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**Area of Research Interest:**

Separation science, Solvent Extraction Synthesis of Nanoparticles and applications

**Teaching Experience:** UG: 09 years

PG: 09 Years

**Area of Research Interest:**

Separation science, Solvent Extraction, Synthesis of Nanoparticles and applications

**Research Grant Received:**

1. Green Synthesis of silver nanoparticles and their applications, July 2019 Funded by Jaysingpur College, Jaysingpur Rs. 5000/- (Ongoing)
2. Development of Analytical method for extraction and separation of some metals using cyanex and crown ethers, February, 2012, Fundend by UGC, WRO, Pune Rs. 160000/- (Completed)

**Research Publications:**

1. Green synthesis of silver nanoparticles by using carambola fruit extract and their antibacterial activity, SJ Mane Gavade, GH Nikam, RS Dhabbe, SR Sabale, BV Tamhankar, Advances in Natural Sciences: Nanoscience and Nanotechnology 6 (4), 045015, 26,2015
2. Degradation of Dyes Using High Temperature Stable Anatase Nanosphere TiO<sub>2</sub> Photocatalyst. VV Jadhav, RS Dhabbe, SR Sabale, GH Nikam, BV Tamhankar, Universal Journal of Environmental Research & Technology 3 (6), 16, 2013.
3. Liquid-liquid extraction of uranium (VI) using cyanex 272 in toluene from sodium salicylate medium, NS Madane, GH Nikam, KR Mahanwar, BS Mohite, Journal of Radioanalytical and Nuclear Chemistry 288 (1), 285-290, 14, 2011.
4. Green synthesis of fluorescent silver nanoparticles using Acacia nilotica gum extract for kinetic studies of 4-nitrophenol reduction, SJ Mane Gavade, GH Nikam, SR Sabale, BV Tamhankar, Materials Today: Proceedings 3 (10), 4109-4114, 12, 2016.
5. Liquid-liquid extraction and separation of cobalt (II) from sodium acetate media using cyanex 272, GH Nikam, BS Mohite, Research Journal of Chemical Sciences, 9, 2012.
6. Extractive separation of cadmium (II) using Cyanex 923 from ammonium thiocyanate medium, G Nikam, K Mahanwar, S Sabale, B Mohite, Separation Science and Technology 48 (3), 493-500, 7, 2013.

7. Polyol synthesis and characterization of ZnO@ CoFe<sub>2</sub>O<sub>4</sub> MNP's to study the photodegradation rate of azo and diphenyl type dye, V Jadhav, P Chikode, G Nikam, S Sabale, *Materials Today: Proceedings* 3 (10), 4121-4127, 5, 2016.
8. Reversed phase partition chromatographic separation of Gd (III) from hippuric acid on poly [dibenzo-18-crown 6], KR Mahanwar, SR Sabale, NS Madane, GH Nikam, BS Mohite, *Chemical Sciences Journal* 27, 1-12, 2, 2011.
9. An Efficient Protocol for Synthesis of 1, 4-dihydropyridine Derivatives by Using Graphene Oxide Nano Particles as a Catalyst, RP Kagne, GH Nikam, VG Kalalawe, SN Niwadange, DR Munde, *J Chem Chem Sci* 7, 1064-1070, 1, 2017
10. Development of analytical method for extraction and separation of copper(II) using cyanex 923, Mohite BS, Nikam Gurunath H., *Research journal of Chemistry and Environment* 16 (3), 11-17, 1, 2012.
11. Green Synthesis and Spectroscopic Studies of Ag-rGO Nanocomposites for Highly Selective Mercury (II) Sensing, SJ Mane-Gavade, SR Sabale, XY Yu, GH Nikam, BV Tamhankar, *Nanoscience & Nanotechnology-Asia* 9 (1), 101-108, 2019
12. Multivariate statistical analysis of soil parameters to establish baseline level around proposed Jaitapur Nuclear Power Plant (JNPP), Maharashtra, India, R Shinde, P Chikode, G Nikam, A Supale, S Sabale, *Int J Environ Sci Nat Res* 1 (2), 2572-1119, 2016
13. Synthesis, characterization and effect on photocatalytic property of Fe<sup>3+</sup>-TiO<sub>2</sub>nanoparticles under U. V. Light irradiation, S R Sabale G H Nikam, S Chavan, R Kamble, S Mahajan, *International Journal of Researches in Biosciences, Agriculture*, 2015.
14. Green synthesis of silver nanoparticles by using Acacia Concinna fruit extract and their antibacterial activity, B. V. Tamhankar, S. J. Mane Gavade, G. H. Nikam, S.R.Sabale, R. S. Dhabbe, G. N. Mulik, *Nano science and nanotechnology an Indian Journal* 9 (3), 89-94, 2015.
15. Dye industry waste water treatment using adsorbent obtained from agriculture waste, G. H. Nikam, B. V. Tamhankar, R. D. Tasgaonkar, S. R. Sabale, R. S. Dhabbe, *CONFERENCE PROCEEDING of National conference on Frontiers Of Research in Chemsitry ( ISBN 978-93-5137-576-0)*, 129-131, 2013.
16. Applications of Titania nanoparticles in photocatalysis: A review note, G H Nikam B. V. Tamhankar, S. R. Sabale, *The Research View (ISBN 2321-9777)* 2 (2), 6-7, 2013
17. Development of analytical method for extraction and separation of Zn (II) using Cyanex 272, G H Nikam, B S Mohite, *International Journal of Analytical and Bioanalytical Chemistry* 2 (1), 116-121, 2012.
18. Reversed phase partition chromatographic separation of La (III) from picric acid on poly (dibenzo-18-crown-6), K R Mahanwar, S R Sabale, N S Madane, G H Nikam, B S Mohite, *Research Journal of Chemistry and Environment* 15 (1), 38-41, 2011.
19. La (III) sorption studies on poly (dibenzo-18-crown-6) for the sequential separation of La (III), Th (IV) and U (VI) in L-arginine, S Sabale, G Nikam, BS Mohite, *Proceedings of DAE-BRNS biennial symposium on emerging trends in separation*, 2010.
20. Global Warming: causes and control, S S Mahajan, B V Tamhankar, S R Sabale, G H Nikam, *Global Warming Conference Proceeding, MBSKMM Kadegaon ISBN 978-93-5156-228-3*, 144-145.

#### **Papers Presented in Conferences / Workshops/ Seminars/ Symposia**

1. Synergistic solvent extraction study of Iron using cyanex 272 and dibenzo-18- crown-6, Synergistic solvent extraction study of Iron using cyanex 272 and dibenzo- 18-crown-

- 6, Gurunath H. Nikam, Sandip Sabale and B. S. Mohite\*, Advanced Synthetic Methodologies and Functional Materials-2009, 23rd-24th December 2009, Department of Chemistry, Shivaji University, Kolhapur.
2. La(III) Sorption Studies on Poly[dibenzo-18-crown-6] for the Sequential Separation of La(III), Th(IV) and U(VI) in L-arginine, Sandip Sabale, Gurunath Nikam and B. S. Mohite\*, Emerging trends in separation science and technology (SESTEC-2010), IGCAR, Kalpakkam, 1st -4th march 2010.
  3. Liquid-liquid extraction of thorium(IV) using cyanex 272 in kerosene from sodium salicylate medium, N.S. Madane, G.H. Nikam, G.G. Mali, B.S. Mohite\*, Advances in Synthetic Methodologies and New Materials, Department of Chemistry, Shivaji University, Kolhapur, 21st-22nd January 2011.
  4. Liquid-liquid extraction of uranium(VI) using cyanex 272 in toluene from sodium salicylate medium, Namdev S. Madane, Gurunath H. Nikam, Deepali V. Jadhav and Baburao S. Mohite\*, Nuclear and Radiochemistry Symposium (NUCAR- 2011), GITAM University, Visakhapatnam, 22nd-26th February 2011.
  5. Extraction and separation of cerium (III) using Cyanex 923 in kerosene from sodium acetate medium, N. S. Madane, G. H. Nikam, G. G. Mali, N. D. Nikam and B. S. Mohite\*, Emerging trends in separation science and technology (SESTEC-2010), Mumbai, INDIA, 27 February- 1 March 2012.
  6. Liquid-Liquid Extraction and Separation of Cobalt(II) from Sodium Acetate media using Cyanex 272, Nikam G. H., Madane N. S. , Mali G. G. , Kamble P. N. and Mohite B. S.\*, Recent advances in synthetic chemistry and nanomaterials, Department of Chemistry, Shivaji university, Kolhapur. 21-21 January 2012.
  7. Environmental assessment of rankala lake regarding the heavy metal, pesticide residue and vegetative growth using AAS and LCMS/MS, Sandip Sabale, Gurunath Nikam, Rajendra Kumbhar and Baburao Mohite\*, 46th Annual convention of Chemists, 2-6th December 2009 Vellore, Tamilnadu.
  8. Determination of toxic metals in Eichhornia, Hydrilla, and Salvinia plants of rankala lake (Oral 1st prize), Gurunath H. Nikam, Kirti R. Mahanwar, Namdev S. Madane and Baburao S. Mohite\*, State level seminar on Recent Trends In Analytical Chemistry, Dept. of Chemistry, Abasaheb Marathe Arts and New Commerce, Science, College, Rajapur, Dist. Ratnagiri (8th-9th October 2010).