

CURRICULUM VITAE



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➤ **EDUCATION :**

- **Ph. D.** in Chemistry, with research topic, “Novel Vinyl Acrylic Co-polymers based on Schiff base” May 2007. Guide : Prof. Arbinda K. Ray, Department of Chemistry, Sardar Patel University, Vallabh Vidya Nagar, Anand – Gujarat.
- **M. Sc.** in Organic Chemistry, April 2003, Department of Chemistry, Sardar Patel University, Vallabh VidyaNagar, Anand – Gujarat.
- **B. Sc.** in Chemistry, April 2001, M. B. Patel Science College, Anand – Gujarat.

➤ **Professional Experience:**

- October 2023-to- Till date: Associate Professor, Department of Chemistry, Sardar Patel University, Vallabh Vidyanagar-388120.
- November 2019-to- October 2023 : Associate Professor and Head, Department of Organic Chemistry, Shri A. N. Patel P.G. Institute of Science and Research, Anand, Gujarat.
- June 2010-to- November 2019 : Assistant Professor, Department of Chemistry, Shri A. N. Patel P.G. Institute of Science and Research, Anand, Gujarat.
- October 2007 - June 2010: Lecturer, M.Sc. Department of Chemistry, M. B. Patel Science college, Anand, Gujarat.

➤ **Research :**

01 – National Patent with title, ” Solar phytochemical medicinal plant analyzer ”

01 – International Patent with title, “AI Operated Liquid Fertilizer Sprayer “

03 - Ph.D. Student Currently registered.

06 - Dissertation Students.

15 – International & National publications

➤ **Book Published: Total-03**

- Title – “Acrylate Copolymers of Vaniline Methacrylate”. **ISBN : 978-613-9-93502-4**
- Title – “Nuclear Chemistry”. **ISBN : 578-620-2-67142-2**
- Title – “Nucleus – An extreme source of energy”. **ISBN : 578-620-4-74756-5**

➤ **Expert Talks Given:**

- Lecture on “An International Historic Chemical Landmark by Indian Scientist “ at Shree P M Patel Institute of Postgraduate Studies & Research In Science ,Anand People’s Medicare Society, Anand
- Lecture on TLC and HPLC in National Hands-On workshop on comprehensive study based on caenorhabditis elegans an Animal model held at SANPPGIS&R, Anand.
- Lecture on Importance of physics in engineering at KJIT Polytechnique college, Savli, Vadodara, Gujarat.

➤ **Research Publications : [Total – 15]**

- “Exploring new schiff bases: Synthesis, Characterisation and Multifaceted Analysis for Biomedical Applications” in *ACS Omega journal*, D.O.I.- 10.10321/acsomega.4c02007,ISSN No: 1554 - 8120 , **May 2024.** [**I.F. - 4.8**]
- Accepted “Synthesis, Spectral Characterization, Thermal Investigation, Computational Studies, Molecular Docking, and In Vitro Biological Activities of new Schiff base Derived from 2-Chloro Benzaldehyde and 3,3’ dimethy-[1,1’-biphenyl]-4,4’- diamine” in *ACS Omega journal*, V-32, I-6, 1098-1108, ISSN No: 1554 - 8120 , **August 2023.** [**I.F. - 4.132**]
- “Design & synthesis of hybrid pharmacophore of β -lactum, 1,8-naphthyridine, and secondary amines; Discover their in vitro antimicrobial, anticancer properties & DFT and ADMET prediction studies” in *Medicinal Chemistry Research journal*, V-32, I-6, 1098-1108, ISSN No: 1554 - 8120 , **April 2023.** [**I.F. – 2.3**]
- “Natural Acid-Catalyzed synthesis of 6-6’-(((3,3’ – dimethoxy-[1,1’ biphenyl]-4,4’-diyl)bis (azanylydene))bis(methanylylidene)bis (2,4-dichlorophenol), its conventionally synthesized metal complexes and their potential as biological agents” in *RASAYAN JOURNAL OF Chemistry* , V-16, I-1, 61-68, ISSN No: 0976 - 0083 , **January-March 2023.** [**I.F. – 1.181**]
- “Green synthesis, biological activities and In Silico ADME Analysis of N,N’ –(3,3’ – dimethyl-[1,1’ biphenyl]-4,4’-diyl)bis (1-(2-Chlorophenyl)methanimine)and its metallic complexes with evaluation of broad – Spectrum therapeutic potential against multidrug resistant mastitis causing microorganisms”, in *PURAKALA Journal* V-31, I-02, 772-791, ISSN No: 0971-2143 , **2022.**
- “Multi-Component Coupling Reactions for Diversity-Oriented Synthesis” in *Indian Journal Of Natural Sciences*, V-12, I-68,34999-35007, ISSN No: 0976 - 0997 , **October 2021.** [**(ISI)I.F. – 2.452**]

- “In Silico Molecular docking study of Antiviral Phytochemical compounds and synthetic drugs as Potential binding compounds with SARS-CoV-2 Proteins” in *Advances in Bioresearch*, V-12, I-1, 2014 ISSN No: 2277 - 1573 , **January 2021**.
[**Global I.F. – 0.56**]
 - “Synthesis, pharmacological evaluation and structure-activity relationship study of hydrazones” in *Asian Journal of green chemistry*, V-4, I-2, 2014 ISSN No: 2588 - 4328, **January 2020**.
[**I.F. – 0.158**]
 - “In Silico Approach Towards the Prediction of Drug-likeness, In Vitro Microbial Investigation and Formation Of Dihydro pyrrolone Conjugates” in *Advance Journal Of Chemistry-Section A*, V-3, I-2, ISSN No: 2645 - 5676 , **June 2020**. [**I.F. - 2.3**]
 - “Physical properties, Synthetic Approach and Pharmaceutical Use of Pyrazol” in *Journal of Chemistry and Chemical Sciences*, V-7,I-12,ISSN No: 1331-1341, **December 2017**. [**Global I.F. – 0.676**]
 - “Chiral (Asymmetric)Synthesis of Novel Lactams and Study of their Antimicrobial Activity” in *International Journal for Pharmaceutical Research Scholars (IJPRS)* V-3, I-2, 2014 ISSN No: 2277 - 7873 , **June 2014**. [**Global I.F. – 0.435**]
 - “Synthesis of acrylic copolymers and their antimicrobial screening” in Scholars Research Library, *Der Pharma Chemica*, V- 5,I-3:63-72, ISSN 0975-413X, **2013**.
 - “Acrylic copolymers based on Schiff base moiety:Synthesis and their antimicrobial Properties” in *Der Chemica Sinica*, V- 3, I-2:391-401,ISSN: 0976-8505, **2012**.
[**Global I.F. – 0.676**]
- “Novel Acrylic copolymers based on Schiff base: Synthesis, characterization and antimicrobial activity” in *Journal of Chemical and Pharmaceutical Research*, V- 4(12) :5215-5224,ISSN : 0975-7384, **2012**.
[**Global I.F. – 0.543**]
- “Synthesis, Characterization, Thermal Properties and Antimicrobial Activity Of Acrylic Copolymers Derived From 2,4 Dichlorophenyl Acrylate” in *J. Chil. Chem. Soc.*, 54, N° 3, **January 2009**. [**I.F. – 1.81**]
 - “Synthesis, Characterization, Thermal Studies, and Antimicrobial Screening of Poly (acrylate)s Bearing 4-Methyl Coumarin Side Groups” in *Iranian Polymer Journal*, V-17, I-8, 635-644,ISSN – 1026-1265, **August 2008**. [**I.F. – 2.485**]

➤ **PRESANTATIONS OF POSTERS/ORAL**

- Patel R.J ; Patel Z.R. Presented a poster entitled “SYNTHESIS AND CHARACTERIZATION OF NEWLY DERIVED VINYL METHACRYLATE COPOLYMERS BASED ON SCHIFF BASE AND THEIR BIOCIDAL ACTIVITY” in the International conference on “Recent Trends in Applied Sciences: Building the Institutional and Industrial Avenues (ICRTAS-2015)” at Shri Alpesh N. Patel Post Graduate Institute, Anand on 10th – 12th December **2015**.
- Patel R.J ; Patel B.C. presented a poster entitled “Determination of Acrylic Co-polymers, thermal stability and Microbial Screening” at the National Seminar on “Recent Advances in Applied Sciences” (RAAS) Organized by the ShriAlpeshN.Patel Post Graduate Institute, Charotar Education Society, Anand ,Gujarat, India on 8th March, **2013**.
- Patel R.J ; Patel B.C. presented a poster titled “Antimicrobial activity of Novel Acrylic Copolymers” at the UGC-CPE sponsored National Seminar on “Recent Advances in Life Sciences and Chemical Sciences” by Department of Bio-Sciences & Chemistry, M.B.Patel Sciences college,Anand on Saturday,10th August, **2013**.

- Patel R.J ; presented a poster paper at “National Seminar on Trends in Polymer Science and Technology” organized under auspices of UGC funded Centre of Excellence in applied polymers, held at department of chemistry,SPU on 8-9th march **2007**.
- Patel R.J ; presented an oral at state level seminar on “Recent Advances in Chemistry” organized under auspices of UGC funded , at V.P & R.P.T.P. Science College,Vallabh Vidyanagar on 18-19th June **2006**.
- Patel R.J ; presented a poster paper in the National Seminar On “Modern Trends In Nanotechnology & Supramolecular Assemblies” held at Institute of Pharmacy,Nirma University of Science and Technology,Ahmedabad on 2-3rd April **2005**.
- Patel R.J ; presented a paper in the *XIX* Gujarat Science Congress in the session of chemistry, held at Sardar Patel University on 19th February **2005**.

➤ **CONFERENCE , SEMINAR AND WORKSHOP ATTENDED :**

- Patel R.J. attended the Workshop on “ Ethical considerations in Current Research in Human Participants” supported by ICRM and GSBTM organized by Shri Alpesh N. Patel Postgraduate institute, C.E.Society, Anand , (Gujarat , India),held on 4-5th July, **2014**.
- Patel R.J. attended the UGC Sponsored National Seminar on “Novel Drug Delivery Systems and Trends in Chemical Sciences” jointly organized by Department of Chemistry of Pharmaceutical Sciences , Sardar Patel University , VallabhVidyanagar during 24th-26thMarch , **2014**.
- Patel R.J. attended the UGC Sponsored National Workshop on “FRONTIERS IN CHEMISTRY” organized by Department of Chemistry , Sardar Patel University, VallabhVidyanagar , held during 2nd-4th February-**2012**.
- Patel R.J. attended the State Level One Day Seminar on “THE ROLE OF CHEMISTS IN INDUSTRIES & RESEARCH” Organized by Department of Chemistry , Arts , Science & Commerce , College , Held on 31st December-**2011**.
- Patel R.J. attended the Workshop For framing of syllabus of III to VI Semester B.Sc (Chemistry) under CBSC system, organized by Chemistry Department, M.B.Patel Science College, Anand on 26th& 27th Nov.**2011** sponsored by IQAC cell, Sardar Patel University , VallabhVidyanagar.
- Patel R.J. has participated as Delegate in National Seminar on “Recent Advance in Drug Discovery” held at Institute of Pharmacy, Nirma University on 9th September **2010**.
- Patel R.J. has participated in National Level Seminar on “Research in Chemistry at the Crossing Edge of Other Science”, (RC EOS-09) held at Natubhai V. Patel College of Pure and Applied Sciences held on 8-9th November **2009**.
- Patel R.J. has participated in the National Workshop “an approach to Analytical Instruments Commonly Used in Chemical Industries” held at Department of Chemistry Bhavnagar University, Bhavnagar on 22nd& 23rd December **2006**.
- Patel R.J. has participated as delegate in the “Workshop cum Hand-on-Experience Course in GC-MS” held at the Sophisticated Instrumentation Center For Applied Research & Testing (SICART), Vallabh Vidyanagar from 5th to 7th March **2006**.
- Patel R.J. has participated in the Regional Workshop “an approach to Analytical Instruments Commonly Used in Chemical Industries” held at Department of Chemistry Bhavnagar University, Bhavnagar on 17th& 18th September **2005**.
- Patel R.J. attended the attended a paper (oral/poster) at the “Seminar on Polymer & Nanomaterials” under the Centre of Excellence in Applied Polymers held on 13th March, **2004** at Sardar Patel University, Vallabh-Vidyanagar.

➤ **Career Profile:**

An extremely skilled, experienced and professional Chemistry Professor with diverse knowledge of conducting research and teaching chemistry. Seeking a position as research Scientist to utilize my skills and proficiency in a well-established educational organization.

➤ **Duties as Chemistry Associate Professor and Head Of The Department**

- Headed the department of chemistry of Shri a. N. Patel P.G.Institute of science and research, anand from **June 2010 to October 2023**.
- Responsible to the tasks of conducting regular lectures **on synthetic dyes, pigments, Stereochemistry of organic compounds and different spectroscopy** in the classroom and chemical experiments of preparations of Drugs, Heterocyclic moieties and their analytical interpretations of NMR, IR,GC, HPLC, Analysis of industrial products in the laboratory.
- Handled the tasks of monitoring and supervising postgraduate research scholars during their **dissertation**.
- Worked on various projects like molecular modeling, organic synthesis, the conversion of solar energy to electricity and the mechanisms of proton transfer reactions.
- Involved in activities like developing externally-funded research programs.
- Responsible for the tasks of delivering scheduled lectures and analyzing test results.
- Assigned the tasks of planning and designing various projects based on organic chemistry.
- Handled the tasks of planning, developing and using effective teaching materials as well as methods to assist students in meeting their goals.
- Reviewed, evaluated and revised program curriculum and teaching techniques through the process of self-evaluation.
- Handled the tasks of maintaining high standards of competence in teaching methodologies through professional development activities.
- Participated in setting the goals and objectives of the department as well as planned the strategies for achieving those goals.
- Handled the tasks of evaluating student performance constructively and provides timely feedback.
- Responsible for developing and using syllabus along with course information materials for each course, laboratory and clinical settings.

➤ **Other Professional Activities :**

- Helping Ph.D. students of various discipline in college for interpretation of NMR, IR , Mass spectra of their newly synthesized molecules.
- Senate member of S. P. University.
- Nodal Officer of IQAC Cell of college.

➤ **Research Interests :**

- Organic Synthesis, Heterocyclic Chemistry, Natural Products, Spectroscopic Analysis and Polymer Chemistry.