

Dr. POULOMI ROY

(*Fulbright Fellow*)

Senior Scientist

Materials Processing & Microsystems Laboratory
CSIR – Central Mechanical Engineering Research Institute (CMERI), Durgapur
Mahatma Gandhi Avenue, West Bengal, India.

☎ Mobile: +91 (0) 8986853479

✉ Email: poulomiroy@yahoo.com, p.roy@cmeri.res.in

EMPLOYMENT / EXPERIENCES

| Designation | Organization/Institute | From | To |
|--|--|------|------------|
| Senior Scientist | CSIR – Central Mechanical Engineering Research Institute, Durgapur | 2017 | Continuing |
| Visting Scientist (Fulbright Fellow) | University of Wisconsin – Madison, USA | 2016 | 2017 |
| Assistant Professor | Birla Institute of Technology Mesra | 2012 | 2017 |
| Assistant Professor | IFHE, Hyderabad | 2011 | 2012 |
| Post-Doc Researcher | University of Erlangen-Nuremberg, Germany | 2008 | 2011 |

ACADEMIC ACHIEVEMENTS

| Degree | Institute/ University | Subjects | Year |
|--------------|-----------------------|---------------------------|------|
| Ph.D | I.I.T. Kharagpur | Chemistry | 2007 |
| M.Sc. | Vidyasagar University | Inorganic Chemistry (spl) | 2002 |
| B.Sc. | Vidyasagar University | Chemistry (Hons.) | 2000 |

RESEARCH INTERESTS

Nanomaterials in Energy Conversion and Storage System

| Photocatalysis | Electrocatalysis | Supercapacitors | Rechargeable Batteries | Solar Cells | Water Splitting |
|--|------------------|-----------------|------------------------|-------------|-----------------|
| <i>Materials:</i> TiO ₂ Nanotubes, Mixed metal oxides, Mixed metal chalcogenides, Carbonaceous materials etc. | | | | | |

AWARDS AND SCHOLARSHIPS

- ❖ **Fulbright-Nehru Academic and Professional Excellence Award 2016-17** to work as visiting scientist in University of Wisconsin – Madison, USA.
- ❖ **Outstanding Researcher** in 2010 in University of Erlangen – Nuremberg, Germany.
- ❖ Awarded **Graduate Aptitude Test in Engineering (GATE)** 2002 in chemistry with 95.90 percentile (All India Rank: 0102) conducted by the IISc, Bangalore, India.
- ❖ Awarded **National Eligibility Test (NET)** 2002 for Junior Research Fellowship in Chemical Sciences under the University Grant Commission (UGC) fellowship schemes.

PROFESSIONAL BODY MEMBERSHIP

- ◆ Member of Electrochemical Society (ECS).
- ◆ Member of European Materials Research Society (EMRS).
- ◆ Member of American Association for the Advancement of Science (AAAS) (*Membership No. 31009650*).
- ◆ Life Member of Indian Society for Chemists and Biologists (ISCB)

INDUSTRIAL EXPERIENCE

- Industrial research during post-doctoral study with the organization of *Energizer Battery Co.*, 25225 Detroit Road, Westlake, OH 44145, USA. One publication on this: *Electrochimica Acta* 54, 2009, 5216–5222.
- Collaborative industrial research during post-doctoral study with *Agrolinz Melamine International (A.M.I) GmbH*, Germany. The project was on the H₂-gas generation by corrosion of mild steel in CO₃²⁻-containing solutions and the influence of CO₂ on corrosion processes.

TEACHING EXPERIENCE

Undergraduate level:

- Engineering Chemistry: Structure, Bonding & Reactivity, Chemical Kinetics, Catalysis, Phase Rule, Fuels, Lubricants, Electrochemistry, Environmental Chemistry etc.
- Thermodynamics and Thermochemistry
- Inorganic Chemistry Lab
- Physical Chemistry Lab

Postgraduate level:

- Advanced Inorganic Chemistry (*M.Sc. course*)
- Metal Chemistry (*M.Sc. course*)
- Inorganic Chemistry (*I.MSc. course*)
- Nanochemistry: Introduction to nanomaterials, properties, quantum confinement, nanocatalysis, Chemical routes, Physical methods, Nanolithography, Nanocomposites (*M.Tech Course*).
- Surface Analysis and Nanotechnology (Germany): Use of techniques - SEM, TEM, EDX, XPS, AFM etc., Applications (Solar Cells, Batteries, Capacitors etc.) (*M.Tech Course*)
- Environmental Chemistry (*Integrated M.Sc. Course*)
- Nanochemistry Lab (*M.Tech Course*)
- Inorganic Chemistry Lab (*M.Sc. Course*).

RESEARCH FUNDING

- **SERB-DST FASTTRACK** research scheme for young scientist on “*Cobalt Oxide – Graphene Nanocomposite as Anode Material for High Performance of Lithium Ion Battery*” – 21 lakhs (2014-17) – as Principal Investigator – *Completed*.
- **BRNS** sponsored research scheme on “*One-dimensional Nanostructured Si-based Electrodes for High-Performance Energy Storage Devices*” – Rs. 30,02,400/- (2016-19) – as Principal Investigator with **BARC** in collaboration (BIT Mesra).
- **CSIR** research grant on “*Metal Oxide Core-Shell Nanostructures as Anode Material for Lithium Ion Batteries*” – 23 lakhs (2014-17) – as Principal Investigator (BIT Mesra).
- **SERB-DST** – sponsored research scheme on “*Towards development of a novel high resolution and high contrast in-vivo imaging technique based on Swept Source Optical Coherence Tomography (SSOCT)*” – 30.42 lakhs (2017-20) – as Co-Principal Investigator (BIT Mesra).
- **Seed Money Scheme** by BIT Mesra for supporting Research – Rs. 80,000/- – as Principal Investigator.

Mentorship

- Ms. Shipra Raj – Ph.D. Student – 2014 (Thesis submitted)
- Mr. Siddhartha Samanta – Ph.D. Student as co-guide – 2014 (Thesis submitted)
- Mr. Yasodeo Mishra - Ph.D. Student as co-guide – 2018 (Ongoing)
- Mr. Mayukh Chakraborty – Project Assistant 2016 (Completed)
- Ms. Shalini Divya – M.Sc. Project – 2015 (Completed)
- Ms. Chitralee Sarma – M.Sc. Project – 2016 (Completed)

- Ms. Pallavi – Summer Intern – 2015 (Completed)
- Mr. Sharad Kumar – Summer Intern – 2015 (Completed)
- Mr. Anupam Das – Summer Intern – 2016 (Completed)
- Ms. Sadhana Kundu – Summer Intern – 2016 (Completed)
- Ms. Supriya Kumari – Summer Intern – 2016 (Completed)

RESEARCH PUBLICATIONS

| No. | Publication details (Author name, title, journal name, vol., year, page no.s) | Impact Factor | Citation |
|-----|--|-----------------|----------|
| 46. | Shipra Raj, Pradip Kar and Poulomi Roy* , Facile synthesis of flower-like morphology $\text{Cu}_{0.27}\text{Co}_{2.73}\text{O}_4$ for a high-performance supercapattery with extraordinary cycling stability, <i>Chem. Commun.</i> , 2018, 54, 12400-12403. | 6.29 | -- |
| 45. | Mayukh Chakravarty, Anupam Das, Chitrilee Sarma, Poulomi Roy* , a-Fe ₂ O ₃ /TiO ₂ Hybrids with Tunable Morphologies as Efficient Photocatalyst and Positive Electrode for Supercapacitor, <i>Chem Select</i> , 3, 2018, 3284-3294. | 1.505 (Partial) | 1 |
| 44. | Shipra Raj, Yifan Dong, Pradip Kar, Liqiang Mai, Song Jin, Poulomi Roy* , Hybrid NiCo ₂ O ₄ -NiCo ₂ S ₄ Nanoflakes as High Performance Anode Materials for Lithium Ion Batteries, <i>Chem Select</i> , 3, 2018, 2315 – 2320. | 1.505 (Partial) | -- |
| 43. | Shipra Raj, Pradip Kar, Poulomi Roy* , Ammonia-Assisted Growth of CoSn(OH) ₆ Nanostructures and Their Electrochemical Performances for Supercapacitor, <i>J. Nanosci. Nanotechnol.</i> , 18, 2018, 1-7 (DOI: 10.1166/jnn.2018.15829). | 1.509 | -- |
| 42. | Indranil Mondal, Shipra Raj, Poulomi Roy , Raju Poddar, Silver Nanoparticles (AgNPs) as contrast agent for imaging of animal tissue using swept source optical coherence tomography (SSOCT), <i>Laser Physics</i> , Just accepted, 2017. | 1.102 | -- |
| 41. | Shipra Raj, Suneel Kumar Srivastava, Pradip Kar, Poulomi Roy* , Three-dimensional NiCo ₂ O ₄ /NiCo ₂ S ₄ Hybrid Nanostructures on Ni-foam as High-performance Supercapacitor Electrode, <i>RSC Advances</i> , 6, 2016, 95760-95767. | 3.289 | 16 |
| 40. | S. Samanta, P. Roy , P. Kar, Influence of structure of poly(o-phenylenediamine) on the doping ability and conducting property, <i>Ionics</i> , 2017, 23, 937 (DOI:10.1007/s11581-016-1904-x). | 2.17 | -- |
| 39. | S. Samanta, P. Roy , P. Kar, Synthesis of poly(o-phenylenediamine) nanofiber with novel structure and properties, <i>Polymers for Advanced Technologies</i> , 2016, 28, 797–804 (DOI: 10.1002/pat.3981). | 2.007 | -- |
| 38. | S. Raj, S. Kumar, S.K. Srivastava, P. Kar, P. Roy* , Deposition of Tin Oxide Thin Films by SILAR Method and Its Characterization, <i>Journal of Nanoscience and Nanotechnology</i> , Just Accepted. | 1.556 | 5 |
| 37. | Shalini Divya, Remith Pongilat, Tapas Kuila, Kalaiselvi Nallathamby, Suneel Kumar Srivastava, Poulomi Roy* , Spinel-Structured NiCo ₂ O ₄ Nanorods as Energy Efficient Electrode for Supercapacitor and Lithium Ion Battery Applications, <i>Journal of Nanoscience and Nanotechnology</i> , 16, 2016, 9761-9770. | 1.556 | 8 |
| 36. | S. Samanta, P. Roy , P. Kar, Structure and Properties of Conducting Poly(o-phenylenediamine) Synthesized in Different Inorganic Acid Medium, <i>Macromolecular Research</i> , 24, 2016, 342-349. | 1.597 | 4 |

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|-----|--|-------|------|
| 35. | Poulomi Roy* and Suneel Kumar Srivastava*, Nanostructured Anode Materials for Lithium Ion Batteries, <i>Journal of Materials Chemistry A</i> , 3, 2015, 2454-2484. (Selected as 2015 Hot Article and themed collection for Energy storage for JMC-A) | 9.931 | 326 |
| 34. | Poulomi Roy* and Suneel Kumar Srivastava*, Nanostructured Copper Sulfides: Synthesis, Properties and Applications, <i>CrystEngComm.</i> , 17, 2015, 7801-7815. | 4.034 | 53 |
| 33. | Ritwik Panigrahi, Poulomi Roy and Suneel Kumar Srivastava, Controlled Growth of PbSe Nanorods to Flower-like Structure and Their Size-dependent Optical Properties, <i>Advanced Science, Engineering and Medicine</i> , 7, 2015, 190-194. | -- | -- |
| 32. | Siddhartha Samanta, Poulomi Roy , Pradip Kar, Influence of pH of the reaction medium on the structure and property of conducting poly(o-phenylenediamine), <i>Materials Today: Proceedings</i> , 2, 2015, 1301 – 1308. | -- | -- |
| 31. | Poulomi Roy , Chitta Ranjan Das, Kiyong Lee, Robert Hahn, Tobias Ruff, Mathias Moll, Patrik Schmuki, Oxide Nanotubes on Ti-Ru Alloys: Strongly Enhanced and Stable Photoelectrochemical Activity for Water Splitting <i>Journal of American Chemical Society</i> , 133, 2011, 5629–5631 | 11.44 | 64 |
| 30. | Poulomi Roy , Steffan Berger, Patrik Schmuki, TiO ₂ Nanotubes: Synthesis and their Applications – A Review, <i>Angewandte Chemie International Edition</i> , 50, 2011, 2904-2939. | 13.73 | 2087 |
| 29. | Chittaranjan Das, Poulomi Roy , Min Yang, Himendra Jha, Patrik Schmuki, Nb doped TiO ₂ nanotubes for enhanced photoelectrochemical water-splitting, <i>Nanoscale</i> , 3, 2011, 3094-3096. | 7.00 | 81 |
| 28. | H. Jha, P. Roy , R. Hahn, P. Schmuki, Fast formation of aligned high-aspect ratio TiO ₂ nanotube bundles that lead to increased open circuit voltage when used in dye sensitized solar cells, <i>Electrochem. Commun.</i> , 13, 2011, 302. | 4.859 | 8 |
| 27. | T. Dey, P. Roy , B. Fabry, P. Schmuki, Anodic mesoporous TiO ₂ layer on Ti for enhanced formation of biomimetic hydroxyapatite, <i>Acta Biomaterialia</i> , 7, 2011, 1873-1879. | 5.076 | 41 |
| 26. | Poulomi Roy , Tuli Dey, Kiyong Lee, Doohun Kim, Ben Fabry, Patrik Schmuki, Size-selective separation of macro-molecules by nanochannel titania membrane with self cleaning (de-clogging) ability, <i>Journal of American Chemical Society</i> , 132, 2010, 7893-7895 | 11.44 | 53 |
| 25. | Poulomi Roy , Doohun Kim, Kiyong Lee, Erdmann Spiecker, Patrik Schmuki, TiO ₂ nanotubes and their application in dye-sensitized solar cells, <i>Nanoscale</i> , 2, 2010, 45–59 (Most accessed paper). | 7.0 | 510 |
| 24. | Poulomi Roy , Tuli Dey, Patrik Schmuki, Scanning Electron Microscopy Observation of Nanoscopic Wetting of TiO ₂ Nanotubes and ODS Modified Nanotubes Using Ionic Liquids, <i>Electrochemistry Solid State Letters</i> 13(7), 2010, E11-E13. | 1.967 | 13 |
| 23. | Yan Yan Song, Poulomi Roy , Indhumati Paramasivam, Patrik Schmuki, Voltage induced payload release and wettability control on TiO ₂ and TiO ₂ nanotubes, <i>Angewandte Chemie International Edition</i> , 49, 2010, 351-354 (selected as Hot paper). | 13.73 | 61 |
| 22. | S.P. Albu, P. Roy , S. Virtanen, P. Schmuki, Self-organized TiO ₂ Nanotube Arrays: Critical Effects on Morphology and Growth, <i>Israel Journal of Chemistry</i> , 50, 2010, 453-467. | 0.794 | 26 |
| 21. | D. Kim, P. Roy , K. Lee, P. Schmuki, Dye-sensitized solar cells using anodic TiO ₂ mesosponge: Improved efficiency by TiCl ₄ treatment, <i>Electrochem.</i> | 4.282 | 55 |

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| | Commun. 12, 2010, 574-578. | | |
| 20. | Kiyong Lee, Doohun Kim, Poulomi Roy , Balaji I. Birajdar, Erdmann Spiecker, and Patrik Schmuki, Anodic Formation of Thick Anatase TiO ₂ Mesosponge Layers for High-Efficiency Photocatalysis, Journal of American Chemical Society , 132, 2010, 1478-1479. | 11.44 | 164 |
| 19. | Steffen Berger, Robert Hahn, Poulomi Roy , Patrik Schmuki, Self-organized TiO ₂ nanotubes: Factors affecting their morphology and properties, Physica Status Solidi B , 247, 2010, 2424-2435. | 1.344 | 18 |
| 18. | Wonjoo Lee, Doohun Kim, Kiyong Lee, Poulomi Roy , Patrik Schmuki, Direct anodic growth of thick WO ₃ mesosponge layers and characterization of their photoelectrochemical response, Electrochimica Acta , 56, 2010, 828-833. | 3.642 | 20 |
| 17. | Doohun Kim, Kiyong Lee, Poulomi Roy , Balaji I. Birajdar, Erdmann Spiecker, and Patrik Schmuki, Formation of a Non-Thickness-Limited TiO ₂ Mesosponge and its Use in Dye sensitized solar cells, Angewandte Chemie International Edition , 48, 2009, 9326-9329 (selected as Hot paper). | 13.73 | 81 |
| 16. | Poulomi Roy , Doohun Kim, Indhumati Paramasivam, Patrik Schmuki, Improved efficiency of TiO ₂ nanotubes in dye sensitized solar cells by decoration with TiO ₂ nanoparticles, Electrochemistry Communications , 11, 2009, 1001-1004. | 4.243 | 209 |
| 15. | Poulomi Roy , Robert Lynch, Patrik Schmuki, Electron beam induced in-vacuo Ag deposition on TiO ₂ from ionic liquids, Electrochemistry Communications , 11, 2009, 1567-1570. | 4.243 | 13 |
| 14. | Yan-Yan Song, Robert Lynch, Doohun Kim, Poulomi Roy , and Patrik Schmuki, TiO ₂ Nanotubes: Efficient Suppression of Top Etching during Anodic Growth, Electrochemical and Solid-State Letters , 12(7), 2009, C17-C20. | 1.837 | 25 |
| 13. | A. Benoit, I. Paramasivam, Y.-C. Nah, P. Roy , P. Schmuki, Decoration of TiO ₂ nanotube layers with WO ₃ nanocrystals for high-electrochromic activity, Electrochemistry Communications , 11, 2009, 728-732. | 4.243 | 46 |
| 12. | I. Serebrennikova, I. Paramasivam, P. Roy , W. Wei, S. Virtanen and P. Schmuki, Steel corrosion in alkaline batteries, Electrochimica Acta , 54, 2009, 5216-5222. | 3.325 | 1 |
| 11. | Poulomi Roy , Kamalesh Mondal and Suneel K. Srivastava, Synthesis of Twinned CuS Nanorods by Simple Wet Chemical Method, Crystal Growth & Design , 2008, 8(5), 1530-1534. | 4.215 | 40 |
| 10. | Kamalesh Mondal, Poulomi Roy and Suneel K. Srivastava, Facile Biomolecule-Assisted Hydrothermal Synthesis of Trigonal Selenium Microrods, Crystal Growth & Design , 2008, 8(5), 1580-1584. | 4.215 | 15 |
| 9. | Jyotiranjana Ota, Poulomi Roy , Suneel Kumar Srivastava, B.B. Nayak and A. K. Saxena, Morphology Evolution of Sb ₂ S ₃ under Hydrothermal conditions: Flower like Structure to Nanorods, Crystal Growth & Design , 2008, 8(6), 2019-2023. | 4.215 | 24 |
| 8. | Poulomi Roy and Suneel Kumar Srivastava, Solvothermal growth of flower-like morphology from nanorods of copper sulfides, Journal of Nanoscience and Nanotechnology , 2007, 8(3), 1523-1527. | 1.927 | 10 |
| 7. | Poulomi Roy and Suneel Kumar Srivastava, Synthesis and characterization of Copper sulfide nanorods by soft chemical method, Materials Letters , 61, 2007, 1693-1697. | 1.3 | 36 |
| 6. | Poulomi Roy and Suneel Kumar Srivastava, Hydrothermal growth of CuS nanowires from Cu-dithiooxamide, a novel single source precursor, Crystal | 4.046 | 102 |

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| | Growth and Design , 6(8), 2006, 1921-1926 (Most accessed article) | | |
| 5. | Poulomi Roy and Suneel Kumar Srivastava, <i>In situ</i> Sn-doping of CdS thin film in chemical bath its characterization, Journal of Physics D: Applied Physics , 39, 2006, 4771-4776. | 2.064 | 19 |
| 4. | Poulomi Roy , Suneel Kumar Srivastava, A New Approach towards the Growth of Cadmium Sulphide Thin Film by CBD Method and Its Characterization, Materials Chemistry and Physics , 95, 2006, 235-241. | 1.414 | 67 |
| 3. | Poulomi Roy , Suneel Kumar Srivastava, Chemical bath deposition of MoS ₂ thin film using (NH ₄) ₂ MoS ₄ as a single source for molybdenum and sulphur, Thin Solid Films , 496, 2006, 293-298. | 1.732 | 23 |
| 2. | Poulomi Roy , Jyoti Ranjan Ota, Suneel Kumar Srivastava, A new route for preparing crystalline ZnS thin films by chemical bath deposition method and its characterization, Thin Solid Films , 515 (4), 2006, 1912-1917. | 1.732 | 115 |
| 1. | Jyoti R. Ota, Poulomi Roy , Suneel Kumar Srivastava, R. Popovitz-Biro and Reshef Tenne, Simple hydrothermal method for the growth of Bi ₂ Se ₃ nanorods, Nanotechnology , 17 (6), 2006, 1700-1705. | 3.652 | 17 |

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Total Publications: **46**

Total Citation: **5498**

*h*-index: **30\***

(\*based on Scopus.com)

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Book Chapter:

1. **Poulomi Roy** (2017), *Nanohybrid materials in the development of solar energy applications*. In S.K. Srivastava & V. Mittal (Eds.), *Hybrid Nanomaterials: Advances in Energy, Environment, and Polymer Nanocomposites*, Chapter 3, **Wiley**.

Conference attended:

1. **P. Roy** and S.K. Srivastava, Deposition of CdS Thin Film by Chemical Bath Deposition Method Using Tartaric Acid as a Complexing Agent and Its Characterization. COMPOSIT-05, **IIT Kharagpur**, January 15-18, 2005.
2. **P. Roy** and S.K. Srivastava, Deposition of MoS₂ thin film, a useful semiconductor material, from a single-source precursor. International conference on MEMS and semiconductor nanotechnology organized by Advanced Technology Centre in association with **IIT Kharagpur-721302**, December 20-22, 2005.
3. **P. Roy** and S.K. Srivastava, Solvothermal growth of flower-like morphology of copper sulfides. International Conference on Nanoscience and Technology by **IIT Delhi, New Delhi**, March 16-18, 2006.
4. **P. Roy** and S.K. Srivastava, Synthesis Of Twinned Cus Nanorods By Simple Wet Chemical Method. International Conference on Advanced Nanomaterials by **IIT Bombay, Powai**, January 8-10, 2007.
5. **P. Roy**, E. Spiecker, P. Schmuki, TiO₂ nanotubes in dye sensitized solar cells: Manipulation in the structure for the improvement of energy conversion efficiency, 216th ECS Meeting, **Vienna, Austria**, Oct. 4-9, 2009.
6. **P. Roy**, D. Kim, P. Schmuki, Improved efficiency of TiO₂ nanotubes in dye sensitized solar cells by decoration with TiO₂ nanoparticles. Kurt Schwaba Symposium, **Germany**, 2009.

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7. **P. Roy**, D. Kim, K. Lee, I. Paramasivam, P. Schmuki, TiO₂ nanotubes and their performances in solar cells. The 3rd Kyoto-Erlangen Symposium, **Germany**, Sept. 2009.
 8. D. Kim, **P. Roy**, K. Lee, S. Berger, I. Paramasivam, T. Stergiopoulos, R. Hahn, P. Falaras, A. Ghicov, P. Schmuki, TiO₂ Nanotubes for Dye-Sensitized Solar Cells. EuroNanoForum2009, **Praha, Czech** June 2-5, 2008.
 9. D. Kim, **P. Roy**, K. Lee, S. Berger, I. Paramasivam, T. Stergiopoulos, R. Hahn, P. Falaras, P. Schmuki, TiO₂ Nanotubes for Dye-Sensitized Solar Cells. The 3rd Kyoto-Erlangen Symposium, **Germany**, 2009.
 10. **P. Roy**, P. Schmuki, Self-organized TiO₂ Nanostructures – Advanced Photocatalysis and Dye-sensitized Solar Cells, E-MRS 2010 Fall Meeting, **Warsaw, Poland**, Sept. 13-17, 2010.
 11. **P. Roy**, P. Schmuki, Use of TiO₂ mesoporous layers for protein filtration (with UV de-clogging feature), Electrodeposition Gordon Conference, New London, **New Hampshire**, August 1-6, 2010.
 12. **P. Roy**, P. Schmuki, Improved Dye Sensitized Solar Cell Efficiency using TiO₂ Nanotubes Decorated with TiO₂ Nanoparticles, The 3rd EICOON-2012 International conference, CSIR-**CGCRI, Kolkata**, India, 23 - 24 February 2012 (**Invited presentation**).
<http://www.rsc.org/events/detail/7033/3rd%20EICOON%20Workshop%20on%20Nano%20Materials%20in%20Solar%20Energy%20Applications>
 13. S. Divya and **P. Roy**, Anisotropic Nanostructure of NiCo₂O₄ and Their Characterization, The 14th Theoretical Chemistry Symposium, **CSIR-NCL Pune** associated with **IISER Pune**, December 18-21, 2014.
 14. Siddhartha Samanta, **Poulomi Roy**, Pradip Kar, Synthesis of Processable Poly(o-phenylenediamine) as Undoped Conducting Polymer, MACRO-2015: International Symposium on Polymer Science and Technology, **IACS, Kolkata**, India, January 23-26, 2015.
 15. S. Divya, **P. Roy**, S.K. Srivastava, T. Kuila, Synthesis of Nickel Cobaltite Nanorods for Their Application as Supercapacitor, Recent Advances In Nano-Science And Technology (RAINSAT-2015), **Sathyabama University, India**, July 8th - 10th, 2015.
 16. S. Divya, **P. Roy**, S.K. Srivastava, T. Kuila, Nickel Cobaltite Nanorods and Their Nanocomposites with Carbon Nanotubes as Efficient Supercapacitors, NanoEnergy, **Manchester, UK**, June 1-3, 2015.
 17. S. Raj, S. Kumar, S.K. Srivastava, **P. Roy**, Tin Oxide thin film deposition by SILAR method, International Conference on Materials Science & Technology 2016, **Delhi University**, February, 2016.
 18. **P. Roy**, Opportunities and Challenges in India at Early Research Career, Young Investigators Meeting, **University of Chicago, Chicago**, Oct. 21-23, 2016 (**Invited talk**)
 19. S. Raj, **P. Roy**, National Conference on Graphene and Functional Materials, CSIR – Central Mechanical Engineering Research Institute, **Durgapur, India**, February 23-24, 2018.