



International Conference on NANOSCIENCE AND NANOTECHNOLOGY

(ICONN 2010)

Program Schedule

February 24 – 26, 2010

Organised by
Department of Physics
Faculty of Engineering and Technology
SRM University
Kattankulathur – 603 203, Tamil Nadu, India

In Association with
Indira Gandhi Centre for Atomic Research (IGCAR)
Kalpakkam - 603 102, Tami Nadu, India.

02.00 – 03.30 pm		SESSION - 2
Chairperson	:	Prof. Li-Chyong Chen <i>National Taiwan University, Taiwan</i>
Repertoire	:	Mrs. C. Preferential Kala <i>SRM University, Kattankulathur</i>

- IT1 Metal Nanorod Arrays: New Solutions For Classical Problems**
Prof. Pushan Ayyub
TIFR, Mumbai
- IT2 Microwave Synthesis of Nanomaterials with Improved Structural and Mechanical Properties**
Dr.R.Jayavel
Anna University, India
- IT3 Novel Hydrothermal Solution Routes of Advanced High Melting Nanomaterials Processing**
Prof. K.Byrappa
University of Mysore, India

03.30 – 04.40 pm		SESSION - 3
03.30 - 04.40 pm	:	Tea/Coffee break
Chairperson	:	Prof. K. Byrappa <i>University of Mysore, India</i>
Repertoire	:	Mr. M. Krishnamohan <i>SRM University</i>
Poster Session-A	:	P.1-P.50

- P1 Preparation of nanostructures zinc oxide thin films and its possible applications in photoelectrochemical splitting of water**
Pushendra Kumar, Vidhika Sharma, Jaya Shrivastava, Anajana Solanki, Sumant Upadhyay
Dayalbagh Educational Institute, Dayalbagh

- P2 A study on Ni doped Nanostructures ZnO for Photo-Electro-Chemical Solar-Hydrogen Generation**
Vidhika Sharma, Pushpendra Kumar, Jaya Shrivastav, Anjana Solanki, V. R. Satsangi, S.Dass , Rohit Shrivastav
*Hydrogen Energy Laboratory, Department of Chemistry,
Department of Physics & Computer Science,
Dayalbagh Educational Institute, Dayalbagh, Agra – 282 110, India*
- P3 Synthesis and characterization of nanopolyacrylic acid**
I.D.Patil¹ and Y.S.Patil²
¹*Dept. of Biotechnology, S.S.T.s College of Engineering and Technology,
Bambhori, Jalgaon*
²*Applied Science Dept. Govt. College of Engineering, Jalgaon*
- P4 Property enhancement of transformer oil with suspension of Titania nanoparticles**
S. Sivakumar¹, P. Sasikanth¹, Sharannath Mohanram¹, C. Manikandan¹, A. Siddharthan²
¹*Materials Science and Engineering, Department of Mechanical Engineering,
College of Engineering Guindy Campus, Anna University Chennai, Chennai.*
²*Department of Mechanical Engineering, College of Engineering Guindy
Campus, Anna University Chennai, Chennai – 25*
- P5 Characterization of Sb doped and undoped SnO₂ films prepared by microprocessor controlled spray unit**
Chaitra.V, K.S.Shamala, V.Uma
Mount Carmel College, Bangalore
- P6 Sol gel dip coated GZO thin films**
A.Kalaivanan¹, N.Neelakanda Pillai¹, S.Perumal² and K.R.Murali³
¹*Department of Physics, Arignar Anna College, Aralvaymozhi- 629 301*
²*Department of Physics, S.T.Hindu College, Nagercoil- 629 002*
³*Electrochemical Materials Science Division, Central Electrochemical
Research Institute, Karaikudi – 630 006*
- P7 Synthesis and characterization of Strontium doped Hydroxyapatite nanopowders by sol-gel method**
P. Kanchana, C. Sekar
*Center for Nanoscience and Technology, Department of Physics
Periyar University, Salem – 636 011, Tamilnadu*
- P8 Processing of Bulk nanostructured Al alloy by repetitive corrugation and straightening**
Gokulnath.D, Ravisankar.S, Parthasarathi.N.R, Rajarajan.A,
Dr. S. Bala Sivanandha Prabu
*Department of Mechanical Engineering, College of Engineering, Guindy, Anna
University Chennai, Chennai – 25*

- P9 Synthesis and characterization of CdSe nanoparticles by microwave assisted solution method**
 S. Ganapathy Raman¹, P. Selvarajan², Dr. Krishna ratnam³
 T.Chidambaradhanu⁴
¹*Department of Instrumentation, Sterlite Industries (I) Ltd.*
²*Department of Physics , Aditanar College of Arts and Science, Tiruchendur*
³*Department of QA, Sterlite Industries (I) Ltd.*
⁴*Physics Research Centre, S.T. Hindu College, Nagercoil-629003.*
- P10 Synthesis and charectrisation of PEG assisted tungsten oxide nanoparticles by microwave irradiation method**
 V. Hariharan¹, M. Parthibavarman¹, C. Sekar¹, V.N.Singh²
¹*Centre for Nanoscience and Technology, Department of Physics, Periyar University, Salem – 636011, Tamilnadu.*
²*Thin Film Laboratory, Department of Physics, Indian Institute of Technology, Hauz Khas, New Delhi-110016.*
- P11 Synthesis and charectrisation of pure and cu doped SnO₂ nanopowders by chemical co-precipitation method**
 M. Parthibavarman¹, V. Hariharan¹, P. Sangeetha¹, C. Sekar¹, V.N.Singh²
¹*Centre for Nanoscience and Technology, Department of Physics, Periyar University, Salem – 636011, Tamilnadu.*
²*Thin Film Laboratory, Department of Physics, Indian Institute of Technology, New Delhi-110016*
- P12 Synthesis of thiol capped cds and cdTe quantum dots and its characterization**
 S. S. Liji Shobhana¹, M. Vimala Devi², Dr A. B. Mandal³
¹Chemical Lab, CLRI, Adyar, Chennai-600020
²Department of Medical Bionanotechnology, Chettinad Hospital & Research Institute, Kelambakkam-603103. Kancheepuram District
³Central Leather Research Institute, Adyar, Chennai-600020
- P13 Reliable and fast method of bio synthesis of gold nanoparticles using medicinally potent plant Extract of W.somnifra**
 V. R. Jevitha¹, L. Stanley Abraham^{2*}, and S. Arunprakash¹
¹Department of Biotechnology, Mahendra college of Arts and Science, Kalippatti – 637 501, Namakkal Dt. Tamil Nadu, India.
²Centre for Ocean Research, Sathyabama University, Jeppiaar Nagar, Chennai
- P14 Fabrication of CuO nanostructure using Anodic Alumina oxide template**
 Sasikala.N.T, Boominathasellarajan. S, Balaji .J BalaPraveen
 Chakkravarthy .R
Nanoelectronics Division, School of Electronics Engineering, VIT University, Vellore - 632 014.

- P15 Synthesis and electrophoretic deposition of ZnO nanoparticles**
 J.Balaji, Boominathasellarajan.S, Sasikala N. T, Bala Praveen, Chakkravarthy .R
*Center For Nanotechnology, School of Electronics Engineering, Vellore
 Institute Of Technology, Vellore-632014, Tamil Nadu.*
- P16 Growth and characterization of Glycinium maeate**
 Ranjith Dev inbaseelan.C and S. Saravanan
*Centre for Photonics and Nanotechnology, Sona College of Technology, TPT
 Road, Salem-636 005, Tamil Nadu, India.*
- P17 Synthesis and characterization of zinc oxide nanocrystalline powders by wet chemical method**
 D. Sathya Raj¹, R. Jayaprakash², T. Prakash¹, V.N. Singh², A.R. Phani³ and T. Krishnakumar³
¹*Department of Physics, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore-641 020, Tamilnadu, INDIA.*
²*Thin Film Laboratory, Department of Physics, Indian Institute of Technology, Delhi, Hauz Khas, New Delhi—110 016, INDIA.*
³*Nano-RAM Technologies, Vijayanagar, Bangalore -560 040, INDIA.*
- P18 Synthesis and characterization of In(x) Cd(1-x) O nano particles and the effect of synthesis method and solvent interactions on the formation of nano structures**
 R. Srinivasan^{1*}, L. Saravanan², K. Baskar³, R. Jayavel^{2,3}
¹*Department of Chemical Engineering, A. C. Tech Campus, Anna University Chennai*
²*Centre for Nanoscience and Technology, Anna University Chennai*
³*Crystal Growth Centre, Anna University, Chennai*
- P19 Precipitation of Barium sulphate nanoparticles using chemical precipitation technique**
 V.Ponnusamy¹, V.Ramasamy², R.M. Vimalathithan²
¹*Department of Physics, Feat, Annamalai University, Annamalai Nagar-608002, Tamilnadu, India*
²*Department of Physics, Annamalai University, Annamalai Nagar-608002, Tamilnadu, India*
- P20 Synthesis of PVP protected silver nanorods using polyol method – effect of concentration of polyol**
 Rajendra Mohan, M.Thillai Natarajan, C.Santhosh A.Muneendra Prasad, A.Nirmala Grace
Nanotechnology Division, School of Electronics Engineering, VIT University, Vellore - 632 014.
- P21 Synthesis and characterization of ZnO on FTO substrate by sol gel spin coating**
 Dr. K. Balachandra Kumar¹, P.Raji²
¹*Department of Physics, Kamaraj college of Engineering and Technology, Virudhunagar- 626 001*
²*Mepco Schlenk Engineering College, Sivakasi- 626 005*

- P22 Enzyme-Stimulated metal (Ag) nanoparticles**
 S. Dinesh¹, S. Sridhar²
¹*Department of Physics, Prathyusha Inst. Of Tech. and Management, Tiruvallur, Tamil nadu*
²*Department of Biotechnology, Prathyusha Inst. Of Tech. and Management, Tiruvallur, Tamil nadu*
- P23 Preparation and Invitro evaluation of vincristine loaded MPEG-PLGA nano particles**
 Anusha.I, R.Abhinaya, B.Sridhar, DR.M.Sivabalan, Dr.V.Balu
College of Pharmacy, Mother Theresa Post Graduate & Research Institute of HealthSciences (MTPG&RIHS), Puducherry.
- P24 Characteristics of sol-gel deposited Alimina films.**
 K.R.Murali¹ and G.Ramanatha²
¹*Central Electrochemical Research Institute, Karaikudi – 630 006*
²*Department of Physics, Sri Sai Ram Engineering College, Chennai-44*
- P25 Formation of nano clusters in aqueous dodecyl piridinium chloride using TDR technique**
 Dr. T. Kalaivani¹ and S. Krishnan²
¹*Department of Physics, SRM University, Kattankulathur, 603 203, Tamilnadu,*
²*Faculty of Engg & Tech., Annamalai University, Annamalainagar 608 002. Tamilnadu, India.*
- P26 Synthesis and characterization of surfactants capped zns nanoparticles by Reverse micelle method**
 J. Sharmi Kumar and T.Kalaivani*
Department of Physics, WCC, Chennai
 **Department of Physics, SRMUniversity, Kattankulathur, Chennai, India.*
- P27 Morphology studies of ZnO nanofibres using Electrospinning method**
 S.Anitha¹, R.Senthil Kumar², C.Gopalakrishnan³, D.John Thiruvadigal¹ and T.SNatarajan²
¹*Centre for Materials Sciences and Nanodevices, Department of Physics, SRMUniversity, Kattankulathur, Chennai–603203, India.*
²*Department of Physics, Indian Institute of Technology- Madras, Chennai*
³*Nanotechnology Research Center, SRM University, Kattankulathur, Chennai*
- P28 Synthesis and Characterization of Catalytic MnO2 Nanorods**
 Satya Vijaya Kumar N¹, Angeline Little Flower¹, C. Gopalakrishnan¹ and S.V.Kasmir Raja²
¹*Nanotechnology Research Center, SRM University, Kattankulathur, 603203,*
²*Directorate of Research and Virtual Education, SRM University, Kattankulathur, 603203, India.*

- P29 Silver catalyzed etching of Silicon for the growth of nanowires**
C.Gopalakrishnan, Y.Tejabhiram, R.Shivaraman
¹Nanotechnology Research Center, SRM University, Kattankulathur, 603203
- P30 Copper nanoparticles doped Poly(ethylenedioxythiophene) modified glassy carbon electrode for electrochemical Biosensing**
D. Manoj and J. Santhanalakshmi
Dept. of Physical chemistry, University of Madras, Chennai
- P31 Patterning of carbon nanotubes using CVD**
R. Balachander, K.Maddulety reddy, George Jacob
VIT Univ., Vellore
- P32 An overview of quantum hall effect in grapheme**
S. K. Sahoo¹, S. Sahoo², B. K. Sahoo³, and S. Das⁴
¹Department of Physics, KIIT University, Bhubaneswar – 751024, Orissa
²Department of Physics, N. I. T., Durgapur – 713209, West Bengal
³Department of Physics, N. I.T., Raipur – 492010, Chhattisgarh
⁴Department of ECE, Pailan College of Management and Technology, Kolkata
- P33 Role of carbon nanotubes in the oxidation of methanol to Wardsfuel cell applications**
A. Muneendra Prasad, C.Santhosh, M.Thillai Natarajan, Rajendra Mohan, and A.Nirmala Grace*
Center for Nanotechnology, Vellore Institute of Technology, Nanotechnology Division, School of Electronics Engineering Vellore-632014, Tamil Nadu.
- P34 Comparison of vibrational spectra of [C₆H₅CH₂N (n-C₄H₄) cuCl₃ complex prepared using acetone in different concentrations**
V. Ranjith kumar and R. Umarani
Govt. Art. College, Coimbatore
- P35 An efficient route for the large scale production of multiwalled carbon nanotubes**
J.Logeswari¹, 2, A.Pandurangan¹, D.Sangeetha³ and P.Veeramani⁴
¹Institute of Catalysis and Petroleum Technology, Anna University Chennai,
²Department of Chemistry, Adhiparasakthi Engineering College, Melmaruvathur- 603319, India.
³Department of Chemistry, Anna University Chennai, Chennai-600 025, India.
⁴Department of Physics, University of Surrey, Guildford-GU2 7XH, United Kingdom.
- P36 Mass synthesis of carbon nanotubes using catalysis**
Deepak. A, Amlan Kumar Bhowmick
Sathyabama University, Chennai

- P37 Synthesis of diamond like thin films by PECVD**
 Maheswaran R¹, Shivaraman Ramaswamy², Gopalakrishnan C² and John Thiruvadigal D^{1*}
¹ *Center for Materials Science and Nanodevices, Department of Physics, SRM University, Kattankulathur - 603 203, India.*
² *Nanotechnology Research Center, SRM University, Kattankulathur-603 203,*
- P38 Effects of carbon precursors for synthesis of cnts using transition metal loaded SBA-15 mesoporous molecular sieves**
 J. Balamurugan, A.Pandurangan and R.Jayavel
Dept. of Chemistry, Anna Univ, Chennai.
- P39 Polymer assisted dispersion single wall carbon nanotubes for transport conducting film fabrication**
 Wei-Chao Chen¹, Hsiang-Ting Lien², Tzu-Wei Cheng³,
 Kuei-HsienChen¹, Li-Chyong Chen^{4*}
¹*Institute of Atomic and Molecular Science, Taiwan.*
²*Institute of Polymer Science and Engineering, National Taiwan University, Taiwan.*
³*National Taipei University of Technology, Institute of Organic and Polymeric Materials, Taiwan*
⁴*Center for Condensed Matter Science, National Taiwan University, Taiwan*
- P40 Humidity sensor based on WO₃-SnO₂ Nanocomposites**
 K. Pandey, A. Roy*, K. Tiwari, A. Rai, P. Awasthi, A. Mishra
S.M.R.L. Dept. of physics, University of Lucknow
- P41 Role of ethylene carbonate on (PEO) 50 – Silver triflate- based nanocomposite polymer electrolyte system**
 M. Kumaravadivel, S. Austin Suthanthiraraj
University of Madras, Chennai
- P42 Investigating of operating conditions effects on TiO₂ nanoparticles**
 Masoudeh Ahmadi^{1*}, Mohammad Reza Ghasemi¹, Hassan Hashemipour Rafsanjani
¹*Chemical Engineering Department, Faculty of Engineering, Islamic Azad University, North Tehran Branch, Tehran, Iran.*
²*Chemical Engineering Department, Faculty of Engineering, Shahid Bahonar, Kerman, Iran.*
- P43 AC impedance, DSC, XRD studies on BaTiO₃ loaded LiBETi based PVD-HFP nanocomposite**
 P.Vickraman^{a*} D.Ravindran^{a,b}, C.Lakshmia V.Senthilkumar^a, V.Aravindan^c
^a*Department of Physics, Gandhigram Rural University, Gandhigram*
^b*Thiagarajar College of Engineering, Madurai - 625 015*
^c*Energy Conversion and Storage Processing Lab, Chonnam National University, South Korea*

- P44 Dielectric relaxation study on O-cresol with ethylbromide in benzene**
T.Indira^a, Dr.T.Thenappan^b
^a *Department of Physics, Research Scholar Alagappa University, Karaikudi*
^b *Department of Physics, Alagappa University, Karaikudi – 630003, India*
- P45 Synthesis and characterization of one dimensional CdSe nanobelts by hydrothermal method**
G.Ramalingam, P.Dennis Christy, N.S.Nirmala Jothi and P. Sagayaraj
Dept. of physics, Loyola College, Chennai.
- P46 Electrochemical and physical characterization of the Ni-co-nano Al₂O₃ composite coatings prepared by pulse current and direct current method**
B.Ranjith and G.Paruthimal Kalaignan
Dept. of Industrial chemistry, Alagappa University, Karaikudi
- P47 Study of electrochemical properties of a novel nano-structured biocomposite electrode**
Whitelin Annie Bala, Preethi A. V. M.
Mepco schlenk Engineering College, Sivakasi.
- P48 Synthesis and characterization of novel tetraglycidyl epoxy nanocomposite for high performance application**
K Shree Meenakshi, S. Ananda Kumar
Anna University, Chennai
- P49 Effects of nano and micro Al₂O₃ filler on dielectric properties of silicone composites**
Dr.S.Chandrasekar, N.Loganathan,
Sona College of Technology, Salem
K.S.R. College of Technology, Salem-636005, India Tiruchengode, India.
- P50 Wet chemical synthesis and characterization of pure ZnO**
N.S.Nirmala Jothi, P.Dennis Christy[†], A.R.Baby Suganthi[†] and P.Sagayaraj^{†*}
Loyola college, Chennai

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04.40 – 06.00 pm		SESSION - 4A	Parallel Session — Hall - I
Chairperson	:	Dr. R. Jayavel <i>Anna University, India</i>	
Repertoire	:	Mr. K. Ashok <i>SRM University</i>	
Oral Presentation-A	:	O.1-O.10	

- O1 Size dependent magneto transport in nano structured manganites**
P.S. Solanki, U.D. Khachar, M.V. Vagadia, A.B. Ravalia D.G. Kuberkar
Saurashtra University, Rajkot
- O2 Microwave assisted synthesis and Invitro cytotoxic activity of some novel sulphonamido derivatives**
K.Hemalatha*, Divya Chacko, V.V.S. Vamsi mohan reddy, DR. K.Girija**,Dr.K.V.Raman
Department of Pharmaceutical chemistry, College of Pharmacy, Mother Theresa Post Graduate and Research Institute of Health Sciences, Puducherry.
- O3 Fries rearrangement of phenyl Acetate using 12-Tungstophosphoric acid included on silica nanoparticle**
Rosilda Selvin*, Hsiu-Ling Hsu, Aneesh P., Vijay Kumar Thakur
Department of Chemical and Materials Engineering Lunghwa University of Science and Technology, Taiwan
- O4 Difference in growth mechanism and morphological properties of Tio₂ nanotube array prepared by anodization technique on transparent and metal substrate**
Subhayan Biswas^{1*}, M. Shahjahan², M. F. Hossain², and T. Takahashi²
¹*LNM-Institute of Information Technology, Rupa-ki-Nangal, P.O-Sumel, Jaipur, India*
²*Graduate School of Science and Engg.for Research, University of Toyama, Japan*
- O5 Nanofluidization in reclamation of sand**
Dr. P. Suresh Prabhu
VLB Janakiammal College of Engineering and Technology, Coimbatore
- O6 Parametric study on the kinetics of nucleation and formation of gold nanoparticles by reduction of chloroauric acid with trisodium citrate**
Anirban Chakraborty, Amitava Chaudhuri, Joyeeta Roy Chudhuri, Mousumi Sinha, Dr. Sampa Chakraborty, Dr. Basab Chudhuri, Dr. Sekhar Bhattacharjee
Department of Chemical Engineering, Univ of Calcutta, Calcutta
- O7 Synthesis and characterization of CdS nanocrystalline thin film and nanoparticles**
M.P.Deshpande S.H.Chaki, Jyoti Patel, Nilesh N. Pandya, Nitya Garg, Pallavi, N. sakaria
Sardar Patel University Gujarat
- O8 Synthesis and nanoscale tips using femtosecond laser radiation**
M. Sivakumar¹, K. Venkatakrishnan ², B. Tan¹
¹*Department of Aerospace Engineering, Ryerson University, Canada*
²*Department of Mechanical and Industrial Engineering, Ryerson University, Canada*

- O9 ZnO-CdS core-shell quantum dot sensitized solar cell: Influence of crystalline and amorphous CdS structure in photovoltaic performance**
T. Ganesh, Misun Lee, Deok-Yeon Lee, Sung-Hwan Han*
Inorganic Nano-Materials Laboratory, Hanyang University, Korea.
- O10 Growth of single crystalline Ni nanowire via a hydrothermal method and their properties**
M. Alagiri, C. Muthamizhchelvan, S. Ponnusamy
Department of Physics, SRM University (E&T), Kattankulathur, India

04.40 – 06.00 pm		SESSION - 4B	Parallel Session — Hall - II
Chairperson	:	Dr. G.P. Das <i>IACS, Kolkata</i>	
Repertoire	:	Dr. K. Ramachandran <i>SRM University</i>	
Oral Presentation-B	:	O.11-O.20	

- O11 Synthesis and characterization of MWNTs and EPOXY/MWNTS Nanocomposites**
R. Atchudana¹, N. Thangapandian², A. Pandurangan^{1*} and K. Subramanian¹
¹*Department of Chemistry, Centre for Nanoscience and Technology
 Anna University Chennai, Chennai – 600 025, India*
²*Department of Mechanical Engineering, Anna University Chennai, Chennai – 600 025, India*
- O12 Green nanocomposites on thermoplastics and cellulose nanocrystals prepared from cation linters, synthesis and characterization**
Anupama Kaushik^{1*}, Mandeep Singh², Meena¹
¹*University Institute of Chemical Engineering and Technology, Panjab University, Chandigarh.*
²*Centre for Emerging Areas in Science & Technology, Panjab University, Chandigarh, India*
- O13 Design and simulation of single-walled carbon nanotubes pressure sensor**
M. Patankar, N. Murali and P. Swaminathan
*Real Time Systems Division, Electronics and Instrumentation Group
 Indira Gandhi Centre for Atomic Research, Kalpakkam – 603102, Tamil Nadu, India*
- O14 Optimized parameters for carbon nanotubes synthesis formed by chemical vapour decomposition of methane over active metal catalyst**
V.M.Sivakumar¹, A.Z.Abdullaha, A.R.Mohameda*, S.P.Chaib
¹*School of Chemical Engineering, Engineering Campus,
 Universiti Sains Malaysia, 14300 Nibong Tebal, Pulau Pinang, Malaysia*
²*School of Engineering, Monash University, Jalan Lagoon Selatan, Malaysia*

- O15 An overview of quantum hall effect in graphene**
S. K. Sahoo¹, S. Sahoo², B. K. Sahoo³, and S. Das⁴
¹*Department of Physics, KIIT University, Bhubaneswar – 751024, Orissa*
²*Department of Physics, N. I. T., Durgapur – 713209, West Bengal*
³*Department of Physics, N. I.T., Raipur – 492010, Chhattisgarh*
⁴*Department of ECE, Pailan College of Management and Technology, Kolkata*
- O16 Mechanical properties and fracture behaviour of a single walled carbon nanotube with single and double stone wales defects**
K Talukdara and A K Mitra*
Department of Physics, National Institute of Technology, Durgapur-713209, India
- O17 Morphological study of carbon nanostructures grown by RF– PECVD**
B. Purnachandra Rao¹, R. Shivaraman², K.R.Ganesh², C.Gopalakrishnan² and D. John Thiruvadigal¹
¹*Department of Physics, SRM University, Kattankulathur*
²*Centre for Nano technology, SRM University, Kattankulathur-603 203*
- O18 Structural properties of Zn3P2 thin films**
Sharmila.C^{1*}, M.Lavanya*, R.Sathyamoorthy², M.Ramya³
¹*Department of Physics, PSGR Krishnammal College for Women, Coimbatore*
²*Department of Physics, Kongunadu Arts and Science College , Coimbatore*
³*Department of Physics, Shakthi Institute of Technology, Coimbatore*
- O19 Platinum group metals supported ZSM-5 and TS-1 catalysts for the reduction of NO by CO**
Vilas Ravat¹ and Preeti Aghalayam²
¹*Department of Chemistry, IIT, Bombay, India-400 076*
²*Department of Chemical Engineering, IIT, Bombay, India-400076*
- O20 Silver Nanoparticles immobilized microporous membrane for water treatment**
N.Angeline Little Flower¹, N. Satya Vijaya Kumar¹, B.Brabu¹, C. Gopalakrishnan¹, and S. V. Kasmir Raja²
¹*Nanotechnology Research Center, SRM University, Kattankulathur, 603203.*
²*Directorate of Research and Virtual Education, SRM University, Kattankulathur.*

06.00-07.00 pm	:	Culturals
07.00 pm	:	Dinner

09.00 – 10.20 am

SESSION - 5

Chairperson : **Prof. Yasuhiro Hayakawa**
Shizuoka University, Japan

Repertoire : **Dr. T. Kalaivani**
SRM University

PL3 Vertical Molecular and bio molecular devices and circuits

Dr. Shachar Richter
Tel-Aviv University, Israel

PL4 Photochemical synthesis of compound semiconductors and application to solar cells gas sensors

Prof. Masaya Ichimura
Nogoya Institute of Technology, Japan

10.20-10.30 pm : Tea/Coffee

10.30 – 12.00 pm

SESSION - 6

Chairperson : **Dr. Shachar Richter**
Tel-Aviv University, Israel

Repertoire : **Dr. S. Mahalakshmi**
SRM University, Kattankulathur

IT4 Computational Nanoscience: a new paradigm

Prof. G.P.Das
IACS, India

IT5 Global trends in nanoscience and nanotechnology

Dr.B.S.Kademani,
BARC, India

IT6 Structural transitions and phase stabilization in nanoscaled multilayers of oxides

Dr.P.Kuppusami,
IGCAR, India

12.00 – 01.00 pm	SESSION - 7A	Parallel Session — Hall - I
Chairperson	: Dr. P.Kuppusami <i>IGCAR, Kalpakkam</i>	
Repertoire	: Dr. S. Nithyanandham <i>SRM University, Kattankulathur</i>	
Oral Presentation - C	: O.21 - O.30	

- O21 Preparation of Polymer encapsulated silver nanopowders and analyzing its antibacterial activities for water filtering applications**
P.Vijai Bharathi¹, S.Rajagopal¹, D.Nataraj^{1*}, D. Mangalaraj² and Rajanandkumar¹
¹*Thin Film and Nanomaterials Laboratory, Department of Physics*
²*Department of Nanoscience and Technology,*
Bharathiar University, Coimbatore – 641 046, India
- O22 Synthesis and characterization of carbon polymer nano composites**
C. Siva Kumar Reddy, V.Prasad
Department of Physics, Indian Institute of Science
Bangalore, Karnataka-560012, India
- O23 Synthesis, Characterization and application of Zn nano to cotton textiles**
Dr. D P Chattopadhyay and B H Patel
Department of Textile Chemistry,
The M S University of Baroda, Gujarat, India.
- O24 High Density Sub-30nm Polystyrene Nanosphere and Gold nanomesh formation by modified block Copolymer Nano-patterning**
Thivagu Subramani, Zingway Pei*, Min-Wei Ho, Shor-Jen Cheng, Wei-Shang, Hsieh and Ya-Yin Lin
Graduate Institute of Optoelectronic Engineering, Department of Electrical Engineering, National Chung Hsing University, Taiwan
- O25 Impedance spectroscopy studies of nanocrystalline B_{0.8}Bi_{2.133}Nb_{1.6}Ta_{0.4} Ceramics prepared by chemical route**
Prasanta Dhak* and Panchanan Pramanik*
Department of Chemistry, Indian Institute of Technology Kharagpur,
Kharagpur – 721302, India.
- O26 Effect of Nd on structural and ion transport properties of nanocrystalline CeP₂O₇ for IT-SOFC application**
S. Austin Suthanthiraraj, R. Kumar and B. Joseph Paul
Department of Energy, University of Madras, Guindy Campus, Chennai-600025.

- O27 Influence of BaTiO₃ nanoparticles on electrical studies of lithium phosphate glass ceramic**
Dr. R. Balaji rao¹ and M.V.N.V.D. Sharma²
¹ *GITAM University, GITAM Institute of Technology, Department of Physics, Hyderabad, A.P-502329*
² *Andhra University, Department of Physics, Visakhapatnam, Andhra Pradesh, India- 530003*
- O28 Influence of spacer layer thickness in stacking of InAs QDs on GaAs substrates by Molecular beam epitaxy**
S.Saravanan
Centre for photonics and Nanotechnology, TPT Road, Salem, Tamilnadu
- O29 Impact of size and shape on structural phase transition in nanostructured materials**
D K Sar¹, P. Nayak², K.K. Nanda³
¹ *Department of Physics, Reva Institute of Technology and Management, Bangalore 560064, India*
² *Department of Physics, Sambalpur University, Jyotivihar, Burla 768019, India*
³ *Materials Research Centre, Indian Institute of Science, Bangalore 560012.*
- O30 Effect of organic additives on the magnetic properties of nanocrystalline hard magnetic films**
T.M. Selvakumari¹, R.N. Emerson², S.Ganesan³
¹ *Department of Physics, Angel College of Engineering & Technology, Tirupur*
² *Department of Physics, Government Arts College, Udthagamandalam-643001*
³ *Department of Physics, Government College of Technology, Coimbatore*

12.00 – 01.00 pm	SESSION - 7B	Parallel Session — Hall - II
Chairperson	: Dr. James Pitchai <i>Roever Agriculture College, Perambalur</i>	
Repertoire	: Dr.R.Arun <i>SRM University, Kattankulathur</i>	
Oral Presentation - D:	O.31 - O.40	

- O31 Nano robots**
M. Muthu Kumaran, B. Vinoth Kumar, M. Solomon
Mother thersa post graduate and Research Inst. of health sciences, Puducherry
- O32 Efficient address generation logic implementation in CMOS technology with applications**
Himadri Singh Raghav¹, Sachin Maheshwari²
¹ *Assistant Professor, Faculty of Engineering & Technology*
² *Mody Institute of Technology & Science, Lakshmanagarh*

² *EEE Department, Birla Institute of Technology and Science, Pilani,*

O33 Nanoelectronics and IPR

K. Bala Bhaskar

International School of Information Management, Mysore

O34 The effects of the contact potential on the electronic properties of metal/DNA/metal systems for ladder model

Shadab Dabagh¹, Naser Shahtahmasebi², Sayed ahmad

Ketabi³, Azadeh. Rashed mohase^{1,4}

^{1,4} *School of Physics, payamenoor University of Basic Sciences, mashhad, Iran*

² *Physics dept. Faculty of sciences, Ferdowsi University of Mashhad, Iran*

² *Nano Research Centre of the Ferdowsi Univrsity of Mashhad, Mashhad Iran,*

³ *School of Physics, Damghan University of Basic Sciences, Damghan, Iran*

School of Physics, payamenoor University of Basic Sciences, mashhad, Iran

O35 Non volatile memory from natural carbon soot

Hari Murthy, A.Saranya, Kranthi Kumar

Anna University, Chennai

O36 Quenching of magnetization in bulk materials obtained from nanoparticles

Mnx Zn_{1-x}Fe₂O₄ synthesized with novel technique

G. V.Kundaikar¹, R.B.Tangsali¹, V.J.Pissurlekar², J.S. Budkuley²

¹Department. of Physics,

²Department of Chemistry, Goa University, Taleigao Plateau, Goa, 403206.

O37 Simulation of charging effect on Electron Transport behavior in organic nano devices

C. Preferenical Kala¹, P. Aruna Priya², R.M.Harharan¹ and D. John

Thiruvadigal^{1*}

¹Department of Physics, SRM University, Kattankulathur, 603 203, India

²Department of Electronics and Communication Engineering, SRM University,

Kattankulathur, 603 203, India

O38 Spin-polaron in a diluted magnetic semiconductor quantum wire

C. Raja Mohan

Gandhigram Rural University, Gandhigram

O39 Upconversion photoluminescence of Cerium doped Cobalt tungstate nanomaterials

Dr. Uma Subramanian, S.J. Naik, R.B. Tangsali, A.V. Salker

Physics Dept, Goa University, Goa

O40 Synthesis of barium hexaferrite using D-fructose as a fuel

S. Kanagesan, Jesurani. S Velmurugan. R.Kumar.C and Kalaivani.T

Department of Physics, SRM University (E&T)

01.00 – 02.00 pm : Lunch

02.00 – 04.00 pm		SESSION - 8
Chairperson	:	Prof. Etienne Duguet <i>France</i>
Repertoire	:	Dr.Lakshmi Kumar <i>SRM University</i>

IT7 Iron and cobalt Fischer-Tropsch synthesis catalysts supported on nitrogen-doped carbon spheres

Prof. Neil coville

University of the Wit Watergrand, South Africa

IT8 Structural and electrostatic properties of InP and InAs nanowires

Prof.Monica A.Cotta

University of Campinas, Brazil

IT9 Applications of Nanotechnology in Agriculture

Dr. James Pitchai

Roever Agriculture College, Perambalur

IT10 Intellectual property rights- problems and solutions effect of anchoring

Dr.S. Vathsal

Bhaskar Enginneering College, Hyderabad

04.00 – 05.00 pm		SESSION - 9
Chairperson	:	Dr.S.Vathsal <i>Bhaskar Enginneering College, Hyderabad</i>
Repertoire	:	Dr.N.Anandhan <i>SRM University, Kattankulathur.</i>
Poster Session – B	:	P.51-P.100

04.00-05.00 pm	:	High Tea/Coffee break
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P51 Recycling of thermosetting plastics: An approach to use nanocomposite binders

P. Sathish Kumar, S. Sundarvishak, P. Santhosh, M. Balasubramanian*, M. Balasubramanian, P. Jawahar

Velammal Engineering College, Surapet, Chennai

** Indian Institute of Technology Madras, Chennai – 600 036*

- P52 Quantized polysulfone / TiO₂ nanocomposites membranes for alkaline fuel cell applications**
R.Vinoth and D. Sangeetha*
Dept.of Chemistry,Anna University, Chennai-25
- P53 Surface bioactivation of Sol-gel derived 3Y-TZP bioinert ceramic through hydroxylation technique**
*Velmurugan. R¹, Kanagesan. S¹ Jesurani.S^{1,2}, Kumar .C¹ and Kalaivani.T¹
¹*Center for material science and Nano Devices, Department of Physics, SRM University, Kattankulathur, Tamil Nadu, India.*
²*Department of Physics, Jeyaraj Annapackium College for women, periyakulam, Tamil Nadu, India.*
- P54 Dielectric material using novel sol-gel combustion route**
Jesurani.S^{1,2}, Kanagesan.S¹, Velmurugan.R¹, Kumar.C¹and Kalaivani.T¹
¹*Center for material science and Nano Devices, Department of Physics, SRM University, Kattankulathur, Tamil Nadu, India.*
²*Department of Physics, Jeyaraj Annapackium College for women, periyakulam, Tamil Nadu, India.*
- P55 Dielectric relaxation studies of cationic surfactants in aqueous solutions**
T.Ganesh¹, R.Sabesan², S.Krishnan³
¹*Department of Physics, M.R.Government Arts College, Mannargudi*
²*Department of Physics, Saranathan college of Engineering, Tiruchirapalli*
³*Professor Emeritus, Faculty of Engineering and Technology, Annamalai University*
- P56 Preparation and characterization of recycled – poly ethylene tere phthalate (r-PET) nanocomposites from metro solid based as a dielectric material**
S.Rajarajan¹, J.Raja²
¹*Research Scholar, Sathyabama University, Jeppiaar Nagar, Chennai*
²*Department of Electronics and Communication Engineering, Anna University Tiruchirapalli*
- P57 Characterization of Oxalic acid doped Poly-p-phenylene diamine by MALDI-TOF MS method**
P.Ramu, Rajasaravanan
Department of Physics, Government Arts College, Salem

- P58 Design and synthesis of Nano electronics single electron full adder**
S. Rajasekar, V.Balamurugan** and Dr.S.Karthik
Sathyabama Univ, Chennai
- P59 Ionic conductivity studies on LiSmo2 by impedance spectroscopy**
Prabu^{1,2}, S.Selvasekarapandian^{*2}, A.R.Kulkarni¹, G.Hirankumar²,
A.Sakunthala³
¹*Department of Metallurgical Engineering and Material Science, Indian institute of Technology Bombay, Mumbai, India.*
²*Department of Physics, Kalasalingam University, Krishnankoil-626 190, Tamilnadu, India,*
³*Department of Physics, Bharathiar University, Coimbatore, Tamilnadu, India.*
- P60 Impacts of CMOS scalling on performance of mixed signal circuits**
A.Ramesh Kumar¹, Dr.S.Venkatachalam², Prof.K.Ramalinga Reddy³,
V.Rajaneesh⁴
¹*Associate Professor in ETM Dept., GNITS, Hyderabad, India*
²*Principal, ACE Engg.college, Hyderabad, India.*
³*Professor and HOD ETM Dept., GNITS, Hyderabad, India*
⁴*Associate Professor in ETM Dept., GNITS, Hyderabad, India*
- P61 Tapered fiber optic humidity sensor coated with nanocrystalline ZNO doped KCL**
M.Anil Kumar*, R.Sivacoumar*, Dr. Z. C. Alex*
VIT University, Vellore
- P62 Preparation and electrical properties of CdSxSe1-x nanocrystals**
K Usha, C.K. Mahadevan
S.T. Hindu College, Nagercoil
- P63 Structural and electrical properties of lead Zirconate titanate thick films by Sol-Gel method**
S.R.Krishnamoorthy and R.Ilangovan*
Department of nanoscience and nanotech, Alagappa University, Karaikudi

- P64 Current Control in Molecular Devices**
 Aruna Priya.P¹, Preferencial Kala.C², Muthamizhchelvan.C² and John Thiruvadigal.D^{2*}
¹*Department of Elect.and Commn. Engg., SRM University, Kattankulathur.*
²*Department of Physics, SRM University, Kattankulathur-603 203, India.*
- P65 Electrical Transport and Dielectric Studies of Ce-doped SnO2 nanoparticles**
 S. KesavaPandian, K. Karthik and N. Victor Jaya
Department of Physics, Anna University Chennai, Chennai- 600 025.
- P66 Photoelectrochemical studies on electron beam evaporator on CdSe films**
 K.Sivaramamoorthy¹, S.Asath Bahadur², M.Kottaisamy³, K.R.Murali⁴
¹*Dept of Physics, Rajapalayam Rajus' College, Rajapalayam -626 117, India*
²*Dept of Physics, Kalasalingam University, Krishnankoil, India*
³*Dept of Chemistry, Kalasalingam University, Krishnankoil, India*
⁴*Central Electrochemical Research Institute, Karaikudi – 630 006, India*
- P67 Optical Properties of n-type Porous Silicon – Effect of Laser irradiation**
 Dr. N. Jeyakumaran
VHNSN College, Virudhunagar
- P68 FTIR and Photoluminescence studies of nanocrystalline porous silicon**
 Dr. N. Prithivi Kumaran, Saranya Amirtharajan
VHNSN College, Virudhunagar
- P69 Investigation on In-situ reduced metal salts/polymeric blends**
 Nimroth Ananth^{1*}, S. Umapathy¹, J. Sophia¹, T. Mathavan², M. A. Jothi Rajan³
¹*School of Physics, Madurai Kamaraj University, Madurai - 625 021*
²*Department of Physics, N.M.S.S.V.N College, Madurai - 625 019*
³*Department of Physics, Arul Anandar College, Karumathur – 625 514*
- P70 Carbon nanotube based materials for the application of solar cells**
 S. B. P. Abirami¹, Adarsh Kaniyoor², S. Ramaprabhu²
¹*Department of Mechanical Engineering, Mepco Schlenk Engineering College, Sivakasi*
²*Alternative Energy and Nanotechnology Laboratory, Department of Physics, IIT Madras, Chennai*
- P71 Synthesis of 3-D photonic crystals of silica a brief investigation**
 C. Santhosh, A. Muneendra Prasad, Rajendra Mohan, M.Thillai Natarajan and A.Nirmala Grace
Nanotechnology Division, VIT University, Vellore
- P72 Preparation and characterization of thin films using organic light emitting material for the fabrication of OLED**
 Vineetha James¹, Suganthi Devadason²
¹*Department of Nanotechnology,*
²*Department of Physics, Karunya University, Coimbatore*

- P73 Nano photo catalysis and optical characterization of pure and bio polymer capped ZnS fluorescent quantum dots**
V.P. Devarajan¹, D. Nataraj^{1*}, D. Mangalaraj², S. Rajagopal¹, P. Vijai Bharathi¹, K. Senthil³
¹ *Thin Films & Nano Materials Laboratory, Department of Physics,*
² *Department of Nanoscience & Technology, School of Physical Sciences, Bharathiar University, Coimbatore - 641 046, Tamil Nadu, India.*
³ *Centre for Information Materials, Pohang University of Science & Technology, Pohang, South Korea.*
- P74 Laser-dressed spin polaron in CdTe-Cd_{1-x}MnxTe quantum well**
P.Nithiananthi¹, Dinesh Varshney² and K.Jayakumar^{1*}
¹ *Department of Physics, Gandhigram Rural University, Gandhigram*
² *School of Physics, Devi Ahilya University, Indore-452001, M.P., India*
- P75 Electrical Conductivity and FTIR Spectroscopic studies on Nano silica fume admittured cement**
N.Anandhan¹, G. Sivakumar², B.Shanthi² and S. Barathan³
¹ *Department of Physics, Faculty of Engineering and Technology, SRM University, Kattankulathur, Chennai-603 203, Tamil Nadu, India.*
² *Centralised Instrumentation and Services Laboratory (CISL), Department of Physics, Annamali University, Annamali Nagar, Chidambaram-608 002*
³ *Department of Physics, Annamali University, Annamali Nagar, Chidambaram*
- P76 Direct laser writing method for patterning of photo resist**
Vamsi Krishna D, Bhaskar Rao Y, Velmurugan V.
VIT University, Vellore
- P77 Optical and structural properties of N-Methylaniline passivated ZnSe: Mn²⁺ Quantum dots**
J.Archana¹, M.Navaneethan¹, S.Ponnusamy¹, Y.Hayakawa²,
C.Muthamizhchelvan¹
¹ *Center for material science and Nano devices, Department of Physics, SRM university, Kattankulathur-603203, Tamil Nadu, India.*
² *Research Institute of Electronics, Shizuoka University, 3-5-1 Johoku, Hamamatsu, Shizuoka 432-8011, Japan*
- P78 Development of nanopiezosensor and electrical characterization using impedance spectroscopy**
Rahul Gaurav
Konark Institute of Science & Technology
- P79 Study of magnetic alignment of ferrofluid through a polymer matrix**
Sumanta kumar sahuo, N.Selvakumar and K. Jeyasubramanian.
Mepco schlenk engineering college, Sivakasi

- P80 RF Magnetron sputtered nanocrystalline Ag-Cu-O-films:substrate temperature influence physical properties**
M. HariPrasad reddy, P. Narayana Reddy, S. Uthanna
Dept of Physics S.V.U College of sciences, S.V. University, Tirupathi
- P81 Investigation of influence of cations doping on nanocrystalline manganese (II) hexacyanoferrate crystal structure**
S. Jancy Sophia^{1,2} and K.Pandian^{*,1}
¹*Department of Inorganic Chemistry, University of Madras, Chennai-600 025,*
²*Department of Chemistry, St. Joseph's College, Cuddalore-607 001, India*
- P82 Calculation of radius of curvature for strained layer structure on GaAs substrate**
M.Silambarasan and S. Saravanan
Department of Physics, Sona college of technology, Salem
- P83 Preparation and charectization of spinal cobalt oxide nanoporous material by simple polymer pyrolysis technique**
Dr. K.V.Hemalatha, S.N. Karthick, Hee Je Kim
KSR College of engineering, Dept of chemistry, Thiruchengode
- P84 Spin-polaron in a diluted magnetic semiconductor quantum wire**
C. Raja Mohan, K.Jayakumar
Dept of Physics, Gandhigram Rural University, Gandhigram
- P85 Magnetic studies on nickel ferrite doped rare earth ions**
S.Mahalakshmi¹ and K.Srinivasa Manja²
¹*Department of Physics, SRM University, Kattankulathur, Kancheepuram*
²*Department of physics, Pondicherry university, Pondicherry 605014 Tamilnadu, India*
- P86 Electrochemical, Structural and morphological properties of DC reactive magnetron sputtered Nickel oxide (NiO) thin films at different thickness**
K Ashok
Department of Physics, SRM University (E&T)
- P87 Synthesis, structural and optical properties of Ag coated Fe3O4 nanoparticles**
R. Ramesh, S. Ponnusamy and C. Muthamizhchelvan
Center for Materials Science and Nanodevices
Department of physics, SRM University, Chennai-603203, Tamilnadu, India.
- P88 Magnetocaloric studies on high energy ball milled Gd-Si-Ge- nanopowders**
E.Arockia Jeya Yasmi Prabha¹, M. Manivel Raja², A.Nirmala Grace³, S. Ponnusamy¹
¹*Center for material science and nanodevices, Department of Physics, SRM University, Kattangulathur, Chengalpet Dist, Chennai, India*
²*Defence Metallurgical Research Laboratory, Hyderabad-500 058, India*
³*School of Electrical Sciences, Department of Nanotechnology, VIT University, Vellore, India.*

- P89 Structural properties of dc reactive magnetron sputtered zinc oxide films**
M.Lavanya¹, C.Sharmila¹, Dr. Sa. K .Narayandass², D.Mangalaraj³.
¹ *Department of Physics, P.S.G.R Krishnammal College for Women, Coimbatore*
² *Department of Physics, Bharathiar University (Retd), Coimbatore*
³ *Department of Nanoscience and Nanotechnology, Bharathiar University, Coimbatore*
- P90 Liposome as a carrier for advanced drug delivery**
Naveen Kumar Poththuri
Sri Padmavathi School of pharmacy, Andhra pradesh
- P91 Resealed Erythrocytes: As a novel drug delivery carrier**
Hareesh Guntur
Sri Padmavathi School of Pharmacy, Andhrapradesh
- P92 Nanoparticles for Brain Targeting**
P. Hemalatha,
Vel's Univ, Chennai
- P93 Optimal path planning of mobile nanobots navigation control in human physiological system using advanced soft computing technique**
Dr.S.N.Deepa¹, R.Manikandan², V.Priya³
¹ *Department of Electrical and Electronics Engineering, Anna University, Coimbatore, India*
^{2,3} *Department of Electrical and Electronics Engineering, Anna University, Coimbatore, India*
- P94 Role of Nanoparticles in curing cancer**
M.Sravani,M.Rajitha,Senthilnathan,R.Ravichandran,S.K.Umadevi,S.Padma Priya
Vels College of pharmacy, Chennai
- P95 Formulation, investigation of effects of concentration of lipids on drug entrapment and invitro assessment of itraconazole loaded solid lipid nanoparticles**
Anjali Pathak¹, P.Vandana¹, A.Jayaprada¹, S.K.Umadevi¹, V.Ravichandiran¹ and K.Bhaskar^{1,2}
¹ *Department of Pharmaceutics, School of Pharmaceutical Sciences, Vels University, Velan Nagar, Old Pallavaram, Chennai- 600117, Tamil Nadu,*
² *Sri Venkateswara College of Pharmacy, R.V.S.Nagar, Tirupathi Road, Chittoor - 517 127, Andhra Pradesh, India*
- P96 Bioeliminable polyacryl based nanohydrogels for drug delivery**
T Sowmiya, B. Nisha
CECRI, Karaikudi
- P97 Liposomes-magic number for drug delivery**
Dr. N. Pappayee
Adiparasakthi Engg. College, Melmaruvathur

P98 Lipid nano particles for prolonged topical delivery of ketoprofen invitro and exvivo investigation

V.Mani Deepika¹, P.Vandana¹, G.Yamini¹, S.K.Umadevi¹, V.Ravichandiran¹ and K.Bhaskar^{1,2}

¹*Department of Pharmaceutics, School of Pharmaceutical Sciences, Vels University, Velan Nagar, Old Pallavaram, Chennai- 600117, Tamil Nadu.*

²*Sri Venkateswara College of Pharmacy, R.V.S.Nagar, Tirupathi Road, Chittoor – 517 127, Andhra Pradesh, India*

P99 Medical Applications of CNT's and nanowires – A review

N. V. Prabhu, K. Aravind, D. Sangeetha*

Dept of Chemistry, Anna University Chennai, Chennai.

P100 Formulation investigation of effect of concentration of liquids on drug entrapment and in vitro assessment itraconazole loaded solid liquid nanoparticles

Anjali Pathak¹, P.Vandana¹, A.Jayaprada¹, S.K.Umadevi¹, V.Ravichandiran¹ and K.Bhaskar^{1,2}

¹*Department of Pharmaceutics, School of Pharmaceutical Sciences, Vels University, Velan Nagar, Old Pallavaram, Chennai- 600117, Tamil Nadu*

²*Sri Venkateswara College of Pharmacy, R.V.S.Nagar, Tirupathi Road, Chittoor – 517 127, Andhra Pradesh, India*

05.00 – 06.30 pm		SESSION - 10
Chairperson	:	Prof. Li-Chyong Chen <i>National Taiwan University, Taiwan</i>
Repertoire	:	Dr. Jaganathan <i>SRM University</i>

IT11 Functional molecules on silicon for hybrid nanoelectronics

Dr. D. K. Aswal

BARC, Mumbai

IT12 Emerging nano pure materials for advanced gas epitaxial nano-electronics technologies – an over view

Dr. V. N. Mani

C-MET, Hyderabad

IT13 Targeted nano drug delivery: time to realize the full potential

Dr. Shivanand Puthli

Panacea Biotech Ltd., India

07.00 – 08.00 pm	:	Conference special Dinner
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09.00 – 10.50 am

SESSION - 11

Chairperson	:	Dr. Shivanand Puthli <i>Panacea Biotech Ltd., India</i>
Repertoire	:	Mrs. Annie Sujatha <i>SRM University</i>

PL5 Growth of Alloy Semiconductor Crystals

Prof. Yasuhiro Hayakawa
Shizuoka University, Japan

PL6 Si nanotips and related hetero-junction arrays: from antireflection to tip-enhanced luminescence and magneto-resistance

Prof. Li-Chyong Chen
National Taiwan University, Taiwan

IT14 Qualitative/quantitative study of short-chain, branched monolayer transistors: An effective self-assembly approach

Dr. Alagirswamy.A.A
SRM University, Kattankulathur

10.50 – 11.50 am

SESSION - 12

Chairperson	:	Dr. D.K. Aswal <i>BARC, Mumbai</i>
Repertoire	:	Dr. A. Geetha <i>SRM University</i>
Poster Session – C	:	P.101-P.130

P101 Nano medicine

Shipra singh¹, Atul kumar singh²

¹*Biomedical Engineering, Srm University Kattankulathur*

². *Automobile Engineering, Srm University Kattankulathur*

P102 Nanogels

C. Balaji, B.V.L. Sravya

KrishnaTeja Pharmacy College, Chennai

P103 Preparation of chitosan nanoparticles for ciprofloxacin by ionic gelation technique

P. Lakshmi Kalyani, B.Senthilnathan, T.Naveen

Vel's College of Pharmacy, Chennai

P104 Biological synthesis of silver nanoparticles using melia azedarch and ficus racemosa

R. Sukirtha¹, b. Hemanth¹, s. Manoharan¹, s. Kamalakkannan² &
S. Achiraman¹.

¹*Department of Environmental Biotechnology, School of Environmental Sciences,*

²*Department of Animal Science, School of Life Sciences, Bharathidasan University, Tiruchirapalli-24.*

- P105 Development of Microemulsion based gel for topical delivery terbinafine hydrochloride**
 C.Mahalakshmi¹, VivekBattu¹, P.Hemalatha¹, V.Ravichandran¹, K.Bhaskar^{1,2}
¹*Department of Pharmaceutics, School of Pharmaceutical Sciences, Vel's University, velan nagar, old pallavaram, chennai-600117, Tamilnadu, India*
²*Sri Venkateswara college of Pharmacy, R V S nagar, Tirupathi road, Chittoor-517127, Andhra Pradesh, India.*
- P106 Comparative study of substituted nanocalcium hydroxyl apatite**
 P.Dhanalakshmi² and V.Narayanan¹
¹*Department of Inorganic Chemistry, School of Chemical Sciences University of Madras, Guindy Campus, Chennai –600 025, India*
²*Department of Chemistry, R.M.K college of Engineering and Technology, puduvoyal, Chennai-601206, India.*
- P107 Enzyme based nanoformulations for psoriasis**
 T S Anitha and P.Palanivelu
Madurai Kamaraj University, Chennai
- P108 Formulation development and evaluation of betamethazone dipropionate nanostructured lipid carriers for topical delivery**
 Premanand Nighojkar^{1*}, S.K.Umadevi¹, and Velayudam Ravichandiran¹ and Kesavan Bhaskar^{1,2}
¹*Department of Pharmaceutics, School of Pharmaceutical Sciences, Vels University, Velan Nagar, Pallavaram, Chennai, Tamil Nadu.*
²*Sri Venkateswara College of Pharmacy, R.V.S.Nagar, Tirupathi Road, Chittoor-517127, Andhra Pradesh, India -.*
- P109 Synthesis of rock phosphate nano particle and its effect on seed germination of selected crops**
 Dr. Tapan Adhikari, Arunava Goswami, A.K. Biswas, S. Kundu, J. C. Tarafdar and A. Subba Rao
Indian Institute of Soil Science, Bhopal
- P110 Characterization and biocompatibility studies of PMMA/polystyrene /silica nano composites fabricated by Sol-Gel techniques**
 N.V.Prabu, K. Aravind, D. Sangeetha
Dept of Chemistry, Anna University, Chennai
- P111 Detection of ground water using nano ants**
 Radhika.A
Rajalakshmi Engineering College, Chennai
- P112 Re-use of waste energy**
 Akho John Richa, Sreepathi.Y
Sathyabhama University, Chennai
- P113 Nanotechnology and future WMD**
 Ravikiran Pathi
Sri Padmavathi School of pharmacy, AP

- P114 Synthesis of poly & its performance evaluation as anticorrosive pigment in paints for mild steel**
 J. Anandha raj, C.Vedi* and P.Manishankar
Alagappa University, Karraikudi.
 *Department of Chemistry, V.O.Chidambaram College, Tuticorin
- P115 Nanotechnology in textiles**
 S. Nithya
Thejaa Shakthi Institute of Technology for Women
- P116 Analysis of evaporation rate in the solar still by using synthesized nano2 nano particle sensors**
 T. Arunkumar¹, R. Jayaprakash^{1*} T. Krishnakumar² and Sanjaykumar³
¹*Department of Physics, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore- 641 020, Tamil Nadu, INDIA*
²*Nanotechnology Laboratory, Department of Physics, VMKV Engineering College, Vinayaka Missions University, Salem, Tamil Nadu 636 308, INDIA*
³*Centre for Appropriate Management Chandragupt Institute of Management Chajubagh, Patna- 800 001, Bihar, INDIA*
- P117 Soundness of Nanotechnology in the minimization of pollution and energy consumption-A conceptual through approach**
 Dr.K.Subramaniam, Prof.AL.Subramanian, Prof. D.Ravindran
Thiagarajar College of Engg, Madurai
- P118 Green-Goo “Nanotechnology Comes Alive”**
 K. Sandeep and Desu Raghavendra
Sathyabhama University, Chennai
- P119 Proposal on application of nanotechnology in stem cell research**
 G. Sudha Maheshwari
Periyar Maniammai University, Salem
- P120 Intellectual property rights-A critical review**
 M.Bharani² S.Gopalakrishnan² Niranjana P Sarathy²
 Velammal Engineering College, Chennai
- P121 Waste treatment using nanotechnology**
 K.R.Aswin Siddharth
Anna University, Chennai
- P122 Nanotechnology as manufacturing technology of 21 st century**
 Phaneendhar Readdy
Mother Theresa Post Graduate & Research Institute of Health science, Puduchery
- P123 Early age test on Metakaolin admixture cement paste**
 Dr. R. GopalaKrishnan and D. Govindarajan
Department of Physics, Annamalai University, Annamalai Nagar, 608 002,
Department of Physics, SRM University, Kattankulathur, 603 203, Tamilnadu

- P124 Surface modification of SPSEBS membranes by LBC assembly of polysulfone for application in fuel cell**
P.Bhavani and D.Sangeetha
Dept of Chemistry, Anna University Chennai, Chennai
- P125 Acoustical studies on some ternary organic mixtures at various temperatures**
Mrs. V. Vanathi, S. Mullainathan, and *S. Nithiyanantham
Department of Physics, AVC College of Engineering, Mayiladuthurai
**Department of Physics (Biophysics / Ultrasonics Division), SRM Univeristy, Kattankulathur, Tamil nadu, India – 603 203.*
- P126 Sol gel derived tin oxide (SnO₂) thin film for gas sensor applications**
C. Esther Jeyanthi^{a, b}, R. Siddheswaran^c, and K. Rajarajan^b
Vel Tech Dr.R.R & Dr.S.R Technical University, Chennai
Department of Physics, Rajeswari vedachalam government arts college, Chengalpet
Department of Physics, Panimalar Engineering College, Chennai
- P127 Novel microcontroller aided inclined moving substrate spray pyrolysis? Deposition technique for making good quality nano thin films for making dye – sensitized solar cell**
¹V.Senthilnathan, ²S.Ganesan, ¹S.Gopal, ¹R.Sengodan.
¹*Department of Physics, Kumaraguru College of Technology, Coimbatore*
²*Department of Physics, Government College of Technology, Coimbatore*
- P128 Synthesis and structural investigation of cadmium doped TiO₂ nanoparticles by hydrothermal method**
K. Karthik, S. Kesava Pandian, and N. Victor Jaya
Dept. of Physics, Anna University, Chennai
- P129 Electrochemical determination of hydrazine based FMCA – functionalized CNT's modified electrode**
D.R. Shobha Jeykumari, R.A. Kalaivani and S. Sriman Narayanan²
Department of Analytical Chemistry, University of Madras, Chennai
²*Department of Chemistry, School of Basic Sciences, VELS University, Pallavaram, Chennai*
- P130 Development of the Thermoresponsive Magnetic Nanoparticle and its deployment in the Biotechnology field**
Roshan Chandra, Mahdiyar Bagheri, vijayalakshmi J & Anitha
Department of Nanotechnology, SRM University, Chennai
- P131 Carbon Allotropes (CNT and C₆₀) for Nanosensors**
Anuraj.S, Mohamed Javid.M, Salaimutharasan.G, Siva.C
Department of Nanotechnology, SRM University, Chennai
- P132 Synthesis and characterization of ZnO nanorods via simple Wet chemical route**
Meghana Hariharan, C. Muthamizhchelvan, S.Ponnusamy
Department of Physics, SRM University, Chennai

P133 Morphology Control of Cadmium Sulfide from Petal-Like Structures to Sphere-Like Architecture: Synthesis and Optical Properties

K.D.Nisha*, M.Navaneethan, S.Ponnusamy, C.Muthamizhchelvan

** Asan Memorial College of Engineering and Technology, Chengalpet
Center for Materials Science and Nanodevices*

Department of physics, SRM University, Chennai-603203, Tamilnadu, India

P134 A Review about Nanocomposites

P.K.Chidambaram and Dr.R.Ramakrishnan

Department of Mechanical, Dr.M.G.R. University, Chennai

P135 Theoretical Estimation of Speed of Sound in Binary liquid Mixtures

A.Geetha and R.Palani**

Department of Physics, SRM University, Chennai

***Department of Physics (DDE), Annamalai University, Chidambaram,*

11.50 – 01.00 pm	SESSION - 13A	Parallel session — Hall - I
Chairperson	: Dr.V.N.Mani <i>C-MET, Hyderabad</i>	
Repertoire	: Dr.R.Gopalakrishnan <i>SRM University</i>	
Oral presentations–E:	Bio Nanotechnology O.41- O.50	

O41 Comparatative analysis on the chemical bonding, nanomechanical and biocompatible properties of Titanium-DLC and Nickel-DLC thin films prepared by biased target ion beam deposition method

P.Vijai Bharathy¹, D.Nataraj^{1*}, D.Mangalaraj¹, J.Silvestre-Albero², Q.Yang³

¹*Thin films and Nanomaterials Lab, School of Physical Science, Bharathiar University, Coimbatore, India*

²*Laboratory of advanced materials, Department of Inorganic chemistry, University of Alicante, Spain*

³*Department of Mechanical Engineering, University of Saskatchewan, 57 Campus Drive, Saskatoon, SK, Canada S7N 5A9.*

O42 Fabrication of nanofibrous biocomposite bones scaffolds through Electrospinning

D.Sathish kumar¹, S. Jayanthi¹, B. Preethi¹, A. Sekar¹, A. Siddharthan¹, Sampath kumar², V.R Giri Dev²

¹*Department of Mechanical Engineering, College of Engineering, Guindy, Anna University Chennai.*

²*Department of Textile Technology, A.C College of Technology, Anna University Chennai.*

O43 Synthesis and characterization of hydroxyapatite nanoparticle for drug delivery sys

G. Devanand Venkatasubbu, S. Ramasamy, J. Kumar
Crystal Growth Centre, Anna University Chennai

O44 Transport properties of DNA: wire and fishbone model

Shahtahmasebi^{1,2}, Naser. Seyed Ahamad Ketabi³, Azadeh Rashed mohassel^{4*} and Shadab Dabagh⁴

¹*Physics dept. Faculty of sciences, Ferdowsi University of Mashhad, Iran*

²*Nano Research Centre of the Ferdowsi Univrsity of Mashhad, Mashhad, Iran*

³*School of Physics, Damghan University of Basic Sciences, Damghan, Iran*

⁴*School of Physics, Payamenoor University of Basic Sciences, Mashhad, Iran*

O45 Future of medicine nanomedicines& nano robotics emerging trends in the field of nanoscience and technology

Garima Chopra, Lokendra Singh, Anuj Kumar Rana

Department of Biotechnology, IMS Engineering College, Uttar Pradesh

- O46 Drug delivery using nanoparticles in the treatment of breast cancer**
Mangaiyarkarasi.R^a, Shanmugavel.C^b, ManiRahulan.K^b, S.Ganesan^b,
P.Aruna^b,
^aCenter For Nanotechnology, Vellore Institute Of Technology,
Vellore^bDepartment of Medical Physics, Anna University, Chennai
- O47 Nanorobotic drug delivery and its use against HIV**
Nandan Dutta^{*1}, Priya Ranjan Singh², Hindoli Roy³
¹Dept. of Genetic Engineering,
²Dept. of Electrical & Electronics Engineering,
³Dept. of Computer Science & Engineering, SRM University, Chennai, India
- O48 Dielectric relaxation study of n,n-dimethylformamide-alcohol mixtures using tdr techniques**
K. Ramachandran
Department of Physics, Faculty of Engineering and technology, SRM University, Chennai -600026, Tamilnadu, India.
- O49 Optical and dielectric studies on electrospinning TiO₂/PVP composites**
Mohanapriya, S.Suresh², K.P.Rajesh³, N.Victor Jaya¹ and T.S.Natarajan³
¹Department of Physics, Anna University Chennai
²Department of Physics, Loyola College, Chennai 600034 India.
³Department of Physics, Indian Institute of Technology Madras, Chennai
- O50 A study on the step by step growth of Tungsten Oxide Nanowires using Scanning Electron Microscopy and EDS**
C. Gopalakrishnan¹, Ganesh. K. Rajan¹, Shivaraman Ramaswamy¹
and K. Jegannathan²
¹Research Center, SRM University, SRM Nagar, Kancheepuram District, India
²Bharathidasan University, Tiruchirapalli, Tamilnadu, India - 620024

11.50 – 01.00 pm		SESSION - 13B	Parallel session — Hall - II
Chairperson	:	Dr.B.S.Kademani BARC, India	
Repertoire	:	Mr.P.Saravanan SRM University	
Oral presentations–F:		Nano Industrial & Commercial Applications O.51- O.60	

- O51 Synthesis and characterization of PAMAM dendrimer and its application in uranium extraction**
P. Ilaiyaraja, Ashish Kumar Singha Deb and D. Ponraju
Radiological Safety Division, Indira Gandhi Centre for Atomic Research,
Kalpakkam – 603102

- O52 Impact of Hybride ITO/ZnO texturing on the High-Efficiency GaN-based Light Emitting Diode**
Periyayya Uthirakumar*, Ji Hye Kang, Beo Deul Ryu, and Chang-Hee Hong
*School of Semiconductor and Chemical Engineering, Semiconductor Physics Research Center,
 Chonbuk National University, Chonju 561-756, South Korea*
- O53 Syngas and ethylene generation by natural gas conversion: influence of nano scale catalyst**
Ali Farsi, Ali Moradi, Sattar Ghader*, Seyed Soheil Mansouri, Vahid Shadravan
Department of Chemical Engineering, Shahid Bahonar University of Kerman, Kerman, Iran
- O54 Effect of rolling temperature on microstructure and mechanical properties of 7075 Al alloy**
***P. Das¹** & I. V. Singh²
¹ *Department of Metallurgical & Materials Engineering, IIT Roorkee, Roorkee*
² *Department of Mechanical & Industrial Engineering, IIT Roorkee, Roorkee*
- O55 Effects of different compositions of TiO₂ paste for dye-sensitized solar cell**
S.N. Karthick, Min-Kyu Son, Inyoung Shin, K. Prabakar, Hee Je Kim*
School of Electrical Engineering, Pusan National University, Geumjeong, Busan - 609 735, Republic of Korea.
- O56 Study of humidity sensing behavior of SnO₂ doped TiO₂ humidity sensor**
Pandey N.K.*, Rai Amit, Tiwari Karunesh, Roy Akash, Mishra Aradhna, Awasthi Prianka
Sensors and Materials Research Laboratory, Department of Physics, University of Luck now, U.P., Pin-226007, India
- O57 Growth, dielectric & second harmonic studies of pure and doped hippuric acid (NLO) crystals**
M.Krishna Mohan, S.Ponnusamy, C.Muthamizhchelvan
Department of Physics, SRM University
- O58 Nano Al₂O₃ and oxide coated nano Al material for sensor application**
A. Jonie Varjula*, S. Ramasamy §, A. Ramanand¹ and S. Jerome Das¹
¹ *Department of Physics, Ethiraj College for Women (Autonomous), Chennai*
 § *Emeritus Professor, Crystal Growth Centre, Anna University, Chennai*
Department of Physics, Loyola College, Chennai
- O59 Preparation and characterization of hydroxyl apalite**
T. Asai Thambi¹ and J. Abrakam Jonhson²
¹ *Department of Physics, Government Arts College Udagamandalam – 643002 The Nilgris, Tamilnadu.*
² *Govt.H.S.School Sikkal, Ramanathapuram – 623528, Tamilnadu..*

- O60 One step synthesis of spherical gold nanoparticles via wet chemical method**
Belina Xavier*, P. Dennis Christy[†], G. Ramalingam[†], A. Ramanand[†], and P. Sagayaraj[†]
 *Department of Physics, Stella Maris College (Autonomous), Chennai-600 086
[†]Department of Physics, Loyola College (Autonomous), Chennai-600 034
- O61 Polymer Modified Asphalt Nanocomposites (PMAN): Preparation and Characterization**
M. S. Sureshkumar and Giovanni Polacco
 University of Pisa, Italy
- O62 Breaking Of Inner Capping Of Multiwalled Carbon Nanotube Due To Swift Heavy Ion Irradiation Leading To Modification in Emission Characteristics**
Brahmananda Chakraborty
Bhabha Atomic Research Centre, Mumbai

01.00 – 02.00 pm	: Lunch
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02.00 – 03.45 pm		SESSION - 14
Chairperson	:	Prof. Masaya Ichimura <i>Nogoya Institute of Technology, Japan</i>
Repertoire	:	Mr.R.M.Hariharan <i>SRM University, Kattankulathur</i>

- IT15 Carbon based Nanomaterials:- Processing and energy related applications**
 Dr.S.Ramaprabhu
IIT-M, Chennai
- IT16 One Dimensional Nanostructures for Electronic and Optoelectronic Devices**
 Prof. S.K. Ray
IIT- K, Kharagpur
- IT17 Nano oxides/nitrides and their nanostructured coatings: Synthesis, characterization and applications**
 Dr.A.K.Tyagi,
IGCAR, Kalpakkam

04.15-05.00 pm	:	Valedictory and best Oral & Poster presentation award distribution Dr. A.K. Tyagi <i>IGCAR, Kalpakkam</i> and Dr. C. Muthamizhchelvan <i>Associate Director, SRM University,</i> presides
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