

List of Selected Abstracts

The following abstracts has been selected for poster presentation for ICONSAT 2016. The size of the poster should not be more than 3 feet (width, 36 inches) x 4 feet (length, 48 inches). Accommodation facilities will be provided ONLY FOR POSTER PRESENTERS from institutes outside Pune for four nights (28 Feb, 29 Feb, 1 March and 2 March 2016). Accommodations WILL NOT BE PROVIDED to poster presenters from institutes within Pune. We request participants to pay the registration and accommodation fees, if not done so far. The receipt for the registration and accommodation fees will be issued on 29th February 2016.

P-1.	<p style="text-align: center;">Synthesis, Structural and Magnetic Characterizations of Nanocrystalline Nd_{0.4}Sr_{0.6}MnO₃ Manganite</p> <p style="text-align: center;">Dinesh Kumar*, Uma Shankar and Akhilesh Kumar Singh* School of Materials Science & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi, India-221005 *E-mail: dineshiitbhu@gmail.com, akhilesh_bhu@yahoo.com</p>
P-2.	<p style="text-align: center;">Direct force driven electromigration in focused ion beam deposited tungsten nanowires used in nanoelectronics</p> <p style="text-align: center;">Pabitra Mandal^{1,*}, Bipul Das^{1,2} and A. K. Raychaudhuri¹ ¹S. N. Bose National Centre for Basic Sciences, Block-JD, Sector-III, Salt Lake, Kolkata-98, India *Email: pabitra.mandal@bose.res.in</p>
P-3.	<p style="text-align: center;">Underlayer Thickness Dependence of Interfacial Dzyaloshinskii-Moriya Interaction in W/CoFeB/SiO₂ Thin Film Heterostructure</p> <p style="text-align: center;">Avinash Kumar Chaurasiya, Sourav Sahoo, Chandrima Banerjee, Jaivardhan Sinha, Anjan Barman* Department of Condensed Matter Physics and Material Sciences, S. N. Bose National Centre for Basic Sciences, Kolkata, India *abarman@bose.res.in</p>
P-4.	<p style="text-align: center;">Ag/MWCNT/TiO₂ ternary nanocomposite: an efficient Visible-Light active Photocatalyst</p> <p style="text-align: center;">Deepti Chaudhary*, Neeraj Khare and V.D.Vankar Department of Physics, Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110016, India *E-mail: deeptichaudhary.iitd@gmail.com</p>
P-5.	<p style="text-align: center;">Fe₃O₄@carbon core-shell nanoparticles for selective hydrogenation of CO₂ at ambient pressure</p> <p style="text-align: center;">Vivek K Jain[#], Sharad Gupta[†] and Dinesh Jagadeesan* [#]Physical and Material Chemistry Division, [†]Catalysis Division, CSIR-National Chemical Laboratory, Pune 411008, India Dinesh Jagadeesan*: d.jagadeesan@ncl.res.in</p>

<p>P-6.</p>	<p>Synthesis of Titanium Doped MgO Heteronanostructures with Tunable Optical Band Gap by a Facile Thermal Decomposition Approach</p> <p>Urvashi Sharma and P. Jeevanandam*</p> <p>Department of Chemistry, Indian Institute of Technology Roorkee, Roorkee 247667, India *Corresponding author; Email: jeevafcy@iitr.ac.in Ph: +91-1332-285444; Fax: +91-1332-273560</p>
<p>P-7.</p>	<p>An efficient magnetic copper ferrite nanoparticle catalysed ligand and solvent free synthesis of N-aryl amide from aldoximes and iodobenzene.</p> <p>Sachin A. Sarode, Jeevan M. Bhojane, Jayashree M.Nagarkar*</p> <p>Affiliation (Department of Chemistry, Institute of Chemical Technology, Matunga, Mumbai – 400019,India) Email of corresponding (*) authors: jm.nagarkar@ictmumbai.edu.in</p>
<p>P-8.</p>	<p>Quantum Emitter Coupled To Nanotriangle: Spatial Dependent Emission And Thermal Mapping</p> <p>Adarsh B Vasista, G V Pavan Kumar</p> <p>Photonics and Optical Nanoscopy Laboratory, Division of Physics and Center for Energy Science, Indian Institute of Science Education and Research (IISER) Pune-411008</p>
<p>P-9.</p>	<p>Low Temperature Synthesis of Dimensionally Controlled Titania and its Application in Dye Sensitized Solar Cells</p> <p>Kiran P. Shejale*, Devika Laishram and Rakesh K. Sharma</p> <p>Department of Chemistry, Indian Institute of Technology Jodhpur, Jodhpur, 342011 Email: rks@iitj.ac.in</p>
<p>P-10.</p>	<p>Short peptide based self assembled nanostructures for delivery of microRNA as a therapeutic strategy against hepatocellular carcinoma (HCC)</p> <p>Aditi Varshney*¹, Jiban J. Panda², Avishek K. Singh¹, Shiv K. Sarin³, Virander S. Chauhan⁴</p> <p>¹Department of cellular & molecular medicine, Institute of Liver & Biliary Sciences, New Delhi, ²Institute of Nano Science and Technology, Mohali, ³Department of Hepatology, Institute of Liver& Biliary Sciences, ⁴International centre for genetic engineering and biotechnology, New Delhi, India</p>
<p>P-11.</p>	<p>Structural and Optical Properties of Cr³⁺ Doped ZnAl₂O₄ Spinel – A Low Cost Red Phosphor</p> <p>Samvit G.Menon^a, K. S. Choudhari^a, Santhosh Chidangil^a, and Suresh D. Kulkarni^{a,*}</p> <p>^aDepartment of Atomic and Molecular Physics, Manipal University, India *Corresponding Author email: suresh.dk@manipal.edu</p>
<p>P-12.</p>	<p>Highly stable low-cost transparent conducting electrodes and their applications</p> <p>S. Kiruthika¹, R. Gupta², A. Kumar¹, C.Sow¹, G. U. Kulkarni^{1,3*}</p> <p>¹Chemistry & Physics of Materials Unit and Thematic Unit of Excellence in Nanochemistry, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur P.O., Bangalore 560064, India., ²Department of Chemistry, Indian Institute of Technology Jodhpur, Jodhpur-342011, Rajasthan, India, ³Centre for Nano and Soft Matter</p>

	<p>Sciences, Jalahalli, Bangalore 560013, India Email of corresponding (*) authors: kulkarni@jncasr.ac.in</p>
P-13.	<p>Control of photo-kinetics in nanostructured ZnO using electrolytic double layer (EDL) gate dielectric.</p> <p>Rishi Ram Ghimire and A. K. Raychaudhuri Department of Condensed Matter Physics and Material Sciences, Unit for Nanoscience, S. N. Bose National Centre for Basic Sciences, Sector-3, JD Block, Kolkata-700098, W.B., India.</p>
P-14.	<p>Carbon Dots based Paper Immunoassay (CDPIA) for sensitive detection of HIV-1 p24 Antigen</p> <p>Pradyumna Mulpur¹, Aditya Kurdekar¹, Apparao M.Rao² Ramakrishna Podila² and Venkataramaniah Kamiseti¹</p> <p>¹Laboratories for Nanoscience and Nanotechnology Research, Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam 515134 India ² Department of Physics and Astronomy , Clemson University, Clemson, South Carolina 29364 USA</p>
P-15.	<p>Carrier Dynamics in CsPbBr₃ Nanocrystals Studied by Time Resolved THz Spectroscopy</p> <p>Yettapu Gurivi Reddy, Abhishek Swarnakar, Prasenjit Ghosh, Angshuman Nag, and Pankaj Mandal*</p> <p>Department of Chemistry, Indian Institute of Science Education & Research, Pune-411008, India pankaj@iiserpune.ac.in</p>
P-16.	<p>Synthesis, Structure Elucidation and Application of Platinum Nanocluster</p> <p>Anu George, Sukhendu Mandal*</p> <p>School of Chemistry, Indian Institute of Science Education and Research Thiruvananthapuram 695016, India. E-mail: sukhendu@iisertvm.ac.in</p>
P-17.	<p>Functionalized Nanometal Hybrids for Advanced Chemo-Therapeutics</p> <p>Radhakant Singh ^a, Gaurav Chauhan ^{*a}, Awakash Dixit ^a, Manish M Kulkarni ^a, Prabhat K Dwivedi ^a, Amit K Goyal ^b</p> <p>^a Centre for Nanosciences, Indian Institute of Technology Kanpur, Uttar Pradesh, India. ^b DBT Lab, Indo Soviet Friendship College of Pharmacy, Moga, Punjab, India. Email: *gchauhan@iitk.ac.in</p>
P-18.	<p>Superparamagnetism in Sputtered Dy₂₁Fe₇₉ Granular Thin films at Room Temperature</p> <p>Laxman Mekala¹, M. Shameem¹, Dushyanth Singh Yadav¹ and M. Senthil Kumar^{1,*}</p> <p>¹Department of Physics, Indian Institute of Technology Bombay, Mumbai 400 076. *Email of corresponding author : senthil@iitb.ac.in</p>

<p>P-19.</p>	<p align="center">Comparative Antibacterial Analysis of Citrus grandis Fruit and Biosynthesized Metallic Nanoparticles</p> <p align="center">Sushree Sangita Senapati^a, Indrani Barman^b and Jyotchna Gogoi^{b*} ^aDepartment of Microbiology and ^bDepartment of Biochemistry, Assam down town University, Guwahati, India – 781026 Email of corresponding author: jyotchnagogoi@gmail.com</p>
<p>P-20.</p>	<p align="center">Spin Wave Dynamics in Two Dimensional Nanoscale Bi-component Magnonic Crystals with Varying Shapes of the Elements</p> <p align="center">S. Choudhury, S. Saha, R. Mandal, S. Barman and A. Barman* Department of Condensed Matter Physics and Material Sciences, S. N. Bose National Centre for Basic Sciences, Block JD, Sector III, Salt Lake, Kolkata 700 098, India. *Email:abarman@bose.res.in</p>
<p>P-21.</p>	<p align="center">Effect of crystal structure, solvent and electron beam irradiation on the red luminescence of LiEu(WO₄)₂</p> <p align="center">Archana K M, Nalini G Sundaram Materials Science Division, Poornaprajna institute of Scientific Research, Bidalur, Devanahalli-562164, Bengaluru, India (Recognized by the Department of Science and Research (DSIR), Govt. of India and Manipal University) Email: archana@poornaprajna.org, nalini@poornaprajna.org</p>
<p>P-22.</p>	<p align="center">Hydrothermal in situ preparation of TiO₂ nanoparticles over TiO₂ nanofibers for dye sensitized solar cells</p> <p align="center">G. S. Anjusree, Shantikumar V Nair* and A. Sreekumaran Nair* Nanosolar Division, Amrita Centre for Nanosciences and Molecular Medicine, Amrita Vishwa Vidyapeetham University, Kochi, Kerala, 682041, India. Email of corresponding author: shantinair@aims.amrita.edu</p>
<p>P-23.</p>	<p align="center">Facile synthesis of 1D-2D metal oxides/chalcogenides-reduced graphene oxide (RGO) nanocomposites and their field electron emission investigations</p> <p align="center">Sanjeevani R. Bansode, Ruchita T. Khare, Kashmiri Harpale and Mahendra A. More* Center for Advanced Studies in Material Science and Condensed Matter Physics, Department of Physics, Savitribai Phule Pune University, Pune - 411007. India corresponding (*) author: mam@physics.unipune.ac.in</p>
<p>P-24.</p>	<p align="center">SILAR: An effective method for deposition of nickel metal electrode</p> <p align="center">Akshay N. Vyas and S. D. Sartale* Thin films and Nanomaterials Laboratory, Department of Physics, Savitribai Phule Pune University, Pune, Maharashtra, India – 411 007 Fax: +91-20-25691684, E-mail: sdsartale@physics.unipune.ac.in</p>
<p>P-25.</p>	<p align="center">Novel bacterial cellulose based nanocomposite scaffolds for osteochondral tissue engineering</p> <p align="center">Jyoti Kumbhar, J M Rajwade*, K M Paknikar Nanobiosciences group, Agharkar Research Institute, Pune 411004, India</p>

	Email : jrajwade@aripune.org
P-26.	<p>Growth of the TiO₂ Thin Films Using Spray Pyrolysis Technique: Study of Structural, Optical and Morphological Properties</p> <p>S. S. Thombare ¹and A. P. Yengantiwar*¹</p> <p>¹Department of Physics, Fergusson College, Savitribai Phule Pune University, Pune-411004, INDIA</p> <p>* Corresponding author: ashish.yengantiwar@fergusson.edu</p>
P-27.	<p>Solving Crimes : Nanoscale Materials As Tool And Physical Evidence</p> <p>Johny T Abraham</p> <p>Department Of Physics, National Defence Academy, Khadakwasla, Pune 411023</p>
P-28.	<p>Metal supported Exfoliated FeOOH as a bifunctional oxidation-condensation catalyst for tandem reaction.</p> <p>D. Vernekar^a, B. Sandhya^b, D. Jagadeesan^{b*}</p> <p>^aChemical Engineering and Process Development Division, CSIR-National Chemical Laboratory, Pune-411008</p> <p>^bPhysical and Materials Chemistry Division, CSIR-National Chemical Laboratory, Pune-411008</p> <p>*d.jagadeesan@ncl.res.in</p>
P-29.	<p>Dual Functional π-Conjugated Biodegradable Nanocarrier for Cellular Imaging and Drug Delivery in Cancer Cells</p> <p>Bhagyashree Kulkarni and Manickam Jayakannan*</p> <p>Department of Chemistry</p> <p>Indian Institute of Science Education & Research (IISER-Pune)</p> <p>Dr.Homi Bhabha Road, Pune 411008, Maharashtra, INDIA</p>
P-30.	<p>Nano-diagnostics for Human Invasive Aspergillosis</p> <p>Raval KM¹, Ghormade V^{*1}, Chakrabarti A², Paknikar KM^{*1}</p> <p>¹Nanobiosciences, Agharkar Research Institute, Pune 411004, India</p> <p>²Department of Medical Microbiology, PGIMER, Chandigarh 160012, India</p> <p>vandanaghormade@aripune.org, kmpaknikar@aripune.org</p>
P-31.	<p>Simulation parameters for graphene growth: role of velocity of molecular carbon and temperature</p> <p>Resham V. Jagtap , Arvind Kumar and P. S. Alegaonkar*</p> <p>Department of Applied Physics, Defence Institute of Advanced Technology, Girinagar, Pune 411 025, India</p> <p>*prashant.alegaonkar@gmail.com</p>
P-32.	<p>Photocatalytic activity of Mechanochemical synthesized ZnS nanoparticles for Hydrogen production and Methylene blue degradation</p> <p>Mohini Nashikkar¹, Sanjay B. Kokane¹, R.Sasikala², S. D. Sartale^{1*}</p> <p>¹Thin Films and Nanomaterials Laboratory, Department of Physics, Savitribai Phule Pune University, Pune – 411007, INDIA</p>

	² Chemistry Division, Bhabha Atomic Research Centre, Trombay, Mumbai 400085, INDIA
P-33.	<p>Anthelmintic activity of biofabricated silver nanoparticles using fruit peel extract of <i>Momordica charantia</i></p> <p>Amruta Shelar,^{1*} Shampa Chakraborti,¹ Rajendra Patil,³ Haribhau Gholap²</p> <p>¹ Department of Biotechnology, Fergusson College, Pune 411004, India. ² Department of Physics, Fergusson College, Pune 411004, India. ³ Department of Biotechnology, Savitribai Phule Pune University, Pune 411007, India. *Corresponding author : amrutavijaykumar@yahoo.in</p>
P-34.	<p>Biosynthesis of Silver nanoparticles with dye degradation properties using aqueous leaves extract of <i>Murraya koenigii</i></p> <p>Amruta Shelar¹, Shampa Chakraborti^{1*}, Haribhau Gholap²</p> <p>¹ Department of Biotechnology, Fergusson College, Pune 411004, Maharashtra, India. ² Department of Physics, Fergusson College, Pune 411004, Maharashtra, India. *Corresponding author: shampachakraborti1957@gmail.com</p>
P-35.	<p>An indigenously developed rapid gold nanoparticles based immunodiagnostic assay to detect White spot syndrome virus (WSSV) in shrimp and prawns</p> <p>Kulabhusan Prabir¹, Rajwade J. M.¹, Hameed S. S.², Paknikar K. M.^{1*}</p> <p>¹Nanobioscience Group, Agharkar Research Institute, G. G. Agarkar Road, Pune 411004, India ²OIE Reference Laboratory, Department of Zoology, C. Abdul Hakeem College, Hakeem Nagar, Melvashiram, Vellore Dt., Tamilnadu 632 509 Email*:kmpaknikar@aripune.org</p>
P-36.	<p>Melting process in atomic clusters: The role of ground state motif</p> <p>Anju Susan, Vaibhav Kaware, Kavita Joshi*</p> <p>Physical and Materials Chemistry Division, National Chemical Laboratory, Pune 411008, India. *k.joshi@ncl.res.in</p>
P-37.	<p>Effect of Samarium Doping on Nickel Oxide Nanoparticles</p> <p>Swati Gawali and Jayashree Pant^{1*}</p> <p>CES's Dr. A. B. Telang Sr. College, Nigdi, Pune 411044, India ¹Abasaheb Garware College, Pune 411004, India *Email : jpant.agc@gmail.com</p>
P-38.	<p>Assessing the Effect of Different Shapes of Glyco-gold Nanoparticles on Bacterial Adhesion and Infections</p> <p>Preeti Madhukar Chaudhary, Sivakoti Sangabhatuni, Raghavendra Kikkeri*</p> <p>Indian Institute of Science Education and Research, Pashan, Pune 411008, India. E-mail: rkikkeri@iiserpune.ac.in</p>
P-39.	<p>Synthesis, Characterization and Antimicrobial Investigations of Nanochelates of 1, 2 Naphthoquinone Oximes</p>

	<p>V. V. Dhapte¹, Pratibha Jadhav², Vividha Dhapte⁴, R. D. Kankaria³ and V. B. Jadhav¹</p> <ol style="list-style-type: none"> 1. BVDU Y. M. College, Paud Road, Pune-411 038 2. Sinhgad Institute's Venutai Chavan Polytechnique, Pune 3. Pratibha College of Commerce and Computer Science, Pune-411 019 4. Poona College of Pharmacy, Pune-411 038 <p>E-mail: vdhapte@rediffmail.com</p>
P-40.	<p>Advanced functionality of ZnO/CdS nanocomposite for inhibition of quorum sensing mediated bacterial biofilm formation</p> <p>Haribhau Gholap¹, Rajendra Patil², Sambhaji Warule³, Arun Banpurkar⁴, Gauri Kulkarni⁴</p> <p>¹Department of Physics, Fergusson College, Savitribai Phule Pune University, Pune-411004.</p> <p>²Department of Biotechnology, Savitribai Phule Pune University, Pune-411007.</p> <p>³Department of Physics, Nowrosjee Wadia College, Savitribai Phule Pune University, Pune-411001.</p> <p>⁴Department of Physics, Savitribai Phule Pune University, Pune-411007.</p> <p>Presenting author: haribhau.gholap@fergusson.edu</p>
P-41.	<p>Toxicity Of Nanoparticles On Different Biological Systems</p> <p>Gandhali Bapat¹, Vaijayanti Tamhane¹, Smita Zinjarde^{1*}</p> <p>¹ Institute of Bioinformatics and Biotechnology, Savitribai Phule Pune University, Ganeshkhind Road, Pune – 411007</p> <p>*e-mail – smita@unipune.ac.in</p>
P-42.	<p>Templated Synthesis Of Nano TiO₂ And Its Characterization</p> <p>G. T. Harini, Yashwant B. Pandit, Chetan J. Bhongale[*]</p> <p>[*]Organic and Hybrid Materials Laboratory, Department of Applied Chemistry, Defence Institute of Advanced Technology, Pune- 411 025, India</p> <p>Email: chetanjb@diat.ac.in</p>
P-43.	<p>Chitosan based 'nanocarriers' for Zn biofortification in wheat</p> <p>Deshpande P B^a, Dapkekar A D^a, Oak M D^b Paknikar K M^a and Rajwade J M^{a*}</p> <p>a: Nanobioscience group, b: Genetics and plant breeding group, Agharkar research Institute, Pune 411004, India.</p> <p>Email id*: jrajwade@aripune.org</p>
P-44.	<p>Synthesis and characterization of modified Lanthanum Strontium Manganese Oxide (LSMO) nanoparticles for active targeting and treatment of breast cancer</p> <p>Panchal SR, Gajbhiye V, Umrani RD[*], Paknikar KM[*]</p> <p>Agharkar Research Institute, Pune, India</p> <p>*Email: rinkuumrani@aripune.org, kmpaknikar@aripune.org</p>

<p>P-45.</p>	<p align="center">Biological protein aggregates, produced in E. coli, as potential nanoparticulate catalysts</p> <p align="center">S. Tapryal,¹ M. Vasam,¹ L. Krishnan,² D. M. Salunke²</p> <p align="center">¹Department of Biotechnology, School of Life Sciences, Central University of Rajasthan, Bandarsindri, Distt. Ajmer, Rajasthan 305817, India</p> <p align="center">²National Institute of Immunology, Aruna Asaf Ali Marg, New Delhi 110067</p> <p align="center">E-mail: suman_tapryal@curaj.ac.in</p>
<p>P-46.</p>	<p align="center">Nano-scale protein self-assembled into long filaments for analyte transportation in lab-on-a-chip device</p> <p align="center">Saroj Kumar ^{1,2,3,*}, Rajesh Ahirwar ², Jai Gopal Sharma ¹, Pradip Nahar ², Alf Mansson ³</p> <p align="center">¹ Department of Biotechnology, Delhi Technological University, Main Bawana Road, Delhi-110042, India.</p> <p align="center">² CSIR-Institute of Genomics and Integrative Biology, Mall Road, Delhi-110007, India.</p> <p align="center">³ Department of Chemistry and Biomedical Sciences, Faculty of Health and Life Sciences, Linnaeus University, SE-391 82 Kalmar, Sweden</p> <p align="center">Email of corresponding (* Dr. Saroj Kumar) author: sarojbiotech@gmail.com, sarojnanobiotech@gmail.com</p>
<p>P-47.</p>	<p align="center">Glyco-gold nanoparticles of specific shapes tune in vitro and in vivo Carbohydrate-Protein Interactions</p> <p align="center">Sivakoti Sangabathuni, Kesava Phaneendra Cherukuri, Preeti Madhukar Chaudhary, Balamurugan Subramani, and Raghavendra Kikkeri*</p> <p align="center">Indian Institute of Science Education and Research, Pashan, Pune 411008, India.</p> <p align="center">E-mail: rkikkeri@iiserpune.ac.in</p>
<p>P-48.</p>	<p align="center">Ultrafast synthesis of flower-like ordered Pd₃Pb nanocrystals with superior electrocatalytic activities towards oxidation of formic acid and ethanol</p> <p align="center">Rajkumar Jana, Udumula Subbarao, Sebastian C. Peter*</p> <p align="center">New Chemistry Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore, 560064, India</p>
<p>P-49.</p>	<p align="center">Nano-Sulfur/Graphite Nanoplatelets Composites for Stable High Performance Li-S Batteries</p> <p align="center">Mukkabla Radha, IIT-Hyderabad</p> <p align="center">Cy13p1009@iith.ac.in</p>
<p>P-50.</p>	<p align="center">A Simplified Plasmonic CdS Quantum Dot Solar Cell</p> <p align="center">P. Naresh Kumar,^a Melepurath Deepa,^{a,*} Partha Ghosal^b</p> <p align="center">^aDepartment of Chemistry, Indian Institute of Technology Hyderabad, Medak-502205, Telangana (India).</p> <p align="center">^bDefence Metallurgical Research Laboratory, DRDO, Hyderabad-500058, Telangana (India).</p> <p align="center">mdeepa@iith.ac.in</p>
<p>P-51.</p>	<p align="center">Synthesis and Characterization of Colloidal Silver and Gold Nanoparticles for Inkjet Printing</p> <p align="center">N.C. Raut*</p> <p align="center">Interdisciplinary Centre for Energy Research, Indian Institute of Science, Bangalore-</p>

	<p>560012, India *Email: ncraft78@yahoo.co.in</p>
P-52.	<p>Controllably Alloyed, Low Density, Template Free Ni-Co Nano-sponges for Electrocatalytic Water Splitting</p> <p>T.V.Vineesh, T.N.Narayanan*, Subbiah Alwarappan* CSIR-Central Electrochemical Research Institute, Tamilnadu, India and TIFR- TCIS, Hyderabad, Telungana, India tn_narayanan@yahoo.com and salwarap@gmail.com</p>
P-53.	<p>Enhanced electrocatalytic activity of Pd – dispersed on graphite and intercalated graphite systems towards ethanol oxidation reaction</p> <p>Venkata Jagadeesh. R, Lakshminarayanan. V Soft Condensed Matter, Raman Research Institute, Bengaluru – 560 080 Email: narayan@rri.res.in</p>
P-54.	<p>Morphology, mechanism and optical properties of nanometer-sized MgO synthesized via facile wet chemical method</p> <p>Rajni Verma¹, A.K. Srivastava^{*1} ¹Academy of Scientific and Innovative Research, CSIR - National Physical Laboratory, Dr. K. S. Krishnan Road, New Delhi-110012, India Email of corresponding author: aks@nplindia.org</p>
P-55.	<p>Enhanced Visible-Light Photocatalytic H₂-Production Activity of SnS₂-Ti Composites</p> <p>Divya Nagaraju¹, Suresh K. Bhat¹, Satishchandra B. Ogale^{2*} Polymer Science and Engineering Division, CSIR-National Chemical Laboratory, Pune 411008, India Department of Physics, Indian Institute of Science Education and Research, Pune 411008, India Email of corresponding author: satishogale@gmail.com or satishogale@iiserpune.ac.in</p>
P-56.	<p>CO₂ Photoreduction on Glancing Angle Deposited TiO₂ Nanostructures</p> <p>Devesh Kumar Lodhi, J.P. Singh* Department of Physics, Indian Institute of Technology Delhi, Hauz Khas, New Delhi 110016, India *E-mail: jpsingh@physics.iitd.ac.in</p>
P-57.	<p>Charge inhomogeneity in Homogeneous Clusters and Its Implications</p> <p>Vaibhav V. Kaware and Kavita Joshi* Physical and Materials Chemistry Division, CSIR- National Chemical Laboratory, Pune 411008, India *Email: k.joshi@ncl.res.in</p>

<p>P-58.</p>	<p align="center">Complexation on the Surface of Quantum Dots: Reaction Kinetics and Application</p> <p align="center">Shilaj Roy, ^a Satyapriya Bhandari, ^a and Arun Chattopadhyay ^{a, b, *}</p> <p align="center">^aDepartment of Chemistry and ^bCentre for Nanotechnology, Indian Institute of Technology Guwahati, Guwahati-781039, Assam, India.</p> <p align="center">* E-mail: arun@iitg.ernet.in</p>
<p>P-59.</p>	<p align="center">Amination Of Aryl Halides By Using Supported Bimetallic Nanoparticles</p> <p align="center">Nitin Pagar* & Manjiri Kuikarni</p> <p align="center">Department of chemistry, Sir Parashurambhau College, Tilak Road, Pune-411030, India</p> <p align="center">Authors: nspagar@gmail.com</p>
<p>P-60.</p>	<p align="center">Time-Resolved Optical Pump-Terahertz Probe Spectroscopy of a few layer MoS₂</p> <p align="center">Srabani Kar,^{†,‡} Y. Su,[§] R. R. Nair,[§] and A. K. Sood^{*,†,‡}</p> <p align="center">[†] Department of Physics and [‡] Center for Ultrafast Laser Application, Indian Institute of Science, Bangalore 560 012, India</p> <p align="center">[§]School of Physics and Astronomy, The University of Manchester, Manchester M13 9PL, U.K.</p>
<p>P-61.</p>	<p align="center">Ultrafast Charge Carrier Dynamics in Metal Deposited CdSe@CdS Quasi Type II Core Shell Material and Its Photocatalytic Behavior</p> <p align="center">Jayanta Dana, Partha Maity and Hirendra N. Ghosh*</p> <p align="center">Radiation & Photochemistry Division, Bhabha Atomic Research Centre, Mumbai – 400085, India.</p> <p align="center">E-mail: hngosh@barc.gov.in</p>
<p>P-62.</p>	<p align="center">Functional/Multifunctional Nano-objects using Block Copolymer Self-Assembly</p> <p align="center">Sajan Singh,¹ Sunita Sanwaria,¹ Rajiv Srivastava,¹ Andriy Horechyy,² Manfred Stamm,^{2,3} Bhanu Nandan,¹</p> <p align="center">¹Department of Textile Technology, Indian Institute of Technology Delhi, HauzKhas, New Delhi 110016, India</p> <p align="center">²Leibniz Institute of Polymer Research Dresden, HoheStrasse 6, Dresden 01069, Germany</p> <p align="center">³Technische Universität Dresden, Physical Chemistry of Polymer Materials, Dresden 01062, Germany</p> <p align="center">Email of corresponding author: nandan@textile.iitd.ac.in</p>
<p>P-63.</p>	<p align="center">Photocatalytic Degradation of Pesticide in Water using Doped TiO₂</p> <p align="center">Bhanu Pratap Dhamaniya¹, Ashavani Kumar², J.S.Tawale³</p> <p align="center">¹School of Material Science and Nanotechnology, National Institute of Technology, Kurukshetra 136119, India</p> <p align="center">²Department of Physics, National Institute of Technology, Kurukshetra, India</p> <p align="center">³National Physical Laboratory, Delhi 110012, India</p> <p align="center">E-mail: ashavani@yahoo.com</p>

P-64.	<p align="center">Aligned Nickel Nanochains: A Cost Effective Terahertz Polarizer</p> <p align="center">Debanjan Polley¹, Anjan Barman¹, Rajib Kumar Mitra^{2*} ¹Department of Condensed Matter Physics and Material Sciences, ²Department of Chemical, Biological and Macromolecular Sciences, S N Bose National Centre for Basic Sciences, Kolkata 700098, India Email of corresponding (*) authors: rajib@bose.res.in</p>
P-65.	<p align="center">pH sensitive DMAEMA based copolymeric nanoparticle in drug delivery</p> <p align="center">Shalini Sharma and Indrajit Roy Department of Chemistry, University of Delhi, Delhi -110007, India E-mail: indrajitroy11@gmail.com</p>
P-66.	<p align="center">A metal free carbon nanodot based two component white light emitting system</p> <p align="center">Sonam Mandani, Bhagwati Sharma, Deepa Dey and Tridib K. Sarma* Discipline of Chemistry, School of Basic Sciences, Indian Institute of Technology Indore, Khandwa Road, Simrol, Indore, 452020, India Email: tridib@iiti.ac.in</p>
P-67.	<p align="center">Enzyme-responsive Amphiphilic Polymer Nano-assemblies for Doxorubicin Delivery</p> <p align="center">Mehak Malhotra and Manickam Jayakannan* Department of Chemistry Indian Institute of Science Education & Research (IISER-Pune) Dr.Homi Bhabha Road, Pune 411008, Maharashtra, INDIA</p>
P-68.	<p align="center">High Performance gas Sensor based on 2D TiS3</p> <p>Amit S. Pawbake 1, 2, Mahendra S. Pawar 1, 2, Sandesh R. Jadkar 2, Dattatray J. Late 1* 1Physical and Material Chemistry Division, CSIR – National Chemical Laboratory, Pune, 411008, Maharashtra, (India) 2School of Energy Studies, Department of Physics, Savitribai Phule Pune University, Pune 411007, (India) Corresponding Author: datta099@gmail.com, dj.late@ncl.res.in</p>
P-69.	<p align="center">T6 carbon: a promising anode material for Li-ion batteries with high mobility and storage capacity of Li atom</p> <p align="center">A. Rajkamal^{1,#}, E. Mathan kumar², V. Kathirvel¹ and Ranjit Thapa^{*1,2} ¹Department of Physics and Nanotechnology, SRM University, Kattankulathur-603203 ²SRM Research Institute, SRM University, Kattankulathur, Tamil Nadu, 603203, India *Corresponding Author Email: ranjit.t@res.srmuniv.ac.in, ranjit.phy@gmail.com</p>
P-70.	<p align="center">White Light from Quantum Dot Complex Nanocomposite</p> <p align="center">Sabyasachi Pramanik, ^a Satyapriya Bhandari, ^a Shilaj Roy, ^a Arun Chattopadhyay ^{a, b,*} ^aDepartment of Chemistry and ^bCentre for Nanotechnology Indian Institute of Technology Guwahati, Guwahati-781039, Assam, India</p>

	*E-mail: arun@iitg.ernet.in
P-71.	<p align="center">Design of Hetero-structured Organic-inorganic Photocathode for the Photoelectrochemical Water Splitting</p> <p align="center">Smrutirekha Swain^{1, 2}, Yatendra S. Chaudhary^{1, 2*} ¹Colloids and Materials Chemistry Department, CSIR-Institute of Minerals and Materials Technology, Bhubaneswar-751 013, India. ²Academy of Scientific and Innovative Research (CSIR-AcSIR), New Delhi, India. *E-mail: yschaudhary@immt.res.in</p>
P-72.	<p align="center">Controlled growth mechanism of binary oxide nanostructures: Role of interface with substrate</p> <p align="center">Ankita Ghatak[*], Samik Roy Moulik, Barnali Ghosh ^aUnit for Nanoscience, Department of Condensed Matter Physics and Material Sciences, S.N. Bose National Centre for Basic Sciences, Salt Lake, Kolkata-700098, INDIA, ^bICON Analytical Equipment Pvt. Ltd., Kolkata, India. Email of corresponding (*) authors: ankita.ghatak@bose.res.in</p>
P-73.	<p align="center">Copper nanoparticles as a potential antimicrobial agent against food spoilage organisms</p> <p align="center">Raksha Pandit and Mahendra Rai[*] Nanobiotechnology Laboratory, Department of Biotechnology, SGB Amravati University, Amravati 444602, Maharashtra, India. Email: mkrai123@rediffmail.com</p>
P-74.	<p align="center">Effect of Sulfur Ambient on Degree of Sulfurization of MoO₃ into MoS₂ Nanoflakes</p> <p align="center">Prabhat Kumar[*], Megha Singh, Rabindar K. Sharma, and G. B. Reddy Thin Film Laboratory, Department of Physics, Indian Institute of Technology Delhi, New Delhi, India -110016 Email: prabhat89k@gmail.com</p>
P-75.	<p align="center">Ag Nanorods Embedded PDMS Film as Flexible and Robust SERS Substrates</p> <p align="center">Samir Kumar, Pratibha Goel and Jitendra P. Singh[*] Department of Physics, Indian Institute of Technology Delhi, Delhi- 110016, India *jpsingh@physics.iitd.ac.in</p>
P-76.	<p align="center">Structural and Optical Properties of Zinc Chromite Spinel Oxide Nanoparticles Synthesized by Microwave-assisted Technique</p> <p align="center">Deepak Hebbar N^a., Suresh D. Kulkarni^{a*}, K. S. Choudhari^a, Santhosh C^a. ^aDepartment of Atomic and Molecular Physics, Manipal University, Manipal, Karnataka, India-576104 *Corresponding Author email: suresh.dk@manipal.edu</p>

P-77.	<p align="center">Engineering of enteric coated lipid nanoparticles of Efavirenz by spontaneous nanoprecipitation method: A quality by design approach</p> <p align="center">Harshita Raina, Anil Jindal*</p> <p align="center">Department of Pharmacy, Birla Institute of Technology and Science, Pilani 333031, India Email of corresponding (*) authors: anil_jndl@yahoo.co.in</p>
P-78.	<p align="center">Efficiency enhancement of ZnO nanowire arrays-based perovskite solar cells: By TiCl₄ treatment at low-temperature</p> <p align="center">Nanaji Islavath^{1,2}, Dibakar Das², Easwaramoorthi Ramasamy^{1*}</p> <p align="center">¹ Centre for Solar Energy Materials, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad 500005, India. ² School of Engineering Sciences and Technology, University of Hyderabad, Hyderabad 500046, India. Email of corresponding (*) authors: easwar@arci.res.in</p>
P-79.	<p align="center">Therapeutic Potential of Surface Functionalized Mn₃O₄ Nanoparticles against Hyperbilirubinemia; from Cuvette to Preclinical Model</p> <p align="center">Aniruddha Adhikari and Prof. Samir Kumar Pal*</p> <p align="center">Dept. of Chemical Biological and Macromolecular Sciences, S N Bose National Centre for Basic Sciences, Salt Lake, Kolkata 700098, India aniruddha.biosc@bose.res.in and skpal@bose.res.in</p>
P-80.	<p align="center">Synthesis and optical behavior of perovskite (CH₃NH₃PbBr₃) material</p> <p align="center">Ved Prakash¹, Ashok Kumar²</p> <p align="center">¹School of material science and nanotechnology ²Department of physics, National Institute of technology, Kurukshetra 136119, India vedprakash555ic@gmail.com</p>
P-81.	<p align="center">Dielectric and Optical Characterization of La-Sr doped BaTiO₃ Nanoparticles</p> <p align="center">Madhuri Jorewal¹, Anurag Gaur²,</p> <p align="center">¹School of Material Science & Nanotechnology, National Institute of Technology, Kurukshetra-136119, India ²Department of Physics, National Institute of Technology, Kurukshetra-136119, India Email: anuragdph@gmail.com</p>
P-82.	<p align="center">Effect of Mn Doping on Photocatalytic Properties of Copper Zinc Tin Sulfide Nanoparticles</p> <p align="center">Puspanjali Tripathy, Mona Mittal, Vikash Arora, and Sameer Sapra*</p> <p align="center">Department of Chemistry, Indian Institute of Technology Delhi, Hauz Khas, New Delhi - 110016, India *sapra@chemistry.iitd.ac.in</p>
P-83.	<p align="center">Various contributions to valance band splitting in MoSe₂</p> <p align="center">Poonam Kumari and Priya Mahadevan*</p> <p align="center">Department of Condensed Matter Physics and Material Sciences, S. N. Bose National</p>

	Centre for Basic Sciences, Kolkata 700098, India Email*: priya@bose.res.in
P-84.	<p>Direct Observation of Pure Interfacial Dzyaloshinskii-Moriya Interaction in W/CoFeB/SiO₂ using Brillouin Light Scattering Technique</p> <p>Chandrima Banerjee, Avinash Kumar Chaurasiya, Sourav Sahoo, Samiran Chaudhury, Jaivardhan Sinha and Anjan Barman^{1,*}</p> <p>¹Department of Condensed Matter Physics and Material Sciences S. N. Bose National Centre for Basic Sciences, Block JD, Sec III, Saltlake, Kolkata 700098, India *abarman@bose.res.in</p>
P-85.	<p>A first step to probe Nano-confined water optically</p> <p>Ajith V. J., Shivprasad Patil* Department of Physics, Indian Institute of Science Education and Research, Pune 411008, India Email of corresponding (*) authors: s.patil@iiserpune.ac.in</p>
P-86.	<p>Does Boron Nitride / Carbon Nanotube Interface Trigger Oxygen Reduction for Low Temperature Fuel Cells?</p> <p>Indrajit M. Patil, Moorthi Lokanathan, Sherieff Khan and Bhalchandra Kakade*</p> <p>SRM Research Institute, SRM University, Kattankulathur - 603 203 Chennai (India)</p> <p>*Corresponding author E-mail: bhalchandrakakade.a@res.srmuniv.ac.in</p>
P-87.	<p>Synthesis and characterization of Graphene based polyamides nanocomposites</p> <p>¹Nikita Mishra, ²Dr.DilipVasava</p> <p>^{1,2} Department of Chemistry, School of Sciences, Navarangpura, Gujarat University, Ahmedabad-380009, Gujarat,(India). E-mail: neeki_mishra@yahoo.com</p>
P-88.	<p>Microscopic Reaction Mechanism of Hydrogen oxidation by Fe-complex</p> <p>Srilatha Arra and Mukul Kabir</p> <p>Indian Institute of Science Education and Research, Pune 411008, India E-mail: srilatha.arra@students.iiserpune.ac.in</p>
P-89.	<p>Electrocatalytic activities of Boron doped acetylene bonded two dimensional carbon crystal family: An <i>ab-initio</i> study</p> <p>Bikram Kumar Das^{1,*}, Dipayan Sen¹, and K. K. Chattopadhyay¹</p> <p>1) Thin Film and NanoScience Laboratory, Department of Physics, Jadavpur University, Kolkata 700032, India</p> <p>*Corresponding author; email: bikramkumardas1991@gmail.com</p>
P-90.	<p>Control of Magnetic Homogeneity and Damping by Engineering of Sub-Nanoscale Interface in Ta(N) CoFeB MgO Heterostructures</p> <p>J. Sinha¹, C. Banerjee¹, A. K. Chaurasiya¹, M. Hayashi², A.Barman^{1*}</p> <p>¹Department of Condensed Matter Physics and Material Sciences, S. N. Bose National</p>

	Centre for Basic Sciences, Kolkata 700 098, India Email: abarman@bose.res.in
P-91.	Nanoparticles Coated With Dimer-Like Mesogenic Ligands: Synthesis and Characterization of A Liquid-Crystalline Nanoparticle (LC-NP) Composite Sachin A. Bhat and C. V. Yelamaggad* Centre for Nano and Soft Matter Sciences Prof. U. R. Rao Road, Post Box No. 1329, Jalahalli, Bengaluru 560013, INDIA *yelamaggad@cens.res.in
P-92.	Recyclable Iron Oxide Nanoparticles for the α-Cyanation of Tertiary Amines under acid-free conditions and the formal synthesis of Praziquantel Mahendra R. Patil, Anant R. Kapdi and A. Vijay Kumar* Department of Chemistry, Institute of Chemical Technology, Matunga, Mumbai, Maharashtra, India-400019 E-mail: mahendrapatil21@gmail.com, vijayakki@gmail.com
P-93.	Electron-Hole Asymmetry in the Electron-phonon Coupling in Top-gated Phosphorene Transistor Biswanath Chakraborty ¹ *, Satyendra Nath Gupta ¹ , Anjali Singh ² , Manabendra Kuri ¹ , Chandan Kumar ¹ , D. V. S. Muthu ¹ , Anindya Das ¹ , U. V. Waghmare ² , and A. K. Sood ¹ ¹ Department of Physics, Indian Institute of Science, Bangalore -560012, India ² Theoretical Sciences Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore -560064, India * biswanath@physics.iisc.ernet.in
P-94.	Phytofabricated AgNPs Using Parts Of <i>Phyllanthus Acidus</i> And Their Bioactivities Sripriya Nannu Shankar ^{*1} , Muthiah Shanmugavel ¹ , R Jayasree ² and Arumugam Gnanamani ¹ ¹ Biological Materials Division, CSIR-Central Leather Research Institute, Chennai 600020 ² Department of Biotechnology, Rajalakshmi Engineering College, Thandalam, Chennai 602105 Email: nsripriya.bt@gmail.com
P-95.	Diameter Dependent Shielding Effectiveness and Terahertz Conductivity of Multiwalled Carbon Nanotubes Kumar Neeraj ^a , Debanjan Polley ^b , Rajib Kumar Mitra ^{a,*} , Anjan Barman ^b , a) Department of Condensed Matter Physics and Material Sciences, b) Department of Chemical, Biological and Macromolecular Sciences S. N. Bose National Centre for Basic Sciences, Block JD, Sector III, Salt Lake, Kolkata 700098, INDIA *Email: rajib@bose.res.in

<p>P-96.</p>	<p align="center">S-Doped Hollow TiO₂-Au Nanocomposite for Degradation of Phenol Under Visible Light</p> <p align="center">N.V.S. Praneeth, Santanu Paria Interfaces and Nanomaterials Laboratory, Department of Chemical Engineering, National Institute of Technology, Rourkela 769008, India</p>
<p>P-97.</p>	<p align="center">Comparative Study of Rate of Photocatalytic Decomposition by ZnO-Ag Nanocomposites</p> <p align="center">Jayeta Maity, Debasmita Sardar, Tanushree Bala* Department of Chemistry, University of Calcutta, 92 A.P.C. Road, Kolkata-700009, India E-mail: jayeta.jmaity@gmail.com debasmitasardar07@gmail.com</p>
<p>P-98.</p>	<p align="center">Mesoporous Silica/ Graphene Oxide Sandwich- Like Sheets Immobilised Palladium Nanoparticle as Highly Active and Recyclable Catalyst</p> <p align="center">Javaid Shabir, Charu Garkoti and Subho Mozumdar* Department of Chemistry, University of Delhi, Delhi, India -110007 Email of corresponding author: subhomozumdar@yahoo.com</p>
<p>P-99.</p>	<p align="center">Nanoparticles mediated targeting of proteasome in cancer cells</p> <p>Chandramouli Ghosh^a, Neha Gupta^b, Piyush More^a, Manas Kumar Santra^b, Sudipta Basu^{*a} ^aDepartment of chemistry, Indian Institute of Science Education and Research (IISER), Pune, India ^bDepartment of Cancer Biology, National Center for Cell Science (NCCS), Pune, India Correspondence: sudipta.basu@iiserpune.ac.in</p>
<p>P-100.</p>	<p align="center">Bioreduction of Graphene oxide using ethanolic extract of <i>Turbinaria ornata</i> and its cytotoxicity effect on MCF 7, Human breast cancer cell line</p> <p align="center">K. M. Smita¹, L. Stanley Abraham^{2*}, R. Vasantharaja², R. Thirugnanasambandam² 1. Research Scholar, Sathyabama University, Jeppiaar Nagar, Rajiv Gandhi Road, Chennai 600119, India. 2. Sathyabama University, Jeppiaar Nagar, Rajiv Gandhi Road, Chennai 600119, India. Email : 2* stanleyabraham313@gmail.com</p>
<p>P-101.</p>	<p align="center">Following the Type-I to Type-II transition in semiconductor heterostructures</p> <p align="center">Joydeep Chatterjee¹, V. Ravi Kishore¹, Priya Mahadevan^{1*} and D. D. Sarma² ¹ Department of Condensed Matter Physics and Materials Sciences, S. N. Bose National Centre for Basic Sciences, Salt Lake City, Kolkata ² SSCU, IISc, Bangalore Email (*) : priya@bose.res.in</p>
<p>P-102.</p>	<p align="center">AgInSbTe and InSbTe phase-change materials</p> <p align="center">Smriti Sahu^{1*}, Habibuddin Shaikh², G. Mohan Rao², M. Anbarasu^{1*} ¹Department of Electrical Engineering, Indian Institute of Technology Indore, India ²Department of Instrumentation and Applied Physics, Indian Institute of Science, India *engg.smriti@gmail.com, anbarasu@iiti.ac.in</p>

P-103.	<p align="center">A weak electric field assisted ultrafast switching characteristics of InSbTe phase change memory devices</p> <p align="center">Shivendra Kumar Pandey¹ and Anbarasu Manivanan^{1,2*}</p> <p align="center">¹Discipline of Electrical Engineering, Indian Institute of Technology Indore, India. ²Materials Science and Engineering, Indian Institute of Technology Indore, India *anbarasu@iiti.ac.in</p>
P-104.	<p align="center">Nanoelectronics devices based on 2D Black Phosphorus Nanosheets</p> <p align="center">Mahendra S. Pawar, Manisha B. Erande, Dattatray J. Late*</p> <p align="center">Physical & Materials Chemistry Division, CSIR – National Chemical laboratory, Pune 411008, India *Corresponding Author: datta099@gmail.com, dj.late@ncl.res.in</p>
P-105.	<p align="center">Self-Organized ZnO Nanofractals</p> <p align="center">Pradosh Kumar Sahoo, G.Mangamma*, M.Kamaruddin, Sitaram Dash, A.K.Tyagi Surface and Nanoscience Division, Indira Gandhi Centre for Atomic Research, Kalpakkam- 603012. *gm@igcar.gov.in, pradosh.sahoo12@gmail.com</p>
P-106.	<p align="center">Biosynthesis of perovskite-like lead halide nano-assembly for a potential Solar cell</p> <p align="center">Mr. Souvik Mukherjee, Ms. Flory Pereira, D. Savita Kerkar and D. Abhishek Mishra*</p> <p align="center">Affiliation: Department of Biotechnology, Goa University, Goa, 403206, India</p>
P-107.	<p align="center">Development and Characterization of a Self-assembled Nanoparticulate System for Solubility Enhancement and Delivery of Curcumin</p> <p align="center">Sushil Mishra, Swati Rani and Subho Mozumdar Department of Chemistry, University of Delhi, Delhi – 7, India. subhomozumdar@yahoo.com</p>
P-108.	<p align="center">Carbon nanotube blended Hydroxyapatite Ethanol sensor</p> <p align="center">S. R. Anjum and R. S. Khairnar*</p> <p align="center">Centre for Sensors and Nano-Devices, School of Physical Sciences, Swami Ramanand Teerth Marathwada University, Nanded-431606, India. *Corresponding author Email: rskhairnarsps@gmail.com</p>
P-109.	<p align="center">Two-step approach of fabrication of Prussian blue nanocubes-SnO₂ quantum dots- Reduced graphene oxide ternary nanocomposite: As an electro-active material for high selective and sensitive detection of hydrogen peroxide released from cancer cells</p> <p align="center">Seema Chauhan¹, P.K. Sahoo², Om Parkash¹ and D. Bahadur^{2*}</p> <p align="center">¹Department of Ceramic Engineering, Indian Institute of Technology (BHU), Varanasi- 221005, India. ²IITB-Monash Research Academy, Indian Institute of Technology Bombay, Mumbai- 400076, India. Email of corresponding (*) authors: dhiren@iitb.ac.in</p>

P-110.	<p align="center">Structural characterization and electrical studies of CeO₂/CoPc nanocomposite</p> <p align="center">Babitha K.Kuniyil.^a, Priyanka K. P.^a, and Thomas Varghese^{a*}</p> <p align="center">^aNanoscience Research Centre (NSRC), Department of Physics, Nirmala College, Muvattupuzha - 686 661, Kerala, India *nanoncm@gmail.com</p>
P-111.	<p align="center">Synthesis of Zinc Oxide Nanorods on conducting surface and their Application as antireflection materials for Photovoltaic Devices</p> <p align="center">Chandra Bhal Singh, Akhilesh Kumar Singh*</p> <p align="center">School of Materials Science and Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi 221005, India Email of corresponding (*) authors: cbs.sbc@gmail.com, akhilesh_bhu@yahoo.com</p>
P-112.	<p align="center">Reduced Graphene Oxide Blended Nano Hydroxyapatite: Ammonia sensors</p> <p align="center">R. S. Khairnar^{*1}, S.R. Anjum¹ and Datta Late²</p> <p align="center">¹ School of Physical Sciences, S.R.T.M. University Nanded-431606 ²Ramanujan Fellow, National chemical Laboratory, Pashan, Pune</p>
P-113.	<p align="center">Electrochemical synthesis of one dimensional carbon nanostructures from pencil lead</p> <p align="center">Shantanu Lanke¹, Deepa Pujara², V. V. N. Ravi Kishore^{3*}</p> <p align="center">⁽¹⁾Department of Chemical Engineering, Datta Meghe College of Engineering, Airoli, Navi Mumbai 400708, India ²Pelletron LINAC facility, Tata Institute of Fundamental Research, Mumbai 400005, India ³School of Biotechnology and Bioinformatics, D. Y. Patil University, Navi Mumbai 400614, India Email of corresponding author (*vvnravi2000@gmail.com)</p>
P-114.	<p align="center">Role of Reducing Agents: Formation and Photo-catalytic Activity of pristine ZnO Nanostructures</p> <p align="center">Thongam Debika Devi^{a,b}, Jagriti Gupta^b, Niroj Kumar Sahu^{a*}, D.Bahadur^{b*}</p> <p align="center">^a Vellore Institute of Technology, Vellore ^b Indian Institute of Technology Bombay, Mumbai,400076 Email id: dhiren@iitb.ac.in , nirojs@vit.ac.in</p>
P-115.	<p align="center">Defect Assisted Carrier Relaxation in Graphene Nanoribbons</p> <p align="center">Gyan Prakash^{*1}, Yan -Sheng Li², Wei-Hung Chiang² and A. K. Sood¹</p> <p align="center">¹Center for Ultrafast Laser Applications (CULA) and Department of Physics, Indian Institute of Science, Bangalore-560012. ²National Taiwan University of Science & Technology, Taipei City, Taiwan 10607</p>
P-116.	<p align="center">Water soluble CdTe QD-sensitized nanofibrous SnO₂ quantum dot solar cells</p> <p align="center">Gautam E. Unni, Soorya Sasi, G. S. Anjusree, A. Sreekumaran Nair* and Shantikumar V. Nair*</p> <p align="center">Nanosolar Division, Amrita Center for Nanosciences and Molecular Medicine, Amrita</p>

	<p>Vishwa Vidyapeetham University, Kochi, Kerala, 682041, India. Email of corresponding author: shantinair@aims.amrita.edu</p>
P-117.	<p>Nanoengineered gold nanoparticle impregnated collagen- pullulan hydrogel for biomedical applications</p> <p>Iswariya S, Poornima V, Uma T S* Bioproducts Lab, Council for Scientific and Industrial Research-Central Leather Research Institute (CSIR-CLRI), Adyar, Chennai 600 020 Email: suma67@gmail.com</p>
P-118.	<p>Magnetic Nanoparticles as Spacers for Tunable Enhancements in Surface Plasmon-Coupled Emission</p> <p>Venkatesh S¹, Dnyanesh Vernekar², Garima Jaiswal², Dinesh Jagadeesan^{2*}, Sai Sathish Ramamurthy^{1*}</p> <p>¹ Plasmonics Laboratory, Dept. of Chemistry, Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam Campus, Puttaparthi, Anantapur, AP. ² CSIR – National Chemical Laboratory, Pune, Maharashtra. Email of corresponding (*) authors: d.jagadeesan@ncl.res.in; rsaisathish@sssihl.edu.in.</p>
P-119.	<p>The effect of Iron dopant on the electrocatalytic oxygen reduction activity of porous nickel nanoparticles</p> <p>Archana Sekar, Vineesh Thazhe Veetil and Subbiah Alwarappan CSIR-Central Electrochemical Research Institute, Karaikudi 630003, Tamilnadu, India archana5396@gmail.com, vineeshchem86@gmail.com, salwarap@gmail.com</p>
P-120.	<p>Polystyrene Stabilized Iridium Nanoparticles Catalyzed Chemoselective Transfer Hydrogenation of Nitroarenes to N-Arylhydroxyl amines</p> <p>Dhananjay Bhattacharjee,^{a,b} Pralay Das^{a,b*}</p> <p>^aNatural Product chemistry and process development, CSIR-Institute of Himalayan Bioresource Technology, Palampur-176061, H.P. E-mail: bhattacharjee130@gmail.com, *pdas@ihbt.res.in. ^bAcademy of Scientific and Innovative Research, New Delhi, India</p>
P-121.	<p>Ultra-fast MoO₃ Nanorod based Humidity sensor</p> <p>Lina Khandare^{1,2}, Santosh S. Terdale^{2*}, Dattatray J. Late^{1*}</p> <p>¹Physical and Materials Chemistry Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pashan, Pune- 411008, Maharashtra State, India ²Department of Chemistry, Savitribai Phule Pune University, Pune-411007, Maharashtra, India dj.late@ncl.res.in, sst@chem.unipune.ac.in</p>
P-122.	<p>Size and Surface Ligand of Nanocrystals Effects Energy and Charge Transfer between CdSe Nanocrystals and Ru dye</p> <p>Mona Mittal and Sameer Sapra Department of Chemistry, IIT Delhi and mona@chemistry.iitd.ac.in</p>

P-123.	<p align="center">Effect Of Twisting & Morphology On Charge Transport In Molecular Junction</p> <p align="center">V.K. Lamba¹, Amardeep², Nisha², O.P.Garg³, Aditi Kalash¹, Sandeep Dhariwal⁴ ¹Global College of Engg. & Tech. Kahnpur Khui, Punjab, ²PTU Jalandar, ³RKSD College Kaithal, ⁴LPU Jalandhar (Contact: lamba_vj@hotmail.com)</p>
P-124.	<p align="center">Silver Catalyzed Growth Of In_xGa_{1-x}As Nanowires On Si (100) And Si (111) By Metal Organic Chemical Vapor Deposition</p> <p align="center">K. Sarkar^{1*}, K. J. Sarkar², S. M. Islam¹ and P. Banerji¹ ¹Materials Science Centre, Indian Institute of Technology, Kharagpur, 721302, India ²Advanced Technology Development Centre, Indian Institute of Technology, Kharagpur, 721302, India *krishnendu.569@gmail.com</p>
P-125.	<p align="center">Robust Graphene Oxide/Magnetic Nanoparticle-Chitosan Hydrogel Nanocomposite Film With Antimicrobial Properties</p> <p align="center">AchyutKonwara * and Devasish Chowdhury a a Material Nanochemistry Laboratory, Physical Sciences Division, Institute of Advanced Study in Science and Technology, PaschimBoragaon, Garchuk, Guwahati-781035, India. E-mail: achyutkonwar88@gmail.com</p>
P-126.	<p align="center">Nano Copper-Cobalt Ferrite Catalyzed Improved Procedures For One-Pot Synthesis Of Poly Substituted Imidazoles And Pyridines</p> <p align="center">Paul Douglas Sanasi[*], Venkateswara Rao Battula, Satyanarayana Bassa Department of Engineering Chemistry, AU College of Engineering, Andhra University, Visakhapatnam 530003, AP, India Email of corresponding (*) authors: spauldouglas.engchem@auvsp.edu.in</p>
P-127.	<p align="center">Defining Descriptors For Graphene Based Catalysts For Dioxygen Reduction</p> <p align="center">S. Sinthika and Ranjit Thapa* SRM Research Institute, SRM University, Kattankulathur, Tamil Nadu, 603203, India E-mail: ranjit.phy@gmail.com, ranjit.t@res.srmuniv.ac.in.</p>
P-128.	<p align="center">Unusual LSPR variation from Cr doping in Cr-Sn codoped In₂O₃ nanocrystals</p> <p align="center">Anur Yadav, Bharat Tandon, Pranavi Reddy, Angshuman Nag* angshuman@iiserpune.ac.in Department of Chemistry, Indian Institute of Science Education and Research, Pune-411008</p>
P-129.	<p align="center">Thermoelectricity In Gold Nanojunctions Of Varying Electrode Topology</p> <p align="center">Talem Rebeda Roy, Arijit Sen * SRM Research Institute, SRM University, Chennai 603203, India Email of corresponding (*) author: arijit.s@res.srmuniv.ac.in</p>

P-130.	<p align="center">Local Conductance Of Lead Phthalocyanine Thin Films In Response To Humidity</p> <p align="center">K. Priya Madhuri, Neena S. John* Centre for Nano and Soft Matter Sciences, Jalahalli, Bangalore 560013, India Email: priya@cens.res.in, jsneena@cens.res.in</p>
P-131.	<p align="center">Phytofabrication Of Ag NPs Using <i>Cassia Fistula</i> Flower Extract And A Study On Cytotoxic Potential Against Breast Cancer Cell MCF-7</p> <p align="center">R. R. Remya, S. R. Radhika Rajasree*, L. Aranganathan, T. Y. Suman, S. Gayathri Centre for Ocean Research, Sathyabama University, Jeppiaar Nagar, Rajiv Gandhi Road, Chennai 600119, Tamilnadu, India. * E-mail address: radhiin@gmail.com.</p>
P-132.	<p align="center">Single-Step Synthesis Of Ternary Rubrene/Polyaniline/Tio₂ Nanocomposite Film For Fabrication Of Hybrid Photodetector</p> <p align="center">Amreen A. Hussain* and Arup R. Pal Plasma Nanotech Lab, Physical Sciences Division, Institute of Advanced Study in Science and Technology, Guwahati, Assam, India *E-mail: amreenhussain8888@gmail.com</p>
P-133.	<p align="center">Small Amplitude Atomic Force Microscope for Linear Measurement of Molecular Forces in Liquids</p> <p align="center">Shatruhan Singh, Saurabh Talele, Shivprasad Patil* Indian Institute of Science Education and Research, Pune(India) s.patil@iiserpune.ac.in</p>
P-134.	<p align="center">Temperature Dependent Study Of Mn²⁺ <i>d-d</i> Emission In II-VI Semiconductor Nanocrystals</p> <p align="center">Kushagra Gahlot and Ranjani Viswanatha <i>Quantum Dot lab, NCU, JNCASR, Bengaluru</i> E-mail of Corresponding author: rv@jncasr.ac.in</p>
P-135.	<p align="center">Synthesis Of Mono- (Au & Pd) And Bimetallic (AuPd) Nanoparticles Using Fluorescent Carbon Nitride Via Photochemical Route</p> <p align="center">Pragati Fageria^a and Surojit Pande^{a*} ^a<i>Department of Chemistry, Birla Institute of Technology and Science, Pilani, Rajasthan, 333031, India.</i> Email: spande@pilani.bits-pilani.ac.in, surojitpande@gmail.com</p>
P-136.	<p align="center">Synthesis And Photoluminescence Spectra Of Tin Oxide Microbelts Grown By CVD</p> <p align="center">Shashank K. Gahlaut, Kavita Yadav, J.P. Singh Department of Physics, Indian Institute of Technology Delhi New Delhi 110016, India Email- jpsingh@physics.iitd.ac.in</p>

P-137.	<p align="center">Probing Kinetics Of Aggregation Reaction Of Gold Nanoparticles</p> <p align="center">Anushree Dutta^a, Anumita Paul^{a*}, Arun Chattopadhyay^{a,b*}</p> <p align="center">^aDepartment of Chemistry and ^bCentre for Nanotechnology, Indian Institute of Technology Guwahati, Guwahati, Assam, India -781039 E-mail- arun@iitg.ernet.in</p>
P-138.	<p align="center">Graphene Oxide: A Smart Nano Vehicle Used In Drug Delivery Applications.</p> <p align="center">Nisha Yadav^a, Bimlesh Lochab^b</p> <p align="center">Department of Chemistry, School of Natural Sciences, Shiv Nadar University, Gautam Buddha Nagar, Uttar Pradesh 203207, India</p>
P-139.	<p align="center">Highly-Hydrophobic and Chemically Rectifiable Surface-Anchored Metal-Organic Framework Thin-Film Devices</p> <p><u>Shammi Rana</u>, Ranguwar Rajendra, Barun Dhara, Plawan Kumar Jha and Nirmalya Ballav</p> <p>Department of Chemistry, Indian Institute of Science Education and Research (IISER), Dr. Homi Bhabha Road, Pune – 411 008, India</p>
P-140.	<p align="center">Adsorption And Degradation Of Chlorpyrifos On MgAl₂O₄ Nanosurfaces: A Combined Experimental And DFT Study</p> <p align="center">Lekha Sharma, Neha Sharma & Rita Kakkar*</p> <p align="center">Computational Chemistry Group, Department of Chemistry, University of Delhi, Delhi- 110007, India</p> <p align="center">*Corresponding Author. Tel: (+91) 1127666313; E-mail: rkakkar@chemistry.du.ac.in</p>
P-141.	<p align="center">Impact Of Solvent Polarity On Poly(Vinylidene Fluoride) Films At Air-Water And Air-Solid Interface</p> <p align="center">Chandan Kumar* and P. Viswanath</p> <p align="center">Centre for Nano and Soft Matter Sciences, P. B. No. 1329, Jalahalli, Bangalore 560013 chandankumar@cens.res.in</p>
P-142.	<p align="center">Investigating Electrical Properties Of Graphene With Different II- Stacking Organic Molecules</p> <p align="center">Manash Jyoti Deka and Devasish Chowdhury*</p> <p align="center">*E-mail: dekamanoash5@gmail.com</p> <p align="center">Material Nanochemistry Laboratory, Physical Sciences Division, Institute of Advanced Study in Science and Technology, Guwahati, Assam, India.</p>
P-143.	<p align="center">Nitrogen Doped Graphene Based Electrochemical Platform For The Detection Of Heavy Metal Ions</p> <p align="center">Sivamathini Rajappa, Vineesh Thazhe Veetil, Subbiah Alwarappan*</p> <p align="center">CSIR-Central Electrochemical Research Institute, Karaikudi 630006, Tamilnadu, India *e.mail: salwarap@gmail.com; Ph: +91-4565-241454</p>

P-144.	<p align="center">A Simplified Plasmonic CdS Quantum Dot Solar Cell</p> <p align="center">P. Naresh Kumar,^a Melepurath Deepa,^{a,*} Partha Ghosal^b</p> <p align="center">^aDepartment of Chemistry, Indian Institute of Technology Hyderabad, Medak-502205, Telangana (India).</p> <p align="center">^bDefence Metallurgical Research Laboratory, DRDO, Hyderabad-500058, Telangana (India). mdeepa@iith.ac.in</p>
P-145.	<p align="center">Effect Of Bending Of CNTs On Charge Transport In Molecular Junction</p> <p align="center">V.K. Lamba¹, Sandeep Dhariwal², Aditi kalash¹, Amardeep³, Nisha³, O.P.Garg⁴</p> <p align="center">¹Global College of Engg. & Tech. Kahnpur Khui, ²LPU Jalandar, ³PTU Jalandar, ⁴RKSD College Kaithal, (Contact: lamba_vj@hotmail.com)</p>
P-146.	<p align="center">Biopolymer Capped Silver Nanoparticles: An Exceptional Stable Colloidal Nanoparticles For Catalytic Nitrophenol Reduction Reaction</p> <p align="center"><i>Manisha Sharma, and Soumen Basu*</i></p> <p align="center"><i>School of Chemistry and Biochemistry, Thapar University, Patiala 147004, India.</i></p> <p align="center"><i>E-mail:soumen.basu@thapar.edu</i></p>
P-147.	<p align="center">Effect Of Oxygen Flow Rate On Dielectric And Structural Properties Of DC Reactive Magnetron Sputtered ZrO₂ Grown Thin Films At Room Temperature</p> <p align="center">Albin Antony, Muhammed Ali A V, Chaya Ravi Gobbiner, Arpitha Shetty, Dhananjaya Kekuda*</p> <p align="center"><i>Department of physics, Manipal institute of technology, Manipal University, Manipal</i></p> <p align="center"><i>*E-mail:dhaya.kekuda@manipal.ed</i></p>
P-148.	<p align="center">Synthesis Of Partially Reduced Graphene Oxide-Silver Nanocomposite And Its Inhibitive Action On Pathogenic Fungi Present In The Ambience</p> <p align="center">Manojit Pusty 1, Amit Kumar Rana 2, Yogendra Kumar 2, Vasant Sathe 3, Somaditya Sen 1, 2 and Parasharam Shirage 1, 2*</p> <p align="center">1 Centre for Material Science and Engineering, Indian Institute of Technology Indore, Simrol Campus, Khandwa Road, Indore-452020, India</p> <p align="center">2 Department of Physics, Indian Institute of Technology Indore, Simrol Campus, Khandwa Road, Indore- 452020, India</p> <p align="center">3 UGC DAE CSR, DAVV Campus, Khandwa Road, Indore- 452017</p> <p align="center">* pmshirage@iti.ac.in, paras.shirage@gmail.com</p>
P-149.	<p align="center">Nano SiO₂:ZrO₂ Catalyst For Esterification Of Lauric Acid And Lauryl Alcohol</p> <p align="center">Sunil B. Shinde*, Vrushali Gudekar and Anjali Jagtap</p> <p align="center">Sir Parashurambhau College, Pune-411030, India</p> <p align="center">sunil.shinde@scollegepune.ac.in</p>
P-150.	<p align="center">Optimization Of The Process Of Adsorption Of Ni(II) By Cupric Oxide (CuO) Nanoparticles : Statistical Approach</p> <p align="center">Shikha Dubey, Yogesh Chandra Sharma</p>

	<p><i>Department of Chemistry, Indian Institute of Technology(B.H.U.) Varanasi, Varanasi-22100. E-mail: (dubey.shikha.bhu@gmail.com)</i></p>
P-151.	<p>Visible Light Photoactivity Of Graphene Based Co-Pi Flowers For Hydrogen Evolution Reaction (HER)</p> <p>Alaka Samal,^{1,2} K.K. Nanda,^{1,2} Biswarup satpati,³ Dipti P. Das,^{*1,2} B. K. Mishra^{1,2}</p> <p>¹Academy of Scientific and Innovative Research (AcSIR), New Delhi -110 025, India ²Colloids and Materials Chemistry Department, CSIR-Institute of Minerals and Materials Technology, Bhubaneswar 751 013, India ³Surface Physics and Material Science Division, Saha Institute of Nuclear Physics, 1/AF, Bidhannagar, Kolkata 700 064, India. Email: dr.dipti.immt@gmail.com</p>
P-152.	<p>Self-Organization And Photopatterning Derived Hierarchical Micro/Nano Structures From Photosensitive Polymer Films</p> <p>Priyanka Sachan, Manish Kulkarni, and Ashutosh Sharma Center for Nanosciences, Indian Institute of Technology, Kanpur- 208016, UP, India</p>
P-153.	<p>Electronic grade and flexible semiconductor film employing oriented attachment of colloidal ligand-free PbS and PbSe nanocrystals at room temperature</p> <p>Shiva Shanker, Abhishek Swarnkar, Manabjyoti Phukan, Naziya Usmani, Angshuman Nag* Department of Chemistry, Indian Institute of Science Education and Research (IISER), Pune, 411008, India. *e-mail: angshuman@iiserpune.ac.in</p>
P-154.	<p>Impact of Thickness Dependent Crystal Ordering on Magnetization Damping in Half-Metallic Heusler Alloy Thin Films</p> <p>Santanu Pan, Sucheta Mondal, Semanti Pal, Neha Jha, Anjan Barman* Department of Condensed Matter Physics and Material Sciences, S. N. Bose National Centre for Basic Sciences, Kolkata 700098, India Email of corresponding (*) author: abarman@bose.res.in</p>
P-155.	<p>TiO₂ Coated Fibrous Nano-Silica (KCC-1) And Its Photonic Crystals For Harvesting Light And Nanocatalysis</p> <p><i>Rustam Singh, Ayan Maity and Vivek Polshettiwar*</i> Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai, India. Email: rustam.singh@tife.res.in, vivekpol@tifr.res.in</p>
P-156.	<p>Densification Of WS₂ Via Spark Plasma Sintering For Morphological Modification</p> <p>Ravindra Kumar Jha 1, Debasree Burman 2*, Sumita Santra 3, & Prasanta Kumar Guha 4*, 1School of Nanoscience and Technology, Indian Institute of Technology, Kharagpur 721302, India</p>

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P-157.	<p>Versatile Synthesis And Characterization Of Urea Assisted Cobalt Oxide Nanoflowers</p> <p>Subhasish Thakur 1, Shreyasi Pal 2 and Kalyan Kumar Chattopadhyay 3 Thin Films and Nanoscience Laboratory, Department of Physics, Jadavpur University, Kolkata 700032, India Email of corresponding (*) authors: Shreyasi.tua@gmail.com, subhasishgul17@gmail.com</p>
P-158.	<p>Quasi-Shell Mediated Interface Engineering For High Performance Quantum-Dot Solar Cells</p> <p>Atharva Sahasrabudhe and Sayan Bhattacharyya* Department of Chemical Sciences, Advanced Functional Materials Lab, IISER-Kolkata. Mohanpur, West Bengal, India 741246. *email: sayanb@iiserkol.ac.in</p>
P-159.	<p>Implications Of Nano-Biotechnological Interventions In Simultaneously Tuning Anti-Cancer And Wound Healing Properties On Nutraceuticals Plumbagin</p> <p>Duraipandy N^{1,2}, Manikantan Syamala Kiran^{1,2*} ¹Academy of Scientific and Innovative Research (AcSIR), ²Biological Materials Department, Council of Scientific and Industrial Research- Central Leather Research Institute (CSIR-CLRI), Adyar, Chennai-20, Tamilnadu, India Email of corresponding (*) authors: kiranmsk112@gmail.com</p>
P-160.	<p>Synthesis And Electrochemical Analysis Of Mesoporous Indium Oxide Hollow Spheres For Enhanced Supercapacitor Electrodes With Excellent Cycling Performance</p> <p>Aman Agrawal, Rudra Kumar and Ashutosh Sharma* Department of Chemical Engineering, Indian Institute of Technology Kanpur, Kanpur 208016, India Email of corresponding (*) authors: ashutos@iitk.ac.in</p>
P-161.	<p>Preferential Growth Of Au On CdSe Quantum Dots Using Langmuir-Blodgett Technique ¹</p> <p>Subhasis Das and Tanushree Bala Department of Chemistry and Centre for Research in Nanoscience and Nanotechnology (CRNN), University of Calcutta, 92 A.P.C. Road, Kolkata-700009, India.</p>
P-162.	<p>An Inexpensive Artificial Photosynthesis System For The Solar Hydrogen</p>

	<p style="text-align: center;">Generation</p> <p style="text-align: center;">Biswajit Mishra,^{1,2} Neeraj Agarwal,³ Biswarup Satpati⁴ and Yatendra S Chaudhary^{1,2*}</p> <p style="text-align: center;">¹Colloids and Materials Chemistry Department, CSIR-Institute of Minerals and Materials Technology, Bhubaneswar, India</p> <p style="text-align: center;">²CSIR-Network Institute of Solar Energy (CSIR-NISE), New Delhi, India</p> <p style="text-align: center;">³UM-DAE Centre for Excellence in Basic Sciences, Health Centre Building, Kalina Campus, Santacruz (E), Mumbai 400 098</p> <p style="text-align: center;">⁴Surface Physics and Material Science Division, Saha Institute of Nuclear Physics, 1/AF, Bidhannagar, Kolkata 700 064, India.</p> <p style="text-align: center;">*Corresponding author: yschaudhary@immt.res.in</p>
P-163.	<p style="text-align: center;">Electrocatalytic Nanocauliflower Structured Fluorine Doped CdO Thin Film As A Potential Arsenic Sensor</p> <p style="text-align: center;">Manju Bhargavi Gumpu¹, Ganesh Kumar Mani^{1,2}, Noel Nesakumar¹, Arockia Jayalatha Kulandaisamy¹ and John Bosco Balaguru Rayappan^{1,*}</p> <p style="text-align: center;">¹Nano Sensors Lab @ Centre for Nano Technology & Advanced Biomaterials (CeNTAB) and School of Electrical & Electronics Engineering (SEEE), SASTRA University, Thanjavur 613 401, Tamil Nadu, India.</p> <p style="text-align: center;">²Micro / Nano Technology Center, Tokai University, Japan.</p>
P-164.	<p style="text-align: center;">Highly Efficient UV-Vis-NIR Active Ln³⁺-Doped BiPO₄/BiVO₄ Nanocomposite Photocatalyst</p> <p style="text-align: center;">Sagar Ganguli,^a Chanchal Hazra,^a Manjunath Chatti,^a Tuhin Samanta^a and Venkataramanan Mahalingam^{*a}</p> <p style="text-align: center;">^a Department of Chemical Sciences, Indian Institute of Science Education and Research (IISER), Kolkata, Mohanpur, West Bengal, 741252, India.</p>
P-165.	<p style="text-align: center;">Development Of Multi-Faceted Micellar Nanotheranostics Against Breast Cancer</p> <p style="text-align: center;">Amrutha Manigandan, Swaminathan Sethuraman, Anuradha Subramanian[*]</p> <p style="text-align: center;"><i>Centre for Nanotechnology and Advanced Biomaterials</i> <i>SASTRA University, Thanjavur, Tamil Nadu</i></p> <p style="text-align: center;">*Corresponding author's email: anuradha@bioengg.sastra.edu</p>
P-166.	<p style="text-align: center;">MoS₂ Based Resistive Humidity Sensor</p> <p style="text-align: center;">Debasree Burman 1*, Ravindra Jha 2, Prasanta Kumar Guha 3*</p> <p style="text-align: center;">1, 3 Department of Electronics and Electrical Communication Engineering, Indian Institute of Technology, Kharagpur 721302, India</p> <p style="text-align: center;">2 School of Nanoscience and Technology, Indian Institute of Technology, Kharagpur 721302, India. *Email- debsri@gmail.com, *Email- pkguha@ece.iitkgp.ernet.in</p>
P-167.	<p style="text-align: center;">Biomass Derived High Surface Area Carbon Electrodes For Highly Stable Flexible Micro-Supercapacitor Device</p> <p style="text-align: center;">Poonam Yadav^a, AniruddhaBasu^a, Anil Suryawanshi^a, Onkar Game^a, and Satishchandra Ogale^{b*}</p>

	<p>^aNational Chemical Laboratory (CSIR-NCL), Dr. Homi Bhabha Road, Pune, 411008. ^bDepartment of Physics and Centre for Energy Science, Indian Institute of Science Education and Research, Dr. Homi Bhabha Road, Pune 411008. E-mail: satishogale@iiserpune.ac.in, satishogale@gmail.com</p>
P-168.	<p>Coverage Dependent SERS Activity Of R6G Using SILAR Grown Silver Nanoparticulate Thin Films</p> <p>Imran M. Shaikh and S. D. Sartale*</p> <p>Thin Films and Nanomaterials Laboratory, Department of Physics, Savitribai Phule Pune University, Pune 411 007, India. *Corresponding author: sdsartale@physics.unipune.ac.in</p>
P-169.	<p>Nanostructured Undoped And Molybdenum Doped ZnO Thin Film As: Gas Sensor</p> <p>Madeshwari Ezhilan, Arockia Jayalatha Kulandaisamy, Prbakaran Shankar, K. Jayanth Babu and John Bosco Balaguru Rayappan*</p> <p>Centre for Nanotechnology & Advanced Biomaterials (CeNTAB) and School of Electrical & Electronics Engineering (SEEE) SASTRA University, Thanjavur - 613 401, Tamil Nadu, India. rjbosco@ece.sastra.edu</p>
P-170.	<p>Enhanced Magnetoresistance With Unusual Temperature Dependence In Manganite Nanoparticles Synthesized By Non-Aqueous Sol-Gel Route</p> <p>Anustup Sadhu and Sayan Bhattacharyya*</p> <p>Department of Chemical Sciences, Indian Institute of Science Education and Research (IISER) Kolkata, Mohanpur - 741246, India * Email for correspondence: sayanb@iiserkol.ac.in</p>
P-171.	<p>DNA-Templated Fluorescent Gold Nanocomposites For Highly Sensitive Magnesium Ion Detection</p> <p>Tanushree Basu*, Khyati Rana and Bonamali Pal</p> <p>School of Chemistry and Biochemistry, Thapar University, Patiala-147004, Punjab, India E-mail: tanshree@thapar.edu</p>
P-172.	<p>Hydro-Deoxygenation Of Guaiacol Over Kit-6 Composite Supported Nano Catalyst For Bio-Fuel Application</p> <p>D.Rajesha, M.Selvarajb, and C.Mahendirana*</p> <p>a Department of Chemistry, University College of Engineering, (Anna University Constituent College), Konam, Nagercoil-629004, Tamilnadu. b Department of Chemistry, Anna University, Chennai-600025, Tamil Nadu</p>
P-173.	<p>A Facile Method For Synthesis Of Co-Core Au-Shell Nanohybrid</p> <p>Debasmita Sardar and Tanushree Bala *</p> <p>Department of Chemistry, University of Calcutta, 92, A.P.C. Road, Kolkata-700009, India *To whom correspondence should be addressed: E-mail: debasmitasardar07@gmail.com tanushreebala@gmail.com</p>

<p>P-174.</p>	<p>Visible Photoluminescence Based H₂ And O₂ Gas Sensing Of ZnO Nanowires</p> <p>Kavita Yadav*, Shashank Gahlaut, B. R. Mehta and J. P. Singh Department of Physics, Indian Institute of Technology Delhi, Hauz Khas, New Delhi 110016, India. *Email of corresponding author: kavitayadav.physics@gmail.com</p>
<p>P-175.</p>	<p>Hybrid Films Of Metal/Metal Oxides With Reduced Graphene Oxide As Reusable SERS Substrates For Fluorescent Analytes</p> <p>K. Bramhaiah^a, C. Kavitha^b, Vidya N. Singh^c, Neena S. John^{a*} ^aCentre for Nano and Soft Matter Sciences, Bangalore-560013, ^bB.M.S. Institute of Technology, Bangalore-560064 ^cCSIR-National Physical Laboratory, New Delhi-110012 Email: bramhaiah@cens.res.in, jsneena@cens.res.in</p>
<p>P-176.</p>	<p>Role Of Carrier Concentration On Gas Sensing Properties Of V₂O₅ Thin Films</p> <p>¹Rijo Baby, ¹Prabakaran Shankar, ²Ganesh Kumar Mani, ¹K Jayanth Babu, ¹Arockia Jayalatha Kulandaisamy and ¹John Bosco Balaguru Rayappan* ¹Nanosensors Lab @ Centre for Nanotechnology & Advanced Biomaterials (CeNTAB) and School of Electrical & Electronics Engineering (SEEE), SASTRA University, Thanjavur - 613 401, India. ²Micro/Nano Technology Center, TOKAI University, Japan</p>
<p>P-177.</p>	<p>Graphene-Chitosan Xerogel For Heavy Metal Ion Removal</p> <p>Purnendu,¹ Soumitra Satapathi,^{1,*} ¹ Department of Physics, Indian Institute of Technology Roorkee, Roorkee, Haridwar, Uttarakhand, 247667</p>
<p>P-178.</p>	<p>Formation of fluorescence polymer nanoparticles</p> <p>Dr.Dilip Vasava Department of Chemistry, School of Science, Navrangpura, Gujarat University, Ahmedabad, Gujarat, India Corresponding Email:dilipvasava20@gmail.com</p>
<p>P-179.</p>	<p>Synthesis Ag@ Anatase TiO₂ Nanocomposites And Its Photocatalytic Degradation Of Malachite Green As A Model Pollutant</p> <p>Y. N. Rao^a, D. Banerjee^b, A. Datta^a, S. K. Das^b, R. Guin^b and A. Saha^{a*} ^aUGC-DAE Consortium for Scientific Research, Kolkata Centre, III/LB-8 Bidhannagar, Kolkata 700 098, India ^bRadiochemistry Division, Variable Energy Cyclotron Centre, 1/AF Bidhannagar, Kolkata 700 064, India E-mail: abhijit@alpha.iuc.res.in, asaha2006@gmail.com</p>
<p>P-180.</p>	<p>One-Step Synthesis Of Reduced Graphene Oxide/ Cobalt Dendritic Nanocomposite: Their Magnetic And Catalytic Properties Towards The Reduction Of Multiple Dyes</p> <p>P.K. Sahoo¹, Dinbandhu Thakur² and D. Bahadur^{1*}</p>

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P-181.	<p>Enhanced Photoluminescence And Photocatalytic Properties Of Layered Molybdenum Disulfide (MoS₂) Nanosheets Prepared By Hydrothermal Method.</p> <p>Subramanian Arunbalaji¹, Ramasamy Jayavel^{1#}</p> <p>¹Centre for Nanoscience and Technology, Anna university, Chennai-600 025, India. #corresponding author- rjvel@annauniv.edu</p>
P-182.	<p>Increase in Electrical Conductivity of MOF to Billion-Fold upon Filling the Nanochannels with Conducting Polymer</p> <p><u>Barun Dhara</u>, Sanjog Nagarkar, Jitender Thakur, Vikas Kumar, Sujit Ghosh, Sunil Nair and Nirmalya Ballav</p> <p>Departments of Chemistry and Physics, Indian Institute of Science Education and Research (IISER), Dr. Homi Bhabha Road, Pune – 411 008, India</p>
P-183.	<p>Ag-ZnO Raspberry Shaped Nanoparticles For Efficient Dye Removal, Bacterial Inhibition And Photodynamic Therapy Of Cancer</p> <p>Jagriti Gupta and D. Bahadur*</p> <p>Department of Metallurgical Engineering and Materials Science Indian Institute of Technology Bombay, Mumbai – 400076, India Email ID: dhiren@iitb.ac.in</p>
P-184.	<p>Gold Nanoparticles As Photoacoustic Imaging Contrast Agent</p> <p>Deblina Biswas¹, Anshu Mishra², Abhijeet Gorey¹, Prashant Kharey², Srivathsan Vasudevan^{1,2*}, Sharad Gupta^{2*}</p> <p>Department of Electrical Engineering¹, Centre for Bioscience and Bioengineering², Indian Institute of Technology Indore, M.P., India svasudevan@iiti.ac.in, shgupta@iiti.ac.in</p>
P-185.	<p>Solution Processed Nanomanufacturing Of SERS Substrates With Random Ag Nanoholes Exhibiting Uniformly High Enhancement Factors</p> <p>Ritu Gupta^{‡,ad}, Soumik Siddhanta^{‡b}, Gangaiah Mettela^{‡a}, Swati Chakraborty^a, Chandrabhas Narayana^b and Giridhar U. Kulkarni^{*c}</p> <p>^aThematic Unit of Excellence on Nanochemistry and Chemistry and Physics of Materials Unit, JNCASR, Jakkur P.O., Bangalore 560064, India.</p> <p>^bLight Scattering Laboratory, Chemistry and Physics of Materials Unit, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Jakkur P.O., Bangalore 560064, India</p> <p>^cCentre for Nano and Soft Matter Sciences, Jalahalli, Bangalore 560013, India</p> <p>^dDepartment of Chemistry, Indian Institute of Technology Jodhpur, Jodhpur-342011, Rajasthan, India</p> <p>‡All authors contributed equally; *E-mail: kulkarni@jncasr.ac.in</p>

<p>P-186.</p>	<p align="center">Cleanroom free fabrication of low cost, low energy and eco-friendly paper electronics</p> <p align="center">Srinivasulu Kanaparthi*, Sushmee Badhulika Department of Electrical Engineering, Indian Institute of Technology, Hyderabad 502285, India. ee14mtech11023@iith.ac.in</p>
<p>P-187.</p>	<p align="center">Low temperature electrical transport in gold diffused single Germanium Nanowires: From intrinsic to weakly localized regimes</p> <p align="center">Shaili Sett*, Kaustuv Das and A.K.Raychaudhuri Department of Condensed Matter and Material Sciences, S.N.Bose National Centre for Basic Sciences, Kolkata 700098, India. Email: * shailisett@gmail.com</p>
<p>P-188.</p>	<p align="center">Coir Pith Derived Bio-carbon: Demonstration of Potential Electrode Behavior for Energy Storage Applications</p> <p align="center">V. Mullaivananathan, R. Sathish and N.Kalaiselvi* ECPS Division, Central Electrochemical Research Institute, Karaikudi-630006, India * Corresponding Author: kalaiselvicecri@gmail.com</p>
<p>P-189.</p>	<p align="center">Albumin capped, gold nanoparticle based chemo-dosimeter for the colorimetric detection of Hg²⁺ ion contamination</p> <p align="center">Poornima V, Ishwarya S, Uma T S* Bioproducts Lab, Council for Scientific and Industrial Research-Central Leather Research Institute (CSIR-CLRI), Adyar, Chennai 600 020. Email: suma67@gmail.com</p>
<p>P-190.</p>	<p align="center">Melting Dynamics of Nano Carbon Enhanced Phase Change Materials in Shell and Tube Heat Exchangers for Thermal Energy Storage Applications</p> <p align="center">Nitesh Das¹, HarikaGarimella², Sivasankaran Harish³ School of Engineering, Indian Institute of Technology, Mandi, Kamand, Himachal Pradesh 175001, India ¹nitesh_das@students.iitmandi.ac.in, ²g_harika@students.iitmandi.ac.in, ³harish@iitmandi.ac.in</p>
<p>P-191.</p>	<p align="center">Investigation of MnFeO₃/Multiwalled Carbon Nanotubes Composite as Potential Anode for Lithium-ion Batteries</p> <p align="center">Bongu Chandra Sekhar, Jeevani Ragupathi and Nallathamby Kalaiselvi* ECPS Division, Central Electrochemical Research Institute, Karaikudi-630006, India * Corresponding Author: kalaiselvicecri@gmail.com</p>
<p>P-192.</p>	<p align="center">Green Synthesis of ZnO Nano Pencils in Aqueous Medium: A Study of Photocatalytic Degradation of Methylene Blue under Direct Sunlight</p> <p align="center">S. Kaviya and Edamana Prasad* Department of Chemistry, Indian Institute of Technology Madras, Chennai-600 036, India Email ID: kaviyahere@gmail.com (SK) and pre@iitm.ac.in (EP)*</p>

P-193.	<p align="center">Improved Synthesis of Graphene Oxide (GO) through the variation of oxidation time and concentration of oxidizing agent</p> <p align="center">Shivangi Kosta^{1,2}, Prerna Bansal², Niroj Kumar Sahu^{1*}, D. Bahadur^{2*} ¹Vellore Institute of Technology, Vellore ²Indian Institute of Technology Mumbai 400076 Email id: dhiren@iitb.ac.in, nirojs@vit.ac.in</p>
P-194.	<p align="center">Observation of Exchange Bias Effect in Sputter Deposited Fe₃O₄ Thin Film</p> <p align="center">Muhammed Shameem P.V, M. Laxman, Dushyant Singh Yadav, M. Senthil Kumar* Department of Physics, Indian Institute of Technology Bombay, Mumbai 400 076 *Email of corresponding author: senthil@iitb.ac.in</p>
P-195.	<p align="center">Circulating current in one-dimensional small Hubbard rings: Exact results</p> <p align="center">Madhumita Saha* and Santanu K. Maiti Physics and Applied Mathematics Unit, Indian Statistical Institute, 203 Barrackpore Trunk Road, Kolkata-700 108, India *E-mail: madhumitasaha91@gmail.com</p>
P-196.	<p align="center">One-Pot Melt Process For Linear And Hyperbranched Polymers Based On Natural L-Amino Acids And Their Diverse Nano-Structures</p> <p align="center">Rajendra aluri and Manickam Jayakannan* Department of chemistry Indian Institute of Science Education and Research (IISER) Dr. Homi bhabha road, Pune-411008, Maharashtra, INDIA</p>
P-197.	<p align="center">Bio-cathode for Enzymatic Biofuel Cell with nano-coated Pencil leads</p> <p align="center">Madhavi Bandapati^a, BalajiKrishnamurthy^a, Prabhat K. Dwivedi^b and SanketGoel^{c,*} ^aDepartment of Chemical Engineering, BITS-Pilani, Hyderabad Campus, Hyderabad 500078, India ^bCenter for Nanosciences, Indian Institute of Technology, Kanpur, India ^cDepartment of Electrical and Electronics Engineering, BITS-Pilani, Hyderabad Campus, Hyderabad 500078, India Email of corresponding (*) authors: sgoel@hyderabad.bits-pilani.ac.in, sanketgoel@gmail.com</p>
P-198.	<p align="center">Fabrication and physicochemical characterization of thermally stable hydrophobic CuO/Cellulose nanocomposites and evaluation of their bactericidal and fungicidal activities</p> <p align="center">Devarajan Alagarasan*, Thirumurugan Arun, Purusothaman Muthukamalam, Annamraju Kasi Viswanath* Centre for Nanoscience and Technology, Madanjeet School of Green Energy Technologies, Pondicherry University, Puducherry 605014, India Department of Physics, National Institute of technology, Tiruchirappalli, Tamil Nadu-620015 Corresponding authors:annamraju.kasiviswanath@gmail.com;alagarasanph@gmail.com</p>

<p>P-199.</p>	<p align="center">Nano Hydroxyapatite coating on Bio-grade Stainless Steel-316</p> <p align="center">T. Satish Kumar, Debasish Sarkar Department of Ceramic Engineering, National Institute of Technology, Rourkela, 769008, Odisha. Satish.kumar.23294@gmail.com, ds.nitrkl@gmail.com</p>
<p>P-200.</p>	<p align="center">Magnetic Nanotags for Smart Bio-sensing</p> <p align="center">S. Pokhriyal and S. Biswas* Department of Physics, The LNM Institute of Information Technology, Jaipur-302031, India *E-mail address: drsomnathbiswas@gmail.com</p>
<p>P-201.</p>	<p align="center">Positive and Negative Oxygen Ion Beam Effects on the Electrical Conductivity of Copper Nanowires</p> <p align="center">R.P. Chauhan*, Pallavi Rana, Suresh Panchal Department of Physics, National Institute of Technology, Kurukshetra-136119, Haryana, India *Email: chauhanrpc@gmail.com</p>
<p>P-202.</p>	<p align="center">Synthesis of Mg doped ZnO Dilute Magnetic Semiconductor by Sol Gel Method</p> <p align="center">Nana Pradhan^{1,*}, Akhil Maru¹, Hrishikesh Kamble¹ ¹Department of Physics, Ramnarain Ruia College, Mumbai – 400019, India ^aEmail: nana.pradhan@gmail.com</p>
<p>P-203.</p>	<p align="center">In situ electro-grafting of pyrene derivatives on onion like carbon electrodes for high energy density supercapacitor and beyond</p> <p align="center">Bihag Anothumakkool¹, Pierre-Louis Taberna², Barbara Daffos², Patrice Simon², Thierry Brousse¹ and Joel Gaubicher^{1*} 1-Institut des Materiaux Jean Rouxel (IMN), University of Nantes, CNRS, 2, rue de Houssiniere-B.P. 32229-44322 Nantes cedex 3, France 2-Universite Paul Sabatier, Cimat/Lcmie, 31062 Toulouse cedex 9 - France Email of corresponding author[*]: joel.gaubicher@cnrs-imn.fr</p>
<p>P-204.</p>	<p align="center">Highly sensitive Polyaniline/ZnO nanocomposite sensor for detection of H₂S gas</p> <p align="center">Digamber Pawar^a, Prakash Chhattise^a, Pravin Adhav^a, Sunita Salunke^b, Vasant V. Chabukswar^{a*} ^aDepartment of Chemistry, Nowrosjee Wadia College, Pune-411001, India ^bDepartment of Chemistry, Savitribai Phule Pune University, Pune-411007, India Email: vvchabukswar@gmail.com Phone: 09960125609</p>
<p>P-205.</p>	<p align="center">Porous graphene foams as gas sensors and for efficient removal of dyes and bacteria from water</p> <p align="center">Swetha Jayanthi^{1*}, Anwasha Mukherjee², Neerugatti KrishnaRao Eswar¹, Satyapaul A.</p>

	<p>Singh³, Kaushik Chatterjee⁴, Abha Misra², Giridhar Madras³ and A. K. Sood⁵ ¹Centre for Nano Science and Engineering, ²Department of Instrumentation and Applied Physics, ³Department of Chemical Engineering, ⁴Department of Material Engineering, ⁵Department of Physics, Indian Institute of Science, Bangalore-560012, India Indian Institute of Science, Bangalore -560012, India * jswetha1989@gmail.com</p>
P-206.	<p>Low Dimensional Titanium Dioxide Sensitized with Spadns for DSSC's Pravin N. Didwal, Kalpana S. Pawar, Parameshwar R. Chikate, Habib M. Pathan and Rupesh S. Devan Department of Physics, S. P. Pune University, Pune-411007</p>
P-207.	<p>Solution Chemistry based Nano-structuring of Copper Dendrites for Efficient use in Catalysis and Superhydrophobic Surfaces Janardan Kundu†* †Physical & Materials Chemistry Division, National Chemical Laboratory, Pune-411008. Email*: j.kundu@ncl.res.in</p>
P-208.	<p>Design and Synthesis of Amphi-Functional Mesoporous Silica Particles P. Shinde¹, A.K. Ganai^{1,2}, S. Sengupta² and B.L.V. Prasad^{*1} ¹Physical and Materials Chemistry Division, ²Chemical Engineering and Process Development Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pashan, Pune, India-411008. *Email: pl.bhagavatula@ncl.res.in; Tel No. +91 2590 2013.</p>
P-209.	<p>Effect of Fe doping on structural, optical and spin relaxation properties of ultrasonically precipitated ZnO nanoparticles Manoj Mayaji Ovhal, Manjeet Kumar, A. Santosh Kumar and A. C. Abhyankar* Dept. of Materials Engineering, Defense Institute of Advanced Technology (DU), Girinagar, Pune 411025, India</p>
P-210.	<p>The Effect Of Sr- And Ni-Doping On Sensing Properties Of Zno Nanorods Synthesized By Simple Wet Chemical Method Amit Kumar Rana¹, Yogendra Kumar¹, Alfa Sharma¹, Somaditya Sen¹, S. G. Leonardi², G. Neri² and Parasharam M. Shirage^{1*} ¹Department of Physics and Centre of Materials Science and Engineering, Indian Institute of Technology Indore, Simrol Campus, Khandwa Road, Indore 452020, India ²Departments of Electronic Engineering, Industrial Chemistry and Engineering, University of Messina, Messina 98166, Italy. *Email of corresponding authors: - pmshirage@iiti.ac.in paras.shirage@gmail.com</p>
P-211.	<p>Design of N-doped hierarchical Porous carbon for high performance supercapacitor Ashvini Deshmukh, Archana Thorave, M.S. Qureshi, Manjusha. Shelke* National Chemical Laboratory, Pune 411008, India mv.shelke@ncl.res.in</p>

<p>P-212.</p>	<p>Electrospun Hollow Glassy Carbon–rGO Nanofibers With Encapsulated ZnO Nanoparticles : A Free-Standing Anode For Li-ion Batteries</p> <p>Shilpa,^a Basavanakote M. Basavaraja,^a Subhasish B. Majumder^b and Ashutosh Sharma^{a*}</p> <p>^aDepartment of Chemical Engineering, Indian Institute of Technology Kanpur, 208016, India</p> <p>^bMaterials Science Centre, Indian Institute of Technology Kharagpur, 721302, India</p> <p>*Corresponding author: E-mail: ashutos@iitk.ac.in (Ashutosh Sharma)</p>
<p>P-213.</p>	<p>Microwave reflection properties of copper and nano-carbon</p> <p>Ashok D. Ugale, B.V. Bhaskara Rao, S.N. Kale, S.S. Datar and P.S. Alegaonkar* Department of Applied Physics, Defence Institute of Advanced Technology, Girinagar, Pune - 411025, India. *prashant.alegaonkar@gmail.com</p>
<p>P-214.</p>	<p>Synthesis of novel Cu₂S nanohusks as high performance counter electrode for CdS/CdSe sensitized solar cell</p> <p>Chaitanya Krishna Kamaja, Rami Reddy Devarapalli, Yasha Dave, Joyashish Debgupta, and Manjusha V. Shelke*</p> <p>^aPhysical and Materials Chemistry Division, CSIR-National Chemical Laboratory (CSIR-NCL), Pune-411 008, MH, India</p> <p>Email of corresponding authors: mv.shelke@ncl.res.in</p>
<p>P-215.</p>	<p>Utility of Nanoscience and Nanotechnology to Identify the Factors behind the Extraordinary Medicinal Properties of Metal/ Nonmetal Based Ayurvedic Drugs</p> <p>Yogesh Bendale¹, B. A. Kulkarni¹, R. W. Jawale², Shivaji Takale² and M. P. Wadekar³</p> <ol style="list-style-type: none"> 1. Ayurved Rasayani, Amrutkumbh Navi Peth, Pune-411 030 2. Bharati Vidyapeeth's Engineering College, Lavale, Pune 3. Post-graduate Chemistry Department, Y. M. College, Pune-411 038 <p>E-mail: m_p_wadekar@yahoo.co.in</p>
<p>P-216.</p>	<p>Toxicity Studies of the Aluminium, Boron, Titanium Dioxide Nanoparticles on <i>Triticum</i> sp., Human Skin (HaCat) and Lung (L-132) Cells</p> <p>K.M. Kodam^{1*}, A.U. Chaudhari¹, S.R. Tapase¹, V.R. Thamke¹, A.V. Bagade¹, V.S. Nandre¹, S.S. Adhav², Arti Pant², Hima Prasanth², R.K. Pandey²</p> <p>¹Biochemistry Division, Department of Chemistry, Savitribai Phule Pune University, Pune-411007, India</p> <p>²High Energy Materials Research Laboratory, Sutarwadi, Pune-411021, India</p> <p>*kodam@chem.unipune.ac.in</p>
<p>P-217.</p>	<p>Mechanism of Synthesis of Cuprous and Cupric Oxide Structures and Study of Their Optical Properties</p> <p>Rupali Nagar* and Nipun Sharma</p> <p>Applied Science, Symbiosis Institute of Technology, Symbiosis International University,</p>

	Lavale, Pune-412115, Maharashtra. * Corresponding author: rupali.nagar@sitpune.edu.in
P-218.	<p align="center">Development of Plasmonic Nanostructures for Theranostic Applications</p> <p align="center">Shravani Kale, Deepti Sidhaye*</p> <p align="center">Department of Physics, S. P. Pune University, Pune 411008, India Email of corresponding (*) authors: dss@physics.unipune.ac.in</p>
P-219.	<p align="center">Comprehensive studies on mechanism of antidiabetic action of zinc oxide nanoparticles</p> <p align="center">Asani SC, Umrani RD*, Paknikar KM*. Agharkar Research Institute, Pune, India *E-mail: rinkuumrani@aripune.org, kmpaknikar@aripune.org</p>
P-220.	<p align="center">Development of a Novel Series of Solid State Charge Transfer Nanochelates of Isomeric Juglones</p> <p align="center">Mrudula Wadekar¹, B. L. Khade¹, P. S. Khandagale², B. M. Rawal³ and D. G. Kanase⁴</p> <p align="center">1. Y. M. College, Bharati Vidyapeeth University, Pune-411 007 2. Henkel Pvt. Ltd., Hinjawadi, Pune 3. Narmada College of Arts, Science and Commerce Bharoch S. Gujarath 4. Dr. Patangrao Kadam Mahavidyalaya, Sangli-416 416 E-mail: m_p_wadekar@yahoo.co.in</p>
P-221.	<p align="center">Synthesis and Characterization of nanocrystalline MoO₃ Thin Films for the application as Buffer Layer in Solar Cells</p> <p align="center">^aR. S. Kate, ^aS. A. Khalate and ^aR. J. Deokate*</p> <p align="center">^aVidya Pratishthan's, Arts Science And Commerce College, Baramati-413 133(MS), India</p>
P-222.	<p align="center">Formation of fullerene like CN_x in vertically grown graphene</p> <p align="center">P. A. Manojkumar,¹ G. Mangamma,¹ R. Pandian,¹ S. Behra², M. Kamruddin,¹ S.K. Albert,¹ A.K. Tyagi¹</p> <p align="center">¹ Indira Gandhi Centre for Atomic Research, Kalpakkam, 603102, INDIA. ² Water steam chemistry laboratory, BARC facilities, Kalpakkam, 603102, INDIA Corresponding author: manoj@igcar.gov.in</p>
P-223.	<p align="center">Rapid microwave-assisted synthesis and characterization of zinc-sulfate-calcium- phosphate/cellulose bionanocomposites</p> <p align="center">Dharmalingam K, Ananadalakshmi R*</p> <p align="center">^aDepartment of Chemical Engineering, Indian Institute of Technology Guwahati, Assam-781039. *Corresponding author.</p>
P-224.	<p align="center">Accurate variational path to 3D-2e harmonic dot: Effect of magnetic field</p> <p align="center">Shivalika Sharma, Priyanka Aggarwal, Ram Kuntal Hazra*</p> <p align="center">Department of Chemistry, University of Delhi 110007, India Email of corresponding (*) author: pcrkhiacs@gmail.com</p>
P-225.	Waste PET Bottles Recycling: Fabrication and Characterization of PET Nano-

	<p style="text-align: center;">fibers and its Application for Filtration</p> <p style="text-align: center;">Savita Shah², Sandip Patil^{1,2} and Ashutosh Sharma¹</p> <p style="text-align: center;">1. Department of Chemical Engineering, Indian Institute of Technology Kanpur, Kanpur-208016</p> <p style="text-align: center;">2. E-Spin Nanotech Pvt. Ltd. SIIC Incubation Center, Indian Institute of Technology Kanpur</p> <p style="text-align: center;">Corresponding author: Dr. Sandip Patil Research Scientist, Department of Chemical Engineering, Indian Institute of Technology Kanpur Email: psandip@iitk.ac.in</p>
P-226.	<p style="text-align: center;">Control of grain boundary depletion layer in a nanostructured ZnO Channel in EDL-TFT: An investigation using impedance spectroscopy</p> <p style="text-align: center;">Ravindra Singh Bisht*, Rishi Ram Ghimire, and A. K. Raychaudhuri Email*: ravi.bisht1991@gmail.com Department of Condensed Matter Physics & Material Science, S. N. Bose National Centre for Basic Sciences, Block-JD, Sector-III, Salt-Lake, Kolkata-700098, India</p>
P-227.	<p style="text-align: center;">Nanostructured Silica-Titania Hybrid Material using Fibrous Nano-Silica (KCC-1) as Hard Template for Photocatalysis</p> <p style="text-align: center;">Nisha Bayal and Vivek Polshettiwar^{a*} Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Homi Bhabha Road, Colaba, Mumbai, India. Email: vivekpol@tifr.res.in</p>
P-228.	<p style="text-align: center;">Engineering Therapeutic Targeted Microtubule Binding Drug Nanocomplexes Against Hepatocarcinoma Cells</p> <p style="text-align: center;">Radhika Poojari,* Rohit Srivastava, Dulal Panda Department of Biosciences and Bioengineering, Indian Institute of Technology Bombay, Mumbai-400076, India *E-mail: drradhipoojari@gmail.com</p>
P-229.	<p style="text-align: center;">Optical detection of glucose and glycated hemoglobin using etched fiber Bragg gratings coated with functionalized reduced graphene oxide</p> <p style="text-align: center;">Sridevi. S¹, K. S. Vasu², S. Sampath³, S. Asokan¹, A. K. Sood^{2*}</p> <p style="text-align: center;">¹Department of Instrumentation and Applied Physics, Indian Institute of Science, Bangalore 560012, India</p> <p style="text-align: center;">²Department of Physics, Indian Institute of Science, Bangalore 560012, India</p> <p style="text-align: center;">³Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore 560012, India</p> <p style="text-align: center;">Email of corresponding (*) authors: asood1951@gmail.com</p>

P-230.	<p>High performance millimetre wave absorbers derived from uneven distribution of conducting and magnetic engineered nanoparticles in biphasic polymeric blends</p> <p>Shital Patangrao Pawar, Mounika Gandhi, Suryasarathi Bose*</p> <p>Department of Materials Engineering, Indian Institute of Science, Bangalore-560012, India</p>
P-231.	<p>Development of Plasmonic Nanostructures for Theranostic Applications</p> <p>Shravani Kale, Deepti Sidhaye*</p> <p>Department of Physics, S. P. Pune University, Pune 411008, India Email of corresponding (*) authors: dss@physics.unipune.ac.in</p>
P-232.	<p>Role of defects and crystalline size of SnO₂ nanoparticles on super-capacitor and gas sensing applications</p> <p>Venkataramana Bonu,* Arindam Das, Sandip Dhara, A. K. Tyagi</p> <p>Surface and Nanoscience Division, MSG, IGCAR, Kalpakkam, 603102, India ramana9hcu@gmail.com</p>
P-233.	<p>Pseudo Single Atom Platinum (Pt) Catalysts Supported on Fibrous Nanosilica (KCC-1): Engineering Selectivity for Hydrogenation Reactions</p> <p>Mahak Dhiman, Vivek Polshettiwar*</p> <p>vivekpol@tifr.res.in</p> <p>Nanocatalysis Laboratory (NanoCat), Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Dr. Homi Bhabha Road, Colaba, Mumbai-400005</p>
P-234.	<p>Visible light Induced Photo catalytic Activity of 2-Dimensional Molybdenum Disulphide (MoS₂) and reduced graphene Oxide Nanocomposites</p> <p>A.Ghorai¹, A.Midya^{1*}, S.Mukherjee², R.Maiti³ and S.K.Ray^{1,3}</p> <p>¹School of Nanoscience and Technology, Indian Institute of Technology Kharagpur, Kharagpur 721302</p> <p>²Advanced Technology Development Centre, Indian Institute of Technology Kharagpur, Kharagpur 721302</p> <p>³Department of Physics, Indian Institute of Technology Kharagpur, Kharagpur 721302 *Email: anupam.midya@iitkgp.ac.in</p>
P-235.	<p>Exploration on surface states of fluorescent carbon dots by nitrogen doping & pH</p> <p>Gopi Kalaiyaran and James Joseph*</p> <p>Electrodeics and Electrocatalysis Division, CSIR-Central Electrochemical Research Institute, Karaikudi - 630003, India. *Email of corresponding author: jameskavalam@gmail.com</p>
P-236.	<p>A fascinating nanostructured material for LPG sensing application</p> <p>Ajendra Singh¹, Archana Singh¹, Satyendra Singh² and Poonam Tandon^{1*}</p>

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P-237.	<p>Synthesis of a green nanoporous bio-composite Hide substance-Chitosan-Hydroxyapatite from industrial wastes for the removal of dye and treatment of coloured tannery wastewater</p> <p>Arka Gupta, Tamal Mohanta, Rangeet Mitra, Sandipan Chatterjee.* RCED-Kolkata, CSIR-Central Leather Research Institute, 3/1C, Matheswartala Road, Kolkata 700046. sandipan@clri.res.in.</p>
P-238.	<p>Study of Optical Properties and Exciton Dynamics in Dual Emissive Type-I/Type-II Nanohetrostructures</p> <p>Sushma Yadav, Sameer Sapra* (Department of Chemistry, Indian Institute of Technology, Delhi New Delhi 110016, India) Email of corresponding (*) author: sapra@chemistry.iitd.ac.in</p>
P-239.	<p>Van der Waals pressure and its effect on trapped interlayer molecules</p> <p>K. S. Vasu^{1*}, E. Prestat², J. Dix³, R. J. Kashtiban⁴, M. Neek-Amal⁵, S.J. Haigh², A. K. Geim¹, R. R. Nair¹</p> <p>¹School of Physics and Astronomy, University of Manchester, Manchester M13 9PL, UK ²School of Materials, University of Manchester, Manchester M13 9PL, UK ³School of Chemical Engineering and Analytical Science, University of Manchester, Manchester M13 9PL, UK. ⁴Department of Physics, University of Warwick, Coventry CV4 7AL, UK ⁵Department of Physics, University of Antwerpen, Groenenborgerlaan 171, B-2020 Antwerpen, Belgium Email of corresponding (*) authors: siddeswarakv@gmail.com</p>
P-240.	<p>Construction of Palladium-Copper nanochain electrocatalyst towards methanol oxidation reaction</p> <p>Subramanian Arulmani and Sambandam Anandan* Nanomaterials and Solar Energy Conversion Lab, Department of Chemistry, National Institute of Technology, Tiruchirappalli-620 015, India. Corresponding author: sanand@nitt.edu</p>
P-241.	<p>Synthesis of Nanodisk like WO₃ architectures via microwave hydrothermal route and their gas sensing properties</p> <p>S. S. Mehta^a, I. S. Mulla^b, S. S. Suryavanshi^{a*}.</p> <p>^a- School of Physical Sciences, Solapur University, Solapur (M.S.) 413255, India. ^b- Emeritus Scientist, Council of Scientific and Industrial Research (M.S.) India</p>
P-242.	<p>Influence of Ni on evolution of α-Fe₂O₃ in MnZn-Ferrite Nanoparticles</p> <p>Shanigaram Mallesh, Pradip Mondal, and Veeturi Srinivas</p>

	Department of Physics, Indian Institute of Technology Madras, Chennai-600036, India Email: sanigaram.malles@gmail.com
P-243.	Sustainable mining – an application of Nanotechnology in roof bolting in coal mines By Dr. M.S.Venkata Ramayya, General Manager, Ramagundam Area-3, Singareni Collieries Company Limited, Centenary Colony – 505 212, India. Email : vrml@rediffmail.com
P-244.	Pb(II)–N Bonding Chemistry: Recycling of Polyaniline-Pb Nanocrystals Waste for Generating High-Performance Super-Capacitor Electrodes <u>Plawan Kumar Jha</u> , Santosh Kumar Singh, Suresh Gatla, Olivier Mathon, Sreekumar Kurungot and Nirmalya Ballav Department of Chemistry, Indian Institute of Science Education and Research (IISER), Dr. Homi Bhabha Road, Pune – 411 008, India Physical and Materials Chemistry Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pune 411 008, India Electronic Structure and Magnetism Group, European Synchrotron Radiation Facility (ESRF), F-38043 Grenoble Cedex, France
P-245.	Tailoring the Red to Green Emission of Fe³⁺ Doped NaYF₄: Yb, Er Upconverting Nanocrystals Geethu P, Samvit G. Menon, Santhosh Chidangil, Suresh D. Kulkarni and Sajan D. George* Department of Atomic and Molecular Physics, Manipal University, Manipal, India -576104 *Email: sajan.george@manipal.edu
P-246.	Facile synthesis and fabrication of reduced Graphene oxide-poly(2,5-dimethoxyaniline) on viscose rayon fiber cloth as binder free electrodes for flexible supercapacitors S. Arulmani and C.Sivakumar* Electrodeics and Electrocatalysis Division CSIR-Central Electrochemical Research Institute, Karaikudi -630 006- India Corresponding author: ccsivakumar@cecri.res.in
P-247.	Design of CO₂ Sorbents using Functionalized Fibrous Nanosilica (KCC-1): Insights into the Effect of Silica Morphology on CO₂ Capture Efficiency Baljeet Singh, Vivek Polshettiwar* Nanocatalysis Laboratories (NanoCat), Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai-400005, India. Email: baljeet.singh@tifr.res.in, vivekpol@tifr.res.in
P-248.	Photoconductive properties of up conversion graphene quantum dot decorated CdS/ZnO core-shell nanorods Saurab Dhar, Tanmoy Majumder, Jehova Jire L Hmar, Suvra Prakash Mondal*

	<p>Department of Physics, National Institute of Technology, Agartala 799046, India. *Corresponding Author's email: suvraphy@gmail.com and suvra.phy@nita.ac.in.</p>
P-249.	<p>Engineered Pyrolysis Process towards the Synthesis of High Surface Area Supercapacitor Grade Carbon from Easily Available Biomass Precursors</p> <p>Malik Wahid^a, Ajay Kumar^b, Golu Parte^b, Satishchandra B. Ogale^{b*}</p> <p>^aNational Chemical Laboratory (CSIR-NCL), Dr. Homi Bhabha Road, Pune, 411008. ^bDepartment of Physics and Centre for Energy Science, Indian Institute of Science Education and Research, Dr. Homi Bhabha Road, Pune 411008. E-mail: satishogale@iiserpune.ac.in, satishogale@gmail.com</p>
P-250.	<p>Nanorod ZnO/SiC nanocomposite: An efficient catalyst for the degradation of endocrine disruptor under visible light irradiation</p> <p>G. Meenakshi, A. Sivasamy* Chemical Engineering Area CSIR-Central Leather Research Institute Adyar, Chennai 600020. Email: arumugamsivasamy@yahoo.co.in</p>
P-251.	<p>Study of Tunable Properties of Surface Plasmon Resonance of graphene coated metal Nanosphere</p> <p>Shivani Bhardwaj*, Nilesh Kumar Pathak, R P Sharma Centre for Energy Studies, Indian Institute of Technology, Delhi-110016, India Email of corresponding: sshivanni@gmail.com</p>
P-252.	<p>Synthesis and Photoluminescence Spectra of Tin Oxide Microbelts Grown by CVD</p> <p>Shashank K. Gahlaut, Kavita Yadav, J.P. Singh Department of Physics, Indian Institute of Technology Delhi New Delhi 110016, India Email- jpsingh@physics.iitd.ac.in</p>
P-253.	<p>Reduction of Graphene Oxide by a Selective Surface Modification Process via Chemical Route for Achieving Higher Proportion of Graphene</p> <p>Kashyap Dave¹, Kyung Hee Park², Marshal Dhayal^{1*}</p> <p>¹Medical Biotechnology Complex, CSIR-Centre for Cellular and Molecular Biology, Hyderabad, 500007, India. ²Department of Dental Materials and Medical Research Center for Biomineralization Disorders, School of Dentistry, Chonnam National University, Gwangju 61186, Korea. *Corresponding Author (E-mail: marshal@ccmb.res.in,</p>
P-254.	<p>Terahertz Surface Plasmon by amplitude modulated Gaussian laser beam in metal film coated dielectric</p> <p>Narender Kumar, Monika Singh, Gyanendra Pandey, R. P. Sharma and R. Uma Sri Venkateswara College, University of Delhi, New Delhi 110021, India. Centre for Energy Studies, Indian Institute of Technology Delhi, New Delhi 110016, India. Author e-mail address: (monikaiitd09@gmail.com)</p>

P-255.	<p align="center">Magnetic field dictated memory in anisotropic magneto-gels</p> <p align="center">Geetha G. Nair Centre for Nano and Soft Matter Sciences, Jalahalli Bangalore 560013 Email: ggnair@cens.res.in</p>
P-256.	<p align="center">Effect of sintering on structural, morphological and electrical properties of Manganese Zinc Ferrite nanoparticles synthesized by combustion route</p> <p align="center">Sarvangi Naik, Swapna Sonar, Reena Naik, Satish H. Keluskar*, Girish V. S. Kundaikar, Pranav P. Naik Department of Physics, P.E.S.'s Shree Ravi Sitaram Naik College of Arts and Science *Email: keluskarpes@gmail.com</p>
P-257.	<p align="center">Anisotropic shape dependent hydrogen evolution from water using TiO₂ and metal (Ag) TiO₂ as photo catalyst under visible light irradiation</p> <p align="center">Rayees Ahmad Rather, Satnam Singh and Bonamali Pal* School of Chemistry and Biochemistry Thapar University, Patiala, India-147004. Tel: 91-175-239-3491 Fax 91-175-2364498 E-mail: rarather@thapar.edu</p>
P-258.	<p align="center">Green synthesis of silver and gold nanoparticles from <i>Aspergillus flavipes</i> YCISKAS2 isolated from Kaas Plateau and their enhanced antimicrobial activity in combination with third generation antibiotics.</p> <p align="center">Shivangi Shivraj Kanase* Department of Microbiology and Biochemistry, Yashavantrao Chavan Institute of Science, Satara, Maharashtra, India 415001.</p>
P-259.	<p align="center">Anchoring transition driven by short range ordering in calamitic-discotic composites</p> <p align="center">D.S. Shankar Rao, Centre for Nano and Soft Matter Sciences, Jalahalli, Bangalore 560 013, India email: raoshankards@gmail.com</p>
P-260.	<p align="center">Electrospun nanofibers reinforced poly(dimethyl siloxane) composites with tunable stiffness properties</p> <p align="center">Tushar Deshpande, Yogesh Singh, Sandip Patil, Yogesh Joshi and Ashutosh Sharma* Department of Chemical Engineering, Indian Institute of Technology, Kanpur 208016, India *Corresponding author: ashutos@iitk.ac.in</p>
P-261.	<p align="center">Low temperature synthesis of monodisperse and size tunable Ag₂S quantum dots for hybrid solar cell</p> <p align="center">Razi Ahmad^{a,b}, Ritu Srivastava^{a*}, Sushma Yadav^b, Suresh Chand^a and Sameer Sapra^b</p>

	<p>^aCenter for Organic Electronics, Physics of Energy Harvesting Division, CSIR-National Physical Laboratory, Dr. K.S. Krishnan Road, New Delhi-110012, India ^bDepartment of Chemistry, Indian Institute of Technology Delhi, New Delhi, India-110016 Email of corresponding author: ritu@mail.nplindia.org</p>
P-262.	<p>Synthesis and Investigation of Structural and Optical properties of Eu³⁺ doped CaZrO₃ phosphor</p> <p>Shambhavi Katyayan^a · Sadhana Agrawal Department of Physics, National Institute of Technology Raipur, Raipur-492010, India Corresponding Author: Email: shambhavik0@gmail.com</p>
P-263.	<p>Biomedical Applications of Graphene grown by Chemical Vapor Deposition: A Review</p> <p>Siddharth Sharma^a and Dr. R.P. Chauhan^b ^aM.tech student School of Biomedical engineering, NIT Kurukshetra ^bAssociate Professor department of physics, NIT Kurukshetra Email id: siddharth05sharma@gmail.com</p>
P-264.	<p>Size-Controlled Synthesis of High-Index Faceted Au Nanocrystals</p> <p><u>Ranguwar Rajendra</u>, Pranav K. G., Sreekumar Kurungot and Nirmalya Ballav Department of Chemistry, Indian Institute of Science Education and Research (IISER), Dr. Homi Bhabha Road, Pune – 411 008, India Physical and Materials Chemistry Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pune 411 008, India</p>
P-265.	<p>Numerical simulation of broad band tuning of plasmonic nanoellipsoid: Perovskite interaction</p> <p>Sangita Roopak, R P Sharma Center for Energy Studies, Indian Institute of Technology, Delhi-110016, India. Sangitaphy@gmail.com</p>
P-266.	<p>PEGylated Cerium oxide nanoparticles improves hypobaric hypoxia induced cognitive deficit in rat by augmenting hippocampus plasticity</p> <p>Aditya Arya¹, Anamika Gangwar¹, Mainak Das, Sushil K Singh, Niroj K Sethy and Kalpana Bhargava¹ ¹.Peptide and Proteomics Division, defence Institute of Physiology and Allied Sciences (DIPAS), Defence Research and development Organization (DRDO), Lucknow Road, Timarpur, Delhi- 54</p>
P-267.	<p>Ultrathin films of Al₂O₃ by E-beam Evaporation</p> <p>Arvind Kumar, Sandip Mondal and K. S. R. Koteswara Rao Department of Physics, Indian Institute of science, Bangalore, 560012, India E-mail: arvind9kr@gmail.com</p>

P-268.	<p align="center">Effect of Molecular Interaction on Cu-doped CdSe Nanocrystals</p> <p align="center">Sourav Maiti, Jayanta Dana, Tushar Debnath, Hirendra N. Ghosh[*] Radiation & Photochemistry Division, Bhabha Atomic Research Centre, Mumbai – 400085, India. * E-mail: hngghosh@barc.gov.in</p>
P-269.	<p align="center">Photo-induced conductivity of Tellurium Nanowires: Time Resolved Optical Pump Terahertz Probe Study</p> <p align="center">Mithun K. P¹, Srabani Kar¹, Ahin Roy², N. Ravishankar² and A. K. Sood¹ ¹Department of Physics and Center for Ultrafast Laser Application, Indian Institute of Science, Bangalore 560012 ²Material Research Center, Indian Institute of Science, Bangalore 560012</p>
P-270.	<p align="center">Morphological to Nanostructural Transformation from β-FeOOH Nanorods to Biocompatible Hematite Nanocubes</p> <p align="center">Surya R, Seema Verma[*] Department of Chemistry, Indian Institute of Science Education and Research, Pune 411008, India. sa.verma@iiserpune.ac.in</p>
P-271.	<p align="center">Stimuli responsive smart nanocapsules from conformationally biased α,γ-hybrid peptides</p> <p align="center">Rajkumar Misra,^a Rahi M. Reja^a Lagumaddepalli V. Narendra,^b G. George,^b Srinivasarao Raghothama^b and Hosahudya N. Gopi^a ^aDepartment of Chemistry, Indian Institute of Science Education and Research-Pune, Dr. Homi Bhabha Road, Pune-411 008. ^bNMR Research Center Indian Institute of Science Bangalore-560012.</p>
P-272.	<p align="center">Pd loaded amphiphilic COF as catalyst for multi-fold Heck reactions, C-C couplings and CO oxidation</p> <p align="center">Dinesh Mullangi, Shyamapada Nandi, Sorout Shalini, Ramanathan Vaidhyanathan[*] Department of Chemistry, Indian Institute of Science Education and Research, Pune 411008, India. Email of corresponding author: vaidhya@iiserpune.ac.in</p>
P-273.	<p align="center">Graphene Oxide Nanocomposite for Dual Drug Delivery in Cancer</p> <p align="center">Aditi Nandi, Abhik Mallick, Piyush More, Sudipta Basu Indian Institute of Science Education and Research, Pune Email: sudipta.basu@iiserpune.ac.in</p>
P-274.	<p align="center">Mesoporous Silica Nano-Channel (MCM-41) as a Potential Nano-Carrier for Anticancer Drug Ellipticine and Biomolecular Assisting Drug Releases</p> <p align="center">Raj Kumar Koninti, Partha Hazra[*] Department of Chemistry, Indian Institute of Science Education and Research, Pune 411008, India; Email: p.hazra@iiserpune.ac.in</p>
P-275.	<p align="center">Delocalized Electrons Mediated Magnetic Coupling in Mn-Sn codoped In₂O₃</p>

	<p align="center">Nanocrystals: Plasmonics shows the way</p> <p align="center">Bharat Tandon, Anur Yadav, Angshuman Nag* Department of Chemistry, IISER, Pune-411008, India E-mail: angshuman@iiserpune.ac.in</p>
P-276.	<p align="center">Cysteine-Mediated Controlled Assembly of Gold Nanostars and Their SERS</p> <p align="center">Arunangshu Biswas and Tapan K. Sau* IIIT-Hyderabad, CCNSB, Gachibowli, Hyderabad, India-500032, E-mail- tapan.sau@iiit.ac.in</p>
P-277.	<p align="center">Visible light photoactivity of graphene based Co-Pi flowers for photo-splitting of water</p> <p align="center">Alaka Samal,^{1,2} K.K. Nanda,^{1,2} Biswarup satpati,³ Dipti P. Das,^{*1,2} B. K. Mishra^{1,2} ¹Academy of Scientific and Innovative Research (AcSIR), New Delhi -110 025, India ²Colloids and Materials Chemistry Department, CSIR-Institute of Minerals and Materials Technology, Bhubaneswar 751 013, India, E-mail: dr.dipti.immt@gmail.com ³Surface Physics and Material Science Division, Saha Institute of Nuclear Physics, 1/AF, Bidhannagar, Kolkata 700 064, India</p>
P-278.	<p align="center">Photoinduced Charge Transfer Properties of Dithiafulvene Expanded Triphenylamine-C60 Donor-Acceptor Conjugates</p> <p align="center">Avishek Saha, Marcus Lederer, Muqing Chen, Axel Kahnt, Xing Lu, Dirk M. Guldi* Department of Chemistry and Pharmacy & Interdisciplinary Center for Molecular Materials (ICMM), Friedrich-Alexander University of Erlangen-Nürnberg, Egerlandstr. 3, 91058 Erlangen, Germany State Key Laboratory of Materials Processing & School of Material Science and Engineering, Huazhong University of Science and Technology, 1037 Luoyu Road, 430074 Wuhan, China Email of corresponding (*) authors: dirk.guldi@fau.de</p>
P-279.	<p align="center">Visualizing effect of chemical pressure using electron density maps of RFeO₃ (R = Sm, Ho, Lu) nanoparticles</p> <p align="center">Smita Chaturvedi,¹ Priyank Shyam,¹ Amey Apte,^{1,2} Sulabha Kulkarni^{1,*} Affiliation: ¹Department of Physics, Indian Institute of Science Education and Research, Pune, India ²Present address: Rice University, Houston, Texas, United States Email of corresponding (*) authors: s.kulkarni@iiserpune.ac.in</p>
P-280.	<p align="center">Determination of Spin Hall Angle of Tungsten in W/CoFeB Bilayer using Time Resolved Kerr Microscopy</p> <p align="center">Sucheta Mondal, Arnab Ganguly, Samiran Choudhury, Neha Jha, Jaivardhan Sinha, Anjan Barman* Department of Condensed Matter Physics and Material Sciences, S. N. Bose National Centre for Basic Sciences, Block JD, Sector III, Salt Lake, Kolkata 700 098, India *Email address: abarman@bose.res.in</p>

P-281.	<p align="center">Nanoparticle sensitization of multi-functional drugs: prospective future PDT agents</p> <p align="center">Damayanti Bagchi, Samir Kumar Pal*</p> <p align="center">Department of Chemical, Biological & Macromolecular Sciences, S. N. Bose National Centre for Basic Sciences, Block JD, Sector III, Salt Lake, Kolkata 700 098, India Email of corresponding author (*): skpal@bose.res.in</p>
P-282.	<p align="center">“Nanogold Decorated Graphene Oxide Platforms” (NDGOPs) for Targeted Chemo-Thermal Cancer Ablation</p> <p align="center">Gaurav Chauhan ^{1/2}, Vianni Chopra ³, Amit Tyagi ³, Rakesh K Sharma ³, Amit K Goyal ²</p> <p align="center">¹Centre for Nanosciences, Department of Chemical Engineering, Indian Institute of Technology Kanpur, Uttar Pradesh, India ²DBT Lab, Indo Soviet Friendship College of Pharmacy, Moga, Punjab, India ³Institute of Nuclear Medicine and Allied Sciences, Brig. S. K. Mazumdar Road, New Delhi, India</p>
P-283.	<p align="center">Origin of Unusual Excitonic Absorption and Emission from Ag₂S NCs: Ultrafast Photophysics</p> <p align="center">Wasim J. Mir, Abhishek Swarnkar, Rituraj Sharma, Aditya katti, K. V. Adarsh and Angshuman Nag*</p> <p align="center">Department of Chemistry, Indian Institute of Science Education and Research, Pune-411008, India Department of Physics, Indian Institute of Science Education and Research, Bhopal 462023, India E-mail: angshuman@iiserpune.ac.in</p>
P-284.	<p align="center">Designing of C₃N₄-TiO₂ nanocomposite with high photocatalytic activity</p> <p align="center">Manu Sharma^a, Sonalika Vaidya^{a*} and Ashok K. Ganguli^{ab*}</p> <p align="center">^aInstitute of Nano Science & Technology, Habitat Centre, Phase- X, Sector – 64, Mohali, Punjab–160062, India ^bDepartment of Chemistry, Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110016, India Email: vaidyasonalika@gmail.com, ashokganguliitd@gmail.com</p>
P-285.	<p align="center">Fabrication of Microfluidic Devices for the Controlled Synthesis of Nanostructures</p> <p align="center">Astha Singh and Bhanu Prakash*</p> <p align="center">Institute of Nano Science and Technology, Phase 10, Sector 64, Mohali</p>
P-286.	<p align="center">Graphene/Nanoporous-Silica Heterostructure based Antireflective Coating with Hydrophobic Surfaces</p> <p align="center">Sucheta De*, Jarnail Singh, Bhanu Prakash, Suvankar Chakraverty, Kaushik Ghosh*</p> <p align="center">Institute of Nano Science and Technology, Habitat Centre Sector-64, Phase-10, Mohali-160062, Punjab</p>

P-287.	<p align="center">Enzyme and pH Dual Responsive Polymer Nano-carrier for Multiple Drug Delivery</p> <p align="center">Sonashree Saxena and Manickam Jayakannan* Department of Chemistry Indian Institute of Science Education and Research (IISER) Dr. Homi Bhabha Road, Pune 411008, Maharashtra, India.</p>
P-288.	<p align="center">Ultra Fast Humidity Sensing Behavior of Te Nanowires</p> <p align="center">Manisha B. Erande, Dattatray J. Late* Physical and Material Chemistry Division, CSIR – National Chemical Laboratory, Pune, 411008, Maharashtra, India. *Corresponding author: datta099@gmail.com; dj.late@ncl.res.in</p>
P-289.	<p align="center">Nanostructured Aptasensor For The Detection Of Cardiac Biomarker Myoglobin.</p> <p align="center">Munish Shorie, Vinod Kumar, Ashok Kumar Ganguli, Priyanka Sabherwal Institute of Nano Science and Technology, Sector 64, Phase X, Mohali.</p>
P-290.	<p align="center">A Novel Way To Fabricate Mos₂-Nanostructures Using Laser Based Direct Lithography</p> <p align="center">Renu Rani, Anirban Kundu, Kiran Shankar Hazra* Institute of Nano Science and Technology Sector 64, Phase X, Mohali, Punjab *kiranshankar.hazra@gmail.com</p>
P-291.	<p align="center">Circulating Current In An A Periodic Ring With Spin-Orbit Interactions</p> <p align="center">Moumita Patra* and Santanu K. Maiti <i>Physics and Applied Mathematics Unit, Indian Statistical Institute, 203 Barrackpore Trunk Road, Kolkata-700 108, India</i> *E-mail: moumita.patra19@gmail.com</p>
P-292.	<p align="center">Light-Harvesting Properties of Directionally Aligned CdSe Quantum Dot Sensitized CuBTC Metal-Organic Frameworks: Investigations on Sulfide Mediated Photo-Electrochemical Water Splitting</p> <p align="center">V. Srinivasa Rao, P. Raja Gopal, Gosipathala Sreedhar V.Srinivasa Rao; Electropyro Metallurgy Division, CSIR-Central Electrochemical Research Institute vsraoecri@gmail.com P. Raja Gopal; Electropyro Metallurgy Division, CSIR-Central Electrochemical Research Institute rajagopalperi@gmail.com Gosipathala Sreedhar; Electropyro Metallurgy Division, CSIR-Central Electrochemical Research Institute gsreedhar@cecri.res.in</p>
P-293.	<p align="center">Impact Of Newly Synthesized Tetra-Covalent SnO₂ Semiconducting Nanoparticles In Defining The Optical Properties</p>

	<p>Bhargav Raval^{1, a}, Vaishali Shukla^{2, a} and Man Singh^{a, b} ^a Centre for Nanoscience, Central University of Gujarat, Gandhinagar-382030, India ^b School of Chemical Sciences, Central University of Gujarat, Gandhinagar-382030, India Email: ^{1, a} bhargav.raval1989@gmail.com; ^{a, b} mansingh50@hotmail.com</p>
P-294.	<p>Effect Of Gamma Radiation On Structural And Magnetic Properties Of Rare Earth (Nd⁺³) Doped Manganese-Zinc Ferrite Nanoparticles</p> <p>Pranav P. Naik*, R. B. Tangsali Department of Physics, Goa University, Taleigao Plateau, Goa, India 403206 *Email: drppn1987@gmail.com</p>
P-295.	<p>Cu₂O-MWCNT Composite Catalyst For The Electroreduction Of Carbon Dioxide.</p> <p>Sreekanth Narayanaru and Phani Lakshminarasimha Kanala* Nanoscale Electrocatalysis & Sensor Research Group, Electroics & Electrocatalysis Division, CSIR-Central Electrochemical Research Institute, Karaikudi – 630 006 India E-mail: klnp56.kp@gmail.com; klnphani@cecri.res.in</p>
P-296.	<p>In Situ Electro-Grafting Of Pyrene Derivatives On Onion Like Carbon Electrodes For High Energy Density Supercapacitor And Beyond</p> <p>Bihag Anothumakkool¹, Pierre-Louis Taberna², Barbara Daffos², Patrice Simon², Thierry Brousse¹ and Joel Gaubicher^{1*} 1-Institut des Materiaux Jean Rouxel (IMN), University of Nantes, CNRS, 2, rue de Houssiniere-B.P. 32229-44322 Nantes cedex 3, France 2-Universite Paul Sabatier, Cirimat/Lcmie, 31062 Toulouse cedex 9 - France Email of corresponding author*: joel.gaubicher@cnrs-immn.fr</p>
P-297.	<p>CeO₂ Decorated Hierarchical Porous Cobalt Nanocomposite For Electrochemical Sensing of Hydrazine</p> <p>S. Premlatha, G.N.K. Ramesh Babu* Electroplating and Metal Finishing Technology Division, CSIR- Central Electrochemical Research Institute, Karaikudi-630 003 (Tamilnadu) INDIA.</p>
P-298.	<p>Enhanced Charge Separation and FRET at Heterojunctions between Semiconductor Nanoparticles and Conducting Polymer Nanofibers for Efficient Solar Light Harvesting</p> <p>Samim Sardar and Samir Kumar Pal* Department of Chemical, Biological and Macromolecular Sciences, S. N. Bose National Centre for Basic Sciences, JD Block, Sector III, Salt Lake City, Kolkata-700064, India Email: skpal@bose.res.in, samim12@bose.res.in</p>
P-299.	<p>Effect Of Quantum Confinement On Field Emission Properties Of Silicon Nanowires</p> <p>Vivek Kumar^{1*}, Kapil Saxena², K. Senthilkumar¹ and Rajesh Kumar³ ¹Department of Physics, National Institute of Technology Meghalaya, Shillong 793003,</p>

	<p style="text-align: center;">India</p> <p>²Department of Physics, Indian Institute of Technology Delhi, New Delhi 110016, India ³Department of Physics, Indian Institute of Technology Indore, M.P. 452017, India *Corresponding author: vivekkumar@nitm.ac.in</p>
P-300.	<p style="text-align: center;">Pulse Electrodeposited Superhydrophobic Ni-ITO Nanocomposite Electrode As An Electrocatalyst For Reduction Of Nitrobenzene</p> <p style="text-align: center;">P. Sivasakthi, G. N. K. Ramesh Babu*, Maruthai Chandrasekaran Electroplating and Metal Finishing Technology Division CSIR-Central Electrochemical Research Institute Karaikudi 630006, Tamil Nadu, India</p>
P-301.	<p style="text-align: center;">Gold Species Confined To Nanocubic Shaped Prussian Blue: Synthesis, Characterization And Its Application Towards Hydrazine Electrooxidation</p> <p style="text-align: center;">Pandiyaraj Kanagavalli and Shanmugam Senthil Kumar* Electrodics and Electrocatalysis Division, CSIR - Central Electrochemical Research Institute, Karaikudi, India. *Corresponding author – ssenthilmugam@gmail.com</p>
P-302.	<p style="text-align: center;">Comparative Study Of Application Of Zinc Oxide And Zinc Ferrite Nanoparticles In Enhancing Mechanical Strength Of Bone Cement</p> <p style="text-align: center;">J. Mayekar^a, V. Dhar^b, S. Radha^c ^{a,b}Department of Physics, Jai Hind College, Mumbai. ^cDepartment of Physics, University of Mumbai, Mumbai. Corresponding author: jyot.nano@gmail.com</p>
P-303.	<p style="text-align: center;">Device performance of the dye sensitized solar cells for different photoanod</p> <p style="text-align: center;">S. Surya, R.Thangamuthu,G.Murugadoss* Electrochemical Materials Science Division, CSIR-Central Electrochemical Research Institute, Karaikudi-630003, Tamil Nadu, India.</p>
P-304.	<p style="text-align: center;">Investigation Of Structurally Different Iron Hexacyanoferrate (Fehcf) Derived From Fe-BTC Metal Organic Framework Probed By Electro Oxidation Of Hydrazine</p> <p style="text-align: center;">Chikkili Venkateswara raju, Shanmugam Senthil Kumar* Electrodics and Electrocatalysis Division, CSIR - Central Electrochemical Research Institute, Karaikudi, India. *Corresponding author – ssenthilmugam@gmail.com</p>
P-305.	<p style="text-align: center;">Preparation And Characterization Of Chitosan-Coated Core-Shell Iron-Oxide/Ormosil Nanoparticles For Magnetically-Guided Delivery And Photodynamic Therapy.</p> <p style="text-align: center;">Shrish Agnotri, Indrajit Roy and Pramod Kumar*</p>

	Affiliation: Department of Chemistry, University of Delhi, Delhi 110007. Email of corresponding authors: pramodgang03@gmail.com
P-306.	Engineering The Morphology Of Graphene Nano-Flakes By Chemical Functionalization Through Anticipation Of Reactive Sites: A DFT Based Demonstration Mohammed Azeezulla Nazrulla, Sailaja Krishnamurty* and Kaliaperumal Selvaraj CSIR-Central Electrochemical Research Institute, Karaikudi-630 006, Tamil Nadu, Corresponding author: sailja.raaj@gmail.com
P-307.	Au nanoparticles incorporated Reduced Graphene Oxide: A novel and efficient tool for electrochemical biosensing of Homocysteine at neutral pH. Rajendran Rajaram and Jayaraman Mathiyarasu Electrodics and Electrocatalysis Division, CSIR- Central Electrochemical Research Institute, Karaikudi 630 006, Tamil Nadu, India
P-308.	K₄[Fe(CN)₆] Immobilized Anion Sensitive Protonated Amine Functionalized Polysilsesquioxane Films For Ultra-Low Electrochemical Detection Of Sulphate Anion Krishnamoorthy Silambarasan and James Joseph* CSIR-Central Electrochemical Research Institute, Karaikudi, India – 630003. Email: jameskavalam@yahoo.com
P-309.	Synthesis And Characterization Of Mono- (Pd And Pt) And Bimetallic (Pd-Pt) Nanoparticles On Graphitic-Carbon Nitride Surface And Their Application In Nitro Compound Reduction. Roshan Nazir ^a , Subhashis Gangopadhyay ^b , and Surojit Pande ^{a*} ^a Department of Chemistry, Birla Institute of Technology and Science, Pilani, Rajasthan, 333031, India. ^b Department of Physics, Birla Institute of Technology and Science, Pilani, Rajasthan, 333031, India. E-mail: spande@pilani.bits-pilani.ac.in
P-310.	Charge Transport Across Superconductor-Quantum Dot Junction B.S. Tewari ^{*1} , A. Dhyani ¹ , K. Pandey ¹ , P.S. Rawat ² University of Petroleum and Energy Studies (UPES), Energy Acres, VPO Bidholi, PO Prem Nagar, Dehradun 248007, Uttarakhand, India
P-311.	Engineering Therapeutic Targeted Microtubule Binding Drug Nanocomplexes Against Hepatocarcinoma Cells Radhika Poojari,* Rohit Srivastava, Dulal Panda Department of Biosciences and Bioengineering, Indian Institute of Technology Bombay, Mumbai-400076, India Email: drradhipoojari@gmail.com
P-312.	Size Effect On Phonon Behaviour And Magnetization In Manganite/Ruthenite Superlattice

	<p style="text-align: center;">Antarjami Sahoo¹, Umesh K Sinha¹, P. Padhan¹, and Wilfrid Prellier²</p> <p style="text-align: center;">¹ Department of Physics, Indian Institute of Technology Madras, Chennai – 600036, India ² Laboratoire CRISMAT, CNRS UMR 6508, ENSICAEN, 6 Bd du Marechal Juin, F-14050 Caen Cedex, France Email : lipunantarjami91@gmail.com</p>
P-313.	<p style="text-align: center;">Polymer Coated Nitrogen-Doped Nickel Nanoparticle-Dispersed Carbon Nanofiber-Based Air-Cathode For The Improved Performance Of Single Chamber Microbial Fuel Cell</p> <p style="text-align: center;">Akshay Modi^{*a}, Shiv Singh^{*b}, Nishith Verma^{*#c}</p> <p style="text-align: center;">[*]Department of Chemical Engineering [#]Center of Environmental Science and Engineering, IIT Kanpur ^aakshaymodi.india@gmail.com, ^bshiv_singh_17@yahoo.com, ^cvermanishith@gmail.com</p>
P-314.	<p style="text-align: center;">Comparative Study Of Nano-Sized Particles Used In Polymer Solar Cells For Obtaining Maximum Power Conversion Efficiency: A Review</p> <p style="text-align: center;">Swapnil R. Bavane Department of Chemical Engineering, University Institute of Chemical Technology, North Maharashtra University, Jalgaon Email ID: swapnilbavane@gmail.com</p>
P-315.	<p style="text-align: center;">Application of Smart Nanomaterials in Construction Industry- A Review</p> <p style="text-align: center;">Sameer Vyas¹, Neetu Singh², Pankaj Sharma³, Beena Anand⁴ Central Soil and Materials Research Station, New Delhi Samyog78@yahoo.com</p>
P-316.	<p style="text-align: center;">Generalized Colloidal Production Of Ultrathin 2D-Bi₂Se₃ Topological Insulator And Its Doped Analogues</p> <p style="text-align: center;">Pradipta Sankar Maiti^a, Lothar Houben^b, Gregory Leitus^b and Maya Bar-Sadan^{a*}</p> <p style="text-align: center;">^aDepartment of Chemistry and the Ilse Katz Institute Ben Gurion University P.O.B. 653 Beer-Sheva, 8410501 Israel. ^bChemical Research Support, Weizmann Institute of Science, 234 Herzl St., Rehovot 7610001, Israel.</p>
P-317.	<p style="text-align: center;">Nanoscale Gas Flow In Shale Gas</p> <p style="text-align: center;">Sunjay and Manas Banerjee Geophysics, BHU, varanasi-221005, India sunjay@yahoo.com, manasgp@yahoo.co.in</p>
P-318.	<p style="text-align: center;">Electric, Magnetic Magnetoelectric Coupling Studies On BiFeO₃-NaNbO₃ Nano Composites And Effects Of Mn Doping</p> <p style="text-align: center;">Rehana P Ummer,^a and Nandakumar Kalarikkal^{a,b}</p> <p style="text-align: center;">^aSchool of Pure and Applied Physics ^bInternational and Inter University Centre for Nanoscience and Nanotechnology ^cSchool of Chemical Sciences Mahatma Gandhi University, Kottayam, Kerala-686560, India</p>

P-319.	<p align="center">Nanophosphors – Amelioration In Nanoscience And Nanotechnology</p> <p align="center">Shambhavi Katyayan¹, Sadhana Agrawal² ^{1,2}Department of Physics, National Institute of Technology Raipur, Raipur-492010, CG, India</p>
P-320.	<p align="center">Opto-electronic properties of solution processable Ag₂S-AgInS₂ heterodimer nanocrystals</p> <p align="center">Metikoti Jagadeeswararao, Abhishek Swarnkar, Angshuman Nag* Department of Chemistry, IISER-Pune, Pune 411008, India E-mail: angshuman@iiserpune.ac.in</p>
P-321.	<p align="center">Hydrothermal Green Synthesis of Magnetite and Selectively Doped (M=Ni, Cu, Zn, Co) Ferrites for Adsorptive Removal of Trypan Blue</p> <p align="center">C. S. Vicas, K. Namratha and K. Byrappa* Center for Materials Science and Technology, Vijnana Bhavan, University of Mysore, Mysore. Corresponding author: kbyrappa@gmail.com</p>
P-322.	<p align="center">Formulation And Characterization Of Positively Charged Nanosized Lipospheres Of An Potent Antiretroviral Drug For Improved Therapy Of HIV</p> <p align="center">Priyanka Tripathi, Dr. P. R. Mishra* Division of Pharmaceutics, Central Drug Research Institute, Lucknow 226 031, India *Corresponding author: Dr. P.R. Mishra, Principal Scientist, Division of Pharmaceutics, CSIR-Central Drug Research Institute, sector-10, Jankipuram extension, Lucknow-226 031 Email: priyankampharma@gmail.com</p>
P-323.	<p align="center">Study Of Piezoresistive NEMS Cantilever And Their Response Based On Volatile Organic Compounds And Gases Using Omnicant Experimentation</p> <p align="center">Srinivasarao.Udara¹, Dr. P H S Tejo Murthy*(Coresponding Author)² ¹Assistant Professor, ECE Department, Ranebennur,Haveri(district), Karnataka-581115: ²Professor, ECE Department, STJIT, Ranebennur,Haveri(district),Karnataka-581115: 09980614669, 08373-266427 and teja_usha@rediffmail.com, srinivasarao_udara@yahoo.com:</p>
P-324.	<p align="center">Synthesis Of Drug-PLGA-AuNP Nanomaterial For Drug Delivery System</p> <p align="center">S. Mehta*¹, Jayeeta², V. Shastri², H. Muthurajan¹ ¹National center for Nanoscience and nanotechnology, University of Mumbai,Mumbai 400098 ²Murli Krishna Pharma Private Ltd.,Pune, India Email of corresponding author: mehtasourabhamadhav@gmail.com</p>
P-325.	<p align="center">Studies On Composite of Graphene Oxide With Mineral Hydroxyapatite [Ca₁₀P(PO₄)₆(OH)₂] Nanocomposites</p> <p align="center">A.Rajesh, G. Mangamma*, T.N. Sairam, S. Subramanian, M. Kamruddin, A.K. Tyagi Materials Science Group, Indira Gandhi Centre for Atomic Research, Kalpakkam-603012. *gm@igcar.gov.in, rajeshnano3@gmail.com</p>

P-326.	<p align="center">Ultrathin films of Al₂O₃ by E-beam Evaporation</p> <p align="center">Arvind Kumar, Sandip Mondal and K. S. R. Koteswara Rao Department of Physics, Indian Institute of science, Bangalore, 560012, India E-mail: arvind9kr@gmail.com</p>
P-327.	<p align="center">Materials Dissolve In Plant Leaf Solutions</p> <p align="center">I.K.Rao Retired Lecturer, Govt. Degree College for Women, Srikakulam-532001, A.P, India (Affiliated to Andhra University, Visakhapatnam)</p>
P-328.	<p align="center">Electrostatically Driven Eenergy Transfer in Biocompatible InP QDs Towards Live Cell Imaging</p> <p align="center">Gayathri Devatha, Soumendu Roy, Pramod P. Pillai Department of Chemistry, Indian Institute of Science Education and Research (IISER), Pune, 411008, India. Email: pramod.pillai@iiserpune.ac.in</p>
P-329.	<p align="center">Fe Nanoparticles Supported On Graphene: Probing The Active Site In Efficient Dehydrogenation Reactions</p> <p align="center">G. Jaiswal^{†‡}, E. Balaraman^{‡*}, D. Jagadeesan^{†*} [‡]Catalysis & Inorganic Chemistry Division, CSIR-National Chemical Laboratory, Pune 411008, India [†]Physical & Materials Chemistry Division, CSIR-National Chemical Laboratory, Pune 411008, India. e-mail: g.jaiswal@ncl.res.in</p>
P-330.	<p align="center">Transition Metal and Vacancy Defect Complexes in Phosphorene: A Spintronic Perspective</p> <p align="center">Rohit Babar and Mukul Kabir[*] Department of Physics, Indian Institute of Science Education and Research, Pune 411008, India. mukul.kabir@iiserpune.ac.in</p>
P-331.	<p align="center">Measuring Single Cell Growth Kinetics of E. coli in a Microfluidics Device</p> <p align="center">Manasi S. Gangan and Chaitanya A. Athale[*] Division of Biology, Indian Institute of Science Education and Research, Pune 411008, India Email of corresponding (*) author(s): cathale@iiserpune.ac.in</p>
P-332.	<p align="center">Core-Shell Nanoparticles Exhibiting Novel Magnetic Properties</p> <p align="center">Siddhartha Sohoni¹, Avijit Saha² and Ranjani Viswanatha^{2,3} 1. Indian Institute of Science Education and Research, Pune 2. New Chemistry Unit, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru 3. International Centre for Material Science, JNCASR Bengaluru</p>
P-333.	<p align="center">Formation Of Fullerene Like CN_x In Vertically Grown Graphene</p> <p align="center">P.A. Manojkumar,¹ G.Mangamma,¹ R. Pandian,¹ S.Behra², M. Kamruddin,¹ S.K. Albert,¹</p>

	<p style="text-align: center;">A.K. Tyagi¹ ¹ Indira Gandhi Centre for Atomic Research, Kalpakkam, 603102, INDIA. ² Water steam chemistry laboratory, BARC facilities, Kalpakkam, 603102, INDIA Corresponding author: manoj@igcar.gov.in</p>
P-334.	<p style="text-align: center;">Nanocurcumin Encapsulates For Anti-Cancer Therapy Amarnath Singam, Dr. GVN Rathna* Polymer Science and Engineering Division, CSIR-National Chemical Laboratory, Pune 411008, India (*rv.gundloori@ncl.res.in)</p>
P-335.	<p style="text-align: center;">Hierarchical Self-Assembly Of Switchable Nucleolipid Supramolecular Gels Based On Environmentally-Sensitive Fluorescent Nucleoside Analogs Ashok Nuthanakanti and Seergazhi G. Srivatsan* Department of Chemistry, Indian Institute of Science Education and Research, Pune, Dr. Homi Bhabha Road, Pashan, Pune 411008, India. E-mail: nashok@students.iiserpune.ac.in</p>
P-336.	<p style="text-align: center;">High Temperature Structural And Magnetic Study in Ho Doped BiFeO₃ Nanoparticles And Single Crystals Rabindranath Bag, Smita Chaturvedi, Sulabha Kulkarni and Surjeet Singh* Department of Physics, Indian Institute of Science Education and Research, Dr. Homi Bhabha Road, Pune-411008, India. *Email: rabindranath.bag@student.iiserpune.ac.in</p>
P-337.	<p style="text-align: center;">Structure Activity Relationship of Sulfonamide Based Anionophore having Chloride Transport Mediate Apoptosis Inducing Activity Tanmoy Saha,† Munshi Sahid Hossain,‡ Debasis Saha,† Mayurika Lahiri,§ and Pinaki Talukdar,* † † Department of Chemistry, Indian Institute of Science Education and Research Pune, Pune 411008, Maharashtra, India. ‡ Department of Chemical Sciences, Indian Institute of Science Education and Research Kolkata, Mohanpur 741246, West Bengal, India. § Department of Biology, Indian Institute of Science Education and Research Pune, Pune 411008, Maharashtra, India. Email: ptalukdar@iiserpune.ac.in</p>
P-338.	<p style="text-align: center;">Carrier Dynamics in CsPbBr₃ Perovskite Quantum Dots in Presence of Electron and Hole Acceptors: A Time Resolved Terahertz Spectroscopy Study Sohini Sarkar, Vikas Ravi, Sneha Banerjee, Angshuman Nag and Pankaj Mandal* (Department of Chemistry, Indian Institute of Science Education and Research, Pune 411008, India) Email: pankaj@iiserpune.ac.in</p>
P-339.	<p style="text-align: center;">Selective Imaging of Quorum Sensing Receptors in Bacteria Using Fluorescent Au Nanocluster Probes Surface Functionalized with Signal Molecules Anurag Chahandea, Amruta Patilb, Sahanac, R.Nandini Devia,*, Asmita Prabhuneb,**</p>

	<p>a* Catalysis and Inorganic Chemistry Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pune 411008, India</p> <p>b,c** Biochemistry Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pune 411008, India</p> <p>E mail ID :- nr.devi@ncl.res.in , aa.prabhune@ncl.res.in</p>
P-340.	<p>Effect Of Ag Particle Sizes On High Temperature AgPd Alloy Formation Using Ultra Small Pd Clusters In Silica Encapsulated Catalysts</p> <p>Sourik Mondal^a, Thattarathody Rajesh^a, Basab B Dhar^b and R. Nandini Devi^{*,a}</p> <p>^a Catalysis and Inorganic Chemistry Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pune 411008, India</p> <p>^b Chemical Engineering and Process Development Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pune 411008, India</p> <p>Corresponding author: E-mail- nr.devi@ncl.res.in</p>
P-341.	<p>Fe nanoparticles supported on graphene: Probing the active site in efficient dehydrogenation reactions</p> <p>G. Jaiswal^{†‡}, E. Balaraman^{‡*}, D. Jagadeesan^{†*}</p> <p>[‡] Catalysis & Inorganic Chemistry Division, CSIR-National Chemical Laboratory, Pune 411008, India</p> <p>[†] Physical & Materials Chemistry Division, CSIR-National Chemical Laboratory, Pune 411 008, India</p> <p>e-mail: g.jaiswal@ncl.res.in</p>
P-342.	<p>Investigation of Surface and Bulk Electrical Transport properties of undoped and Iron doped Bi₂Se₃</p> <p>Rejaul Sk^a, Mandar M. Shirolkar^b, Barun Dhara^a, Sulabha Kulkarni^a, Aparna Deshpande^a,</p> <p>^a Indian Institute of Science Education and Research, Pune, Dr. Homi Bhabha Road, Pashan, Pune 411008, India</p> <p>^b Hefei National Laboratory for Physical Sciences at the Microscale, University of Science and Technology of China, Hefei, Anhui 230026, PR China</p>
P-343.	<p>Polysaccharide-Cisplatin Vesicular Nano-scaffold for Combination Therapy in Cancer Treatment</p> <p>Nilesh U. Deshpande, and Manickam Jayakannan[*]</p> <p>Department of Chemistry, Indian Institute of Science Education & Research (IISER-Pune) Dr.Homi Bhabah Road, Pune 411008, Maharashtra, INDIA</p>
P-344.	<p>Ice-Templated Synthesis Of Multifunctional Three Dimensional Graphene/Noble Metal Nanocomposites And Their Mechanical, Electrical, Catalytic, And Electromagnetic Shielding Properties</p> <p>P.K. Sahoo¹, Anshul Sharma² and D. Bahadur^{1*}</p> <p>¹ IITB-Monash Research Academy, Indian Institute of Technology Bombay, Mumbai-400076, India.</p> <p>² Department of Metallurgical Engineering and Materials Science, Indian Institute of Technology Bombay, Powai, Mumbai 400076, India, Email of corresponding (*) authors: dhiren@iitb.ac.in</p>

<p>P-345.</p>	<p align="center">Plasmon Mediated Multipolar Fluorescence Emission from a single Au core-Silica shell Nanoparticle</p> <p align="center">Debrina Jana Department of Physics Indian Institute of Science Education and Research (IISER) Dr. Homi Bhabha Road, Pune 411008, Maharashtra, India</p>
<p>P-346.</p>	<p align="center">Preferentially Oriented Atacamite Films as an Intermediate to the Formation of CuO Films by Spray Pyrolysis</p> <p align="center">Madhusoodan Gaonkar^a, Suresh D. Kulkarni^{a*}, K. S. Choudhari^a, S. A. Shivashankar^b, Santhosh C^a.</p> <p align="center">^aDepartment of Atomic and Molecular Physics, Manipal University, Manipal, Karnataka, India-576104 ^bCentre for Nano Science and Engineering, Indian Institute of Science, Bangalore, India-560012 *Corresponding Author email: suresh.dk@manipal.edu</p>
<p>P-347.</p>	<p align="center">Doped Polyaniline As The Source For Heteroatoms Co-Doped Hard Carbon In Na-Ion Battery As Anode</p> <p align="center">Dhanya Puthusseri¹, Yogesh Gawli¹, Malik Wahid¹, Ajay Kumar² and Satishchandra Ogale^{3*}</p> <p align="center">1 Physical & Materials Chemistry Division, National Chemical Laboratory, Pune 411008 2 Department of Chemistry, Indian Institute of Science Education and Research Pune, Pune 411008 3 Department of Physics, Indian Institute of Science Education and Research Pune, Pune 411008 satishogale@iiserpune.ac.in</p>
<p>P-348.</p>	<p align="center">Effect of Plasma treatment on multilayer Graphene: Surface morphology and X-Ray Photoelectron Spectroscopy investigations</p> <p align="center">Urmila V. Patil, Dattatray J. Late*</p> <p align="center">Physical and Material Chemistry Division, CSIR – National Chemical Laboratory, Pune, 411008, Maharashtra, India. *Corresponding Author: datta099@gmail.com, dj.late@ncl.res.in</p>
<p>P-349.</p>	<p align="center">How shear viscosity changes for water under nanoconfinement?</p> <p align="center">Amandeep1, Shivprasad patil2*</p> <p align="center">Department of Physics, Indian Institute of Science Education and Research, Pune 411008, India Email of corresponding (*) authors: s.patil@iiserpune.ac.in</p>
<p>P-350.</p>	<p align="center">CuCo₂O₄ Based Flexible Interdigitated Micro Pseudocapacitor With High Flexibility And Stability</p> <p align="center">Aniruddha Basu^a, Monika Bhardwaj^b, Ajay Kumar^b and Satishchandra B Ogale^{b*}</p> <p align="center">^aPhysical and Materials Chemistry division, National Chemical Laboratory, Pune-411008,</p>

	<p style="text-align: center;">India</p> <p style="text-align: center;">^bDepartment of Physics and Centre for Energy Science, Indian Institute of Science Education and Research, Dr. Homi Bhabha Road, Pune 411008. E-mail: satishogale@iiserpune.ac.in; satishogale@gmail.com</p>
P-351.	<p style="text-align: center;">Room Temperature Xylene Sensor Using Cerium Oxide (CeO₂) Thin Films</p> <p style="text-align: center;">¹S. Dinesh Kumar, ¹Prabakaran Shankar, ²Ganesh Kumar Mani, ¹K. Jayanthbabu, ¹Arockia Jayalatha Kulandaisamy and ¹John Bosco Balaguru Rayappan ¹Nanosensors Lab @ Centre for Nanotechnology & Advanced Biomaterials (CeNTAB) & School of Electrical & Electronics Engineering (SEEE) SASTRA University, Thanjavur 613401, India ²Micro/Nano Technology Center, TOKAI University, Japan</p>
P-352.	<p style="text-align: center;">Regulation of interparticle forces reveals controlled aggregation in charged nanoparticles</p> <p style="text-align: center;">Anish Rao, Soumendu Roy, Mahima Unnikrishnan, Sumit S. Bhosale, Gayathri Devatha, Pramod P. Pillai Department of Chemistry, Indian Institute of Science Education and Research (IISER), Pune, 411008, India Email: pramod.pillai@iiserpune.ac.in</p>
P-353.	<p style="text-align: center;">Inorganic and Organic Acid Co-Doped Polyaniline for Superior and Robust High Rate Supercapacitor Performance</p> <p style="text-align: center;">Yogesh Gawli^{1,2}, Abhik Banerjee¹, Dipti Dhakras^{1,2}, Meenal Deo¹, Dinesh Bulani³, Prakash Wadgaonkar^{1,2}, Manjusha Shelke^{1,2} & Satishchandra Ogale,^{1,2,3} Physical and Materials Chemistry Division, National Chemical Laboratory (CSIR-NCL), Pashan, Pune, 411008, India. 2. Academy of Scientific and Industrial Research, (AcSIR) Anusandhan Bhavan, 2, Rafi Marg, New Delhi, India. 3. Department of Physics and Centre for Energy Science, Indian Institute of Science Education and Research (IISER), Dr. Homi Bhabha Road, Pune 411008, India. Emails: satishogale@gmail.com, yogeshgawli5@gmail.com</p>
P-354.	<p style="text-align: center;">Nanostructure formation of Donor-Acceptor, P4VP Complex via Template Hydrogen Bonding</p> <p style="text-align: center;">B. Saibal^a S. K. Asha^{*a} ^(a) Polymer Science and Engineering Division, CSIR-National Chemical Laboratory, Pune 411008, India. Email: sk.asha@ncl.res.in</p>
P-355.	<p style="text-align: center;">Polyimides based Organic Molecules as High Performance Anode Materials for Li ion Battery</p> <p style="text-align: center;">Ajay Kumar^a, Abhik Banerjee^b, Shyambo Chatterjee^b, Satishchandra Ogale^{a*} Swaminathan Sivaram^{b*} ^aDepartment of Physics and Centre for Energy Science, Indian Institute of Science Education and Research, Dr. Homi Bhabha Road, Pune 411008. ^bNational Chemical Laboratory (CSIR-NCL), Dr. Homi Bhabha Road, Pune, 411008. Email: satishogale@iiserpune.ac.in, s.sivaram@ncl.res.in</p>

<p>P-356.</p>	<p>Non-covalent Side Chain Self-assembly Approach to Achieve Ideal Donor-Acceptor Morphology in Active Layer of Organic Photovoltaic Cells.</p> <p>Shekhar Shinde¹, Asha S. K.*</p> <p>Polymer Science and Engineering Division, National Chemical Laboratory, Pune-411008 sk.asha@ncl.res.in*</p>
<p>P-357.</p>	<p>A comparative evaluation of differently synthesized high surface area carbons for Li-ion hybrid electrochemical supercapacitor application</p> <p>Anil Suryawanshia,^e Mandakini Biswal ^a, Dattakumar Mhamane ^a, Prasad Yadav ^a, Abhik Banerjee^a, Shankar Patil^b, Vanchiappan Aravindanc,[*] Srinivasan Madhavic,^{d,*} and Satishchandra Ogalee,[*]</p> <p>^aNational Chemical Laboratory (CSIR-NCL), Dr Homi Bhabha Road, Pune 411008. ^bDepartment of Physics, University of Pune, Pune 411008, India. ^cEnergy Research Institute @ NTU (ERI@N), Nanyang Technological University, Research Techno Plaza, 50 Nanyang Drive, Singapore 637553. ^dSchool of Materials Science and Engineering, Nanyang Technological University, Singapore 639798. ^e Department of Physics, Indian Institute of Science Education and Research (IISER), Dr Homi Bhabha Road, Pune 411008 Email satishogale@iiserpune.ac.in, satishogale@gmail.com</p>
<p>P-358.</p>	<p>Phenazine-Containing Poly(phenylenevinylene):Synthesis, Characterization and Application to Field Emission</p> <p>Shraddha Chhatre[§], AmolChake[§], Kashmira Harpale[†], SumatiPatil[#], Aparna Deshpande[#], Mahendra More^{†*}, Satishchandra Ogale^{‡**}, and Prakash Wadgaonkar^{§*}</p> <p>[§] Polymer Science and Engineering Division, [‡] Centre of Excellence in Solar Energy, Physical and Materials Chemistry Division, National Chemical Laboratory (CSIR-NCL), Pune 411008, India. [†] Department of Physics, SavitribaiPhule Pune University, Pune 411007, India. [#] Department of Physics and Centre for Energy Science, Indian Institute of Science Education and Research (IISER), Dr. Homi Bhabha Road, Pune 411 008, India E-mail: satishogale@iiserpune.ac.in; satishogale@gmail.com</p>
<p>P-359.</p>	<p>Boron Carbon Nitride as a High-performance Supercapacitor Material: A Synergic Effect by Co-doped Boron and Nitrogen.</p> <p>Indrapal Karbhal and Manjusha Shelke*</p> <p>Physical & Materials Chemistry Division, CSIR-National Chemical Laboratory, Pune-411008, E-mail: mv.shelke@ncl.res.in</p>
<p>P-360.</p>	<p>LabVIEW – A Skyline Solution for Nanoscience & Nanotechnology Instrumentation</p> <p>Aishwarya Khose¹, Akshay Mhais², Somesh Gautam³, Mahesh Mashette⁴, Neelima Iyer⁵, Nagappa Karajanagi⁶</p> <p>1,2,3,4,6 - Department of Instrumentation & Control, Government College of Engineering & Research, Avasari 5 - Instrumentation & Communication Unit, National Chemical Laboratory, Pune, ns.iyer@ncl.res.in</p>

<p>P-361.</p>	<p>Segmented π-Conjugated Polymer Nano-assemblies for Photonics and Bio-imaging</p> <p>Karnati Narasimha and Manickam Jayakannan*¹ Department of Chemistry, Indian Institute of Science Education and Research (IISER) Dr. Homi Bhabha Road, Pune 411008, Maharashtra, India.</p>
<p>P-362.</p>	<p>Hybrid Perovskite Quantum Nanostructures Synthesized by liquid in liquid Electropray</p> <p>Rounak Naphade,a,b* Satyawani Nagane,a,b G. Shiva Shanker,c Rohan Fernandes,d Dushyant Kothari,d Yuanyuan Zhou,e Nitin P. Padture,e and Satishchandra Ogale a,c* aCentre of Excellence in Solar Energy, Physical and Material Chemistry Division, National Chemical Laboratory (NCL) Pune, 411 008, India. bAcademy of Scientific and innovative research (AcSIR), AnusandhanBhawan, 2 Rafi Marg, New Delhi 110 001, India</p>
<p>P-363.</p>	<p>Synthesis and Growth Mechanism of rare V₂O₅ Nanostructures</p> <p>Megha Singh*, Prabhat Kumar, Rabindar K. Sharma and G. B. Reddy Thin film laboratory, Department of Physics, Indian Institute of Technology Delhi, Hauz Khas, Delhi, India. *Email: meghasingh.life@gmail.com</p>
<p>P-364.</p>	<p>SnO₂ Quantum Dots Decorated Reduced Graphene Oxide Nanocomposites for Efficient Water Remediation</p> <p>Dipa Dutta, Shankar Thiyagarajan, Dharendra Bahadur* Department of Metallurgical Engineering & Materials Science, Indian Institute of Technology Bombay, Mumbai, India Email of corresponding authors: dhiren@iitb.ac.in</p>
<p>P-365.</p>	<p>Superior Field Emission Properties Of Graphene Nanoribbons (GNR) – Polypyrrole (PPY) Nanocomposites</p> <p>Kashmira Harpale, Sanjeevani Bansode, Mahendra More* Centre for Advanced Studies in Material Science and Solid State Physics, Department of Physics, University of Pune, Pune-411 007, India. Email of corresponding author: mam@physics.unipune.ac.in</p>
<p>P-366.</p>	<p>Nano-Material And Nano-Technologies For Coming Future-A Perspective Towards Water Treatment</p> <p>Gawande Sagar Mukundrao^[1] Department of Civil-Environmental Engineering Anantrao Pawar College of Engineering & Research, Pune, 411009 Email- gawande.sagar@gmail.com^[1]</p>
<p>P-367.</p>	<p>Electrochemical Chopping of Carbon Fibers to Graphene Quantum dots</p> <p>Ozhukil Valappil Manila, Vijayamohan K Pillai and Subbiah Alwarappan* CSIR-Central Electrochemical Research Institute, Karaikudi 630003, Tamilnadu, India salwarap@gmail.com</p>

<p>P-368.</p>	<p>Magnetic Nanoparticles Immobilized Basic Ionic Liquid as Novel and Highly Active Recyclable Catalyst For Transesterification</p> <p>Charu Garkoti, Javaid Shabir, Subho Mozumdar* Department of Chemistry, University of Delhi, Delhi, India – 110007 E-mail of corresponding author: subhomozumdar@yahoo.com</p>
<p>P-369.</p>	<p>Effect Of Grain Growth And Light Harvesting Properties On Efficiency Of Perovskite Solar Cells</p> <p>Mukta Tathavadekar^{a,b}, Shruti Agarkar^{a,b}, Onkar Game^{a,b}, Umesh Bansode^{a,b}, Sneha Kulkarni^c, Subodh Mhaisalkar^{c*}, Satishchandra Ogale^{a,b*}</p> <p>^aCenter of Excellence in Solar Energy, Physical and Materials Chemistry Division, CSIR-National Chemical Laboratory, Pune 411008, India ^bAcademy of Scientific and Innovative Research, Anusandhan Bhawan and Network Institute of Solar Energy (CSIR-NISE), New Delhi, India ^cEnergy Research Institute, Nanyang Technological University, Nanyang Avenue, Singapore 639798, Singapore (S.B. Ogale): sb.ogale@ncl.res.in (S.G. Mhaisalkar): subodh@ntu.edu.sg</p>
<p>P-370.</p>	<p>Design and development of flexible photo-voltaics using TiO₂ nanotube arrays</p> <p>Somnath Roy IIT Madras</p>
<p>P-371.</p>	<p>Improving device performance of PbS quantum dot solar cells using 2D-MoS₂ hole transporting layer</p> <p>Srikanth Reddy Tulsani, Arup Kumar Rath* Department of Physical and Material Chemistry, National Chemical Laboratory, Pune 411008, India. Email: ak.rath@ncl.res.in, ts.reddy@ncl.res.in</p>