

Name: J. M. Khire  
Division: Biochemical Sciences  
Email: jm.khire@ncl.res.in  
Phone: 020-2590-2454  
Fax: 020-2590-2671



- Education and experience
- Ph.D. Biochemistry. University of Pune
  - M. Sc. Microbiology. University of Pune
  - Post-doc at University of Pennsylvania, Philadelphia, USA
  - Scientist at NCL from 1981
- Achievements
- Completed various DBT and DST projects
- Research subjects:
- Microbiology
  - Biotechnology
- Research Areas
- Microbiology, Biochemistry, Biotechnology
  - Animal feed and food enzymes
  - Fermentation Technology (Submerged and solid state fermentation)
  - Strain improvement and up scaling
  - Structure-function relationships of enzymes
- Recent publications
- Bhavsar K, Gujar P, Shah P, Ravi Kumar V & **Khire J. M.** (2012) Combinatorial approach of statistical optimization and mutagenesis for improved production of acidic phytase by *Aspergillus niger* NCIM 563 under submerged fermentation condition. Appl. Microbiol. Biotechnol.(In Press)
  - Bhavsar K, Ravi Kumar V & **Khire J. M.** (2012) Downstream processing of extracellular phytase from *Aspergillus niger*: Chromatography process vs. aqueous two phase extraction for its simultaneous partitioning and purification. Process Biochem 47:1066-1072
  - Bhavsar K, Ravi Kumar V and **Khire J. M.** (2011) High level phytase production by *Aspergillus niger* NCIM 563 in solid state culture: response surface optimization, up-scaling, and its partial characterization. J. Ind. Microbiol. Biotechnol. 38: 1407-1417.
  - Self-assembled Protein Nanocapsules In Ionic Liquid As Templating Nanoreactors for Enzyme-Encapsulated Hollow Nanocontainers and Cancer Drug Delivery. S. K. Soni, Sampa Sarkar, R. Ramanathan, Kshudiram Mantri, Dhiman Sarkar, J. M. Khire, Peter J. Coloe, Vipul Bansal and Suresh K. Bhargava. PW-17, Australia-India joint symposium on smart nanomaterials in Victoria-2011, Nov 2 to 4, 2011, RMIT University, Melbourne, Australia (**Best Poster Award**)
  - Immobilization of phytase on tyrosine functionalized gold nanoparticle. Shiv Shankar, S. K. Soni, J. M. Khire, Vipul Bansal, Suresh Bhargava. Australia-India joint symposium on smart nanomaterials in Victoria-2011, Nov 2 to 4, 2011, RMIT University, Melbourne, Australia.