



Dr. Virajkumar J Bhanvadia
Assistant Professor, Chemistry, SOS

Education Qualification:

Ph.D (Organic Chemistry), The Maharaja Sayajirao University of Baroda, Vadodara
M.Sc. (Industrial Chemistry), Institute of Science & Technology for Advanced Studies & Research (ISTAR), Vallabh Vidyanagar, Anand
B.Sc. (Industrial Chemistry), Natubhai V Patel College of Pure and Applied Sciences (NVPAS), Vallabh Vidyanagar, Anand

Research Interests:

Design and development of conjugated molecules and conjugated polymers for polymer solar cells (PSCs), organic light-emitting diodes (OLEDs) and organic field-effect transistors (OFETs); Development of conjugated microporous polymers (CMPs) for visible light photo-catalysis in organic transformations, hydrogen gas evolution as well as for adsorption and storage of various gases

Publications:

1. Viraj J. Bhanvadia, Hiren K. Machhi, Saurabh S. Soni, Sanjio S. Zade, Arun L. Patel, Design and development of dithienopyrrolobenzothiadiazole (DTPBT)-based rigid conjugated polymers with improved hole mobilities, *Polymer*, 211, **2020**, 123089, <https://doi.org/10.1016/j.polymer.2020.123089>.
2. Viraj J. Bhanvadia, Anwasha Choudhury, Parameswar Krishnan Iyer, Sanjio S. Zade, Arun L. Patel, Constructing fused bis-isatins from pyrroloindoles using direct oxidation approach and re-visiting indophenine reaction, *Polymer*, 210, **2020**, 123032, <https://doi.org/10.1016/j.polymer.2020.123032>.
3. Heta A. Patel, Viraj J. Bhanvadia, Hemant M. Mande, Sanjio S. Zade, Arun L. Patel, Benzochalcogendiazole-based conjugated molecules: investigating the effects of substituents and heteroatom juggling, *Org. Biomol. Chem.*, 17, **2019**, 9467-9478, <https://doi.org/10.1039/C9OB01762C>.
4. Viraj J. Bhanvadia, Arun L. Patel, Sanjio S. Zade, Constructing a self-assembling C3-symmetric covalently linked (fused) donor-acceptor-type molecule containing a hexaazatriphenylene core, *New J. Chem.*, 42, **2018**, 17700-17707, <https://doi.org/10.1039/C8NJ03793K>.
5. Viraj J. Bhanvadia, Yash J. Mankad, Arun L. Patel, Sanjio S. Zade, Synthesis, characterization and electrochemistry of polycyclic fused aromatic pyrroles and their conjugated polymers, *New J. Chem.*, 42, **2018**, 13565-13572, <https://doi.org/10.1039/C8NJ02252F>.
6. Viraj J. Bhanvadia, Heta A. Patel, Neha N. Sharma, Arun L. Patel, Synthesis, photophysical, electrochemical and single-crystal x-ray diffraction study of (Z)-2-phenyl-3-(5-(4-(thiophen-2-

yl)benzo[c][1,2,5]thiadiazol-7-yl)thiophen-2-yl)acrylonitrile, *Synthetic Communications*, 46 (12), 2016, 1052-1061, <https://doi.org/10.1080/00397911.2016.1185125>.

Industry Experience:

Officer-Production at Lupin Ltd., Dabhasa, Vadodara; May, 2011 – June, 2012; Exhibit batch production system; Experience of working in co-operation with R & D and Technology Transfer departments

Courses Taught:

F.Y.B.Sc. and S.Y.B.Sc. practicals including Organic qualitative analysis, Inorganic qualitative analysis and Quantitative analysis by working as Temporary Assistant Professor at Department of Chemistry, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara

Conference & Seminar:

1. Research paper presented at “National Symposium on Advances in Chemical Research (ACR)-2019” held at The M. S. University of Baroda on 24th February, 2019.
2. Research paper presented at “Organic Molecules As Synthons & Reagents For Innovations (OMSRI)-2019” held at Indian Institute of Technology, Roorkee during 8th-10th February, 2019.
3. Research paper presented at “International Conference on Energy and Environmental Challenges (CE2C)-2019” held at Visveswaraya National Institute of Technology (VNIT), Nagpur during 18th-19th January, 2019.
4. Research paper presented at “7th All Gujarat Research Scholars’ Meet” organized by Indian Chemical Society, Vadodara Chapter, held at Department of Chemistry, Faculty of Science, The Maharaja Sayajirao University of Baroda on 25th February, 2018.
5. Research paper presented at “National Conference on Chemistry of Materials and Biologicals 2018” held at Indian Institute of Technology, Gandhinagar during 4th-5th January, 2018.
6. Research paper presented at “National Seminar on Structure and Chemistry of Materials” held at Department of Chemistry, Faculty of Science, The Maharaja Sayajirao University of Baroda on 15th October, 2016.
7. Research paper presented at “19th CRSI National Symposium in Chemistry” held at Department of Chemistry, University of North Bengal during 14th-16th July, 2016.
8. Research paper presented at “National Conference on Recent Trends in Science of Materials” held at Faculty of Science, The M. S. University of Baroda during 28th-30th December, 2015.

Awards & Honours:

Academic Awards

1. CSIR-Research Associate (RA), 2020
2. State Level Eligibility Test for Lectureship (SLET), 2016
3. UGC-Basic Scientific Research (BSR), awarded by University Grants Commission (UGC), Delhi, 2015
4. Graduate Aptitude Test for Engineering (GATE) in Chemistry (CY), 2013 & 2016
5. Solvay Speciality Pvt. Ltd. (Panoli) - sponsored research fellowship, 2012
6. “Dr R P Patel Gold Medal” in M.Sc. Industrial Chemistry, 2011

Prizes and Honours

1. "Best Presentation Award (Third)" for research paper presented at "National Symposium on Advances in Chemical Research (ACR)-2019", by The Maharaja Sayajirao University of Baroda, 2019
2. "Best Presentation Award" for research paper presented at "Organic Molecules As Synthons & Reagents For Innovations (OMSRI)-2019", by Indian institute of technology (IIT) – Roorkee, 2019
3. "Best Presentation Award" for research paper presented at "7th All Gujarat Research Scholars' Meet (AGRSM-VII)", by Indian Chemical Society, Vadodara Chapter and Department of Chemistry, The Maharaja Sayajirao University of Baroda, 2018
4. "Best Presentation Award" for research paper presented at "National Conference on Chemistry of Materials and Biologicals (NCONC)-2018", by Indian institute of technology (IIT) – Gandhinagar, 2018
5. "Best Presentation Award" for research paper presented at "National Seminar on Structure and Chemistry of Materials (SCM)-2016", by Department of Chemistry, The Maharaja Sayajirao University of Baroda, 2018
6. Awarded for securing highest marks in the discipline of M.Sc. Industrial Chemistry during Semester IV Examinations, held by Sardar Patel University, by Institute of Science & Technology for advanced Studies and Research (ISTAR), Vallabh Vidyanagar, 2011
7. First prize in essay competition held by Institute of Science & Technology for advanced Studies and Research (ISTAR), Vallabh Vidyanagar, 2010
8. Awarded for securing highest marks in the discipline of M.Sc. Industrial Chemistry during Semester II Examinations, held by Sardar Patel University, by Institute of Science & Technology for advanced Studies and Research (ISTAR), Vallabh Vidyanagar, 2010
9. Second prize in poster making competition held by Institute of Science & Technology for advanced Studies and Research (ISTAR), Vallabh Vidyanagar, 2009
10. Second Prize for the paper presented at "Science Excellence (SCXIL)-2009" in B.Sc. (Chemistry) category
11. First Prize for working project presented at Science Fair at Natubhai V Patel College of Pure and Applied Sciences, Vallabh Vidyanagar during academic year 2008-2009
12. First Prize for paper presentation at paper presentation competition held by Department of Chemical Sciences, Natubhai V Patel College of Pure and Applied Sciences, Vallabh Vidyanagar during academic year 2008-2009

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