

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH, PUNE

Publications in 2013

Chemical Biology

1. Sarangi, S., Pandey, A., Papa, A.L., Sengupta, P., Kopparam, J., Dadwal, U., **Basu, S.** and Sengupta, S. (2013). P2Y12 receptor inhibition augments cytotoxic effects of cisplatin in breast cancer. *Medical Oncology*, 30:567.
2. Patil, S., Patil, S., Gawali, S., Shende, S, Jadhav, S. and **Basu, S.** (2013). Novel self-assembled lithocholic acid nanoparticles for drug delivery in cancer. *RSC Advances*, 3:19760-19764.
3. Patil, S., Gawali, S., Patil, S. and **Basu, S.** (2013). Synthesis, characterization and in vitro evaluation of novel vitamin D3 nanoparticles as versatile platform for drug delivery in cancer. *Journal of Materials Chemistry B*, 1:5742-5750.
4. Kulkarni, A.A., Roy, B., Rao, P.S., Wyant, G.A., Mahmood, A., Ramachandran, M., Sengupta, P., Goldman, A., Kotamraju, V.R., **Basu, S.**, Mashelkar, R.A., Ruoslahti, E., Dinulescu, D.M. and Sengupta, S. (2013). Supramolecular nanoparticles that target phosphoinositide-3-kinase overcome insulin resistance and exert pronounced antitumor efficacy. *Cancer Research*, 73:6987-6997.
5. Mohite, A.R. and **Bhat, R.G.** (2013). A practical and convenient protocol for the synthesis of (e)-.alpha.,.beta.-unsaturated acids. *Organic Letters*, 15:4564-4567.
6. Navale, B.S. and **Bhat, R.G.** (2013). Copper(I) iodide-DMAP catalyzed homo- and heterocoupling of terminal alkynes. *RSC Advances*, 3:5220-5226.
7. Malwal, S.R., Gudem, M., **Hazra, A.** and **Chakrapani, H.** (2013). Benzosultines as sulfur dioxide (SO₂) donors. *Organic Letters*, 15:1116-1119.
8. Sharma, K., Iyer, A., **Sengupta, K.** and **Chakrapani, H.** (2013). INDQ/NO, a bioreductively-activated nitric oxide prodrug. *Organic Letters*, 15:2636-2639.
9. Sharma, K., **Sengupta, K.** and **Chakrapani, H.** (2013). Nitroreductase-activated nitric oxide (NO) prodrugs. *Bioorganic & Medicinal Chemistry Letters*, 23:5964-5967.
10. Deschamps, J.R., Saavedra, J.E., Cao, Z., Keefer, L.K. and **Chakrapani, H.** (2013). Stereochemical origins of chromophore extension in O₂-substituted diazeniumdiolates, prodrugs of nitric oxide. *Journal of Chemical Crystallography*, 43:123-126.
11. Gavvala, K., Sasikala, W.D., Sengupta, A., Dalvi, S.A., **Mukherjee, A.** and **Hazra, P.** (2013). Modulation of excimer formation of 9-(dicyano-vinyl)julolidine by the macrocyclic hosts. *Physical Chemistry Chemical Physics*, 15:330-340.
12. Gavvala, K., Sengupta, A. and **Hazra, P.** (2013). Modulation of photophysics and pK_a shift of the anticancer drug camptothecin in the nanocavities of supramolecular hosts. *ChemPhysChem*, 14:532-542.
13. Gavvala, K., Sengupta, A., Koninti, R.K. and **Hazra, P.** (2013). Supramolecular host inhibited excited state proton transfer and fluorescence switch of an anti-cancer drug, Topotecan. *ChemPhysChem*, 14:3375-3383.

14. Sengupta, A., Gavvala, K., Koninti, R.K., Chaudhuri, H. and **Hazra, P.** (2013). Folding dynamics of flavin Adenine dinucleotide (FAD) inside non-aqueous and aqueous reverse micelles. *Chemical Physics Letters*, 584:67-73.
15. Gavvala, K. Sengupta, A., Koninti, R.K. and **Hazra, P.** (2013). Prototropical and photophysical properties of an anti cancer drug, Ellipticine inside the nano-cavities of molecular containers. *Journal of Physical Chemistry B*, 117:14099-14107.
16. Boddu, V.R., Dhokale, S., Rajamohanam, P. and **Hotha, S.** (2013). A tetrazine templated method for the synthesis of ternary conjugates. *Chemical Communications*, 49:10808-10810.
17. Kayastha, A.K. and **Hotha, S.** (2013). Gold-catalyzed glycosidation for the synthesis of trisaccharides by applying the armed-disarmed strategy. *Beilstein Journal of Organic Chemistry*, 9:2147-2155.
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19. Dhaware, V., Shaikh, A.Y., Kar, M. and **Hotha, S.** and Sen Gupta, S. (2013). Synthesis and self-assembly of amphiphilic homoglycopolypeptide. *Langmuir*, 29:5659-5667.
20. **Ganesh, K.N.** and Krishnan, Y. (2013). Nucleic acids Chemistry and applications. *Journal of Organic Chemistry*, 78:12283-12287.
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28. Ganesh Kumar, M., Mali, S.M. and **Gopi, H.N.** (2013). Synthesis and stereochemical analysis of β -nitromethane substituted γ -amino acids and peptides. *Organic & Biomolecular Chemistry*, 11:803-813.
29. Jadhav, S.V., Bandyopadhyay, A. and **Gopi, H.N.** (2013). Protein secondary structure mimetics: crystal conformations of α/γ^4 -hybrid peptide¹²-helices with proteinogenic side chains and their analogy with α - and β -peptide helices. *Organic & Biomolecular Chemistry*, 11:509-514.
30. Marshall, C., Agarwal, N., **Kalia, J.**, Grosskopf, V., McGrath, N., Abbott, N.L., Raines, R.T., and Shusta, E.V. (2013). Facile chemical functionalization of proteins through intein-linked yeast

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37. Sabale, P.M., Nuthanakanti, A. and **Srivatsan, S.G.** (2013). Synthesis and fluorescence properties of a full set of extended RNA base analogues. Thematic special issue on Complex Chemical Systems. *Indian Journal of Chemistry*, 52A:1004-1013.
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45. Gening, M.L., Tsvetkov, Y.E., Titov, D.V., Gerbst, A.G., Yudina, O.N., Grachev, A.A., Shashkov, A.S., Vidal, S., Imberty, A., Saha, T., Kand, D., **Talukdar, P.**, Pier, G.B. and Nifantiev, N.E. (2013). Linear and cyclic oligo- β -(1 \rightarrow 6)-D-glucosamines: Synthesis, conformations, and applications for design of a vaccine and oligodentate glycoconjugates. *Pure and Applied Chemistry*, 85:1879-1891.

Materials Science and Nanoscience

46. Gopalakrishna, T.Y., Reddy, J.S. and **Anand, V.G.** (2013). Antiaromatic supramolecules: π - π , π - π , and π - π intermolecular interactions in 32π expanded isophlorins. *Angewandte Chemie International Edition*, 52:1763-1767.
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49. Waeckerlin, C., Tafarder, K., Girovsky, J., Nowakoskwi, Haehlen, T., Shchyrba, A., Siewert, D., Kleibert, A., Nolting, F., Oppeneer, P.M., Jung, T.A. and **Ballav, N.** (2013). Ammonia coordination introducing a magnetic moment in an on-surface monopyrrole porphyrin. *Angewandte Chemie International Edition*, 52:4568-4571.
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56. **Ballav, N.**, Waeckerlin, C., Siewert, D., Oppeneer, P.M. and Jung, T.A. (2013). Emergence of on-surface magnetochemistry. *Journal of Physical Chemistry Letters*, 4:2303-2311. (Invited and Cover Art)
57. Gupta, A.K., Reddy, S.A.D. and **Boomishankar, R.** (2013). Facile formation of stable tris(imido)phosphate trianions as its tri- and hexa-nuclear Pd(II) complexes in polar solvents. *Inorganic Chemistry*, 52:7608-7614.
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