NINTH NATIONAL CONFERENCE ON SOLID STATE IONICS (NCSSI-9)
December 15-17, 2011

PROGRAM*

Thursday, December 15, 2011

Time	Activity	
08:30-9:30	Registration	
09:30-10:00	Opening Ceremony – **Inauguration by Prof. S. C Saxena, Vice-Chancellor, JIIT, Noida**	
10:00-11:00	PL	Convergence of ionic and electronic transport: emerging exciting prospects **Suresh Chandra, B. H. U, Varanasi**
11:00-11.15	**Coffee Break**	
Technical Session-1		
11:15-12:50	I-1, I-2, O-2, O-3, O-4	
12:50-13:50	**Lunch Break**	
Technical Session-2		
13:50-15:25	I-3, I-4, O-5, O-7, O-8	
15:25-15:40	**Coffee Break**	
Technical Session-3		
15:40:17:15	I-5, I-7, O-10, O-11, O-22	
17:15	**End of the session**	

Friday, December 16, 2011

Time	Activity	
Technical Session-4		
09:30-10:15	KL	Solid state ionics-materials and applications: an overview **K. Hariharan, IIT Madras, Chennai**
10:15-11:10	I-6, O-1, O-9	
11:10-11.25	**Coffee Break**	
Technical Session-5		
11:25-13:10	I-16, I-13, I-14, O-20, O-21	
13:10-14:00	**Lunch Break**	
Technical Session-5		
14:00-15:30	**P1-P50**	**POSTER PRESENTATION**
15:30-15:45	**Coffee Break**	
Technical Session-6		
15:45:17:15	I-8, I-9, O-12, O-13	
17:15	**End of the session**	
07:00-09:00	**Vice-Chancellor's Dinner at CISF Camp, NH-24, Indirapuram, Ghaziabad**	

Saturday, December 17, 2011

Time	Activity
Technical Session-7	
09:30-11:05	I-12, I-11, O-14, O-15, O-16
11:05-11.20	**Coffee Break**
Technical Session-8	
11:20-11:45	I-10, I-18, I-17, O-17, O-18
13:05-14:05	**Lunch Break**
Technical Session-9	
14:05-15:10	I-15, O-6, O-19
15:10	**Valedictory Function**

PL: Plenary Lecture
KL: Keynote Lecture
I: Invited Talk **(25 Minutes including discussions)**
O: Oral Presentation **(15 Minutes including discussions)**
P: Poster Presentation

***Please check the last minute changes in the schedule during sessions.**

Details of the Invited talks

I-1	Polymer electrolyte membranes for electrochemical application **M. Patri, NMRL, Thane**
I-2	Ionic conductivity of polymer electrolyte nanocomposites **Subodh Kumar De, IACS, Kolkata**
I-3	Nano-composite polymer electrolytes (NCPEs): materials and device prospects **R. C. Agrawal, Pt. Ravi Shankar University, Raipur**
I-4	Polymer electrolyte composites with dispersed graphene: two conductivity peaks and reasons thereof **Amita Chandra, Delhi University, Delhi**
I-5	Polymer-layered silicates intercalative nanocomposite electrolytes and swift heavy ion irradiation effects **A. Kumar, Tezpur University, Tezpur**
I-6	PEO based polymer electrolyte systems **D. K. Kancha, The M. S University, Baroda**
I-7	Studies on properties of ionic liquids in matrices/membranes **Rajendra Kumar Singh, B. H. U. Varanasi**
I-8	Applying fractional calculus in solid state ionics **Sujata Tarafdar, Jadavpur University, Kolkata**
I-9	Coupled fast and slow relaxation dynamics in ion conduction solids

	G. Govindaraj, Pondicherry University, Puducherry
I-10	Ion dynamics: issues and challenges **J. P. Tiwari, CECRI, Karaikudi**
I-11	An understanding of thermal stability in superionic glasses using differential scanning calorimetry and electrical conductivity-temperature cycles **Anshuman Dalvi, BITS, Pilani**
I-12	Phase transitions in superionics **C. S. Sunandana, Unversity of Hyderabad, Hyderabad**
I-13	Breaking the efficiency barrier set by use of nafion in microbial fuel cell technology **Amreesh Chandra, IIT Kharagpur**
I-14	Cathode materials for intermediate temperature solid oxide fuel cells (IT-SOFC) **S. S. Bhoga, RTM Nagpur University, Nagpur**
I-15	Polymer electrolytes based supercapacitors: some challenging issues and recent advancement **S. A. Hashmi, Delhi University, Delhi**
I-16	"Stuffed" lithium garnets for all solid state lithium battery and lithium-water battery **Ramaswamy Murugan, Pondicherry University, Puducherry**
I-17	Application aspects of polymer electrolytes in solar cells **S. Austin Suthanthirara, University of Madras, Chennai**
I-18	DNA biosensor for quick detection of pathogens causing human infectious diseases **Ashok Kumar, IGIB, New Delhi**

Details of Oral Presentations

O-1	Ionic transport and electrochemical properties of plasticized PEO-montmorillonite based single ion conductor *A. Kumar and M. Deka*
O-2	Synthesis and characterization of new Zn^{2+} ion conducting PEG based solid polymer electrolytes *Anji Reddy Polu, Ranveer Kumar, Valerio Causin, Ramesh Neppalli and Harsha Dehariya*
O-3	Preparation and ion transport studies of LITFSI-PVDF-HFP solid polymer electrolyte for lithium battery application *D. P. Singh, K. Shahi and K. K. Kar*
O-4	Investigations on ion transport property of hot-press casted Mg^{2+} - ion conducting nano-composite polymer electrolyte (NCPE) membranes: study of effect of active / passive filler particle dispersal on conductivity *R. C. Agrawal, Dinesh Sahu, Y. K. Mahipal and Rehana Ashrafi*
O-5	Study of polyvinyl formal (PVF) based nanocomposite polymer electrolyte dispersed with multiferroic filler *S. L. Agrawal, Markandey Singh, Nidhi Asthana, Mrigank Mauli Dwivedi and Kamlesh Pandey*
O-6	A comparative study on solid-state supercapacitors with lithium and magnesium ion conducting gel polymer electrolytes *Yogesh Kumar, G. P. Pandey and S. A. Hashmi*
O-7	Studies on redox supercapacitor using electrochemically synthesized polypyrrole as

	electrode material using blend polymer gel electrolyte *S. K. Tripathi, Amrita Jain, Ashish Gupta and Manju Kumari*
O-8	Investigation of starch nanoparticle based polymer electrolyte system *Tuhina Tiwari, Manindra Kumar, P. C. Srivastava, K. Pandey and Neelam Srivastava*
O-9	Chaotic behaviour of ions in polymer gel electrolytes *Sangeeta Rawat, Barnamala Saha, Awadhesh Prasad and Amita Chandra*
O-10	Effect of ionic liquid on the ionic transport and dielectric relaxation of PEO-$LIPF_6$ polymer electrolytes *S. K. Chaurasia, R. K. Singh and S. Chandra*
O-11	Change in dielectric relaxation behaviour of ionic liquid due to confinement in nano porous silica matrix *Manish Pratap Singh, Rajendra Kumar Singh and Suresh Chandra*
O-12	Molecular dynamics investigation of structure and conductivity of NASICONs *Supriya Roy and Padma Kumar Padmanabhan*
O-13	Study of diffusion and conduction in gamma irradiated solid polymer electrolytes through computer simulation *Ruma Ray, Subhashish Ghosal, T. K. Ballabh and S. Tarafdar*
O-14	Structural and electrical transport studies in CuI substituted AgI-oxysalt glass- ceramic nanocomposites formed during crystallization *Neha Gupta and Anshuman Dalvi*
O-15	Role of nanocrystalline phases on the electrical properties of lithium titanate phosphate glass ceramics mixed with Ga_2O_3 nanocrystals *Ch. Krishna Kishore Reddy, R. Balaji Rao and K. Veera Bhadra Rao*
O-16	Electronic absorption studies on CO^{2+} doped lithium phosphate glasses *Prashant Dabas and K. Hariharan*
O-17	Dielectric studies in PbI_2-Ag_2O-V_2O_5-B_2O_3 solid electrolytes *Manish S. Jayswal, D. K. Kanchan, Meenakshi Pant, Poonam Sharma and Nirali Gondaliya*
O-18	Development of a new fast ionic system based antimony iodide and silver phosphate *S. Austin Suthanthiraraj and R. Sarumathi*
O-19	Synthesis of garnet structured cubic $Li_7La_3Zr_2O_{12}$ by modified sol-gel technique *Janani Narayanasamy and Ramaswamy Murugan*
O-20	Structural and electrical conductivity studies of nanocrystalline Li_2NiTiO_4 material *Rajesh Cheruku, Lakshmi Vijayan and G.Govindaraj*
O-21	Effect of synthesis route on electrical and electrochemical performance of $Nd_{1.8}Ce_{0.2}CuO_{4\pm\delta}$ cathode *A. P. Khandale and S. S. Bhoga*
O-22	Studies of a blended polymer based proton conducting gel polymer electrolyte system for proton battery application *Kuldeep Mishra, S. A. Hashmi and D. K. Rai*

Details of Poster Presentations

P-1	Ionic conduction studies in PMMA-(PC+DEC)-LiX (X = $LiClO_4$, $LiPF_6$, $LiBF_4$) based gel electrolytes *Rajni Sharma, Anjan Sil and Subrata Ray*
P-2	Electrical studies on PVA based composite electrolyte nanofiber mats doped with

	MWNT *S. L. Agrawal, Neelesh Rai and Navin Chand*
P-3	Impedance analysis on SiO_2 dispersed PEO:AgI polymer electrolyte *Mohan L. Verma and Nirbhay K. Singh*
P-4	Electrical properties of gelatin films with different concentration of $LiClO_4$ *Tania Basu, M. Goswami (Maitra), T. R. Middya and S. Tarafdar*
P-5	FTIR studies of SiO_2 doped PEO-$AgCF_3SO_3$ composite polymer electrolyte *Nirali Gondaliya, D. K. Kanchan, Poonam Sharma, Manish S. Jayswal and Prajakta Joge*
P-6	AC impedance spectroscopic study on PEO:AgI:SiO_2 polymer electrolyte system for supercapacitor *Mohan L. Verma and Nirbhay K. Singh*
P-7	Electrical conductivity studies in PEO-PMMA -$AgNO_3$ polymer blend with nano filler Al_2O_3 *Poonam Sharma, D. K. Kanchan, Nirali Gondaliya and Meenakshi Pant*
P-8	Effect of nano-filler on electrical properties of PVA-PEO blend polymer electrolyte *Prajakta Joge, D. K. Kanchan, Poonam Sharma and Nirali Gondaliya*
P-9	Ion transport characterization and cell potential discharge performance studies on hot-press casted solid polymer electrolyte (SPE): [(1-x) PEO: x Ag (ClO_4)] *R. C. Agrawal, Rehana Ashrafi, Dinesh Sahu, Y. K. Mahipal and Alok Bhatt*
P-10	Electrochemical studies on nanocomposite polymer electrolytes *S. K. Tripathi, Ashish Gupta, Amrita Jain and Manju Kumari*
P-11	Electrical transport properties of novel polymer electrolyte based on PEO *Manindra Kumar, Tuhina Tiwari and Neelam Srivastava*
P-12	Electrical, optical, and structural characterization of polymer blend (PVA/PVP) electrolyte films doped with $NaNO_3$ *K. Ramamohan, V. B. S. Achari, C. Umadevi, V. V. R .N. Rao and A. K. Sharma*
P-13	Effect of particle size of dispersoid on percolation threshold of polymer composites *Puja Diwan and Amita Chandra*
P-14	Investigations on electrical and dielectric properties of PVP: $KClO_4$ polymer electrolyte films *M. Ravi, S. Bhavani,Y. Pavani and V. V. R. Narasimha Rao*
P-15	Solid polymer electrolytes based on poly (vinyl) pyrrolidone (PVP) containing imidazolium based ionic liquid: structural, thermal and electrical characterisation *A. L. Saroj, R. K. Singh and S. Chandra*
P-16	Development of solid proton conductors based on doped poly vinyl alcohol *S. K. Gedam and S. S. Bhoga*
P-17	PEO based magnesium-ion-conducting polymer electrolyte incorporated with succinonitrile *Jyoti Sharma and S. A. Hashmi*
P-18	Studies on succinonitrile based gel polymer electrolytes *Mohd. Suleman, S. A. Hashmi and Yogesh Kumar*
P-19	Electrochemical cell performance of a PEO based electrolyte system plasticized by tween *Kuldeep Mishra, Saurabh S. Pundir, S. A. Hashmi and D. K. Rai*
P-20	Fractals in ion conducting polymeric media

	Anit Dawar and Amita Chandra
P-21	Computer simulation study of monoclinic to rhombohedral transition of $Na_3Zr_2Si_2PO_{12}$ *Supriya Roy and Padma Kumar Padmanabhan*
P-22	Electrical conductivity and knight shift of liquid alkali metals *S. K. Chakrabarti, I. S. Jha, R. N. Yadav and B. P. Singh*
P-23	Modeling of diffusion in nano-composite electrolyte by using space charge depolarization method *Mohan L. Verma, B. Keshav Rao and Homendra Sahu*
P-24	Electrical transport in Li_2SO_4-Li_2O-B_2O_3 glass-ceramic composites *Munesh Rathore and Anshuman Dalvi*
P-25	An evaluation of temperature dependent frequency exponent‘s’ and temperature variation of a.c. conductivity of chalcogenide glasses *N. Singh and L. K. Mishra*
P-26	Correlation between electrical conductivity and glass transition temperature of Li_2O:B_2O_3:SiO_2:TiO_2:Li_2SO_4 glasses *A. V. Deshpande and N. S. Paighan*
P-27	Synthesis and characterization of low density silica ionogels using non-hydrolytic sol-gel method *Abhishek Kumar Gupta, R. K. Singh and S. Chandra*
P-28	Studies on ionic liquid as a binder component for high performance supercapacitors carbon electrodes *Manoj K. Singh, S. A. Hashmi and Yogesh Kumar*
P-29	Ionic liquid gel polymer electrolyte based solid-state-redox supercapacitor using RUO_2 – conducting polymer composite electrodes *Sellam and S. A. Hashmi*
P-30	Preliminary studies on carbon-cobaltite composite electrode materials for redox supercapacitors *S. K. Tripathi, Amrita Jain, Ashish Gupta and Manju Kumari*
P-31	Ionic liquid based sodium ion conducting gel electrolyte for sodium-sulfur batteries *Deepak Kumar, Mohd. Suleman and S.A. Hashmi*
P-32	Effect of Sr doping on structural, electrical and electrochemical properties of $Nd_{2x}Sr_xNiO_4$ mixed-ionic-electronic conductors *J. D. Punde, A. P. Khandale and S. S. Bhoga*
P-33	Cubic $Li_{7-x}La_3Sn_{2-x}$ $(Nb/Ta)_xO_{12}$ (x = 0-1) lithium garnet *K. Saranya and Ramaswamy Murugan*
P-34	High conductive yttrium doped $Li_7La_3Zr_2O_{12}$ cubic lithium garnet *S. Ramakumar N. Janani and Ramaswamy Murugan*
P-35	Stability of garnet structured $Li_7La_3Zr_2O_{12}$ for lithium - water battery application *L. Dhivya and Ramaswamy Murugan*
P-36	Synthesis and characterisation of $Li_{7+x}La_3Y_xZr_{2-x}O_{12}$ (x=0.1, 0.2, 0.3, 0.4) *C. Deviannapoorani and Ramaswamy Murugan*
P-37	Structural and electrical studies of nanocrystalline olivine type $LiNiPO_4$ material *Kruthika Ganesan, Rajesh Cheruku, Lakshmi Vijayan and G. Govindaraj*
P-38	Synthesis, structure and electrical conductivity studies of inverse spinel $Li_{0.5}Fe_{2.5}O_4$ *Viswarupa Mohanty, Rajesh Cheruku, Lakshmi Vijayan and G. Govindaraj*
P-39	Fabrication and solid state battery discharge performance studies of thermally stable

	silver-bismuth solid electrolyte system synthesized by mechanical milling technique *Ranveer Kumar , Harsha Dehariya, Anji Reddy Polu and R. K. Nagarch*
P-40	The influence of annealing temperature on structural and electrochemical properties of RF magnetron sputtered $LICOO_2$ thin film cathodes *P. Jeevan Kumar, K. Jayanth Babu and O. M. Hussain*
P-41	The growth, structural and electrochemical properties of as deposited RF magnetron sputtered $LIMN_2O_4$ films *K. Jayanth Babu, P. Jeevan Kumar and O. M. Hussain*
P-42	Amino acid facilitated coupled gold nanoparticles for glucose sensing *Shikha Sharma, Nidhi Gupta and Sudha Srivastava*
P-43	Dielectric studies and determination of molecular dipole moment of a liquid crystal mixture *Molly Dutta Gupta and Anuradha Mukhopadhyay*
P-44	The photoacoustic spectroscopy applied in determining the energy band gap of ferrous oxide with chromium doped thin film & polymeric materials *Hukum Singh*
P-45	Some studies on photoelectrochemical properties of chemically deposited n-$Cd_{1-x}Pb_xS$ thin films *M. A. Barote , A. A. Yadav , T. V. Chavan and E. U. Masumdar*
P-46	Dielectric properties of $BaBi_4Ti_4O_{15}$ ceramics produced by cost-effective chemical method *Shekhar and S. K. Bandyopadhayay*
P-47	Studies on chemical bath deposited polycrystalline n-PbSe thin films *M. A. Barote , B. D. Ingale, G. D. Tinggre, T. V. Chavan and E. U. Masumdar*
P-48	Optical and electrical transport properties of chemical bath deposited PbSe thin films *M. A. Barote , R. V. Surywanshi, L. P. Deshmukh and E. U. Masumdar*
P-49	Chemically deposited n-PbSe thin films: growth and properties *M. A. Barote, B. D. Ingale, G. D. Tingre, R. V. Surywanshi and E. U. Masumdar*
P-50	Structural and optical properties of spray deposited CuS films *U. Chalapathi, S. Uthanna and V. Sundara Raja*