIC NANOCRYSTALLINE POWDERS

V.D.Kassabova-Zhetcheva, L.P.Pavlova, B.I.Samuneva, E.P.Kashchieva

*University of Chemical Technology and Metallurgy, Sofia, Bulgaria***COST-P-22**

SYNTHESIS AND STRUCTURE OF NANOMATERIALS IN THE SYSTEM

K<sub>2</sub>O-Nb<sub>2</sub>O<sub>5</sub>-SiO<sub>2</sub>G.Chernev<sup>1</sup>, B.Samuneva<sup>1</sup>, I.M.Miranda Salvado<sup>2</sup>, P.Vilarinho<sup>2</sup>, A.Wu<sup>2</sup><sup>1</sup>*University of Chemical Technology and Metallurgy, Sofia, Bulgaria*<sup>2</sup>*University of Aveiro, Department of Ceramic and Glass Technology, CICECO, Aveiro, Portugal***COST-P-23**

THE INFLUENCE OF INDIUM DOPING ON MAGNETIC AND ELECTRICAL PROPERTIES OF ZINC-FERRITE NANOPARTICLES

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INFLUENCE OF THE SYNTHESIS ROUTE ON THE PIEZOELECTRIC PROPERTIES OF BNBT NANOPOWDERS

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SYNTHESIS AND CHARACTERIZATION OF Ce and La MODIFIED BISMUTH TITANATE

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*Dept. of Material Engineering, Faculty of Technology, Novi Sad University, Novi Sad, Serbia***COST-P-26**DIELECTRIC INVESTIGATIONS OF BiFeO<sub>3</sub>S.Greičius<sup>1</sup>, J.Banys<sup>1</sup>, I.Szafraniak-Wisa<sup>2</sup><sup>1</sup>*Faculty of Physics, Vilnius University*<sup>2</sup>*Institute of Material Science and Engineering, Poznań University of Technology*

**COST- P-27**

DIELECTRIC INVESTIGATIONS OF THE  $0,6\text{BaTiO}_3\text{-}0,4(\text{Ni,Zn})\text{Fe}_2\text{O}_4$  MULTIFERROIC COMPOSITES

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**COST- P-28**

HYDROTHERMAL SYNTHESIS OF POTASSIUM –SODIUM NIOBATES FOR PIEZOELECTRIC APPLICATIONS

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