



*List of publications*

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1. **S. Sharma**, P.J. Bora, P. Gogoi, R. Boruah, K.J. Mohan, S.K. Dolui, Plasmonic bulk heterojunction photovoltaic devices based on poly (9-vinylcarbazole)/gold nanocomposites: effect of aspect ratio of gold nanorods, *J Mater Sci: Mater Electron* 2015, 26, 5465-5474.
2. **S. Sharma**, P. Gogoi, R. Bhargav, S.K. Dolui, A. Patra, Hybrid Bulk Heterojunction Solar Cells Based on Poly (9-Vinylcarbazole)/Zinc Oxide Nanocomposites: Effect of Aspect Ratio of Zinc Oxide Nanorod, *J. Polym. Mater.* 2015, 32 (2), 179-196.
3. **S. Sharma**, M. Khannam, M. Boruah, B.C. Nath, S.K. Dolui, Development of Dye-Sensitized Solar Cells Based on Gold/Gelatin Gel Electrolyte: Effect of Different Aspect Ratio of Gold Nanocrystals, *IEEE J. Photovolt.* 2015, 5 (6), 1665-1673.
4. **S. Sharma**, M. Khannam, S.K. Dolui, A Quasi Solid State Dye Sensitized Solar Cell based on Gelatin/Multiwalled Carbon Nanotube Gel Electrolyte and ZnO Nanorod Photoanode, *J. Mater. Sci.: Mater. Electron.* (Just accepted-DOI: 10.1007/s10854-016-4777-x)
5. **S. Sharma**, A.K. Manhar, P.J. Bora, S.K. Dolui, M. Mandal, Evaluation of antioxidant and antibacterial activity of various aspect ratio gold (Au) nanorods, *Adv. Mater. Lett.* 2015, 6(3), 235-241.
6. **S. Sharma**, P.J. Bora, M. Boruah, S.K. Dolui, Gelatin-Immobilized High Aspect Ratio Gold Nanocrystals: An Efficient Catalyst for 4-Nitrophenol Reduction, *Adv. Polym. Tech.*, DOI 10.1002/adv.21608.
7. **S. Sharma**, P. Gogoi, B.J. Saikia, S.K. Dolui, Synthesis of cadmium sulfide quantum dots with simultaneous desulfurization of kerosene oil, *J. Renew. Mater.* (In press).
8. **S. Sharma**, S.K. Dolui, Enhanced photo conversion efficiency of a hybrid bulk heterojunction device based on poly(3-octylthiophene)/zinc oxide nanocomposite, (Communicated).
9. P. Gogoi, M. Boruah, **S. Sharma**, S.K. Dolui, Blends of epoxidized alkyd resins based on jatropha oil and the epoxidized oil cured with aqueous citric acid solution -A green technology approach. *ACS Sus. Chem. Eng.* 3 (2015) 261-268.
10. P. Gogoi, D. Das, **S. Sharma**, S.K. Dolui, Synthesis and characterization of *Jatropha curcas* oil based alkyd resins and their blends with epoxy resin. *J. Renew. Mater.* 3 (2) (2015) 151-159.
11. M. Boruah, M. Mili, **S. Sharma**, B. Gogoi, S.K. Dolui, Synthesis and evaluation of swelling kinetics of electric field responsive poly (vinyl alcohol)-g-polyacrylic acid/OMNT nanocomposite hydrogels. *Polymer Composites*, 2015 36(1), 34-41.

12. B. C. Nath, B. Gogoi, M. Boruah, **S. Sharma**, M. Khannam, G. A. Ahmed, S.K. Dolui, High performance polyvinyl alcohol/multi walled carbon nanotube/polyaniline hydrogel (PVA/MWCNT/PAni) based dye sensitized solar cells, *Electrochimica Acta*, (2014) 146, 106-111.
13. B.J. Saikia, P. Gogoi, **S. Sharmah**, S.K. Dolui, Synthesis of pH-and solvent-responsive smart core crosslinked star polymer by atom transfer radical polymerization, *Polymer International*, (2015) 64(3), 437-445.
14. Studies on Ag/Polypyrrole composite deposited on the surface of styrene-methyl acrylate copolymer micro particles and their electrical and electrochemical properties, L.J. Borthakur, **S. Sharma**, S.K. Dolui, *J. Mater. Sci: Mater. Electron.* 22, (2011), 949-958.

#### **Papers presented in academic conferences:**

1. S. Sharma, S.K. Dolui, Oral presentation entitled 'Poly (9-vinylcarbazole)-Zinc Oxide (PVK-ZnO) Nanocomposite: Synthesis and Property Evaluation', POLY-2012, Prof. Sukumar Maiti Polymer Award Foundation (PSMPAF), Kolkata, West Bengal, Nov. 2012.
2. S. Sharma, B.J. Saikia, S.K. Dolui, Poster presentation entitled 'Development of Ag/Polypyrrole Composite Deposited Styrene-Methyl Acrylate Copolymer Micro Particles with Core-Shell Morphology and Study of Their Electrical and Electrochemical Properties', NCCCTS-2011, Dept. of Chemical Sciences, Tezpur University, Assam, Nov. 2011.
3. S. Sharma, S.K. Dolui, Poster presentation entitled 'Gold/gelatin gel electrolyte based dye-sensitized solar cells: Effect of different aspect ratio of gold nanocrystals', ICNPM-2015, International and Inter University Centre for Nanoscience and Nanotechnology (IIUCNN), Mahatma Gandhi University, Kottayam, Kerala, Nov. 2015.
4. S. Sharma, S.K. Dolui, Poster presentation entitled 'Quasi solid state dye-sensitized solar cells based on Gold/gelatin gel electrolyte', CDCS-2015, Dept. of Chemical Sciences, Tezpur University, Assam, Nov 2015.
5. Participated in 'International Congress on Renewable Energy' (ICORE 2011), Dept. of Energy, Tezpur University, Assam, Nov 2011.
6. Participated in 'Science Academies Lecture Workshop on Modern Trends in Chemistry', Dept. of Chemical Sciences, Tezpur University, Assam, Nov 2013.