

## **(07) Nanomaterials Synthesis and Solutions Route**

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(07) Nanomaterials Synthesis-Solutions Route

**DETAILED PROGRAMME**

**Monday, 12-12-2016**

**Session I : 10.15-11.45**

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| 10.15-10.45<br>Invited Talk (1) | <u>Pramod P Pillai</u>   | <b>ABS-Email-ICYRAM</b><br>Crafting Advanced Nanoparticle Functions by Controlling Interparticle Interactions                          |
| 10.45-11.00<br>Oral (1)         | <u>J Kundu</u>   | <b>ABS-11-ICYRAM</b><br>Galvanic replacement reaction (GRR) strategy as a powerful tool for multifunctional nano-materials             |
| 11.00-11.15<br>Oral (2)         | <u>Prem Depan Nayak</u><br>Rahul Purbia, Santanu Paria   | <b>ABS-191-ICYRAM</b><br>Synthesis of Anisotropic Dendritic Ag Nanostructures  |
| 11.15-11.30<br>Oral (3)         | <u>Puspanjali Sahu</u>   | <b>ABS-304-ICYRAM</b><br>Digestive ripening: An easy and convenient approach to control nanoparticles size and their assembly patterns |
| 11.30-11.45<br>Oral (4)         | <u>Lok K Shrestha</u><br>Partha Bairi<br>Rekha G Shrestha<br>Jonathan P. Hill<br>Katsuhiko Ariga | <b>ABS-637-ICYRAM</b><br>Fullerene Nanoarchitectonics: From Zero to Higher Dimensions  |

**Monday, 12-12-2016**

**Session II : 12.00-13.15**

|                                 |   |   |
|---------------------------------|---|---|
| 12.00-12.30<br>Invited Talk (2) | <u>Hajime Wagata</u><br>Nobuhiro Matsushita                           | <b>ABS-767-ICYRAM</b><br>Fabrication of Transparent Conductive Zinc Oxide Films through a Solution Route  |
| 12.30-12.45<br>Oral (5)         | <u>Anirban Chowdhury</u><br>Kushal Singh, Rishu Kumar<br>Kundan Kumar | <b>ABS-333-ICYRAM</b><br>Compositional Anomalies in Oxide Nanoparticles: Impact on the Target Functional Properties   |
| 12.45-13.00<br>Oral (6)         | <u>Rekha Mahadevu</u><br>Anshu Pandey                                 | <b>ABS-377-ICYRAM</b><br>Big Atoms and their Compounds  |
| 13.00-13.15<br>Oral (7)         | <u>Suhas M Jejurikar</u>  | <b>ABS-638-ICYRAM</b><br>Self-assembly of ZnO micro-rods and their subsequent transformation into perfect hexagonal tubes using simplest method ever known i.e. CBD |

**Monday, 12-12-2016**  
**Session III : 14.15-15.45**

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| 14.15-14.45<br>Invited Talk (3) | <u>Jessica D Schiffman</u>                               | <b>ABS-Email-ICYRAM</b><br>Antifouling materials engineered from bioinspired polymers and structure-property relationships  |
| 14.45-15.00<br>Oral (8)         | <u>Shubhangi Shukla</u><br>Shwarnima Singh<br>P.C.Pandey | <b>ABS-55-ICYRAM</b><br>2-(3-4, Epoxycyclohexyl)ethyltrimethoxysilane Intervened Synthesis of Functional PdNPs and Heterometallic nanocrystallites: Deployed into Catalysis |
| 15.00-15.15<br>Oral (9)         | <u>Thangavel Selvamani</u><br>Sambandam Anandan          | <b>ABS-178-ICYRAM</b><br>Phase-Controlled Synthesis of Bismuth oxide Polymorphs towards Environmental Applications  |
| 15.15-15.30<br>Oral (10)        | <u>S Biswas</u><br>J. Jadhav                             | <b>ABS-326-ICYRAM</b><br>Catalytic Activity of ZnO:Ag Core-shell Nanoparticles Synthesized by a Chemical Method   |
| 15.30-15.45<br>Oral (11)        | <u>Abhishek Mandal</u><br>Chandana Rath                  | <b>ABS-575-ICYRAM</b><br>Capping Effect of Sago starch on CuO Nanorods impregnated in Soya Protein Matrix: A Green Approach for Potential Biomedical Applications           |

**Monday, 12-12-2016**  
**Session IV : 16.00-18.00**

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| 16.00-16.30<br>Invited Talk (4) | <u>Ujjal K. Gautam</u>                          | <b>ABS-Email-ICYRAM</b><br>Solution processing of rare Pt nanostructures for efficient energy harvesting  |
| 16.30-17.00<br>Invited Talk (5) | <u>M. Sathish</u>                               | <b>ABS-Email-ICYRAM</b><br>Supercritical Fluids Assisted Exfoliation/functionalization of 2D-Layered Inorganic Materials and Their Applications in Energy Storage |
| 17.00-17.15<br>Oral (12)        | <u>Somnath C Roy</u><br>Y Rambabu, Manu Jaiswal | <b>ABS-59-ICYRAM</b><br>Nanoscale Cobweb: Photoelectrochemical Properties of RGO Layers Mounted on TiO <sub>2</sub> Nanotubes                                     |

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| 17.15-17.30<br>Oral (13) | <u>Shubra Singh</u><br>Sumithra Sivadas Menon<br>Suchita, R. Janani<br>V. DurgaSankar<br>Preethi Venkat | <b>ABS-166-ICYRAM</b><br>On easily synthesized multifunctional nanomaterials for Energy Applications   |
| 17.30-17.45<br>Oral (14) | <u>Aditi Singhal</u><br>Anuj Bisht, Amit Kumar<br>Sudhanshu Sharma                                      | <b>ABS-389-ICYRAM</b><br>One pot, rapid synthesis of Co <sub>3</sub> O <sub>4</sub> by solution combustion method and its electrochemical properties in different electrolytes |
| 17.45-18.00<br>Oral (15) | <u>Khadija Kanwal Khaunm</u><br>Shinjini Biswas<br>K M Akshay Gowda<br>Praveen C Ramamurthy             | <b>ABS-683-ICYRAM</b><br>Enhancement in Various Nanofibers Morphology through Electrospinning and its Application  |

**Tuesday, 13-12-2016**  
**Session V : 10.15-11.45**

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| 10.15-10.45<br>Invited Talk (6) | <u>Dibyendu Das</u><br>Nidhi Kapil<br>Ashmeet Singh<br>Mahesh Yenuganti   | <b>ABS-655-ICYRAM</b><br>Cross $\beta$ Amyloid Nanostructures: From Functional Materials to Chemical Evolution               |
| 10.45-11.00<br>Oral (16)        | <u>R Vijaya Kumar</u><br>C.S.Sunandana<br>M. Ghanashyam Krishna   | <b>ABS-615-ICYRAM</b><br>Optimal Synthesis of free standing TiO <sub>2</sub> nanotubes                                       |
| 11.00-11.15<br>Oral (17)        | <u>Sourav Ghosh</u><br>Balaji R Jagirdar  | <b>ABS-631-ICYRAM</b><br>Synthesis and Characterization of Metal, Metal Oxide, and Metal Chalcogenide Nanosponges            |
| 11.15-11.30<br>Oral (18)        | <u>Anisha Gokarna</u><br>Hind Kadiri<br>Agnieszka Gwiazda<br>Komla Nomenyo, Roy Aad<br>Patrice Miska<br>Gilles Lerondel | <b>ABS-771-ICYRAM</b><br>Solution grown, highly crystalline, large scale and well-ordered multifunctional ZnO nanostructures |
| 11.30-11.45<br>Oral (19)        | <u>S D Sartale</u><br>A. A. Ansari  | <b>ABS-776-ICYRAM</b><br>A simple method for growth of metal/alloy nanoparticles on flat support                             |

**Tuesday, 13-12-2016**  
**Session VI : 12.00-13.15**

|                                 |   |   |
|---------------------------------|---|---|
| 12.00-12.30<br>Invited Talk (7) | <u>Menaka Jha</u>                                   | <b>ABS-Email-ICYRAM</b><br>Extraction of nanostructured materials from waste product  |
| 12.30-12.45<br>Oral (20)        | <u>Bikesh Gupta</u><br>Pavan Pujar<br>Saumen Mandal | <b>ABS-433-ICYRAM</b><br>Low temperature retention of beta and beta" phases of sodium doped alumina-A calcination free approach |

**Poster Session :**  
**Tuesday: 13-12-2016 Time: 14.15-17.15**

**Posters: 01 to 21**

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| 07-Poster-01 | Balasaheb M Palve<br>Sandesh R Jadkar<br>Habib M Pathan            | <b>ABS-41-ICYRAM</b><br>Influence of growth time on crystalline structure, morphological and optical properties of Cu <sub>3</sub> Se <sub>2</sub> thin films |
| 07-Poster-02 | D K Yashaswini<br>C Pandurangappa                                  | <b>ABS-44-ICYRAM</b><br>Synthesis, Characterization and Photoluminescence studies of CaSO <sub>4</sub> : Ce nanorods  |
| 07-Poster-03 | P M Neema<br>Jobin Cyriac  | <b>ABS-58-ICYRAM</b><br>One Pot Synthesis of Highly Luminescent MoS <sub>2</sub> Quantum Dots Interspersed in Nanosheets                                      |
| 07-Poster-04 | B Mohanty<br>J Nayak   | <b>ABS-99-ICYRAM</b><br>Effects of synthesis parameters on structure and optical properties of CeO <sub>2</sub> nanoparticles                                 |
| 07-Poster-05 | R Mishra<br>S Mishra, C Upadhyay<br>R Prakash                      | <b>ABS-145-ICYRAM</b><br>Facile Phase - transition of silver Nanoparticles : A Quick approach towards Self-assembly   |
| 07-Poster-06 | Praveen Wilson<br>B Bharathi<br>K Prabhakaran                      | <b>ABS-173-ICYRAM</b><br>Activated carbon monoliths with tailored pore distribution synthesized from compression moulded molten Sucrose-NaCl paste            |
| 07-Poster-07 | H. J. Amith Yadav<br>B. Eraiah, H. Nagabhushana<br>R. B. Basavaraj | <b>ABS-184-ICYRAM</b><br>Synthesis of CuO-ZrO <sub>2</sub> nanocomposites and their Structural and photoluminescence properties                               |

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| 07-Poster-08 | Madhuri Suresh<br>N Raghupathy<br>P Savitha                       | <b>ABS-188-ICYRAM</b><br>Effect of Catalyst Annealing Conditions on the Growth of Silicon Nanowires using LPCVD   |
| 07-Poster-09 | Soumendra Kumar Das<br>Prahallad Padhan                           | <b>ABS-200-ICYRAM</b><br>Synthesis and characterization of Bismuth Selenide nanoparticles.  |
| 07-Poster-10 | Gyanaranjan Prusty<br>Narayan Pradhan                             | <b>ABS-255-ICYRAM</b><br>Binary-Ternary Dual Semiconductor Nanostructures for Efficient Photo-electrochemical Splitting of Water  |
| 07-Poster-11 | Anil R Bari<br>Prapti A Bari                                      | <b>ABS-260-ICYRAM</b><br>Nanostructured ZnO: Effect of precursor on the particle morphology   |
| 07-Poster-12 | M. Dhanalakshmi<br>H Nagabhushana<br>R B Basavaraj                | <b>ABS-263-ICYRAM</b><br>Investigation of structural and luminescent properties of Nd <sup>3+</sup> doped BaTiO <sub>3</sub> Nanostructures for display device applications             |
| 07-Poster-13 | Chandan Kumar<br>Anupama Gaur<br>Pralay Maiti<br>Sanjay Kumar Rai | <b>ABS-312-ICYRAM</b><br>Synthesis, Characterization and property investigation of Polyvinylidene Fluoride (PVDF)-Graphene Nanocomposites for Energy Harvesting application             |
| 07-Poster-14 | D. N. Sangeetha<br>N Lakshminarasimhan                            | <b>ABS-318-ICYRAM</b><br>Metachromasy of Methylene Blue Dye over Surface Modified Polymeric Semiconductor Graphitic Carbon Nitride  |
| 07-Poster-15 | Gangothri S Kumar<br>V K Lakshmi.<br>A Anugraha<br>K S Rajni      | <b>ABS-325-ICYRAM</b><br>Structural, Composition and Morphological Analysis of Cobalt Ferrite (CoFe <sub>2</sub> O <sub>4</sub> ) Nanoparticles Synthesized by Sol-Gel Technique        |
| 07-Poster-16 | Suman Bera<br>Narayan Pradhan                                     | <b>ABS-335-ICYRAM</b><br>On Doping Sn for Axial Exfoliation of 1D Sb <sub>2</sub> S <sub>3</sub> Nanotubes  |
| 07-Poster-17 | Chanchal Soni<br>Bharathi Rajeswaran<br>A.M. Umarji               | <b>ABS-373-ICYRAM</b><br>Synthesis and characterization of MoO <sub>3</sub> nanostructures for IV and Gas sensing applications  |
| 07-Poster-18 | F. Femila Komahal<br>H. Nagabhushana<br>R.B. Basavaraj            | <b>ABS-381-ICYRAM</b><br>Bio-inspired ultrasound synthesis and morphology control of Tb <sup>3+</sup> doped Zinc aluminate nanostructures: Display and radiation detecting applications |

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| 07-Poster-19 | Raji Vadakkekara<br>Asit Baran Panda     | <b>ABS-382-ICYRAM</b><br>Black Titanium Oxide Nano Sheets: Solution Phase Synthesis and Characterization                        |
| 07-Poster-20 | T.V.K. Karthik<br>Ventura Rodríguez Lugo | <b>ABS-413-ICYRAM</b><br>Thermoluminescent properties of microwave synthesized hydroxyapatite                                   |
| 07-Poster-21 | Anirban Dutta<br>Narayan Pradhan         | <b>ABS-430-ICYRAM</b><br>Oriented Attachments and Formation of Ring-on-Disk Heterostructure Au~Cu <sub>3</sub> P Photocatalysts |

**Poster Session :**

**Wednesday: 14-12-2016      Time: 14.15-17.15**

**Posters: 22 to 42**

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| 07-Poster-22 | Priyanka Dwivedi<br>Saakshi Dhanekar<br>Samaresh Das                           | <b>ABS-474-ICYRAM</b><br>Optimized process for synthesis of MoO <sub>3</sub> nanostructures using Mo thin films  |
| 07-Poster-23 | Arun Aravind<br>Javeesh Alex   | <b>ABS-483-ICYRAM</b><br>Hydrothermal synthesis and characterization of ZnO nanostructures   |
| 07-Poster-24 | Rajesh Yadav Mudi<br>R.V.S.S.N. Ravikumar                                      | <b>ABS-490-ICYRAM</b><br>XRD and Luminescent Investigations of Mn <sup>2+</sup> doped Calcium Borophosphate (Ca <sub>6</sub> BP <sub>5</sub> O <sub>20</sub> ) Nanophosphors by Solid State Reaction Method for LED applications |
| 07-Poster-25 | Preeti chaudhary<br>Pravin P. Ingole   | <b>ABS-549-ICYRAM</b><br>Methanol Assisted hydrogen evolution reaction by nano dendritic fractals  |
| 07-Poster-26 | Navnita Kumari<br>B R Mehta  | <b>ABS-553-ICYRAM</b><br>Synthesis and defect analysis of CZTS 2D nanostructures for solar cell  |
| 07-Poster-27 | M Abshana Begam<br>S Sivaji Ganesan<br>R Mariappan<br>P Jayamurugan, S Vijayan | <b>ABS-610-ICYRAM</b><br>Effect of pH on surface modification of ZnO nanoparticles and development of gas sensor device  |
| 07-Poster-28 | S Vijayan<br>G Umadevi , R Mariappan<br>P Jayamurugan<br>M Abshana Begam       | <b>ABS-611-ICYRAM</b><br>Structural, Morphology and Photoluminescence properties of Cu doped ZnS nanoparticles   |

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| 07-Poster-29 | G Darabdhara<br>Manash R Das   | <b>ABS-627-ICYRAM</b><br>Synthesis of Au-Pd bimetallic nanoparticles on different 2D support materials towards degradation of toxic phenolic compounds in water                                   |
| 07-Poster-30 | S K Saji<br>R Vinodkumar, K Raju<br>P R S Warriar  | <b>ABS-642-ICYRAM</b><br>Combustion synthesis and electric transport characteristics of nanocrystalline NdAlO <sub>3</sub> perovskite material  |
| 07-Poster-31 | Yuki Taniguchi<br>Tsuyoshi Kawai<br>Takuya Nakashima   | <b>ABS-644-ICYRAM</b><br>Two Dimensional Network Structure from Tip-to-Tip Self-Assembly of Branched Nanocrystals   |
| 07-Poster-32 | Vandana Kumari<br>Asim Bhaumik   | <b>ABS-658-ICYRAM</b><br>Sustainable synthesis of mesoporous ZnAl <sub>2</sub> O <sub>4</sub> and its excellent adsorption efficiency for the removal of As(V) from waste water                   |
| 07-Poster-33 | Eadi Sunil Babu<br>Sengeragchaa, Bolortuya<br>Jae Hong Jeong<br>Min Ji Hong , Kim Miseon,<br>Sung Hyun Park<br>Jin Hee Lee , Sungjin Kim | <b>ABS-670-ICYRAM</b><br>Chemical route strategies for preparation of VO <sub>2</sub> coated TiO <sub>2</sub> nanoparticles and their thermo-chromic characteristics                              |
| 07-Poster-34 | A.U.Ubale<br>P.N.Sonone, G.M.Rajguru,<br>G.P.Save, A.V.Mitkari   | <b>ABS-682-ICYRAM</b><br>Synthesis and Characterization of Antimony Oxide Thin Films by Chemical Route.   |
| 07-Poster-35 | V Govindan<br>G V Geetha<br>K Sankaranarayanan   | <b>ABS-690-ICYRAM</b><br>Synthesis and Characterization of CdS/ZnS core-shell nano particles by sol-gel method.   |
| 07-Poster-36 | Kalyani S Dhabekar<br>K Mohan Kant   | <b>ABS-709-ICYRAM</b><br>Synthesis and characterization of cobalt ferrite magnetic nanoparticles  |
| 07-Poster-37 | Vibha H Ojha<br>K Mohan Kant   | <b>ABS-712-ICYRAM</b><br>Synthesis and characterization of silver coated magnetite nanoparticles  |
| 07-Poster-38 | Bilal Ahmed<br>Sumeet Kumar<br>Sachin Kumar<br>Animesh K Ojha  | <b>ABS-714-ICYRAM</b><br>Controlled Synthesis of WO <sub>3</sub> Nanorods and Nanosheets as an Efficient Photocatalytic Material for the photodegradation of Rhodamine-B Dye under UV Irradiation |



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| 07-Poster-39 | R. Bhaviya Raj<br>M. Umadevi  | <b>ABS-725-ICYRAM</b><br>Photocatalytic performance of Magnesium doped Zinc oxide nanoparticles under UV and Visible light                             |
| 07-Poster-40 | V Poornima Parvathi<br>M.Umadevi<br>Thilagavathy Jaiakumar<br>J.Mayandi, G.V. Sathe | <b>ABS-727-ICYRAM</b><br>Enhanced Photocatalytic Performance of MgO/Ag Co-Doped TiO <sub>2</sub> Nanoparticles under UV and Visible light Irradiation. |
| 07-Poster-41 | N Pushpa<br>M K Kokila  | <b>ABS-741-ICYRAM</b><br>Effect of fuel on structural and luminescence properties of combustion synthesized ZnO nanoparticles                          |
| 07-Poster-42 | Basanta Kumar Parida<br>Subhendu Sarkar   | <b>ABS-764-ICYRAM</b><br>Morphology transitions in binary alloy nanopatterning via ion beams   |