

Dr. Shamala D

Title: Asst. Professor

Education: M.Sc. Bangalore University, 2007

Ph.D. Bangalore University, 2016

Research Area: organic Chemistry

Mobile: 9980072046

Email: shamalanagendra@gmail.com

Principal Research Interests

Synthetic Organic chemistry

Transition Metal Catalysis in Organic Synthesis.

The research work includes development of the serendipitous route for the synthesis of 4-phenyloxazinones, 2,5-disubstituted pyridazinones, 2,4-disubstituted-1,2,3-triazoles, from coumarins. One pot synthesis of 2,4-disubstituted-1,2,3-triazoles in the aerobic condition through click reaction. Synthesis of pyrazolo pyridocoumarin derivatives through multicomponent reaction. Synthesis of new Series of Quinolinoxymethylcoumarins and their Cytotoxic Study.

Future Plans: Development of new heterocycles which are biologically important by novel method.

List of publications: Papers published in refereed journals

- D Shamala, K Shivashankar, M Mahendra. Zinc chloride catalyzed multicomponent synthesis of pyrazolopyridocoumarin scaffolds. **J. Chem. Sci.** 131 (4), 29 (2019)
- **D. Shamala**, K. Shivashankar, Chandra and M. Mahendra. Synthesis of 4-phenyloxazinones via DBU-catalyzed cleavage of 4-bromomethylcoumarins *Synth. Commun.*, **47**, 105–110 (2017).
- **D. Shamala**, K. Shivashankar. Synthesis of pyridazinones via molecular iodine mediated cleavage of 4-bromomethylcoumarin precursors. *Synth. Commun.*, **46**, 1735–1740 (2016).
- Nasseem El-Khatatneh, Chandra, **D. Shamala**, K. Shivashankar and M. Mahendra. 4-[(4-Hydroxymethyl-2H-1,2,3-triazol-2-yl)methyl]-6-isopropyl-2H-chromen-2-one. *IUCrData*. **1**, x161989 (2016).



- Nasseem El-Khatatneh, Chandra, **D. Shamala**, K. Shivashankar and M. Mahendra. 4-[(4-Hydroxymethyl-2H-1,2,3-triazol-2-yl)-methyl]-6,8-dimethyl-2H-chromen-2-one *IUCrData*. **1**, x161644 (2016).
- Nasseem El-Khatatneh, Chandra, **D. Shamala**, K. Shivashankar and M. Mahendra. 6-tert-Butyl-4-[(4-hydroxymethyl-2H-1,2,3-triazol-2-yl)methyl]-2H-chromen-2-one. *IUCrData*. **1**, x161618 (2016).
- **D. Shamala**, K. Shivashankar, Chandra and M. Mahendra. Synthesis of N₁ and N₂ coumarin substituted 1,2,3-triazole isomers via click chemistry approach. *Synth. Commun.*, **46**, 433–441 (2016).
- Nasseem El-Khatatneh, Chandra, **D. Shamala**, K. Shivashankar, Mukhokosi Emma Panzi and M. Mahendra. *Acta Cryst.*, **E71**, o218–o219, (2015)
- M. S. Krishnamurthy, Noor Shahina Begum, **D. Shamala** and K. Shivashankar. Crystal structure of 4-azidomethyl-6-isopropyl-2H-chromen-2-one. *Acta Cryst.*, **E71**, o227–o228 (2015).
- **D. Shamala**, K. Shivashankara, V. P. Rasal, V. Pandi. Synthesis of New Series of Quinolinoxymethylcoumarins as potent anticancer agents. *Mapana J. Sci.*, **12**, 49-56 (2013) (April-June)
- **D. Shamala**, K. Shivashankara, V. P. Rasal, P. N. V. Vivek, V. Pandi. Synthesis and Cytotoxic Studies of A New Series of Quinolinoxymethylcoumarins. *Int. J. Pharm. Sci. Rev. Res.*, **21**, 109-114 (2013)

Conferences / Symposium attended

- Attended **One day National Level Capacity Building Programme** on 19.12.2017 organized by Internal Quality Assurance cell (IQAC) - St. Joseph's College of Commerce (Autonomous) on "Teachers and Patents – Negotiating the world of intellectual property rights".
- Attended two days Science Academies Lecture Workshop on "Organic Chemistry from Bench to Industry" on 14-15th March conducted by PG-Department of Chemistry at NMKRV College for Women, Jayanagar 3rd block, Bangalore-560011.

- Attended and interacted in two day workshop on **“Transforming Higher Education Through Academic and Administrative Audit”** on 3th & 4th of Feb 2017, conducted by Internal Quality Assurance Cell (IQAC) at NMKRV College for Women, Jayanagar 3rd block, Bangalore-560011.
- Presented a paper on synthesis and spectroscopic studies on novel triazolylcoumarins. National Conference on „Frontiers in Applied Spectroscopy” Department of Chemistry, Maharani’s Science College for Women, Bangalore. 13 – 14th Feb 2014.
- Presented a paper on synthesis and antimicrobial evaluation of novel 2-benzoyl-5-(2-hydroxyphenyl) pyridazine-3-(2H)-ones. International conference on „Chemical biology Drug design” Department of Biochemistry, University of Mysore, Mysore. 9 – 10th Jan 2014.
- Presented a paper on Synthesis and Characterization of Novel Methyl Benzoate-4-Methoxycoumarins. National Conference on „Recent Advances in Functionalized Materials” Department of Chemistry, M.S. Ramaiah Institute of Technology, Bangalore. 24 – 25th Jan 2012.
- Presented a paper on Synthesis and Characterization Of Novel Aryloxy Methyl Acid Hydrazone Coumarins. International Conference on Innovations in Chemistry for Sustainable Development, Department of Chemistry & Centre of Advanced Studies in Chemistry, Panjab University, Chandigarh. 1-3rd Dec 2011.
- Presented a paper on Synthesis and Characterization of Novel 4-(quinolin-8-yl-oxymethyl)-Coumarins. National Conference on „Chemistry, Biotechnology & Health Care – An Interface” Department of Chemistry, Reva Institute of Science & Management, Bangalore. 24-25th Nov 2011.