

(15) Electro Ceramics

Chair : **K B R Varma**
Materials Research Centre
Indian Institute of Science
Bangalore 560 012, India
Email: kbrvarma@mrc.iisc.ernet.in

Co-Chairs : **Takayuki Komatsu**
Department of Materials Science and Technology
Nagaoka University of Technology
Nagaoka 940-2188, Japan
Email: komatsu@mst.nagaokaut.ac.jp

Ajit Kulkarni
Department of Metallurgical Engineering and Materials Science
Indian Institute of Technology-Bombay
Powai
Mumbai 400 076, India
Email: ajit.kulkarni@iitb.ac.in

DETAILED PROGRAMME**Tuesday, 17-12-2013****Session I : 11.45 – 13.15**

11.45 - 12.15 Invited Talk (1)	<u>T. Komatsu</u> F. Suzuki and T. Honma	ABS - 876 - ICA Unique Crystal Growth with Crystal Axis Rotation in Multi-Ferroic β' - $\text{Gd}_2(\text{MoO}_4)_3$ Patterned by Laser
12.15 - 12.45 Invited Talk (2)	S. Susanth K. Blesson K.G. Vasanthakumari T.Radhika & <u>N. Raghu</u>	ABS - Email - ICA “Multilayer Piezo Actuators Based On Silver Internal Electrodes”
12.45 - 13.00 Oral (1)	<u>K. Chandramani Singh</u> and Roopam Gaur	ABS - 33 - IAC Structural, electrical and piezoelectric properties of Li and Ba modified leadfree $(\text{K}_{0.5}\text{Na}_{0.5})(\text{Nb}_{0.9}\text{Ta}_{0.1})\text{O}_3$ ceramics
13.00 - 13.15 Oral (2)	<u>Paramjit Kour</u> Pawan kumar Sanjay Kumar Sinha & Manoranjan Kar	ABS - 250 - ICA Effect of Neodymium Doping on the Dielectric and Impedance of PZT Nanoceramics

Wednesday, 18-12-2013**Session II : 16.00 – 18.00**

16.00 - 16.30 Invited Talk (3)	<u>A.R. James</u>	ABS - 557 - ICA Application of novel synthetic techniques to electroceramics for improved electrical properties
16.30 - 17.00 Invited Talk (4)	Tuan Dung Nguyen Bramhe Sachin N. and <u>Taik-Nam Kim</u>	ABS - Email1 - ICA Performance of electric double layers capacitor using activated carbon electrode materials from rice husk
17.00 - 17.15 Oral (3)	<u>V. U. Rahangdale</u> M. V. Jagdale and V. K. Deshpande	ABS - 289 - ICA Effect of Glass Addition on the Properties of Lead Titanate Based Composites
17.15 - 17.30 Oral (4)	S.D. Ramarao and <u>V.R.K. Murthy</u>	ABS - 680 - ICA Influence of Structural Characteristics on Microwave Dielectric Properties of $\text{Zn}_{1-x}\text{Ni}_x\text{WO}_4$ Solid solution
17.30 - 17.45 Oral (5)	<u>Sunil Kumar Panda</u> Paritosh Chaudhuri Kajal Parashar S.K.S.Parashar	ABS - 720 - ICA Microwave Sintering of Nano Lithium Titanate Ceramic
17.45 - 18.00 Oral (6)	Piyush Kumar Patel and <u>K. L. Yadav</u>	ABS - 765 - ICA Giant Dielectric Response in $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ Ceramics Evidenced by Nanostripe Domains

Thursday, 19-12-2013

Session III : 10.15 – 11.15

10.15 - 10.45 Invited Talk (5)	<u>Y. Takahashi</u> K. Yamaoka Y. Yamazaki, R. Ihara, and T. Fujiwara	ABS - 1570 - ICA Perfectly Surface Crystallized Glass-Ceramics: Domain Structure and Electro-Optic Effect
10.45 - 11.00 Oral (7)	<u>M. Sindhu</u> N. Ahlawat S. Sanghi, R. Kumari and A. Agarwal	ABS - 929 - ICA Studies of structural and electrical properties of $Ba_{0.9}Ca_{0.1}Ti_{1-x}Zr_xO_3$ lead free ceramics
11.00 - 11.15 Oral (8)	Ganesh K. Sahoo <u>Ranabrata Mazumder</u> D.Chakroborty	ABS - 1037 - ICA Preparation of dense nanostructured ceramics by spark plasma sintering from molten salt synthesized $BaTiO_3$ nanoparticle and its dielectric properties

Session IV : 11.45 – 13.15

11.45 - 12.15 Invited Talk (6)	<u>V. Kumar</u>	ABS - Email2 - ICA PZT Thin Films: Influence of Film Texture for Microactuator Applications.
12.15 - 12.45 Invited Talk (7)	<u>V. K. Deshpande</u>	ABS - Email3 - ICA Development of $PbTiO_3$ Based Glass-Ceramics for high temperature transducer Applications
12.45 - 13.00 Oral (9)	<u>P S Krishnaprasad</u> Aldrin Antony Fredy Rojas Joan Bertomeu M K Jayaraj	ABS - 1081 - ICA Buffer assisted domain matched epitaxial growth of $Ba_{0.5}Sr_{0.5}TiO_3$ thin films by pulsed lased deposition for optoelectronic applications
13.00 - 13.15 Oral (10)	<u>S. Karmakar</u> S. Sahu S. M. Gupta A. K. Sinha and S. K. Deb	ABS - 1152 - ICA Electrical and XANES studies on Pb and Ti co doped $Bi_{1-x}Pb_xFe_{1-y}Ti_yO_3$ multiferroic

Session V : 16.00 – 18.00

16.00 - 16.30 Invited Talk (8)	<u>U. Balachandran,</u> M. Narayanan, T.H. Lee, C.Y. Park and S.E. Dorris	ABS - 842 - ICA Development of Ceramic Dielectric Films for Power Inverters in Electric Drive Vehicles
16.30 - 16.45 Oral (11)	<u>H B Sharma</u> K. Nomita Devi W. Joychandra Singh and S Bobby Singh	ABS - 1308 - ICA Structural, dielectric and magnetic properties of $BiFeO_3$ - $CoFe_2O_4$ nanocomposite ceramics
16.45 - 17.00 Oral (12)	<u>H. Basantakumar Sharma</u> H.Hemanta Singh and S.Boby Singh	ABS - 1308a - ICA Electrical properties of barium zirconium titanate ceramics
17.00 - 17.15 Oral (13)	<u>Anita Khokhar</u> Parveen K, Goyal K. Sreenivas	ABS - 1356 - ICA Study of the Relaxor Behavior of $BaBi_{4-x}La_xTi_4O_{15}$ Ferroelectric Ceramics

17.15 - 17.30 Oral (14)	<u>Vijayeta Pal</u> O. P. Thakur and R. K. Dwivedi	ABS - 1360 - ICA Structural, Microstructure and Ferroelectric Properties of Environmental friendly Lead free $(\text{Bi}_{1-x}\text{Nd}_x)_{0.5}\text{Na}_{0.5}\text{TiO}_3$ Ceramics
17.30 - 17.45 Oral (15)	<u>Arvind Kumar</u> and S. K. Mishra	ABS - 1391 - ICA Studies on Dielectric and Piezoelectric Properties of La Modified PZTFN Ceramic System
17.45 - 18.00 Oral (16)	<u>O.P. Thakur</u> Asha Dahiya J.K.Juneja and Dipti	ABS - 1407 - ICA Effect of Sintering Temperature on the Dielectric Properties of Lead Free Piezoelectric KNN ceramic

Poster Session :

Wednesday, 18-12-2013, 14.00-15.30

15 - Poster - 01	B.B. Mohanty, P.S. Sahoo, R.N.P. Choudhary	Study of electrical properties $\text{Ba}_4\text{SrLaTi}_3\text{V}_7\text{O}_{30}$	ABS - 24 - ICA
15 - Poster - 02	P.V. Sudharani, G. Umadevi and MP Dasari	Dielectric, Ferroelectric and Piezoelectric Properties of $\text{K}_{1/2}\text{Na}_{1/2}\text{NbO}_3$ ceramic prepared by molten-salt synthesis using the eutectic mixture of KCl-NaCl	ABS - 217 - ICA
15 - Poster - 03	Ajeet Kumar, V V Bhanu Prasad, K C James Raju, A R James	Influence of lanthanum substitution on the structural and electrical properties of ultra high strain PZT ceramics	ABS - 560 - ICA
15 - Poster - 04	Anup Pradhan Sakhya, Sujoy Saha, Alo dutta and T.P. Sinha	Impedance spectroscopy, ac conductivity and electronic structure of NdAlO_3 : Experimental and First-Principles Approaches	ABS - 586 - ICA
15 - Poster - 05	M.L.V. Mahesh and A.R. James	Role of high energy ball milling on the Piezoelectric Properties of Lead-Free Ceramics	ABS - 604 - ICA
15 - Poster - 06	Indrani Das, Sadhan Chanda, Alo Dutta, Sourish Banerjee and T.P. Sinha	Small polaron migration associated multiple dielectric responses and Maxwell-Wagner relaxation in Y_2CrAlO_6	ABS - 626 - ICA
15 - Poster - 07	Saswata Halder, Lata Agarwal and T.P. Sinha	Dielectric relaxation of $\text{BaFe}_{1/4}\text{In}_{1/4}\text{Ta}_{1/2}\text{O}_3$	ABS - 779 - ICA
15 - Poster - 08	Rekha Kumari, N. Ahlawat, A. Agarwal, Sujata Sanghi, Monica	Effect of Ca substitution on the Dielectric Properties of $(\text{Na}_{0.5}\text{Bi}_{0.5})_{1-x}\text{Ca}_x\text{TiO}_3$ (NBCT) ceramics	ABS - 925 - ICA

15 - Poster - 09	Sumit Ranjan Maity, Martando Rath, Brajesh Tiwari and M.S. Ramachandra Rao	Structural, Electrical and Optical properties of $\text{PbZr}_x\text{Ti}_{1-x}\text{O}_3$ ceramics	ABS - 1042 - ICA
15 - Poster - 10	Neetu Ahlawat, Sandeep Kumar, Navneet Ahlawat	The effect of Microwave Sintering on Dielectric and Ferroelectric Properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ Ceramic	ABS - 1129 - ICA
15 - Poster - 11	S.K. Sayyed and S.A. Acharya	Effect of synthesis condition on phases of BNT-BT solid solution	ABS - 1160 - ICA
15 - Poster - 12	Parveen K. Goyal, Anita Khokhar, K. Sreenivas	Dielectric response of $\text{Sr}_{1-x}\text{Ba}_x\text{Bi}_4\text{Ti}_4\text{O}_{15}$ layer-structured Ferroelectric Ceramics	ABS - 1190 - ICA
15 - Poster - 13	Manjit Borah, Dambarudhar Mohanta	Enhanced nonparabolicity and Urbach tailing in BaTiO_3 nanostructured system due to Tb incorporation	ABS - 1250 - ICA
15 - Poster - 14	H. Basantakumar Sharma, Th. Dhanabati Devi and S. Bobby Singh	Sol-gel processed barium titanate - cobalt ferrite composites	ABS - 1308 - ICA
15 - Poster - 15	S. Santhosh and N. Lakshminarasimhan	Role of Microstructure on Dielectric Properties of CrNbO_4	ABS - 1331 - ICA
15 - Poster - 16	N. Lalitha Kumari, B. Rajesh Kumar, G. Sudhakhar and C. Pullaiah	Microstructural and Thermoelectric properties of ZnO doped with different concentrations of Sb_2O_3	ABS - 1357 - ICA
15 - Poster - 17	Subrat K. Kar and P. Kumar	Dielectric relaxation and conductivity study of Microwave Sintered Lanthanum doped $\text{Ba}(\text{FeNb})_{0.5}\text{O}_3$ ceramics	ABS - 1430 - ICA