# **Curriculum Vitae**

1. Name : Prof. R.N. Patel

: Professor & Dean 2. Designation

30th July, 1964 3. Date of Birth

4. Department(s) : Prof. R.N. Patel

affiliation and full **Department of Chemistry** 

address A.P.S. University, Rewa (M.P.)

5. Academic : M.Sc., Ph.D. & D. Sc.

Qualifications

**6.** Teaching experience : Twenty seven years P. G.

teaching experience.

### 7. Membership of the academic societies:

• Life member of Indian Chemical Society [Fellowship No./F/2447/(LM)]

• Life member of Indian Science congress

Association, [Fellowship No. F/2812(LM)]

• Life member of Instrument Society of Indian

[Fellowship No. F/584/(LM)]

• Life member of Chemical Research Society of India

[Fellowship No. F/823/(LM)]

• Life member of Indian Council of Chemists

[Fellowship No. F/1432/(LM)]

• Member of National Academy of Sciences India

(since 2012)



# 8. Details of the project/scheme completed or ongoing.

S.	Title of the project including Sanction No.	Total amount of	Total period of
No.		Grant	support with data
1.	X-band electron paramagnetic resonance and dropping mercury electrode behaviour of some copper-proteins and model compounds (MPCST C-57/90)	Rs. 1,24,800.00	Three years, completed on 31-3-98
2.	Synthesis of some dinuclear copper(II) systems as models for type-III copper (CSIR, 1525/98/EMR-II)	Rs. ~6,00,000.00	Three years, completed on 31-3-2000
3.	Superoxide dismutase activity of homo- and heterometallic complexes as possible models for superoxide dismutase (UGC, F-12-72/2001 (SR- I)	Rs. 1,96,560.00	Three years, completed on 3-6-2004
4.	Structural and functional studies on synthetic models for binuclear metal proteins (CSIR, 01/1832/03/EMR-II)	Rs. 7,73,999.00	Three years, completed on 31-3-2006
5.	Synthesis, characterization and properties of class I dinuclear mixed valance Cu(II)/Cu(I) complexes: An intervalance electron transfer study (UGC, F.30-76/2004(SR)	Rs. 5,19,100.00	Three years, completed on 31-12-2007
6.	Syntheses, structural, electrochemical behaviour and bio-mimetic activity of some new transition metal complexes possessing O, N and S donor sites (CSIR, 01(2094)/07/EMR-II)	Rs.10,76,000.00	Three years, The project completed on 31-3-2010
7.	Synthesis, structure, spectroscopic, magnetic and electrochemical studies of copper-copper and copper-zinc imidazolate bridged complexes (U.G.C. Scheme No. 36-28/2008(SR)	Rs. 6,69,300.00	Three years, The project completed on March 2012
8.	Synthesis, structure and studies of enzymatic nuclease: mimics by copper(II) mixed ligand complexes with biologically important ligands: Possible models for the chemistry of chemicalnuclease (DRDO Project No. ERIP/ER/0603574/M/01/1118)	Rs.14,84000.00	Two years, The project completed on May 2011
9.	Design, synthesis and bioactivity studies of copper(II) complexes: A plausible model for metalloproteins (MPCST-5986/CST/R&D/2012)	Rs.8,83000.00	Two years, The project completed on 31/03/2014
10.	Synthesis, X-ray and spectral studies of low molecular weight copper(II) synthetic models mimicking the bioactivity (CSIR-01(2451)/11/EMR-II)	Rs.20,26,000.00	Three years. The project completed on 31/07/2014.
11.	Synthesis Characterization and insulin mimetic activity of oxovanadium(IV) complexes: An approach to DFT calculations and new insights into the chemistry of oxovanadium(IV) complexes (MPCST- A/RD/RP-2/2015-16/245)	Rs. 4,48,000/-	Two Year. The project completed on 31/04/2017
12.	Structural diversity and supramolecular architectures of copper(II) complexes based on flexible Schiff bases with polyatomic moieties as coligands (CSIR-01(2917)/18/EMR-II)	Rs. 21,11,999/-	Three years and four months, completed on 31/07/2021

9. Publications : 155 Research Papers published and 4 Communicated

10. Thesis Supervised : Ph.D. 15 (Awarded)

: M.Phil. 32 (Awarded)

## 11. Academic achievements and other (administrative) activities:

- 1. Head Department of Chemistry (May 2009 to Dec. 2014 and Feb. 2018 to Feb. 2020).
- 2. Chairman of the board of studies in Chemistry (July 2009 to Dec. 2014) A.P.S. University, Rewa.
- 3. Acted as Asst. Supdt. and Supdt. for University Examination for many years.
- 4. Served as associate editor (for two years) "Journal of Indian Chemical Society".
- 5. Presented research papers in many International and National Symposia and Seminars
- 6. Incharge of the University Science Instrumentation Centre (USIC).
- 7. Prof.-in-charge of B.Sc. in (Chemistry & Biochemistry) and M. Sc. Biochemistry.
- 8. Served as Director of Pre. Examination Coaching Centre for SC/ST/Minorities.
- Convener of a National Seminar on "Recent Trends in Chemical Sciences" 12&13May 2010.
- 10. Member of Board of studies in chemistry (BU, Bhopal).
- 11. Organized two days Calibration of "International Year of Chemistry-2011" March 23 & 24, 2011.
- 12. Convener, National Seminar on "Expanding Horizons in Chemical Sciences" Oct 22 &23, 2011.
- 13. Program Co-ordinator, INSPIRE Internship Camp (DST)-2017 (27 Nov.-1 Dec. 2017).
- 14. Program Co-ordinator, INSPIRE Internship Camp (DST)-2019 (15 -19 Jan. 2019).

#### 12. References:

- Prof. K.B.Pandeya
   Ex. V.C. & Ex. U.P. P.S.C. Chairman
   191 MIG-1 Awantika ADA, Nany (Allahabad)
- 2. Prof. Rajeev Gupta
  Department of Chemistry
  Delhi University, Delhi.

- 3. Prof. H.B. Singh
  Department of Chemistry
  I.I.T. Bombay, Mumbai.
- 4. Prof. J. Niclos-Gutierrez
  Departamento de Quimica Inorganica
  Facultad de Framacia Universidad de Granada, Spain.
- 5. Prof. R. J. Butcher Department of Inorganic & Structural Chemistry, Howard University Washington DC, 22031 USA.

#### 13. Awards and recognition:

- 1. Rev. Fr. L. M. Yaeddanapally Memorial Award, 2007 Council of the Ind. Chem. Soc.
- **2.** Best Paper Award (A.P.S. Univ.- M.P.C.S.T. 2007-08).
- **3.** Best Paper award (A.P.S. Univ.-M.P.C.S.T.2008-09).
- **4.** Name included in World's top 2% scientists by Stanford University (USA) 2020.

#### 14. Foreign Visit:

- 1. Attended First Assian Conference on Bioinorganic Chemistry at Okajaki, 2003 Japan.
- 2. Attended XXI International Conference on Coordination and Bioinorganic Chemistry, Smolenice, 3-8 June, 2007 at **Slovakia**.
- 3. Attended Global Challenge's- The Role of Chemistry in Giving Their Solutions International Conference organized by Indian Council of Chemists at **Bangkok** dated 11-15 June, 2011.
- 4. Attended 2<sup>nd</sup> International Conference on Trends in Chemical Sciences going Beyond Frontiers 10-12 June 2012 at **Malaysia**.
- 5. Attended 3<sup>rd</sup> International Conference on Chemistry for Sustainable Development: Indian Perspective organized by Indian Council of Chemists at **Dubai Abu Dhabi** dated 11<sup>th</sup> -13<sup>th</sup> June, 2014.
- 6. Attended 3<sup>rd</sup> World Conference on Applied Sciences, Engineering and Technology [WCSET 2014] 27-29 September 2014, **Kathmandu**, **Nepal**.
- 7. Attended 4<sup>th</sup> International Conference on Applications and management in Chemical Sciences, 13<sup>th</sup> to 15<sup>th</sup> June 2015, **Tashkent**, **Uzbekistan**.

- 8. Attended 5<sup>th</sup> International Conference on Current Concepts in Chemistry, 7<sup>th</sup> to 9<sup>th</sup> June 2017, **Bali, Indonesia.**
- 9. Attended 6<sup>th</sup> International Conference of Indian Council of Chemists, 6<sup>th</sup> to 8<sup>th</sup> June 2019, **Paris**, **Brussels**.

#### 15. List of Scholars Awarded Ph.D.

[Under the supervision of **Prof. R. N. Patel**]

- 1. Dr. Nipendra Singh (2001)
- 2. Dr. K. K. Shukla (2002)
- 3. Dr. Ravi Prakash Shriwashtava (2002)
- 4. Dr. V. K. Soni (2002)
- 5. Dr. Saroj Sharma (2002)
- 6. Dr. V. L. N. Gundla (2007)
- 7. Dr. Mukesh Caoudhary (2009)
- 8. Dr. Anurag Singh (2010)
- 9. Dr. Sampat Prasad Rawat (2010)
- 10. Dr. Vishnu Prasad Sodhiya (2012)
- 11. Dr. Dinesh Kumar Patel (2012)
- 12. Dr. Yogendra Singh (2016)
- 13. Dr. Yogendra Pratap Singh (2017)
- 14. Dr. Satish Kumar Patel (2022)
- 15. Dr. Dinesh Kumhar (2022)

#### INTERNATIONAL CONFERENCE PAPERS

- 1. Thermodynamic parameters for ternary complex formation of some bivalent metal ions with aminoacids and some imidazoles, 95 (1997) IUPAC International Conference on Chemical and Biological Thermodynamics, GNDU Univ., Amritsar, (Jan. 5-8, 1997). R.N. Patel and K.B. Pandeya.
- 2. Model studies on copper-zinc superoxide dismutase, Coordination Chemistry at the turn of the Century, 4, 321-326 (1999). Edited by G. Ondrejovic and A. Sirota, Slovak Technical University Press, Bratislawa, 1999, K.B. Pandeya\* and R.N. Patel.
- 3. Superoxide dismutase activity of homo- and heterometallic complexes as possible models for superoxide dismutase, A9, Ing. P-15, Proceedings of the International conferences on Chemistry and Thirty sixth annual convention of chemists. 1999. R.N. Patel and K.B. Pandeya.
- 4. X-band electron paramagnetic resonance spectra of pig serum albumin-copper(II) and pig serum albumin-copper(II)-aminoacid systems. A9, Ing. P-17. Proceedings of the

- International conferences on chemistry and Thirty sixth annual convention of chemists, 1999. R.N. Patel and K.B. Pandeya.
- 5. Magnetic, EPR and SOD studies of some CuII-CuII, CuII-NiII and CuII-ZnII Imidazolate Bridged Complexes P-30, Page 95. The First Asian Meeting of Bioinorganic Chemistry (ASBIC) Okazaki, JAPAN, (March 7-10) 2003. R.N. Patel
- 6. The Chemistry of Synthetic models for copper(II) complexes and their biochemical relevance, Plenary Lecture, Page 76. XXI International Conference on Coordination and Bioinorganic Chemistry, Smolenice, 3-8 June, 2007 Slovakia. R.N. Patel.
- 7. Biological coordination chemistry of copper(II) complexes: Bioinorganic and inorganic perspective, Invited Lecture Page 56. International Conference (Indian Council of Chemists) Global Challenge's- The Role of Chemistry in Giving Their Solutions. Bangkok (Thailand), 11-15 June 2011, R.N. Patel
- 8. Unusual end-on bis (μ-acetato/μ-nitrato) bridged copper(II) complexes: Synthesis, structure, bioactivities and DFT calculations, 2<sup>nd</sup> International Conference (Indian Council of Chemists) page 5, 10-12 Junes 2012, Kuala Lumpur (Malasiya), R.N. Patel
- 9. Synthesis, Structure and eletrochemical properties of some unusual end-on bis(μ-acetato/μ- nitrato) bridged copper(II) complexes, 11<sup>th</sup> ISEAC DM 2014 (Fuel Chemistry Division, BARC, Mumbai) 20 25 February 2014, Amritsar Punjab (India), R.N. Patel
- 10. Synthesis, structure and biochemical properties of some bridged copper(II) complexes 3<sup>rd</sup> International Conference (Indian Council of Chemists) Dubai Abu Dhabi dated 11<sup>th</sup> 13<sup>th</sup> June, 2014. R.N. Patel
- 11. Some unusual end-on bis(μ-acetato/μ-nitrato) bridged copper(II) complexes: Synthesis, structures and magnetic properties [WCSET 2014], 27-29 September 2014, Kathmandu, NEPAL. R.N. Patel
- 12. Electron paramagnetic resonance as a tool to investigate the transition metal complexes 4<sup>th</sup> International Conference (Indian Council of Chemists) ICAMCS 2015, 13<sup>th</sup> to 15<sup>th</sup> June 2015, Tashkent, Uzbekistan. R.N. Patel
- 13. Structural variety and unusual zero-field splitting n the X-band electron paramagnetic spectra: Synthesis, molecular structures, DFT studies and antioxidant enzymatic activity of copper(II)complexes with N'-[(E)-phenyl(pyridine-2-yl)methylidene]benzohydrazide 5<sup>th</sup> International Conference on Current Concepts in Chemistry, 7<sup>th</sup>-9<sup>th</sup> June 2017, Bali, Indonesia. R.N. Patel
- 14. Copper(II) complexes as possible models for antioxidant superoxide dismutase 6<sup>th</sup> International Conference of Indian Council of Chemists, 6<sup>th</sup> to 8<sup>th</sup> June 2019, Paris, Brussels. R.N. Patel