

Dr DIVYA N. SHETTY

Assistant Professor

Department of Postgraduate Studies and Research in Chemistry

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Research Areas of Interest

Spectrophotometric Analysis

Crystallographic Studies

Study on biomaterials & Nanotechnology

Academic Qualification:

- 2008-2012 PhD in Chemistry at Mangalore University.
- 2004-2006 Master of Science, Mangalore University, India.
- 2000-2004 Bachelor of Science, S. D.M. College, Ujire.
- 1999-2000 P.U.C. S. D.M. College, Ujire.
- 1996-1999 SSLC, St. Theresa School, Belthangady.

RESEARCH WORK

Research Guide: **Prof. B. Narayana**

Institution: Department of Chemistry, Mangalore University

Title of Ph. D thesis: **'Studies on New Reagents for the Spectrophotometric Determination of Some Drugs and their Intermediates'**

Professional Experience

- Assistant Professor at Department of Post Graduate studies & Research in Chemistry, St Aloysius College, Mangalore (2012-Present).

- Guest faculty in the Department of Chemistry, Mangalore University (2008-2010).
- Research Scholar in the Department of Chemistry, Mangalore University under the guidance of Prof B. Narayana, Former Registrar (Evaluation), Mangalore University (2008-2012).
- Lecturer in Carmel Convent Composite P.U. College, Modankap, B.C.Road (2006-2007).

Research Projects

- Completed UGC sponsored minor research project with a financial assistance of 1,80,000/- on **‘Microwave assisted synthesis of heterocyclic compounds containing oxygen and sulphur atoms- A green approach’ (2014-2016).**
- MJES funded Project with a financial assistance of 1,00,000/- titled **Heavy metal removal from Industrial waste effluents in Mangalore using seaweed and metal nanoxides- A Comparative study (2021-Ongoing)**

CITATIONS

ORCID ID: <https://orcid.org/0000-0001-8698-6816>
<https://scholar.google.com/citations?user=6onoyfoAAAAJ&hl=en>

	All	Since 2018
<u>Citations</u>	160	58
<u>h-index</u>	8	6
<u>i10-index</u>	7	1

RECOGNITIONS

Awarded with UGC- SAP fellowship for meritorious students under RFSMS Scheme (2009-2012).

PROFESSIONAL TRAINING RECEIVED / WORKSHOPS/ SEMINARS/ WEBINARS ATTENDED

- ❖ UGC equivalent refresher course of 21 days organized by MHRD at IISc, Challakere during June 16th- July 6th, 2019.
- ❖ Refresher Course on Nanotechnology and Applications organized by Indian Academy of Sciences at KSR Institute, Tamilnadu during April 16th- 28th, 2018.

- ❖ Three day workshop on Computational methods in Physics and Chemistry, organized by Indian Academy of Sciences at Manipal during August 6th – 8th, 2018.
- ❖ FDP on Channelizing Innovation and Entrepreneurship through ICTtools organized by Holy Cross College Nagercoil on 12th to 16th May, 2020.
- ❖ Participated in a training programme ‘Research Based Pedagogical Tools’ organized by IISER Pune at IIT, Gandhinagar during 10th-14th Dec. 2017.
- ❖ Certificate course on Drugs, drug use, drug policy and health by University of Geneva conducted by Coursera in September 2020.
- ❖ Certificate course on Nanotechnology: A Maker’s Course by Duke University conducted by Coursera in August 2020.
- ❖ A talk on The world has changed-A ray of hope organized by TEDx on 21st June 2020.
- ❖ A talk on From Heart attacks to Pattern Formation: Understanding the complexities of Nature through Chemistry on 19/06/2020.
- ❖ A talk on FLP Chemistry: A metal-free approach to the activation of strong bonds on 1/09/ 2020 by Doug Stephan, University of Toronto by the Royal Society of Chemistry.
- ❖ A talk on Phosphorus-Ylides: Powerful Ligands for the Stabilisation of Reactive Main Group Compounds on 8th Sep, 2020 by Viktoria Gessner, Ruhr-Universität Bochum by Royal Society of Chemistry
- ❖ Attended National seminar at Alva’s College organized by the Department of PG Chemistry held on 2nd March 2013.
- ❖ Participated in a two day lecture organized by Department of Chemistry, St Aloysius College under the Star College Scheme on the topic Nuclear and radiochemistry by Dr. Gulshan Relhan, BARC, Mumbai on December 18th and 19th, 2013.
- ❖ Participated in National level seminar on Recent trends in Chemical Sciences held on 16th and 17/02/2013 at St Aloysius College, Mangalore.
- ❖ Participated in School on Analytical Chemistry (SAC- 2010) held at Baba Atomic Research Centre (BARC), Mumbai during Nov. 20-26, 2010.
- ❖ Participated in 4th state level conference conducted by Karnataka Science and Technology Academy held during 28th and 29th Jan. 2012.
- ❖ Participated in two –day Lecture Workshop on Advances in Chemical Sciences held at the Department of Chemistry, Mangalore University, Mangalagangothri, during 4th and 5th April

2009.

- ❖ Participated in Webinar on “Nanomaterial Science: The fastest Growing Research Area” by Dr Anuraj Varyambath, Postdoctoral Fellow, Pusan National University, South Korea, organized by the Department of Chemistry, St Aloysius College (Autonomous), Mangaluru - 575 003 on 28/04/2021.
- ❖ Participated in Webinar on “Spectroscopy in Supersonic Jets” by Dr. Viola Caroline D’mello, Postdoctoral Researcher, CEA, Saclay France, organized by the Department of Postgraduate Studies and Research in Chemistry, St Aloysius College (Autonomous), Mangaluru - 575 003 on 19/05/2021.
- ❖ Participated in a Webinar on “Best Practices in Online Chemistry Practicals” organized by St Aloysius College (Autonomous), Mangaluru on 09/01/2022.

Seed Money Received for the Student Project

- Chaitra Bhaktha 2019-20 - Seed Money Rs.10,000/- from MJES for the project titled, synthesis of silver nano particles from citrus medica.
- Besily Boban 2020-21- Seed Money Rs.10,000/- from MJES for the project titled, Luffa Actaangula (Ridge Guard) peel as an active adsorbent for Methylene Blue from aqueous solutions.
- Vinola Amitha Lobo 2021-22- Seed Money Rs.7,500/- from MJES for the project titled, A comparative study of Tectona Grandis seed powder & Mangifera Indica leaf powder as bio adsorbents for their efficiency in Methylene Blue dye degradation.
- Hencil Lobo 2022-23- Seed Money Rs.7,500/- from MJES for the project titled, Seaweed mediated Iron oxide, ZnO, Fe doped ZnO Comparative study of environmental remedial applications.

Publications International

1. **Divya N. Shetty**, S. Madan Kumar, Amrutha Kala A. L, Stephin Abraham, Synthesis, Crystal structure and Hirshfeld surface of 2-Amino-3 Benzyloxy Pyridinium Picrate (1:1), *Chem. Data Coll.* (Elsevier) 17 (2018) 442–450.
2. **Divya N.Shetty**, B.Narayana & Nasrin Banu Sheikh Ismail, Simple and sensitive method for the spectrophotometric determination of pefloxacin, *Der Pharmacia Lettre*, 8 (2016) 230-235.
3. **Divya N.Shetty** & B.Narayana, A new, sensitive spectrophotometric method for the determination

of norfloxacin using 1,2-naphthoquinone-4-sulphonate in pure and dosage forms. *Indo Am. J.Pharm.Res.*, 6 (2016) 5974-5980.

4. B. Narayana, N. V. Sreekumar & **Divya. N. Shetty**. A Rapid and Sensitive Spectrophotometric Method for the Determination of Hydrogen Peroxide by Using a Redox Reaction. *Oxid. Commun.*, 36 (2013) 415-422
5. **Divya N. Shetty**, B. Narayana & S. Samshuddin, Sensitive methods for the spectrophotometric determinations of some antimalarials. *J. Chem. Pharm. Res.*, 4 (2012) 1647-1653.
6. B. Narayana & **Divya N. Shetty**, A facile method for the spectrophotometric determination of betamethasone dipropionate in pure and dosage forms *Oxid. Commun.*, 36 (2013) 993-1000.
7. H.-K. Fun, W.-S. Loh, **Divya. N. Shetty**, B. Narayana and B. K. Sarojini, *N*-(3-Chloro- 4-fluorophenyl)acetamide, *Acta Cryst.* (2012). E68, o1348.
8. G. Dutkiewicz, **Divya. N. Shetty**, B. Narayana, H. S. Yathirajan and M. Kubicki, 4-[(4-Benzyloxybenzylidene)amino]-1,5-dimethyl-2-phenyl-1*H*-pyrazol-3(2*H*)-one, *Acta Cryst.* (2012). E68, o1324.
9. H.-K. Fun, C. K. Quah, **Divya. N. Shetty**, B. Narayana & B. K. Sarojini, 2-Chloro-1-(4-hydroxyphenyl)ethanone, *Acta Cryst.* (2012). E68, o2424.
10. H.-K. Fun, C. K. Quah, **Divya. N. Shetty**, B. Narayana & B. K. Sarojini, *N'*-(2,6-Difluorobenzylidene)pyridine-4-carbohydrazide, *Acta Cryst.* (2012). E68, o1484.
11. H.-K. Fun, C. W. Ooi, **Divya. N. Shetty**, B. Narayana & B. K. Sarojini, 4- Methylbenzoic acid-*N'*-[(*E*)-4-methylbenzylidene]pyridine-4-carbohydrazide-water(1/1/1), *Acta Cryst.* (2012). E68, o1492.
12. **Divya N. Shetty**, B. Narayana & S. Samshuddin, Novel reagents for the spectrophotometric determination of isoniazid. *ISRN Spectroscopy*, Ref. No. 869493.
13. B Narayana, **Divya N. Shetty**, K Ashwini & T V Sreevidya, A simple method for the spectrophotometric determination of carvedilol by redox reaction, *Oxid. Commun.*, 34 (2011) 92-97.
14. B. Narayana & **Divya N. Shetty**, Development and validation of spectrophotometric method for the spectrophotometric determination of risperidone. *Der Pharmacia Lettre*, 3 (2011) 104-109.
15. H.-K. Fun, W.-S. Loh, **Divya. N. Shetty**, B. Narayana & B. K. Sarojini, *N'*-[(*E*)-4-Chlorobenzylidene]pyridine-4-carbohydrazide monohydrate *Acta Cryst.* (2012). E68, o2303-

o2304.

16. S. Samshuddin, B. Narayana, B. K. Sarojini, **Divya N. Shetty** & N. Suchetha Kumari, Synthesis, Characterization, and Biological Evaluation of Some New Functionalized Terphenyl Derivatives, *Int. J Med. Chem.*, 2012 (2012), 1-13.
17. S. Samshuddin, B. Narayana, **Divya N. Shetty**, R. Srinivasan & B. K. Sarojini, (2E)-3-[4-(1H-Benzimidazol-2-ylmethoxy)-3-methoxyphenyl]-1-(4,4"-difluoro-5'-methoxy-1,1':3',1"-terphenyl-4'-yl)prop-2-en-1-one. *Molbank*, 12 (2012).
18. H. -K Fun, M. Hemamalini, **Divya N. Shetty**, B. Narayana & H. S. Yathirajan 4-(3-Carboxy-1-ethyl-6-fluoro-4-oxo-1,4-dihydro-7-quinolyl)-1-methylpiperazinium picrate. *Acta Cryst.*, E66 (2010) o714-o715.
19. B. Narayana, K. Ashwini, **Divya N. Shetty** & K. Veena, Spectrophotometric determination of ranitidine hydrochloride based on its reaction with *p*-dimethylaminobenzaldehyde. *Eur. J. Anal. Chem.*, 5 (2010).
20. B. Narayana, K. Veena, K. Ashwini & **Divya. N. Shetty**, New reagents for the spectrophotometric determination of ranitidine hydrochloride. *Ecl. Quim.*, 35 (2010) 109-115.

Publications National

- ❖ B. Narayana & **Divya N. Shetty** Novel methods for the Spectrophotometric determination of colchicoside. *Indian J. Chem. Tech.*, 17 (2010) 317- 320.
- ❖ B. Narayana & **Divya N. Shetty** A new method for spectrophotometric determination of colchicoside. *J. Sci. Ind. Res.*, 69 (2010) 368- 372.

Papers Presented in International Conference

- ❖ **Divya N. Shetty** & Amitha Vinola Lobo (2023) A comparative study of Tectona Grandis seed powder & Mangifera Indica leaf powder as bio adsorbents for their efficiency in Methylene Blue dye degradation. **Invited Talk** at International Conference on Nanotechnology for Better Living – 2023, on May 25th- 29th, 2023 at NIT, Srinagar **F-56**.
- ❖ B. Narayana, **Divya N. Shetty** & K. Ashwini (2009): A simple and sensitive method for the spectrophotometric determination of pefloxacin mesylate, International Conference on Recent Advances in Industrial Electrochemical Science and Technology (ICRAIEST 2009), Mangalore University, **PP 78**.

- ❖ **Divya N. Shetty & B. Narayana** (2011): Simple and sensitive method for the spectrophotometric determination of nifedipine, International Conference on Synthetic and Structural Chemistry (ICSSC 2011), Mangalore University, Mangalore, **PP 195**.
- ❖ **Divya N. Shetty, B. Narayana & S. Samshuddin** (2011): Novel reagent for the spectrophotometric determination of Isoniazid. International Conference on Synthetic and Structural Chemistry (ICSSC 2011), Mangalore University, Mangalore, **PP 234**.

Papers Presented in National Conference

- ❖ **Stephin Abraham & Divya N. Shetty** Synthesis and characterization of 2,3-benzyloxy pyridinium picrate at National Seminar on Chemistry for sustainable future in S.D.M.Ujire, held on 27th, 28th January 2017.
- ❖ S.Samshuddin, B. Narayana, B. K. Sarojini, **Divya N. Shetty & N. Sucheta Kumari** (2011). Synthesis, characterization and biological evaluation of some new functionalized terphenyl derivatives. International Conference on Synthetic and Structural Chemistry (ICSSC 2011), Mangalore University, Mangalore, **PP 229**.
- ❖ **Divya N. Shetty & B. Narayana** (2010): *p* Dimethylaminobenzaldehyde as a new chromogenic reagent for the spectrophotometric determination of carvedilol, National Conference on Recent Trends in Chemical Research (NCRTCR 2010), NITK, Surathkal, **PP 06**.
- ❖ **Divya N. Shetty & B. Narayana** (2010): Novel methods for the spectrophotometric determination of colchicoside, Frontier Areas in Chemical Science and nanotechnology (NSFACNT 2010), Kuvempu University, Shimoga, **ICPP 33**.
- ❖ **Divya N. Shetty & B. Narayana** (2011): Development and validation of new spectrophotometric methods for the determination of carvedilol in pharmaceutical dosage forms, National Symposium on Chemistry and Humanity (NSCH 2011), Manipal Institute of Technology, Manipal, **PP 04**.
- ❖ **Divya N. Shetty & B. Narayana** (2010): A new approach for the spectrophotometric determination of ketorolac tromethamine, Frontier Areas in Chemical Science and Nanotechnology (NSFACNT 2010), Kuvempu University, Shimoga, **ICPP 36**.

ACADEMIC / ADMINISTRATIVE POSITIONS

- Assistant Exam Coordinator for Postgraduate Examinations of St Aloysius College (Autonomous), Mangalore 2023-24.
- Member of Research and Development Cell, Product Development, Monitoring and Commercialization 2022-23.
- Coordinator for the certificate course Separation techniques in chemical analysis for the year 2021-22 & 22-23.
- Examination Squad for Postgraduation Examinations, St Aloysius College, Mangalore, for the year 2021-22.
- Member of college NAAC Criterion 1 Committee on Curriculum Enrichment.
- Member of Doctoral Committee for PhD Examinations at AJ Institute of Technology, Mangalore.
- Member of Doctoral Committee for PhD Examinations at SDM Institute of Technology, Ujire.
- Member of Board of Examiners of BMS College, Bangalore.
- Member of Board of Examiners of Mangalore University.
- Member of Board of Examiners of S.D.M College, Ujire.
- Member of Board of Examiners of Vivekananda College, Puttur.
- Member of Women's Forum of St Aloysius College.
- Convenor of National Level Intercollegiate fest Analyst held on 10/02/2017.
- Convenor of National Level Intercollegiate fest Analyst held on 22/02/2019.
- Organizing secretary of National seminar on X-Ray Crystallography held at St. Aloysius College on 16/12/2014.

ACHIEVEMENTS

- Invited Talk at International Conference on Nanotechnology for Better Living 2023 held at NIT, Srinagar, during May 25th -29th, 2023.
- Inaugurator Kala Sangam, organized by Lalitha Kala Sangha, Manchi on 25.12.2023 held at Lions Seva Mandir, Salethur.
- Coordinator for the Online Faculty Development programme on Spectroscopic Techniques & Applications held during 24th – 28th July, 2023 organized by Department of Post graduate Studies and Research in Chemistry, St Aloysius College (Autonomous), Mangalore.
- Coordinator for the National Level Online webinar on Climate Change Research in India: Efforts

and Outcomes, by Dr Chaitanya D Jain, National Atmospheric Research Laboratory, Department of Space, Tirupati, Andhra Pradesh, held on 29.09.2023

- Chief Guest for Deepavali Celebration at Lions and Leo Club Mangalore Palguni, held on 16.11.2023.
- Gave a music performance in a Facebook Live program Sangeet Tsunami, at St Aloysius College, Mangalore on 25.11.2023.
- Chief Guest for Deepavali Celebration at St Aloysius College Boys Hostel, Mangalore, held on 8.11.2023.
- Event Judge for the Singing Competition on the occasion of Independence Day at SRV Girls Hostel, MG Road, Mangalore on 13.08.2023.
- Event Judge for the Drawing Competition for the High School children of Mulki organized by the Lions and Leo Club Mulki at Lions Soudha, Mulki on 15.08.2023.
- Chief Guest for the Independence Day Celebration at Govt Higher Primary School, Guruvayanakere on 15.08.2023.
- Invited to talk on E waste management and E Waste collection drive organized by IT & NSS units of St Aloysius College (Autonomous) Mangalore, in association with Lions International District 317D on 4/02/2023.
- Addressed the Gathering at Annual Day Programme of Lions Institutes, Gonikoppal on 2/12/2022.
- Moderated a Session on ಕೃಷಿ ಉತ್ಪನ್ನ ಆಹಾರಗಳ ಮೌಲ್ಯವರ್ಧನೆ, at ರಾಜ್ಯಮಟ್ಟದ ಕೃಷಿ ಸಿರಿ ಸಮಾವೇಶ on 11/03/2022 held at Kolnadu, Mulki.
- Judged the singing competition organized for the Catholic Students of Udupi and D.K District in collaboration with St Aloysius College and Youth Catholic Association on 4/12/22.
- Invited to talk on NEP 2020 to the staff and students of Lions PU College Kalathmad, Gonikoppal on 15/11/2021.
- Invited as inaugurator for a panel discussion on Your Child's Online Safety Organized by Lions Clubs International 317D on 14/08/2021.
- Chief Guest for the Scholarship distribution programme at Sahakari Seva Bank, Bantwal on 28/02/2021.
- Invited as Resource person for career guidance program at Amtady Government School, Bantwal on 19/09/2019.
- Invited as Resource person for career guidance program at Women's College, Melkar on

18/09/2019.

- Invited as Chief Guest for the programme of Hidayat foundation, Mangalore on 15/12/2018.
- Invited as Chief Guest for the Ann's Installation Programme held on August, 2015.
- Invited as Chief Guest for the programme of Taluk Bunt Sangha, Belthangady on 4/8/2017.
- Invited as Chief Guest for the programme of Sharadothsava at Navoor, Belthangady on 27/9/2017.
- Executive committee member of Sri Ramakrishna Girls Hostel, Mangalore, 2018.