

CURRICULUM VITAE

Dr. BHAVANA RUSHI SANGPU

Mobile & WhatsApp : +919652604688

E-mail: sbrushi83@gmail.com

bhavana_rushi2007@yahoo.com

OBJECTIVE:

To achieve excellence in the field of Synthetic Organic Chemistry by acquiring skills and expertise through assignments and will also provide an opportunity to exhibit my capabilities.

ACADEMIC QUALIFICATIONS:

- **Post-Doc:** (Sep-2017 to Sep-2019) School of Chemistry and Chemical Engineering, Jiangsu University, Zhenjiang-212013, Jiangsu, China. Supervisor: Prof. Xie Jimin.
- **Ph. D:** (July 2009 to July 2014), ACSIR-IICT, Hyderabad, Telangana, India. Supervisor: Dr. J. Vatsala Rani, Senior Scientist, Fluoroorganic Division, Indian Institute of Chemical Technology, Hyderabad, India. Thesis title: "*Studies on Synthesis of Novel Pyrazole Derivatives and Evaluation of Their Biological Activity*". Received PhD award from ACSIR-IICT, Hyderabad, at the end of Dec-2014.
- **Master of Science:** (2006-2008) Specialization in Organic Chemistry, University Arts & Science College, Kakatiya University, Warangal, India.
- **Bachelor of Science:** (2001-2004) (Maths, Physics, Chemistry), BJR Govt Degree College, Osmania University, Hyderabad, India.

AWARDS & FELLOWSHIPS:

- Qualified through **UGC-JRF (NET)** in Dec-2008. A national level exam conducted by Council of Scientific and Industrial Research, Govt. of India.
- **Junior Research Fellow-UGC** (July-2009 to July-2011) Council of Scientific and Industrial Research, Govt. of India.
- **Senior Research Fellow-UGC** (July-2011 to July-2014) Council of Scientific and Industrial Research, Govt. of India.

RESEARCH & INDUSTRIAL EXPERIENCE:

- Working as an Officer at Research and Development Centre, Ortin Labs Pvt Ltd, Hyderabad (**October 2019 to till date**). Successfully involved in commercialization of API intermediates such as Edoxaban, Linezolid, Chloromethyl benzoyl chloride, Bilastine, Gefitinib, Quinazoline.
- Worked as a Post-Doctoral Research Scientist at School of Chemistry and Chemical Engineering, Jiangsu University, Zhenjiang, China-212013 (**Sep-2017 to Sep-2019**).

- Worked as a Research Associate at Processes Development Research Centre, Symed Labs Pvt Ltd, Hyderabad (**March 2015 to August 2017**). Successfully involved in commercialization of API molecules for antibiotic, anti-obesity agents.
- Five years of research experience in synthetic organic chemistry under the supervision of Dr. J. Vatsala Rani, Senior Scientist, Indian Institute of Chemical Technology, Hyderabad, Telangana, India (**July-2009 to July-2014**).
- Worked as a chemist at R&D Department, SR Fine Chem industries, Choutuppal, Nalgonda (**January 2009 to June 2009**). Successfully involved in the preparation of fine chemicals like quinolin-6-amine, 2-tetralone, 2-methyl-6-nitrobenzoic anhydride, 2-(bromomethyl)-1,3-dioxolane, (2-nitro-6-(trifluoromethyl)phenyl)methanamine.

PROFESSIONAL COMPETENCE:

- Synthesis and characterization of organic molecules for biological, medicinal and material science applications.
- Capable of executing multi-step synthesis and familiarity with all the chromatographic purification techniques used to separate the reaction products.
- Experienced in handling the air/moisture sensitive reagents, solvents, and in metal reactions.
- Familiar with the planning of synthetic methods to obtain target molecules.
- Capable of handling small scale as well as large scale organic reactions.
- Analytical techniques: Characterization of molecules by using ¹H NMR, ¹³C NMR, LCMS, HRMS, IR, UV, Single Crystal XRD and utilizing various analytical techniques such as HPLC and GC.
- Computer Awareness: Word Processor: MS Word, MS Excel and Power Point.
- Expertise in literature search of target molecules by using **Scifinder, reaxys and patents**.
Analyze suitable journal to support for synthetic target molecule
- Demonstrated capabilities in problem-solving and creative scientific approaches. Ability to work independently and trouble-shoot problem
- Efficient searching of literature in the field of organic chemistry through use of online data base.
- Other Software: ISIS Draw, Chemdraw Ultra 7.0, 10.0, 12.0 and 13.0 versions (Cambridge soft).

ACCOMPLISHMENTS IN DOCTORAL AND POST-DOCTORAL RESEARCH:

- Transition-Metal-Free Borylation of Propargylic Alcohols: Structurally Variable Synthesis in Ionic Liquid Medium
- Synthesis, cytotoxic, and DNA binding studies of novel fluorinated condensed pyranopyrazoles.
- Synthesis and antibacterial activity of 4,4'-(aryl/alkyl-methylene)-bis(1*H*-pyrazol-5-ol) derivatives.
- Synthesis of 2-(1*H*-pyrazol-4-yl)-1*H*-benzo[d]imidazoles, antimicrobial activity, and supporting docking studies.
- Synthesis of *N*-Aryl-3-aryl-1-(trifluoromethyl)-3*H*-benzo [4,5] imidazo [1,2-*c*] pyrazolo [4,3-*e*] pyrimidin-5-amine derivatives and their antibacterial activity.
- Synthesis of (1*H*-pyrazol-4-yl)methylene-hydrazide derivatives and their antimicrobial activity.

- Synthesis of Isoxazole/1,2,4-Oxadiazole/Cyclic secondary amines tagged pyrazoles and their antibacterial activity.

PERSONAL BIODATA:

Male, Married, Indian, born on 1st Aug 1983.

LIST OF PUBLICATIONS:

1. **Organic Chemistry Frontiers. 2019, 6, 1895-1899.**
Transition-Metal-Free Borylation of Propargylic Alcohols: Structurally Variable Synthesis in Ionic Liquid Medium. [Sangepu Bhavanarushi](#), Yin Xu, Imran Khan, Zhibin Luo, Bin Liu, Jimin Xie.*
2. **Journal of heterocyclic chemistry. 2019, 57, 1-10.**
(1*H*-pyrazol-4-yl)methylene-hydrazide derivatives: synthesis and antimicrobial activity. [Sangepu Bhavanarushi](#), Zhi-Bin Luo, Gandu Bharath, Jeti Vatsala Rani, Imran Khan, Yin Xu, Bin Liu, Jimin Xie,
3. **Journal of heterocyclic chemistry. (10.1002/jhet.4049).**
Trifluoroborane catalyzed chemoselective synthesis of highly functionalized 1, 3-thiazin-2-ylidenes. Zhibin Luo, [Sangepu Bhavanarushi](#), Avula Sreenivas, Narra Srikanth Reddy, Anil Valeru, Imran Khan, Yin Xu, Bin Liu, Jimin Xie.
4. **Synthetic Communications. 48(17), 2226-2231, 2018.**
Multicomponent synthesis and anticancer activity studies of novel 6-(Trifluoromethyl)-1, 2, 3, 4-tetrahydropyrimidine-5-carboxylate derivatives, Anil Valetu, Zhi-Bin Luo, Imran Khan, Bin Liu, [Bhavanarushi Sangepu](#), Narender Reddy Godumagadda, Yin Xu, Jimin Xie.*
5. **Journal of Carbohydrate Chemistry. 37 (5), 318-326, 2018.**
Renewable amberlyst-15 catalyzed highly regioselective tritylation and deprotection of sugar-based diols, Anil Valeru, Zhibin Luo, Srishylum Penjarla, Imran Khan, Bin Liu, [Bhavanarushi Sangepu](#), Yin Xu, Jimin Xie.*
6. **Synthesis. 50 (09), 1815-1819, 2018.**
Dihydroxylation of Olefins with Potassium Permanganate Catalyzed by Imidazolium Salt. Imran Khan, Zhi-Bin Luo, Anil Valeru, Yin Xu, Bin Liu, [Bhavanarushi Sangepu](#), Ji-Min Xie.*
7. **Journal of Heterocyclic Chemistry. 53, 754, 2016.**
Synthesis of Isoxazole, 1, 2, 4-Oxadiazole and (1*H*-Pyrazol-4-yl)-Methanone Oxime Derivatives from *N*-Hydroxy-1*H*-Pyrazole-4-Carbimidoyl Chloride and Their Biological activity. [S. Bhavanarushi](#), G. Bharath, A. Gangagnirao, J. Vatsala Rani.*
8. **Medicinal Chemistry Research. 2014, 23, 158-167.**
Synthesis and antibacterial activity of 4,4'-(aryl or alkyl methylene)-bis(1*H*-pyrazol-5-ol) derivatives. [S. Bhavanarushi](#), V. Kanakaiah, G. Bharath, A. Gangagnirao, J. Vatsala Rani.*
9. **World Journal of Pharmacy and Pharmaceutical Sciences. 2014, 3(8), 2065-2079.**

Synthesis and antimicrobial activity of 2-(1*H*-pyrazol-4-yl)-1*H*-benzo[*d*] imidazole derivatives. [S. Bhavanarushi](#), G. Bharath, A. Gangagnirao, J. Vatsala Rani.*

10. *World Journal of Pharmacy and Pharmaceutical Sciences*. 2014, 3(8), 1895-1914.

Design, an efficient ecofriendly synthesis of spirooxindole derivatives and their anticancer activity supported by molecular docking studies. Yakaiah Erugu, [Bhavanarushi Sangepu](#), Kanakaiah Varre, Rajesh Pamanji, Yashwanth Bomma, Venkateswara Rao Janapala, Vankadari Srinivasarao, Parthasarathy Tigulla, Vatsala Rani Jetty.*

11. *World Journal of Pharmacy and Pharmaceutical Sciences*. 2014, 3(12), 1612-1634.

Design, synthesis of novel quinoline-4-carboxylic acid derivatives and their antibacterial activity supported by molecular docking studies. Yakaia Erugu, [Bhavanarushi Sangepu](#), Bharath Gandu, Gangagnirao Anupoju, Vatsala Rani Jetty,

12. *Medicinal Chemistry Research*. 2013, 22, 2446-2454.

Synthesis, cytotoxic, and DNA binding studies of novel fluorinated condensed pyrano pyrazoles. [S. Bhavanarushi](#), V. Kanakaiah, E. Yakaiah, V. Saddanapu, A. Addlagatta, J. Vatsala Rani.*

13. *Journal of Electrochemical Society*. 2013, 160, A1781-A1784.

Fluorinated natural graphite cathode for rechargeable ionic liquid based aluminium ion battery. J. Vatsala Rani,* V. Kanakaiah, Tulshiram Dadmal, M. Srinivasa Rao, and [S. Bhavanarushi](#).

14. *Journal of Electrochemical Society*. 2011, 158, A1031-A1035.

Green Fluorination of Natural Graphite and its Application in Rechargeable Magnesium Ion Transfer Battery. J. Vatsala Rani,* [S. Bhavana Rushi](#), V. Kanakaiah and S. Palaniappan.

15. (Under review CCS).

Synthesis of *N*-Aryl-3-aryl-1-(trifluoromethyl)-3*H*-benzo [4, 5] imidazo [1, 2-*c*] pyrazolo [4, 3-*e*] pyrimidin-5-amine derivatives and their antimicrobial activity. [S. Bhavanarushi](#), V. Kanakaiah, E. Yakaiah, G. Bharath, A. Gangagnirao, J. Vatsala Rani.*

POSTER PRESENTED (OR) PARTICIPATED SYMPOSIA:

1. Participated as a delegate at International Symposium on **Nature Inspired Initiatives in Chemical Trends** on 2nd to 5th, March, **2014** held at the CSIR-Indian Institute of Chemical Technology Hyderabad, India.
2. Participated as a delegate at **16th CRSI National Symposium in Chemistry** on 7th to 9th, February, **2014** held at Indian Institute of Technology Bombay, Powai, and Mumbai, India.
3. Participated as a delegate in the A. P. Science Congress-2013 **Innovations in Science and Technology for Emerging Knowledge Society** held during 14th to 16th, November, **2013** in University of Hyderabad, Hyderabad, India.
4. Participated as a delegate at **Fifth International Symposium on Drug Development for Orphan/Neglected Diseases (CTDDR 2013)** on 26th to 28th, February, **2013** at CSIR-CDRI, Lucknow, India.
5. Participated as a delegate at International Symposium on **Chemistry and Chemical Biology of Natural Products (CCBNP 2012)** on 2nd to 4th August, **2012** in IICT-Hyderabad.

6. Presented a poster at **First Indian International Symposium on Fluorine Chemistry (IISFC 2012)** held during 20th to 24th, February, **2012** in **NDCC II**, Convention Centre, New Delhi, India.
7. Participated as a delegate at **Organic Synthesis and Human Well Being: Emerging Opportunities and Challenges (OSHWB 2010)** on 1st to 4th August, **2010** at IICT- Hyderabad

REFERENCES:

Dr. J. Vatsala Rani

Senior Scientist
Fluoroorganic Division
CSIR-IICT
Hyderabad-500 007
Phone: +91-40-27193630
Mobile: 9010822191
Email: vatsala@iict.res.in

Dr. B. Narsaiah

Chief Scientist
Fluoroorganic Division
CSIR-IICT
Hyderabad-500 007
Phone: +91-40-27193210
Mobile: 9490732812
Email: narsaiahbanda84@gmail.com

Dr. Xie Jimin,

Professor,
School of Chemistry and Chemical Engineering,
Jiangsu University, Jiangsu, Zhenjiang-212013, China.
E-mail: xiejm@ujs.edu.cn

Declaration: -I hereby declare that all information given above is true & correct to the best of my knowledge.

Place: Hyderabad

(Dr. BHAVANA RUSHI SANGPU)