

List of Publications

Peer Reviewed Journal Publications:

23. Microfluidic synthesis of nanoparticles and their bio-sensing applications, Jyoti Boken, **Sarvesh K Soni***, Dinesh Kumar, *Critical Review in Analytical Chemistry*, 2016, DOI: 10.1080/10408347.2016.1169912. IF= **1.618** (*corresponding author)
22. Self-assembled lipase nanosphere templated one-pot biogenic synthesis of silica hollow spheres in Ionic Liquid [Bmim][PF₆], Sampa Sarkar, Kashuram Mantri, Dinesh Kumar, Suresh Bhargava*, **Sarvesh K. Soni***, *RSC Advances*, 2015, 5, 105800 – 105809. IF= **3.907** (*corresponding author)
21. A mechanistic insight in to highly selective colorimetric detection of Cr⁶⁺ in aqueous systems by flower shaped silver nanoparticles, Priyanka Joshi, Sampa Sarkar, **Sarvesh K Soni***, Dinesh Kumar, *RSC Advances*, RA-ART-01-2016-001798-R1 (accepted with minor revision) IF= **3.907** (*corresponding author)
20. Charge-switchable gold nanoparticles for enhanced enzymatic thermostability, Shiv Shankar, **Sarvesh K Soni**, Hemant Daima, Selvakannan Periasamy, Vipul Bansal, Suresh K Bhargava, *Physical Chemistry Chemical Physics*, 2015, 17, 21517-21524. IF= **4.493**
19. Intrinsic therapeutic and biocatalytic roles of ionic liquid mediated self-assembled platinum-phytase nanosphere, **Sarvesh K Soni***, Sampa Sarkar, Dhiman Sarkar, Selvakannan R. Periasamy, Suresh K Bhargava, *RSC Advances*, 2015, 5, 62871-62881. IF= **3.907** (*corresponding author)
18. Ag_{core}-Au_{shell} bimetallic nanocomposites: Gold shell thickness dependent study for SERS enhancement, Parul Khurana, Sheenam Thatai, Surendra Prasad, **Sarvesh K. Soni**, Dinesh Kumar, *Microchemical Journal*, 2016, 124, 819-823. IF= **3.051**
17. Self-assembled functional nanostructure of plasmid DNA with Ionic Liquid [Bmim][PF₆]:Enhanced efficiency in bacterial gene transformation, **Sarvesh K Soni***, Sampa Sarkar, Nedaossadat Mirzadeh, PR. Selvakannana, Suresh K Bhargava, *Langmuir*, 31(16), 2015, 4722-4732. IF= **4.457** (*corresponding author)
16. Trace colorimetric detection of Pb²⁺ using plasmonic gold nanoparticles and silica-gold nanocomposites, Sheenam Thatai, Parul Khurana, Surendra Prasad, **Sarvesh K Soni**, Dinesh Kumar, *Microchemical Journal*, 2016, 124, 104-110. IF= **3.051**
15. Structural evaluation and catalytic performance of nano-Au supported on nanocrystalline Ce_{0.9}Fe_{0.1}O_{2-δ} solid solution for oxidation of carbon monoxide and benzylamine. P. Sudarsanam, , PR. Selvakannan, **Sarvesh K. Soni**, Suresh K. Bhargava, Benjaram M. Reddy, *RSC Advances*, 2014, 4, 43460-43469. IF= **3.907**

14. Phytase isozymes from *Aspergillus niger* NCIM 563 under solid state fermentation: Biochemical characterization and their correlation with submerged fermentation. Kavita Bhavsar, Priyanka Buddhiwant, **Sarvesh K. Soni**, Dilip Depen, Sampa Sarkar & J. M. Khire, *Process Biochemistry*, 48, 2013, 1618-1625. **IF= 2.909**
13. A facile approach for the dispersion of regenerated cellulose in aqueous system in the form of nanoparticles, Mukund Adsul, **Sarvesh K. Soni**, Suresh K. Bhargava, Vipul Bansal, *Biomacromolecules*, 2012, 13, 2890–2895. **IF= 5.75**
12. Self-Assembled histidine acid phosphatase nanocapsules in ionic liquid [BMIM][BF₄] as functional templates for hollow metal nanoparticles. **Sarvesh K. Soni**, Selvakannan Periasamy, Suresh Bhargava, Vipul Bansal, *Langmuir*, 28 (28), 2012, 10389-10397. **IF= 4.457**
11. Cationic Amino Acids Specific Biomimetic Silicification in Ionic Liquid: A Quest to Understand the Formation of 3-D Structures in Diatoms. Rajesh Ramanathan, Jos Campbell, **Sarvesh K. Soni**, Suresh K. Bhargava and Vipul Bansal. *PLoS One*, 6(3), 2011: e17707. **IF=4.244**
10. Self-assembled enzyme nanocapsules in Ionic Liquid [BMIM-BF₄] as templating nanoreactors for hollow silica nanocontainers. **Sarvesh K. Soni**, Rajesh Ramanathan, Peter J. Coloe, Vipul Bansal, Suresh K. Bhargava. *Langmuir*, 2010, 26 (20), 16020–16024. **IF=4.457**
9. Self-assembled Protein Nanocapsules in Ionic Liquids as Templating Nanoreactors for enzyme-encapsulated Hollow Nanocontainers. V. Bansal, **Sarvesh K. Soni**, S. K. Bhargava, *European Cells and Materials*, Vol. 20. Suppl. 3, 2010, pp. 11, Pages: 988099-988099, ISSN 1473-2262. **IF=5.984**
8. Purification and characterization of two distinct acidic phytases with broad pH stability from *A. Niger* NCIM 563. **Sarvesh K. Soni**, Ajit S. Magadum, J. M. Khire. *World J Microbiol Biotechnol* (2010) 26: 2009-2018. **IF=1.779**
7. Strain improvement and upscaling of phytase production by *Aspergillus niger* NCIM 563 under submerged fermentation conditions. Parin Shah, Kavita Bhavsar, **Sarvesh K. Soni**, J. M. Khire. *J. Industrial Microbiology and Biotechnology* (2009) 36 (3):373-80. **IF=2.439**
6. Influence of pretreatment of agricultural residues on phytase production by *Aspergillus niger* NCIM 563. Kavita Bhavsar, Parin Shah, **Sarvesh K. Soni**, J. M. Khire. *African J Biotechnology* (2008) 7: 1101-1108. **IF=.573**
5. Production and partial characterization of two types of phytase from *Aspergillus niger* NCIM 563 under submerged fermentation conditions. **Sarvesh K. Soni**, J.M. Khire, *World J Microbiol Biotechnol* (2007) 23:1585–1593. **IF=1.779**
4. Highly acidic phytase from *Aspergillus niger* NCIM 563 under submerged fermentation. **Sarvesh K. Soni**, J. M. Khire, *FEBS Journals*, (2006) 273: Issue Supplement s1, 301-301, DOI: 10.1111/j.1742-4658.2006.05277.x. **IF=4.001**

Gene sequence:

3. *Aspergillus Niger* NCIM 563 5S r RNA gene fragment. NCBI GenBank accession number. **Sarvesh K. Soni**, J.M. Khire. bankit1327764 GU984047.

Other publications:

2. **Sarvesh K Soni** (2010). Phytase from *Aspergillus niger* NCIM 563: Isolation, purification, characterization and its applications. PhD thesis, Pune University, Pune (India).
1. **Sarvesh K Soni** (2002). Dominant bacteria of respiratory tract infection. M.Sc. dissertation thesis, JLN Medical College, Ajmer (India).

Publications under communication/Review:

1. A QCM based ‘on-off’ mechanistic study of gas adsorption by plasmid DNA and DNA-[Bmim][PF₆] construct , **Sarvesh Kumar Soni***, K M Mohibul Kabir, Ravichandar Babarao, Victoria Elizabeth Coyle, Ylias Sabri, Suresh K Bhargava*, **Analytical Chemistry**, 2016. (*corresponding author)
2. Synthesis and characterization of thorium (IV) complexes of 2-aminothiazole and their evaluation as effective antimicrobial and antioxidant agents, Neelima Mishra, Kavita Poonia, Nutan Sharma, **Sarvesh K Soni***, Dinesh Kumar, **Polyhedron**, 2016. (*corresponding author)
3. Role of respiratory nitrate reductase on survival of *Mycobacterium tuberculosis* in host macrophages and pathogenesis, Sampa Sarkar*, Vishal Mistry, **Sarvesh K Soni***, **RSC Advances**, 2016 (* corresponding author)
4. Microwave assisted synthesis, characterization and antimicrobial activity of Schiff base Ce(III) complexes, Neelima Mishra, Kavita Poonia, **Sarvesh K. Soni***, Dinesh Kumar, **Polyhedron**, 2016. (*corresponding author)
5. Cubical ceria nanoparticles: A mechanistic insight and adsorption characteristics for excellent fluoride removal and enzyme like activity, Ankita Dhillon, Tarun Sharma, **Sarvesh K Soni***, Dinesh Kumar*, **RSC Advances**, 2016. (*corresponding author)
6. Solid state self-assembly directed formation of nanoscale hybrid materials of Nucleobases and Phosphomolybdic acid: Functional templates for the synthesis of metal nanoparticles, H. Chhipa, **Sarvesh K Soni**, Srinivas T., PR.Selvakannan*, S.K. Bhargava*, **Journal of Materials Chemistry B**, 2016.
7. Water recovery from food industry effluent through a hybrid process comprising of membrane bioreactor and reverse osmosis. K. Praneeth, **Sarvesh K Soni**, Suresh K Bhargava, B. Aakruthi Vaishnavi, S. Sridhar, **Journal of Environmental Engineering**, 2015

Patents:

1. A process for preparation of novel acidic phytase (pH 2.5) by *Aspergillus niger* NCIM 563 under submerged fermentation condition. **Sarvesh K. Soni**, J. M. Khire. Indian patent. Council of Scientific & Industrial Research, NF 180/2005.
2. A novel process for the simultaneous synthesis of inositol phosphate, myo-inositol phosphate and calcium phosphate from agricultural residues **Sarvesh K. Soni**, Dilip Depen, J. M. Khire, R.P. Singh. Council of Scientific & Industrial Research, 529/DEL/2008.