

## **Dr Jyothi N Rao**

Assistant Professor – stage III

Department of Postgraduate Studies and Research in Chemistry

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### **Educational Qualification**

- MSc in Chemistry, Mangalore University
- PhD in Organic Chemistry titled “Synthetic studies on some Nitrogen and Oxygen containing heterocycles”, Mangalore University
- KSET

### **Recognition:**

Recognized as a research supervisor under Mangalore University

- Currently guiding two PhD scholars

**Award:** Best paper award for Anion detection in water samples using Schiff base based chemosensors in International conference on ICRAJMMS–2023 held at KSR College of Arts and Science for Women, Trichengode, Tamilnadu 16<sup>th</sup> & 17<sup>th</sup> March 2023 (OP –30)

## Research Activities

Research Project: (Period, agency, amount)

Funding Agency	Title of Project	Amount	Period/ Status
UGC	Synthesis of biologically important novel pyrazoles	1.75,000/-	2014–2016 Completed
MJES	Synthesis and characterization of novel colorimetric chemosensors for anion triggered CO <sub>2</sub> sensing in aqueous medium	1,25,000/-	2020– 2023 Completed

## List of Papers published

1. Synthesis, characterization of organochemosensors and their application for anion detection in water Jyothi Rao, R. Deeksha and G. S. Kavya *Rasayan J.Chem* Vol. 17 | No. 1 |113–117| January – March | 2024
2. A novel and efficient method to synthesis miconazole analogue and its Intermediates K Sujatha, Jyothi Rao , S. Vinayak Bhawat and Soujanya

*Rasayan J. Chem* 14 2021 0974–1496.

- Synthesis and study of 3-methyl-N-[arylmethylene]-1H-indazol-5-  
amines from 2-Hydroxy-4-aminoacetophenone and their antimicrobial  
activity Sujatha K, Jyothi N Rao, AMA Khader, Balakrishna Kalluraya,  
*International Research Journal of Pharmacy* 2020, 11 (8), 2230– 8407
4. Synthesis, Characterization and Antioxidant Activity of Pyrimidinone  
Derivatives  
Jyothi N Rao and Sujatha K *Der Pharma Chemica* 2020, 13 (4):1–4
5. Regioselective reaction: synthesis and pharmacological study of  
Mannich bases containing ibuprofen moiety KV Sujith, JN Rao, P Shetty,  
B Kalluraya *European journal of medicinal chemistry* 44 (9), 3697–3702
6. 4-Chloro-N'-[(Z)-4-nitrobenzylidene] benzohydrazide monohydrate HK  
Fun, PS Patil, JN Rao, B Kalluraya, S Chantrapomma *Acta  
Crystallographica Section E: Structure Reports Online* 64 (9), o1707–  
o1707 2008
7. Microwave assisted one-pot synthesis of some 2, 5-disubstituted 1, 3,  
4-oxadiazoles B Kalluraya, JN Rao, KV Sujith *Indian Journal Of  
Heterocyclic Chemistry* 17 (4), 359–362 2008
8. Ethyl 4-(4-methoxyphenyl)-2-oxo-6-phenylcyclohex-3-ene-1-

- carboxylate HK Fun, SR Jebas, JN Rao, B Kalluraya *Acta Crystallographica Section E: Structure Reports Online* 64 (12), o2448–o2448 2008
9. 3-Benzamidomethyl-4-[(E)-2-chlorobenzylideneamino]-1H-1, 2, 4-triazole-5 (4H)-thione  
HK Fun, SR Jebas, JN Rao, B Kalluraya *Acta Crystallographica Section E: Structure Reports Online* 65 (1), o48–o48 2009
10. An efficient microwave assisted synthesis of some pyrazolines and their biological activity JN Rao, KV Sujith, B Kalluraya *Indian Journal of Heterocyclic Chemistry* 18 (4), 365–368 2009.
11. Synthesis of some thiazoles carrying pyrazole moiety as possible antimicrobial agents JN Rao, B Kalluraya, S Shetty *Indian Journal of Heterocyclic Chemistry* 20 (2), 173–174 2010.
12. rac-2-Bromo-3-ethoxy-1, 3-bis (4-methoxyphenyl) propan-1-one HK Fun, SR Jebas, JN Rao, B Kalluraya *Acta Crystallographica Section E: Structure Reports Online* 65 (1), o19–o19 2009.
13. [3-(4-Chlorophenyl)-5-hydroxy-5-phenyl-4,5-dihydro-1H-pyrazol-1-yl](3-pyridyl) methanone HK Fun, SR Jebas, JN Rao, B Kalluraya *Acta Crystallographica Section E: Structure Reports Online* 64 (12), o2363–o2364 2008.
14. Solvent free microwave-assisted synthesis of some novel

pyrimidinones/ thiones and their biological studies, **Jyothi N. Rao** and Balakrishna Kalluraya Page No: 38–42 *Der Chemica Sinica* Volume 7: Issue 3: 2016.

15. Synthesis and antimicrobial studies of some new thiadiazepine derivatives **Jyothi N. Rao** and Balakrishna Kalluraya *International journal of Emerging Trends in Science and Technology* Page No. 3964–3967 (3), 2016.

- Synthesis of novel pyrazole derivatives by Vilsmeier Haack reaction  
16. **Jyothi N. Rao, Pooja, Nithya and Royline**, *International journal of Emerging Trends in Science and Technology* Page No. 5337–5342 (4)2017.

17. Synthesis of 1,3,4-oxadiazole derivatives, *International journal of chemistry and pharmaceutical science*, 2017, 5(9):155–159.

## **Refresher Course**

Attended 14 days Science Academies Refresher Course on “Molecules and Materials for Application in Synthesis and Devices” from May 7 – May 20, 2018 organized by Saiva Bhanu Kshatriya College, Arupukottai Tamilnadu

## Research papers presented in Conferences

1. Anion detection in water samples using Schiff base based chemosensors  
**Jyothi N Rao**, Shreya Bhakta and Anisha Rebello International conference on ICRAJMMS-2023 held at KSR College of Arts and Science for Women, Trichengode, Tamilnadu 16<sup>th</sup> & 17<sup>th</sup> March 2023 (OP -30)
2. Synthesis, Characterization and biological studies of novel pyrimidones  
Jyothi N Rao , Pooja and Nithya International conference on advances in Chemical and Material Sciences Mangalore University during October 17-19, 2019
3. Synthesis of some novel formylpyrazoles derived from pyrimidines  
Lingappa B, **Jyothi N. Rao** and Balakrishna Kalluraya National Conference on Current Trends in Chemical Research (CTCR) held at the Dept. of Chemistry, Mangalore University, during 13-14<sup>th</sup> May 2006 (Abs. No. 77) .
4. Ceric ammonium mediated synthesis of some novel 2,5- disubstituted-1,3,4- oxadiazoles  
**Jyothi N. Rao**, Sujith K.V and Balakrishna Kalluraya Annual National Conference of ICC, held at Birla College of Arts, Science and Commerce Kalyan Bombay, during 26<sup>th</sup>-28<sup>th</sup> December 2006 (Abs. No. 00-CYSA-11).
5. Synthesis of some novel pyrazolines **Jyothi N. Rao**, Sujith K.V and Balakrishna Kalluraya  
Annual National Conference of ICC, held at Birla college of Arts, Science and Commerce Kalyan Bombay, during 26<sup>th</sup>-28<sup>th</sup> December 2006 (Abs. No. 00- CYSA -12 ).
6. Synthesis, Characterization and Biological activity studies of 2-hydrazino-

pyrazolo-thiadiazepine and their hydrazones **Jyothi N. Rao**, Sujith K.V and Balakrishna Kalluraya

National Conference on Emerging Trends in Chemical Research, held at Annamalai University, during 17 –18<sup>th</sup> October 2008 ( Abs. No. P61).

7. Convenient Synthesis and Characterization of some Ibuprofen triazole derivatives Sujith K.V, **Jyothi N. Rao** and Balakrishna Kalluraya National Conference on Emerging Trends in Chemical Research, held at Annamalai University, during 17 –18<sup>th</sup> October 2008 (Abs. No. P 63).
8. Non-carboxylic analogues of arylpropionic acids: Synthesis and Characterization of some Ibuprofen oxadiazole derivatives Sujith K.V, **Jyothi N.Rao**, A. Muralidharan and Balakrishna Kalluraya National Seminar on Recent Trends in Chemistry , held at Govt. College, Kasaragod, during 6 –7<sup>th</sup> November 2008 (YRT-1).
9. Synthesis, Characterization and Biological activity studies of 3-alkyl / aryl – 9-substituted-1,2,4 triazolo[3,4-b] pyrazolothiadiazepines **Jyothi N. Rao**, Sujith K.V and Balakrishna Kalluraya 27<sup>th</sup> Annual Conference of ICC, held at Gurukul Kangri Vishwavidyalaya Haridwar, during 27–29<sup>th</sup> December 2008 (Abs.No.OP-CYSA-03).
10. Synthesis, Structural and Pharmacological Evaluation of Schiff and Mannich bases bearing Ibuprofen moiety Sujith K.V, **Jyothi N. Rao** and Balakrishna Kalluraya 27<sup>th</sup> Annual Conference of ICC, held at Gurukul Kangri Vishwavidyalaya Haridwar, during 27–29<sup>th</sup> December 2008 (Abs. No. OO-CYSA-03).
11. Synthesis of novel pyrazole derivatives by Vilsmeier Haack reaction Razeena, Abel, Sreenija and **Jyothi N Rao** National conference held at St Aloysius College Mangaluru during 3–4<sup>th</sup> February 2016 ( Abs No. OO-09).

