



Dr. Jayshree Keshav Khedkar

Assistant Professor

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Sr No	Description	Details
1	Name	Dr. Jayshree Keshav Khedkar
2	Date of Birth	March 23, 1985
3	Designation	Assistant Professor
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1. Educational Qualifications:

Qualification	University	Class / Grade	College	Year
S.S.C	Maharashtra State Board	First Class with Distinction	M M Nirhali Mahavidyalay, Pathardi	2001
H.S.C	Maharashtra State Board.	First Class	Residential Junior College Ahmednagar	2003
B.Sc	Savitribai Phule Pune University	First Class with Distinction	Shri Anand College, Pathardi	2006
M.Sc.	Savitribai Phule Pune University	Second Class	Department of Chemistry Savitribai Phule Pune University	2008
Ph.D.	Savitribai Phule Pune University	-----	Department of Chemistry Savitribai Phule Pune University	2012
Post doctorate	Indian Institute of Technology Bombay (IIT-B)	-----	Department of Chemistry Indian Institute of Technology Bombay (IIT-B)	Oct 2012 - Jan 2014
Post doctorate	Pohang University of Science and Technology (POSTECH) Pohang, South Korea	-----	Institute of Basic Science (IBS) Center for self-assembly and complexity, Pohang University of Science and Technology (POSTECH) Pohang, South Korea.	Feb 2014-2016

Title of the thesis:

“Electronic Structure and Spectral Characteristics of Cyclodextrin, Cucurbit[n]uril or Calix[n]arene macrocycles complexed with organic molecules”

Supervisor: Professor Shridhar P. Geji

Project Title: "Organic-Inorganic hybrid materials of the conjugates of carbohydrates and calixarenes and proteins of alpha-helical albumins and Beta-sheet lectins" (Oct 2012 - Jan 2014)

Supervisor: Professor Chebrolu Pulla Rao

2. Awards / Recognition

Best oral presentation award at International Conference on “Sustainable Materials for Advanced Research in Technology” organized by Bauraoji Gholap College, Sanghavi, Pune. February 5-6, 2019.

3. Teaching/ Industrial Experience:

Duration	Designation	Institution	Experience
July 2017- April 2019	Assistant Professor	Ahmednagar Jilha Maratha Vidya Prasarak Samaj’s New Arts, Commerce and Science College, Shevgaon. Tal - Shevgaon Dist- Ahmednagar	2 years
August 2019- present)	Assistant Professor	Shri Anand College Pathardi, Tal – Pathardi, Dist- Ahmednagar	

4. Induction program/ Orientation/ Refresher/Faculty Development Program / short Term Courses attended:

1. Refresher Course in Chemistry organized by the Human Resource Development Centre, University of Hyderabad from **8th to 20th November, 2021**
2. Inter-Disciplinary Online Two - Week Refresher Course/Faculty Development Programme On “Managing Online Classes & Co- Creating MOOCS 8.0” from **04 - 18 September, 2021**
3. One Week Online National Faculty Development Program/ Refresher Course organized by Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education, **25th February to 03rd March, 2021**
4. Two Weeks Faculty Development Programme on "ADVANCED CONCEPTS FOR DEVELOPING MOOCS" from July **02 - July 17, 2020.**
5. Two Weeks Faculty Development Programme on "MANAGING ONLINE CLASSES and CO-CREATING MOOCS:2.0" from **May 18 - June 03, 2020**
6. Faculty Induction Programme held at Indian Institute of Science Education and Research (IISER) Pune under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education from **30th Oct to 23rd November, 2019**
7. One week online Short Term Training Programme (STTP) in Association with CCE on *Advanced Analytical Techniques in Chemistry (AATC-2020)* held during **26-10-2020 to 30-10-2020** organized by Applied Chemistry Department, S. V. National Institute of Technology, Surat.

5. List of Conferences/Workshop Attended

1. One Day Workshop on “Syllabus Restructuring at F.Y.B.Sc. (Chemistry) in the Light of NEP-2020” in held on 20th September 2023 at Sahakar Maharshi Bhausaheb Santuji Thorat College, Sangamner.
2. An International Conference on “Recent Advances in Chemical Sciences (RACS-23)” organized by Department of Chemistry, Sonopant Dandekar College, Palghar on **10th March, 2023**
3. Worked as a Resource Person at Two-day National Seminar on “INDIA @75” held on **27th and 28th April 2023**
4. Two Day’s National Workshop on Implementation of National Education Policy 2020 during **06-07, February 2023** organized by Padmashri Vikhe Patil College of Arts, Science and Commerce Pravaranagar
5. National Workshop on “Adoption of Academic Bank of Credit (ABC)” organized by New Art’s Commerce and Science College Ahmednagar (Autonomous) held **on February 23-24, 2023**
6. A workshop on “Effective Implementation of National Education Policy - 2020” organized by New Art’s Commerce and Science College Ahmednagar (Autonomous) held on **February 22, 2023**
7. National Workshop on “Industry-Institute Linkage” Perspective : NEP 2020”, **9-10 February 2023** at C.T. Bora College Shirur, Dist-Pune Maharashtra
8. Two day National Workshop on "Implementation of National Education Policy 2020: Adoption of Academic Bank of Credits" **on 13-14th February, 2023**, organized by Sangamner Nagarpalika Arts , D.J.Malpani Commerce and B.N.Sarda Science College (Autonomous), Sangamner ,Supported by Savitribai Phule Pune University , Pune.
9. International Symposium on “Materials of the Millennium: Emerging Trends and Future Prospectus (MMETFP-2021)” held at School of Technology Pandit Deendayal Energy University on **November 19-21, 2021**.
10. Participated in the “THREE-DAYS ONLINE NATIONAL WORKSHOP ON CHEMISTRY” Organized by N. B. Mehta (Valwada) Science College, Bordi, on **6th September to 8th September 2021**.
11. Participation in Teacher's Workshop on "New Revised Syllabus of T. Y. B. Sc. Chemistry SPPU Pune" ON **30 August 2021**, organised by Department of Chemistry Ramkrishna More ACS College Akurdi, Pune-44
12. Participated in National Weinar entitled " Nano-Catalytic Fixation of Dioxide (CO₂) in to Organic Molecules: Controlling Reaction for Global Warming" held on **11 July**, oranized by Chemistry Department and IQAC of Shri Madhavrao Patil Mahavidyalaya, Murum.
13. Participated in Two Days State Level Webinar on "HPLC-Instrumentation Technique and Mass Spectrometry" in the subject of Chemistry on **23rd and 24th**, organized by Department of Chemistry C. B. Patel Computer College, and J. N. M. Patel Science College, Surat.
14. Participated in National Conference on “Advanced Material, Technology, Application and Education (Multidisciplinary) organized by Department of Physics, Hon. Balasaheb Jadhav Arts, Commerce and Science College Ale, Tal-Junnar on **16th October 2021**.
15. Participated in the Two Days Inter-Disciplinary National Conference on “Recent Trends in Mathematical Modeling, Simulation Methods, Computations & Physical Sciences (MMSCP-2021) jointly organized by Department of Mathematics, Department of Computer Science and Department of Physics & Electronics, on **8th & 9th September 2021**.

16. Participated in two days International Conference on “Emerging Novel Trends in Science for Human Welfare 2021 (ICENTSHW-2021)” held on **15th & 16th February 2021**
17. National Web Conference on “Novel Trends in Chemical Sciences (NTCS-2021)” organised by Department of Chemistry during **20-21 October, 2021.**
18. Participated in Three Days National Webinar on "IPR and e-Content Development" organized by Rajaram College Kolhapur, held on **8, 9 and 10th June 2020.**
19. Participated in Online Workshop on MSc-II Chemistry (Analytical, Organic and Drug) syllabus (CBCS-2020) organized by Department of Chemistry and IQAC, Padmashri Vikhe Patil College, Pravarnagar and sponsored by Savitribai Phule Pune University, Pune on **27th November 2020.**
20. Oral Presentation at International Conference on “Sustainable Materials for Advanced Research in Technology” organized by Bauraoji Gholap College, Sanghavi, Pune. **February 5-6, 2019.**
21. National Conference on "New Horizons in Material Science" organized at Department of Chemistry Ahmednagar Jilha Maratha Vidya Prasarak Samaj's New Arts, Commerce And Science College, Shevgaon. **Jan 22 – 23, 2018.**
22. Poster presentation, “Discrimination of α/β -Amino Saccharide Anomers by Cucurbit[7]uril” at 45th IUPAC World Chemistry Congress held at BEXCO, Busan, Korea. **August 9-14, 2015**
23. Research Student Seminar 2011, organized by Department of Chemistry, Savitribai Phule Pune University, (formerly University of Pune) University of Pune, on **March 25, 2011.**
24. Seminar “Future Challenges and Opportunities for Chemistry Students” organized by Department of Chemistry, Savitribai Phule Pune University, (formerly University of Pune) Pune, **December 22, 2011.**
25. J. K. Khedkar, **R. V. Pinjari**, S. P. Gejji “On the Encapsulation of (+)-Catechin and (-)- Epicatechin Enantiomers in β -Cyclodextrin” in the “Emerging Trends in Chemistry” Savitribai Phule Pune University, (formerly University of Pune) India, **January 5-7, 2010.**
26. The National Conference entitled “Changing Paradigms in Theoretical and Computational Chemistry: From atoms to Molecular Clusters” held at the Department of Chemistry, Savitribai Phule Pune University, (formerly University of Pune) University of Pune, during **December 18-20, 2009**

6. College/University Work / Duties:

Nature of the Committee	Member/Chairman
Squad/Vigilance	Member
CAP (FY,SY B.A., B.Sc.)	Co-ordinator
M.Sc. Paper setting	Member
NEP-2020	Co-ordinator
Internal Complaints Committee	Chairman
Women Empowerment Cell	Chairman
NSS	Programme Officer
Cultural Committee	Member

7. List of publications

1. Khedkar, J. K., Palve, A. M., Gupta, R.. (2022). Semiconducting Nanostructured Materials for Bioelectronics. In book: Bioelectronics (pp.187-201)
2. Musmade, S., Hase, D., Waghmare, A., Kadam, K., Khedkar, J., Gadhave, A., Bhavsar, K., & Murade, V. (2023). Synthesis of shape controlled Cu₂O and Cu₂O/TiO₂-QD composite for degradation of Congo red dye under visible-light irradiation. *Journal of Water and Environmental Nanotechnology*, 8(4), 406-416.
3. Binding of Methyl Viologen and its Radical to p-Sulfonatocalix[4]arene, M. F., Shaikh and J. K. Khedkar, *Asian Journal of Chemistry*; **2020**, 32(6), 1297-1302.
4. Cadmium Sulfide Loaded Activated Carbon: An Efficient, Solar Light Driven Photocatalyst for Rhodamine B Dye Degradation, SR Kande, UG Ghoshir, **J. K. Khedkar**, AB Gambhire, *Oriental Journal of Chemistry*, **2019**, 35(3), 1037-1044.
5. Nanocrystalline B/C/S-Doped ZnO-SnO₂ Photocatalysts: Preparation, Characterization and Photocatalytic Performance, SR Kande, UG Ghoshir, **J.K. Khedkar**, GG Muley, AB Gambhire, *Asian Journal of Chemistry*, **2019**, 31(9), 1971-1978.
6. Synthesis, characterization and photocatalytic activity of active carbon/ZnO nanocomposites using solar light, SR Kande, UG Ghoshir, **J.K. Khedkar**, AB Gambhire, *International Journal of Green and Herbal Chemistry*, **2019**, 8 (2), 567-580.
7. How does solvation affect the binding of hydrophilic amino saccharides to cucurbit[7]uril with exceptional anomeric selectivity? J. Wang, Y. Jang, **J.K. Khedkar**, J. Y. Koo, Y. Kim, C. J. Lee, Y. M. Rhee, K. Kim, *Chem. Eur. J.* **2016**, 22, 15791.
8. Can we beat the biotin-avidin pair?: cucurbit[7]uril-based ultrahigh affinity host-guest complexes and their applications D. Shetty, **J. K. Khedkar**, K. M. Park and K. Kim, *Chem. Soc. Rev.* **2015** 44, 8747-8761
9. E-Bodipy fluorescent chemosensor for Zn²⁺ ion. Roy, J.-Y. Shin, D. Shetty, **J. K. Khedkar**, J. H. Park, and K. Kim, *Journal of Photochemistry and Photobiology A Chemistry*, **2015** doi:10.1016/j.jphotochem.2015.08.015
10. Highly Sensitive and Selective Biosensors Based on Organic Transistors Functionalized with Cucurbit[6]uril Derivatives M. Jang, H. Kim, S. Lee, H. W. Kim, **J. K. Khedkar**, Y. M. Rhee, I. Hwang, K. Kim,* and J. H. Oh* *Adv. Func. Mater.*, **2015**, 25 (30), 4882-4888.
11. A Simple Modular Aptasensor Platform Utilizing Cucurbit[7]uril and Ferrocene Derivative As an Ultrastable Supramolecular Linker D.-W. Lee, K. M. Park, B. K. Gong, D. Shetty, **J. K. Khedkar**, K. Baek, J. Kim, S. H. Ryu, and K. Kim *Chem. Commun.*, **2015**, 51, 3098-3101.
12. Coumarine-imino-C2-glucosyl conjugate as receptor for Cu²⁺ in blood serum milieu, on silica gel sheet and in Hep G2 cells and the characterization of the species of recognition S. Areti, **J. K. Khedkar**, S. Bandaru, R. Teotia, J. Bellare, C. P. Rao, *Anal. Chim. Acta*, **2015**, 873, 80-87.
13. Chemosensing ability of hydroxynaphthylidene derivatives of hydrazine towards Cu²⁺: Experimental and computational studies J. Dessingou, **J. K. Khedkar** and C. P. Rao *J. Chem. Sci.*, **2014**, 126, 1135-1141
14. Glyco-conjugate as selective switch on molecule for Hg²⁺ in the presence of albuminproteins, blood serum milieu and on silica gel solid support S. Areti, D. S. Yarramala, K. Samanta, V. K. Hinge, **J. K. Khedkar**, C. P. Rao *RSC Advances*, **2014**, 4, 16290-16297.
15. Thiourea linked glucopyranosyl-anthraquinone conjugate as fluorimetric and colorimetric reversible ON-OFF sensor for fluoride in acetonitrile, S. Areti, **J. K. Khedkar**, R. Chilukula, C. P. Rao, *Tetrahedron Letters*, **2013**, 54, 5629-5634.

16. Binding of nitrophenols isomers to calix[n]arene ($n=4,6$) hosts. **J. K. Khedkar** and S. P. Gejji *Computational and Theoretical Chemistry*, **2012**, 991, 201.
17. Binding of Rhodamine B and Kiton Red S to Cucurbit[7]uril: Density Functional Investigations. **J. K. Khedkar**, K. K. Jagtap, R. V. Pinjari, A. K. Ray, S. P. Gejji *J. Mol. Model.*, **2012**, 18, 3743
18. Hydrogen bond energies and cooperativity in substituted calix[n]arenes ($n=4, 5$). **J. K. Khedkar**, M. M. Deshmukh, S. R. Gadre, S. P. Gejji *J. Phys. Chem, A*, **2012**, 116, 3739- 3744
19. Electronic Structure, Vibrational Spectra and ^1H NMR of Halide ion (F^- , Cl^- and Br^-) Encapsulated Bambus[6]uril from Density Functional Theory. V. V. Gobre, P. H. Dixit, **J.K. Khedkar**, S. P. Gejji *Computational and Theoretical Chemistry*, **2011**, 976, 76-82
20. Electronic Structure, Molecular Electrostatic Potentials, Vibrational Spectra in Substituted Calix[n]arenes ($n= 4, 5$) from Density Functional Theory. **J. K. Khedkar**, R. V. Pinjari, S. P. Gejji *J. Phys. Chem, A*, **2011**, 115, 10624-10637.
21. Electronic Structure and Normal Vibrations in (+)-Catechin and (-)-Epicatechin encapsulated β -cyclodextrin **J. K. Khedkar**, V. V. Gobre, R. V. Pinjari, S. P. Gejji *J. Phys. Chem. A*, **2010**, 114, 7725-7732.
22. Cavity Diameter and Height of Cyclodextrins and Cucurbit[n]urils from the Molecular Electrostatic Potential Topography. R. V. Pinjari, **J. K. Khedkar**, S. P. Gejji *J. Incl. Phenom. Macrocycl. Chem.*, **2010**, 66, 371-38.

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Assistant Professor