


Faculty Profile

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| Name of Faculty | Dr. Prashanth M K |  |
| Department | Chemistry | |
| Qualification | MSc., Ph.D. | |
| Designation | Assistant Professor | |
| Area of specialization | Synthetic Organic & Medicinal Chemistry, Drug Discovery, Material Chemistry, Sensors, Catalysis | |
| Date of Joining BNMIT | 20.01.2016 | |
| Nature of Association (Regular/Contractual/Adjunct) | Regular | |
| e-mail | prashanthmk@bnmit.in, prashanthmk87@gmail.com | |
| No. of years of Experience | Teaching: 9 years Research: 3.6 years | |

Academic Qualifications

- **Ph.D.** (2014), Department of Chemistry, Manasagangothri, University of Mysore, Mysore.
- **M.Sc.** (2009), Department of Chemistry, Kuvempu University, Shimoga
- **B.Sc.** (2007), University of Mysore, Mysore

Working Experience Details

- Assistant Professor, Dept. of Chemistry. BNMIT, Bangalore, (2016 – Till date).
- Assistant Professor, Dept. of Chemistry, DBIT, Bangalore, (2015 – 2016).
- Assistant Professor, Dept. of Chemistry, PNSIT, Bangalore, (2013 – 2015).
- Project Assistant, Department of Chemistry, University of Mysore, Mysore (2010-2013).
- Lecturer, Vasavi PU College, Kollegala, Karnataka, (2009 – 2010).

Research Experience Details:

- Research studies towards the chemical biology of the piperamide and quinazolinone derivatives.
- Synthesized new piperamide and quinazolinone derivatives, aiming to develop new leads with potential as antidepressant and anticonvulsant drugs.
- Developed new synthetic routes for difluoroindoles.
- First synthetic report on the difluoroindole derivatives as leads for Alzheimer's disease.
- Studied Structural Activity Relationship (SAR) of the synthesized compounds.

Research Supervision

| Sl.No. | Name of the student | Ph.D / M.Phil | University | Year of completion | Title of Research Topic |
|--------|----------------------------------|---------------|--------------|--------------------|---|
| 1 | Archana C S | Ph.D. | VTU, Belgaum | Pursuing | Synthesis and Characterization of Novel Quinazolinone Derivatives as Anticonvulsant and Antidepressant Agents |
| 2 | Chandrakeerthy M S (BL15PHME067) | Ph.D. | VTU, Belgaum | Pursuing | Studies on the Influence of Interfacial Bonding on Mechanical Properties of Natural Fiber Reinforced Polymer Composites |

Academic Positions and other Responsibilities (University Level):

1. **Member**, BOS, Jain University, 2017-18.

Technical Expertise:

Data Analysis: Interpretation of routine spectroscopic data such as NMR, FTIR, UV/VIS, Conductivity measurements, CHN analysis, GC-HPLC, Single Crystal Structure Data, Cyclic voltammetry, Mass, TGA-DTA and DSC etc.

Instrument Handling: Handling of equipments such as FT-IR, UV-Vis Spectrophotometer, Conductivity measurements, and Electrochemistry Analyzer (CH instrument).

Computer Skills: Chemdraw Ultra and SciFinder Scholar.

Awards:

Awarded as UGC sponsored IOE (Institution of Excellence) major research project fellowship at the Department of Chemistry, University of Mysore, Mysore-570 006, Karnataka, India. April 2010 – August 2013.

Workshops /Seminars Organized:

Organised five days Faculty Development Programme on “Recent advance in Material Science” held at BNM Institute of Technology, Bangalore during 9-13th January 2013.

Research Publications:

1. **M. K. Prashanth**, H. D. Revanasiddappa, K. M. LokanathaRai, B. Veeresh. Synthesis, characterization, antidepressant and antioxidant activity of novel piperamides bearing piperidine and piperazine analogues. *Bioorganic & Medicinal Chemistry Letters*, 22 (2012) 7065–7070.
2. **M. K. Prashanth**, M. Madaiah, H. D. Revanasiddappa, B. Veeresh. Synthesis, anticonvulsant, antioxidant and binding interaction of novel N-substituted methylquinazoline-2,4(1H,3H)-dione derivatives to bovine serum albumin: A structure–activity relationship study. *Spectrochimica Acta Part A: Molecular & Biomolecular Spectroscopy*, 110 (2013) 324–332.
3. **M. K. Prashanth**, H. D. Revanasiddappa. Synthesis of some new glutamine linked 2,3-disubstituted quinazolinone derivatives as potent antimicrobial and antioxidant agents. *Medicinal Chemistry Research*, 22 (2013) 2665-2676.
4. **M. K. Prashanth**, H. D. Revanasiddappa. Synthesis and antioxidant activity of novel quinazolinone functionalized with urea/thiourea /thiazole derivatives as 5-lipoxygenase inhibitors. *Letters in Drug Design & Discovery*, 11 (2014) 712-720.
5. **M. K. Prashanth**, M. S. Raghu, H. D. Revanasiddappa and B. Veeresh, Synthesis, Anticonvulsant and Binding Interaction Study of novel Piperamides with Bovine Serum Albumin by Fluorescence Spectroscopy. *Central Nervous System Agents in Medicinal Chemistry*, 16 (2016) 60-66.
6. M. Madaiah, **M. K. Prashanth**, H. D. Revanasiddappa. Novel synthesis of 4,4-difluoro pyrido[4,3-b]indoles via intramolecular Heck reaction. *Tetrahedron Letters*, 54 (2013) 1424–1427.
7. M. Madaiah, **M. K. Prashanth**, H. D. Revanasiddappa, B. Veeresh. Synthesis and Evaluation of 3-[(2,4-Dioxo-1,3,8-triazaspiro[4.6]undec-3-yl)methyl]benzotrile Derivatives as Potential Anticonvulsants. *Archive der Pharmazie Chemie in Life Sciences*, 346 (2013) 200–209.
8. M. Madaiah, **M. K. Prashanth**, H. D. Revanasiddappa, B. Veeresh. Synthesis and Structure–Activity Relationship Studies on Novel 8-amino-3-[2-(4-fluorophenoxy)ethyl]-1,3-diazaspiro[4.5]decane-2,4-dione Derivatives as Anticonvulsant Agents. *Medicinal Chemistry Research*, 22 (2013) 2633-2644.
9. M. Madaiah, **M. K. Prashanth**, H. D. Revanasiddappa, B. Veeresh. Synthesis and Pharmacological Evaluation of Novel 1'-[2-(difluoromethoxy)benzyl]-2'H, 5'H-spiro[8-azabicyclo[3.2.1]octane-3,4'-imidazolidine]-2',5'-diones and their derivatives. *Archive der Pharmazie Chemie in Life Sciences*, 347, (2014) 370-380.
10. **M. K. Prashanth**, M. Madaiah, H. D. Revanasiddappa, K. N. Amruthesh. Synthesis, Characterization, and BSA Binding Studies of Some New Benzamides Related to Schiff Base. *ISRN Organic Chemistry*, 2013 (2013) Article ID 791591, 12 pages
11. **M. K. Prashanth**, H. D. Revanasiddappa, K. M. L. Rai, K. A. Raveesha, B. Jayalakshmi. Antioxidant and antibacterial activity of ajwain seed extract against antibiotic resistant bacteria and activity enhancement by the addition of metal salts. *Journal of Pharmacy Research*, 5 (2012) 1952-1956.

12. **M. K. Prashanth**, H. D. Revanasiddappa, K. M. L. Rai, K. A. Raveesha, B. Jayalakshmi. Antibacterial, anthelmintic and antioxidant activity of *Argyrea elliptica* extracts: Activity enhancement by the addition of metal salts. *International Journal of Applied Research in Natural Products*, 6 (2013) 1-10.
13. **M. K. Prashanth**, H. D. Revanasiddappa, Validated and sensitive spectrophotometric method for the determination of amitriptyline hydrochloride. *Chemical Sciences Journal*, 4 (2013) 1-5.
14. **M. K. Prashanth**, H. D. Revanasiddappa, Antidepressant Drugs: Highly Sensitive and Validated Spectrophotometric Technique, *Journal of Chilean Chemical Society*, 59 (2014) 2382-2388.
15. **M. K. Prashanth**, H. D. Revanasiddappa, Development and Validation of Reverse Phase HPLC Method for the Determination of Midazolam in Human plasma. *Analytical Chemistry Letters*, 4 (2014) 213-223.
16. **M. K. Prashanth**, H. D. Revanasiddappa, Highly Sensitive and Validated Spectrophotometric Technique for the Assay of Some Antidepressant Drugs. *Journal of Applied Spectroscopy*, 81 (2015) 1004-1011.
17. **M. K. Prashanth**, H. D. Revanasiddappa, Application of a Highly Sensitive UV-spectrophotometric Method for the Determination of Amitriptyline Hydrochloride in Pure and Dosage Forms. *Analytical Chemistry an Indian Journal*, 2015 (Accepted for publication).
18. S. R. Kiran Kumar, G. P. Mamatha, **M. K. Prashanth**, H. B. Muralidhara and K. Yogesh, Electrochemical Studies of Dopamine Using Titanium Dioxide Nanoparticle Modified Carbon Paste Electrode. *Analytical & Bionalytical Electrochemistry*, 7 (2015) 175-185.
19. M. S. Veena, **M. K. Prashanth**, K. Yogesh Kumar, H. B. Muralidhara, Y. Arthoba Nayaka, Kinetics and mechanistic study of oxidation of amoxicillin by chloramine-t in acid medium. *Journal of Chilean Chemical Society*, 60 (2015) 3063-3068.
20. S. R. Kiran Kumar, G. P. Mamatha, **M. K. Prashanth**, H. B. Muralidhara and K. Yogesh, Synthesis and Characterization of Copper Oxide Nanoparticles: To Study Voltammetric Response of Biomolecules and Antimicrobial Activity. *Surface Engineering & Applied Electrochemistry*, 52 (2016) 469-474.
21. B. K. Jayanna, **M. K. Prashanth**, H. D. Revanasiddappa, B. Veeresh, Synthesis and Anticonvulsant Activity of N-(Substituted)-1-methyl-2,4-dioxo-1,2-dihydroquinazoline-3(4H)-carboxamides, *Archive der Pharmazie Chemistry in Life Sciences*, 349 (2016) 566-571.
22. M. Madaiah, **M. K. Prashanth**, H. D. Revanasiddappa, B. Veeresh. Synthesis and evaluation of novel imidazo[4,5-c]pyridine derivatives as antimycobacterial agents against *Mycobacterium tuberculosis*. *New Journal of Chemistry*, 40 (2016) 9191-9204.
23. M. Madaiah, B. K. Jayanna, A. S. Manu, **M. K. Prashanth**, H. D. Revanasiddappa, B. Veeresh, Synthesis, characterization and evaluation of difluoropyrido[4,3-b]indoles as potential agents for acetylcholinesterase and anti-amnesic Activity". *Archiv der Pharmazie*. 350 (2017) e1600303.

24. M. S. Veena, **M. K. Prashanth**, B. K. Jayanna, K. Yogesh Kumar, Y. Arthoba Nayaka and H. B. Muralidhara. Chemical oxidation of phenylephrine by using chloramine-t in acid media: a kinetic and mechanistic study. *International Journal of Pharmaceutical Sciences & Research*. 8 (2017) 1449-1458.
25. M. S. Raghua, K. Yogesh Kumar, **M. K. Prashanth**, B. P. Prasanna, Raj Vinuth, C. B. Pradeep Kumar, Adsorption and antimicrobial studies of chemically bonded magneticgraphene oxide-Fe₃O₄nanocomposite for water purification. *Journal of Water Process Engineering*. 17 (2017) 22–31.
26. M. S. Raghua, K. Yogesh Kumar, **M. K. Prashanth**, Adsorptive Removal of MG Dye from Aqueous Solution on to a PHFAC: Isotherms and Kinetics Studies. *Journal of Earth & Environmental Sciences*. 2017 (2017) 1-7. 2017: JEES-115 1-17.
27. S. M. Mallegowda, **M. K. Prashanth**, H. D. Revanasiddappa, Bio Analytical Method Development Of an Anti-HIV-1 Drug Efavirenz Using High Performance Liquid Chromatography In Human Plasma, *Materialstoday: proceedings*. 4 (2017) 11939-11946.
28. M. S. Raghu, K. Yogesh Kumar, Srilatha Rao, T. Aravinda, B. P. Prasanna, M. K. Prashanth, Fabrication of polyaniline–few-layer MoS₂ nanocomposite for high energy density supercapacitors. *Polymer Bulletin*. 75 (2018) 4359-4375.
29. H. B. Muralidhara, S. Olivera, S. Archana, A. Anand, B. K. Jayanna, **M. K. Prashanth**, K. Yogesh Kumar, Versatile Graphene Oxide decorated by star shaped Zinc Oxide nanocomposites with superior adsorption capacity and antimicrobial activity, *Journal of Science: Advanced Materials and Devices*, 3, 2018, 167-174.
30. M. S. Raghu, K. Yogesh Kumar, SrilathaRao, T. Aravinda, S. C. Sharma, M. K. Prashanth, Simple fabrication of reduced graphene oxide -few layer MoS₂ nanocomposite for enhanced electrochemical performance in supercapacitors and water purification. *Physica B: Condensed Matter*, 537 (2018) 336-345.
31. M. S. Raghu, K. N. N. Prasad, B. K. Jayanna, C. B. Pradeep Kumar, K. Yogesh Kumar, and **M. K. Prashanth**, Efficient Synthesis of RuO₂ Nanoparticle with excellent activity for One-pot Synthesis of 2,3-disubstituted quinazolin-4(1H)-ones. *Vietnam Journal of Chemistry*, 57 (2019) 585-594.
32. M. S. Raghu, K. Yogesh Kumar, **M. K. Prashanth**, Controllable synthesis of TiO₂ chemically bonded graphene for photocatalytic hydrogen evolution and dye degradation. *Catalysis Today*, 340 (2020).
33. C. B. Pradeep Kumar, **M. K. Prashanth**, K. N. Mohana, M. B. Jagadeesha, M. S. Raghu, N. K. Lokanath, K. Yogesh Kumar, Protection of Mild Steel Corrosion by Three New Quinazoline Derivatives: Experimental and DFT Studies, *Surfaces and Interfaces*, 2020, doi.org/10.1016/j.surfin.2020.100446 (In press)

Papers attended/presented in Conferences

- Poster presentation under the title of “Antioxidant and antibacterial activity of ajwain seed extract against antibiotic resistant bacteria and activity enhancement by the addition of metal salts“ in National seminar on “Relevance of Chemistry in Chemical Biology” organized by Department of Chemistry, St. Philomena’s College, Mysore on 21st and 22nd March, 2011.
- Poster presentation on “Synthesis and Antimicrobial activities of Substituted Quinazolinone Derivatives” National conference on “Indian Science Congress” organized by Calcutta University, Kolkatta, on 3rd to 7th January, 2013.
- International Conference on “Challenges in Drug Discovery Programme” held at Department of Chemistry, Karnataka State Open University, Mysore, India during 16th to 17th February, 2011.
- National Conference on “Novel Carbon Materials and their Applications” held at Department of Chemistry, Government College of Science and Commerce, Sanquelim, Goa, India during 25th and 26th February, 2011.
- National Conference on “Recent Trends in Chemistry” held at Department of Chemistry, PES College of Engineering, Mandya, Karnataka, India during 16th and 17th September, 2011.
- International Conference on “Synthetic and Structural Chemistry” held at Department of Chemistry, Mangalore University, Mangalore, Karnataka, India during 8th to 10th December, 2011.
- National Conference on “Recent Functional Foods in Health & Well-being” held at Karnataka State Higher Education Council, Bangalore, India during 31st May, 2012.
- National Conference on “Recent Functional Foods in Health & Well-being” held at Karunya University, Coimbatore, Tamilnadu, India during 31st May, 2012.
- Paper presented under the title of “Adsorption studies of chemically bonded magnetic graphene oxide-Fe₃O₄nanocomposite for water purification” in One Day National Conference on “Emerging Trends in Material Science (ETMS -2017)”, on 7th March 2017, KLE’s S. Nijalingappa College, Bangalore
- Paper presented under the title of “Synthesis of magnetite-graphene oxide composite materials for removal of dyes from water” on “Science, Engineering & Management”, on 24th and 25th May 2018, The Oxford College of Engineering, Bangalore

Participation in Training courses/Seminars/Workshops

- Faculty development program on “Modern Methods and their Applications” organized by The Department of Physics, BNMIT, Bangalore from 16/1/2018 to 20/1/2018.

Personal Details:

- **Date of Birth:** 11-02-1987
- **Gender:** Male
- **Nationality:** Indian

29th January 2020

Dr. Prashanth M K