

Curriculum Vitae

- Name** : Dr. Satish Kumar Patel
- Date of Birth** : 12/04/1985
- Address** : New colony Ballabh Nagar,
Ratehra, Street-5, Rewa (M.P.)
- Contact** : Email: patelsatish33@yahoo.co.in
Mobile: +919425999008
- Academic Qualifications** : B.Sc., M.Sc., M.Phil., Ph.D.
- Membership/Fellowship of Academies/Institutions/ Professional Societies** : Life Member of Indian Science Congress Association (Membership No. – **L41234**)



EDUCATIONAL DETAILS

NO	EXAM/DEGREE	BOARD/UNIVERSITY	PERCENTAGE	YEAR OF PASSING
1	10 th	M.P. BOARD, BHOPAL	78 %	1999
2	12 th	M.P. BOARD, BHOPAL	70 %	2001
3	B.Sc. (BTCH)	B.U., BHOPAL	59.91 %	2007
4	M.Sc. Chemistry	A.P.S.U., REWA	75.6 %	2012
5	M.Phil. Chemistry	A.P.S.U., REWA	A (8.98)	2014
6	Ph.D. Chemistry	A.P.S.U., REWA	-	2021

Ph.D. Details

Name of Guide: Prof. R. N. Patel

Title of Thesis: COPPER(II) AND NICKEL(II) MONO- AND BINUCLEAR COMPLEXES WITH TRIDENTATE LIGANDS: SYNTHESIS, XRD STRUCTURES, SPECTRAL, BIOLOGICAL AND DFT STUDIES

Ph.D. Award date: 04/03/2022

University: Awadhesh Pratap Singh University, Rewa (M.P.)

Total International Publications: 16

Total Teaching experience: 5 Years (3 Years PG and 2 Years UG) till date

Best Oral presentation award in Indian Council of Chemists, Mangalore 2018.

List of Publications

- 1 Copper hydrazone complexes with different nuclearities and geometries: Synthesis, characterization, single crystal structures, Hirshfeld analysis and superoxide dismutase mimetic activities
S.K. Patel, R.N. Patel, A.K. Patel, N. Patel, D. Choquesillo-Lazarte, **J. Mol. Struct.** 1257 (2022) 132545.
- 2 Synthesis, single crystal structures, DFT and *in vitro* anti oxidant superoxide dismutase studies of copper(II) complexes derived from the di-(2-picolyl) amine and co-ligands: Promising antioxidants
S.K. Patel, R.N. Patel, A.K. Patel, N. Patel, M. Cortijo, S. Herrero, D. Choquesillo-Lazarte, **Polyhedron**, 212 (2022) 115609.
- 3 A tetranuclear nickel(II) complex, $[\text{Ni}_4(\text{L})_4](\text{ClO}_4)_4 \cdot 2\text{H}_2\text{O}$, with an asymmetric Ni_4O_4 open-cubane core
R.N. Patel, **S.K. Patel**, A.K. Patel, N. Patel, R.J. Ray, Acta Crystallographica Section 78E (2022) 98-102.
- 4 Structural diversity of copper(II) complexes with three dimensional network: Crystal structure, Hirshfeld surface analysis, DFT calculations and catalytic activity
D. Kumhar, R.N. Patel, **S.K. Patel**, A.K. Patel, N. Patel, R.J. Ray, **Polyhedron**, 214 (2022) 115633.
- 5 Copper(II) hydrazone complexes derived from (Z)-N'-{(2-hydroxynaphthalen-1-yl)methylene}acetohydrazide: Synthesis, spectral characterization, electrochemical behaviour, density functional study, *in vitro* catalytic activity and molecular docking
A. K. Patel, R. N. Jadeja, N. Patel, R. N. Patel, **S. K. Patel**, R. J. Butcher, S. Kumar, G. Kumar, **Results in Chemistry**, 4 (2022) 100244.
- 6 Molecular structures, spectral, electrochemical, DFT and antioxidant activities of copper(II) complexes with NNO donor Schiffbase ligand
Y. P. Singh, **S. K. Patel**, **J. Mol. Struct.** 1228 (2021) 129457.
- 7 Three new tetranuclear phenoxybridged metal(II) complexes: Synthesis, structural variation, cryomagnetic properties, DFT study and antiproliferative properties
S. K. Patel, R. N. Patel, Y. Singh, Y. P. Singh, D. Kumhar, R. N. Jadeja, H. Roy, A. K. Patel, N. Patel, N. Patel, A. Banerjee, D. Choquesillo-Lazarte, A. Gutierrez, **Polyhedron**, 161 (2019) 198–212.
- 8 Two new copper(II) binuclear complexes with 2-[(E)-(pyridine-2ylhydrazono)methyl]phenol: Molecular structures, quantum chemical calculations, cryomagnetic properties and catalytic activity
R. N. Patel, **S. K. Patel**, D. Kumhar, N. Patel, A. K. Patel, R. N. Jadeja, N. Patel, R. J. Butcher, M. Cortijo, S. Herrero, **Polyhedron**, 188 (2020) 114687.
- 9 New mono- and polynuclear copper(II) complexes: Structural characterization, quantum chemical calculations and antioxidant superoxide dismutase studies
R. N. Patel, **S. K. Patel**, D. Kumhar, N. Patel, R. J. Butcher, **Indian J. Chem.**, 60A (2021) 506-518.
- 10 Supramolecular assemblies of new pseudohalide end-to-end bridged copper(II) complex

- and molecular structural variety of penta and hexa-coordinated metal(II) complexes with hydrazido-based ligand
Y. Singh, R. N. Patel, **S. K. Patel**, R. N. Jadeja, A. K. Patel, N. Patel, H. Roy, P. Bhagriya, R. Singh, R. J. Butcher, J. P. Jasinski, S. Herrero, M. Cortijo, **Inorg. Chim. Acta**, 503 (2020) 119371.
- 11 Non-covalent interactions governing the supramolecular assembly of copper(II) complexes with hydrazone-type ligand: Experimental and quantum chemical study
Y. Singh, R. N. Patel, **S. K. Patel**, R. N. Jadeja, A. K. Patel, N. Patel, H. Roy, P. Kumar, R. J. Butcher, J. P. Jasinski, M. C. Montes, S. Herrero, **Polyhedron**, 200 (2021) 115142.
- 12 Experimental and quantum computational study of two new bridged copper(II) coordination complexes as possible models for antioxidant superoxide dismutase: Molecular structures, X-band electron paramagnetic spectra and cryogenic magnetic properties
Y. Singh, R. N. Patel, **S. K. Patel**, A. K. Patel, N. Patel, R. Singh, R. J. Butcher, J. P. Jasinski, A. Gutierrez, **Polyhedron**, 171 (2019) 155- 171.
- 13 Dioxidovanadium(V) complexes of a tridentate ONO Schiff base ligand: Structural characterization, quantum chemical calculations and in-vitro antidiabetic activity
N. Patel, A. K. Prajapati, R. N. Jadeja, R. N. Patel, **S. K. Patel**, I. P. Tripathi, N. Dwivedi, V. K. Gupta, R. J. Butcher, **Polyhedron**, 180 (2020) 114434.
- 14 Copper(II) hydrazone complexes with different nuclearities and geometries: Synthesis, structural characterization, antioxidant SOD activity and antiproliferative properties
A. K. Patel, R. N. Jadeja, H. Roy, R. N. Patel, **S. K. Patel**, R. J. Butcher, M. Cortijo, S. Herrero, **Polyhedron**, 186 (2020) 114624.
- 15 Model investigations for vanadium-protein interactions: Synthesis, characterization and antidiabetic properties
N. Patel, A. K. Prajapati, R. N. Jadeja, R. N. Patel, **S. K. Patel**, V. K. Gupta, I. P. Tripathi, N. Dwivedi, **Inorg. Chim. Acta**, 493 (2019) 20-28.
- 16 Pseudo-tetrahedral copper(II) complex derived from N'-[(2E,3Z)-4-hydroxy-4-phenylbut-3-en-2-ylidene]acetohydrazide: Synthesis, molecular structure, quantum chemical investigations, antioxidant and antiproliferative properties
A. K. Patel, R. N. Jadeja, H. Roy, R. N. Patel, **S. K. Patel**, R. J. Butcher, **J. Mol. Struct.**, 1185 (2019) 341-350.

Paper Presented in Conferences

- 1 Indian Council of Chemists 39th Annual National Conference Veer Narmad South Gujrat University, Udhana-Magdalla Road, Surat, Gujrat 11th April, 2021 (Online Mode) (**Oral Presentation**).
- 2 Online International seminar on current trends in chemical and pharmaceutical sciences (CTCPS-2021) department of chemistry Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.) 20-22th January 2021 (**Oral Presentation**).
- 3 National Conference on Science, Technology and Emerging Applications of Microscopy (STEAM-2019) November 11-12th 2019, organized by Department of Chemistry, Dr. Bhimrao Ambedkar University, Agra (**Oral presentation**).
- 4 National Seminar “Quality Management in Higher Education and Environmental Management” 31th March 2019 Organized by Govt. New Science College Rewa (M.P.) (**Oral presentation**).
- 5 Indian Council of Chemists 37th Annual National conference at National Institute of Technology Karnataka (NITK) Surathkal, Mangalore 12-14th December 2018 (Oral Presentation). “**Best Oral presentation award**”.
- 6 Indian Council of Chemists 37th Annual National conference at National Institute of Technology Karnataka (NITK) Surathkal, Mangalore 12-14th December 2018 (**Poster Presentation**).
- 7 The National Academy of Sciences, India 88th Annual session of the academy (NASI) held at Mahatma Gandhi ChitrakootGramodayaVishwavidalaya, Chitrakot, Satna (M.P.) from December 6-8th 2018 (**Oral Presentation**).
- 8 National Conference on Chemistry For Mankind held on Department of Chemistry, A.P.S. University Rewa (M.P.) 27-28th January 2018 (**Oral Presentation**).
- 9 Indian Council of Chemists 36th Annual National conference at School of Chemistry, Andhra University, Visakhapatnam-530003 (A.P.) 26-28th December 2017 (**Poster Presentation**).

Participated in workshop and seminar

- 1 “Software and Applications of Single Crystal X-Ray Diffraction” organized by Department of Chemistry, Smt. S. S. Patel Nootan Science and Commerce College, Visnagar, Mehsana (Gujarat) during 29-31th August **2019**.
- 2 “Fourier Transform Infrared Spectroscopy: Scientific And Societal Applications (FTIR-SSA)” 27-28th September **2019** held on St. Aloysius College (Autonomous) Jabalpur (M.P.).
- 3 Training Programme on Sophisticated Instruments 15-19th October **2019** held on Government Science College, Jabalpur (Model & Autonomous).
- 4 International Webinar on Recent Innovations in Chemical Sciences (RICS-2020) 18-20th July **2020**, organized by Department of Chemistry AKS University, Satna (M.P.)
- 5 “Supporting Chemistry Research with modern DFT (Density Functional Theory): Software, Techniques, and Applications” organized by Department of Chemistry, Smt. S. S. Patel Nootan Science & Commerce College, Visnagar, Dist.- Mehsana, Gujarat-384315, India during 5-16th February **2021**.
- 6 Workshop on Mapping of Science and Technology needs of Madhya Pradesh 20th February **2020** held on A.P.S. University, Rewa (M.P.)