

Name: Dr. Mugada Sugunakara Rao

Employee ID: A5BSH00T103

Designation: Assistant Professor

Department: BS&H

Date of Birth: 05-05-1990

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Date of Joining in the Institution: 01-11-2021

Academic Excellence:

QUALIFICATION	BOARD / UNIVERSITY	DIVISION	YEAR
Ph. D. (Chemistry)	IIT Patna	-	October 2021
M. Sc. (Chemistry)	Acharya Nagarjuna University, Guntur	FIRST Class	April 2014
B. Sc. (Chemistry-Mathematics-Physics)	Andhra University-affiliated S.K Degree College, Vizianagaram	FIRST Class	March 2012

Other Achievements:

CSIR-National Eligibility Test: Qualified **CSIR-NET** examination in December-2014 in Chemical Science

Areas of Interest:

1. Organic Chemistry (Synthetic Organic Chemistry)
2. Synthesis of Heterocyclic compounds



3. Some Functionalized Organic Molecules
4. Multi-Step Synthesis
5. Domino and PASE Reactions
6. Catalysis
7. Green Chemistry
8. Development of new reaction methodologies

Details of Publications:

1. **Rao, M. S.**; Sarkar, S.; Hussain, S., Microwave-assisted synthesis of 3-aminoarylquinolines from 2-nitrobenzaldehyde and indole via SnCl₂-mediated reduction and facile indole ring opening. **Tetrahedron Letters**. 2019, 60 (18), 1221-1225. <https://doi.org/10.1016/j.tetlet.2019.03.047>
2. **Rao, M. S.**; Hussain, S.; DABCO-mediated decarboxylative cyclization of isatoic anhydride with aroyl/heteroaroyl/alkoylacetoneitriles under Microwave conditions: Strategy for the synthesis of substituted 4-quinolones. **Tetrahedron Letters** 76 (2021) 153187. <https://doi.org/10.1016/j.tetlet.2021.153187>
3. **Rao, M. S.**; Hussain, S.; One-Pot, Borax-mediated synthesis of structurally diverse N, S-heterocycles in water. **Tetrahedron Letters** 74 (2021) 153159. <https://doi.org/10.1016/j.tetlet.2021.153159>
4. **Rao, M. S.**; Hussain, S.; LUDOX HS-40 catalyzed pot, atom and step economic (PASE) synthesis of pyran annulated heterocyclic scaffolds, **Polycyclic Aromatic Compounds**, <https://doi.org/10.1080/10406638.2021.1872657>.
5. **Rao, M. S.**; Hussain, S.; TEMPO-mediated aerobic oxidative synthesis of 2-Aryl Benzoxazoles via Ring-Opening of Benzoxazoles with Benzylamines. <http://doi.org/10.1080/00397911.2021.1949476> (**Synthetic Communications**).
6. Molla, A.; Ranjan, S.; **Rao, M. S.**; Dar, A. H.; Shyam, M.; Jayaprakash, V.; Hussain, S., Borax Catalysed Domino Synthesis of Highly Functionalised Spirooxindole and Chromenopyridine Derivatives: X-Ray Structure, Hirshfeld Surface Analysis, and Molecular Docking Studies. **ChemistrySelect** 2018, 3 (30), 8669-8677. <https://doi.org/10.1002/slct.201801867>
7. Kumar, B.; **Rao, M. S.**; Kumar, P.; Hussain, S.; Das, S., Spectrophotometric investigation of 5-nitroso-6-aminouracil and its methyl derivative in methanol by selective complexation with bivalent metal ions. **J. Mol. Struct.** 2020, 1221, 128827. <https://doi.org/10.1016/j.molstruc.2020.128827>

Conferences (Participated and Poster Presentations)

1. One Day National Webinar–Natural Products: Their Importance and Applications organized by the Department of Chemistry, St. Anthony’s College, Shillong, Meghalaya on 27th November **2021**.
2. The National level Intercollegiate Online Faculty Development Program on Outcome Based Education organized by the Internal Quality Assurance Cell of Auxilium College (Autonomous), Vellore in association with ipsr solutions limited. 22 November 2021 to 27 November **2021** (6 days).
3. International Conference on Emerging Trends in Chemical Sciences (ETCS-2020), [Poster], February 13-15, **2020**, Gauhati University, Guwahati, India.
4. First International Conference on Frontiers in Chemical Sciences (ICFCS-2020), [Poster], March 4-5, **2020**, Karunya Institute of Technology and Sciences, Coimbatore Tamil Nadu, India.
5. Event on 8th Research Scholars day, “Research Scholar’s day 2019’ at Indian Institute of Technology Patna **2019** [Poster].
6. National Symposium on Emerging Trends in Chemistry (ETC-**2016**) organized by Department of Chemistry, Center for Advanced Studies, North-Eastern Hill University, Shillong, Meghalaya.
7. National Seminar on Modern Trends in Chemical Sciences (MTCS-**2013**) organized by Department of Chemistry, University College of Sciences, Acharya Nagarjuna University Nagarjuna Nagar, Guntur.

Details of Workshops Attended

1. National workshop on Theory and Applications of Single Crystal X-ray Diffraction from 21-23 March, **2018** organized by SAIF, Indian Institute of Technology Patna.
2. Workshop on Application of N.M.R for structural elucidation of Organic Compounds from 19-21 July, **2016** organized by SAIF, North-Eastern Hill University, Shillong, Meghalaya.

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