

Curriculum vitae



Name : **Dr. Vishwanath T**

Educational Qualification: M.Sc. and Ph.D. in Chemistry, Mangalore University
PG Diploma Yogic Sciences, Mangalore University

Designation : Assistant Professor

Address for Correspondence: Department of Materials Science
Mangalore University, Mangalagangothri

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Research Areas : Synthetic Chemistry, Polymers, Nanoscience and Catalysis.

Professional Teaching : Assistant Professor at Mangalore University (11.11.2013 - cont.)

Experiences : Lecturer at Govt. P. U. College, Navunda, Kundapura, (3.7.2013 – 9.11.2013 (KPSC, Karnataka)
Guest Lecturer, Dept. of Chemistry, Mangalore University (Aug. 2011 to Nov. 2012)

Research Guidance (Ph.D.) : Thesis submitted- 01

Sayana K V

Ongoing- 05

1. Manoj
2. Jalis Aisha Khan
3. Avinash N
4. Chaitra S N
5. Pratima Naik

Research Projects

Completed

‘Investigation on Nano-Titania coated chitosan nanofibres incorporated with bio-active herbal extract for protective layers of antiviral respirators’ funded by SERB, Government of India. Start date: 21.12.2020 Grant: Rs. 47,87,120.00

‘Design and Evaluation of polyimide based polymer blend films for flexible electronics’ funded by VGST, KSTEP, Government of Karnataka (2020-21). Grant : Rs. 3.00 lakhs.

‘Synthesis and nonlinear optical property of some novel bis-hydrazones containing 1,2,3-triazoles’ funded by Mangalore University (30-04-2016 to 30-04-2018). Grant: Rs. 55,000.

Research Journal Publications

1. Development and characterization of biodegradable PVA-Starch electrospun films for potential mulch applications, Sayana K V and Vishwanath T, *Chemical data collections*, 60 (2025) 101210.

2. Importance of Dibenzazepine and Azepine Derivatives in the Field of Medicinal Chemistry, Mahesh Bhata, J. Rangaswamy, S. V. Mamatha, T. Vishwanath, Mahima Samanth, and Roopa Nayak, *Russian Journal of Organic Chemistry*, 51(6) (2025) 2337.
3. Development of Novel Caffeine-Loaded Polyvinyl Alcohol Nanofabric Face Wipe: A Comparative Electrochemical Release Profiling using Bare and Modified Electrodes, Sayana K V, Manoj, Vishwanath T, *Asian Journal of Chemistry*, 37(11) (2025) 2855
4. Substitution induced solvatochromism behaviour of blue emissive N-aryl pyrazoline derivatives and DFT studies. *Journal of Luminiscence* (Elsevier). 281 (2025) 121200.
5. Nano Au/TiO₂ catalyzed click synthesis of novel 1,2,3-triazoles from S-propargyl-1,2,4-triazole: Antibacterial activity, toxicity, and docking analysis. *Russian Journal of General Chemistry* (Springer). 93(10) (2023) 2638-2644.
6. Magnetized CNTs incorporated MBA cross-linked guar gum nano-composite for methylene blue dye removal, K. V. Sayana, K. Prajwal, K. J. Deeksha, B. Vishalakshi, T. Vishwanath; *Journal of Applied Polymer Science*, 2024, 141: e54868 (accepted 2023).
7. Effect of γ radiation and study of γ induced physic-chemical changes in high performance thermoset obtained by double cycloaddition of munchedone and bis-maleimide, Balakrishna Kalluraya, B. R. Kaushik, **T. Vishwanath** and H. M. Somashekarappa, *Radiation effects and defects in solids (Taylor and Francis)*, 175 (7-8) 730 (2020). Doi: 10.1080/10420150.2020.1759066
8. Synthesis, characterization and anticorrosion behavior of a novel hydrazide derivative on mild steel in hydrochloric acid medium. P Preethi Kumari, Prakash Shetty*, Suma A. Rao, Dhanya Sunil and **T. Vishwanath**, *Bull. Mater. Sci. (Springer)*, 43(46) 1 (2020). Doi: 10.1007/s12034-019-1995-x
9. Synthesis, characterization, single crystal XRD, Hirshfeld surfaces, 3D Energy framework calculations and DFT studies of ethanone and propanone derivatives of N-substituted pyrazolines. P. Praveena, B. K. Sarojini, Q. A. Wong, C. K. Quah and **T. Vishwanath**, *Journal of Molecular Structure(Elsevier)*, 1239, 130524 (2021). Doi: 10.1016/j.molstruc.2021.130524
10. Synthesis, Spectroscopic Properties and Antioxidant Activity of Bis-Hydrazones and Schiff's bases derived from Terephthalic dihydrazide. H. S. Vidyashree Jois, Balakrishna Kalluraya and **T. Vishwanath**, *J. Fluoresc. (Springer)*, 25, 481 (2015).
11. Microwave Assisted Synthesis of 1, 2, 3-Triazole Tethered Pyrazolines and their Pharmacological Studies, **Vishwanath Turukarabettu**, Balakrishna Kalluraya* and Prashantha Naik, *J. Chem. Pharm. Res.*, 9(7)179 (2017).

12. Microwave assisted synthesis of 1,2,3-triazole hydrazone library and evaluation of antibacterial and antioxidant activity. **Vishwanath T**, B. Kalluraya, V. K. Merugumolu and R. B. Chandrashekhara, *Ind. J. Het. Chem.*, 28(2) 207 (2018).
13. Design and synthesis of sulfur cross-linked 1,3,4-oxadiazole-nitro(furan/thiophene)-propenones as dual inhibitors of inflammation and tuberculosis: Molecular docking and Hirshfeld analysis. **Vishwanath Turukarabettu**, Balakrishna Kalluraya*, Monika Sharma, *Monatshefte fur Chemie (Springer)*, 150: 1999 (2019).
14. Synthetic and theoretical investigation on nano-Au/TiO₂ catalyzed hydrothiolation for construction of C-S bond: Experimental and DFT study, **Vishwanath Turukarabettu**, Balakrishna Kalluraya*, *J. Phy. Org. Chem. (Wiley)*, 33(4) e4040 (2020).
15. Cu(I) catalyzed 1,3-dipolar click synthesis of S-heterocyclic 1,2,3-triazole derivatives, their antibacterial activity, **V. Turukarabettu**, B. Kalluraya*, K. Hemanth and B. C. Revanasiddappa, *Russ. J. Gen. Chem. (Springer)*, 90(1):142 (2020).
16. Synthesis, characterization and Nonlinear Optical studies of 1-(p-chlorophenyl)-5-methyl-N'-(quinolin-4-ylmethylene)-1H-1,2,3-triazole-4-carbohydrazide. **T. Vishwanath** and B. Kalluraya, Conference proceedings, Mangalore University, ISBN 978-93-5291-953-6, 23-25th January 2018.

Patents

1. India Patent Office, Application number 202441045598.
Under Examination

Papers/Poster presentations in Conferences/Seminars/Symposia:

1. Hydrothiolation of acetylenic ketones on Nano-Au/TiO₂: A green approach, International Conference on 'Current Concepts in Chemistry' Indian Council of Chemists, held at Bali, Indonesia, June 2017.
2. Nano Au/TiO₂ catalytic Hydrothiolation of acetylenic ketone- a mechanistic view using DFT and their Molecular docking and toxicity studies, 36th Conference of Indian Council of Chemists, Andhra University, Visakha Pattanam, December 2017.
3. Synthesis, thermal and mechanical studies of chitosan-acetaldehyde schiff base, International Conference on 'Emerging Trends in Chemical Sciences, MIT , Manipal, September 2017.
4. A study on 1,3,4-Oxadiazol-5-thiol-propenones as potent anti-bacterial, anti-tubercular and anti-inflammatory agents, National Conference on ' Role of Organic Intermediates in Cognitive Disorders and Mental Health', NGSM Institute of Pharmaceutical sciences, Paner, February 2017.

5. Au/TiO₂ NPs and Cu (i) catalyzed 1,3- dipolar cycloaddition of azides with terminal alkynes : a sustainable approach, National Conference on Chemistry for sustainable future, SDM College, Ujire, January 2017.
6. Preparation and Characterization of Au-TiO₂ Nanospheres and their Physisorption studies, International seminar on nanoscience and technology, Mother Theresa Women's University, Kodaikanal, September 2016.
7. Anti-oxidant and anti-inflammatory activity of some hydrazone containing 1,2,3-triazole library, National conference on recent trends in chemical sciences, MIT, Manipal, January 2016.
8. Synthesis of novel series of thiasydnone containing 1,2,3-triazoles and study of their biological activity, International conference on New horizons in synthetic and materials chemistry, University of Mumbai, November 2015.
9. Synthesis of novel nitrogen containing heterocycles through 1,3-dipolar cycloaddition reaction, National conference on pure and applied chemistry, University of Mysore, December 2014.

Programmes/Workshops/Conferences/Seminars organized:

Organized One day workshop on research methodology in Computational methods on 21-01-2025 in the Department of Materials Science, Mangalore University.

Organized 5-days GIAN programme on 'Materials for Energy Storage' sponsored by MHRD, Government of India.

Organized workshop in 'Electrospinning and applications' and a laboratory visit programme to school/college students in the department.

Conducted NET/SET training classes for physics and chemistry post graduate students of the Mangalagangothri campus.

FDPs/Refresher course/FIPs/Workshops/Seminars/Conferences attended:

Attended 20 faculty development programmes and refresher courses in various topics of physics and chemistry.

Completed two MOOC certificate courses under Swayam programme of Ministry of Education, Government of India.