

Curriculum Vitae

Dr. Dipratn Govindrao Khandare

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EDUCATIONAL QUALIFICATION

Ph.D.: Completed Ph. D. under the supervision of Prof. Amrita Chatterjee, BITS Pilani, Goa.

NET Qualification: Qualified CSIR National Eligibility Test (NET) Exam for Lectureship in Dec. 2010.

M.Sc. Organic Chemistry (2007-2009): Dr. Babasaheb Ambedkar Marathwada,
University, Aurangabad, Maharashtra, India

B.Sc. (Chemistry) (2005-2007): Milind College of Science, Aurangabad, Maharashtra, India

PROFESSIONAL EXPERIENCE

2009-2011: Worked as post graduate teacher (Subjects Taught- Organic Chemistry, Organic Synthesis and Retrosynthesis)

2012-2014: During Ph. D. Worked as Research Fellow in the Department of Science and Technology, New Delhi, India, sponsored Project entitled Development of Synthesis of “turn-on” type chemodosimeters for selective sulfhydryl-containing amino acids in aqueous media.

Areas of Interest

- Organic Synthesis
- Synthetic Methodology
- Material Chemistry

Understanding of Instrumental Techniques:

NMR, IR, UV-Vis Spectroscopy, MALDI- Mass Spectroscopy, Powder XRD, Spectrofluorometer, Particle Size Analyzer.

Publications:

- [1] **Dipratn G. Khandare**, Vikash Kumar, Anjan Chattopadhyay, Mainak Banerjee and Amrita Chatterjee, An aggregation-induced emission based “turn-on” fluorescent chemodosimeter for the selective detection of ascorbate ions, **RSC Advances**, 2013, 3, 16981.
- [2] Vikash Kumar, **Dipratn G. Khandare**, Amrita Chatterjee, Mainak Banerjee, DBSA mediated chemoselective synthesis of 2-substituted benzimidazoles in aqueous media, **Tetrahedron Letters**, 2013, 54, 5505.
- [3] **Dipratn G. Khandare**, Hrishikesh Joshi, Mainak Banerjee, Mahesh S. Majik and Amrita Chatterjee, An aggregation-induced emission based “turn-on” fluorescent chemodosimeter for the selective detection of Pb^{2+} ions, **RSC Advances**, 2014, 4, 47076.
- [4] Amrita Chatterjee, **Dipratn G. Khandare**, Praveen Saini, Anjan Chattopadhyay, Mahesh S. Majik and Mainak Banerjee, Amine functionalized tetraphenylethylene: a novel aggregation-induced emission based fluorescent chemodosimeter for nitrite and nitrate ions, **RSC Advances**, 2015, 5, 31479.
- [5] **Dipratn G. Khandare**, Hrishikesh Joshi, Mainak Banerjee, Mahesh S. Majik, and Amrita Chatterjee, Fluorescence Turn-on Chemosensor for the Detection of Dissolved CO_2 Based on Ion-Induced Aggregation of Tetraphenylethylene Derivative, **Analytical Chemistry**, 2015, 87, 10871.
- [6] Mainak Banerjee, Amrita Chatterjee, Vikash Kumar, Zigmee T. Bhutia, **Dipratn G. Khandare**, Mahesh S. Majik and Biswajit Gopal Roy, A simple and efficient mechanochemical route for the synthesis of 2-aryl benzothiazoles and substituted benzimidazoles, **RSC Advances**, 2014,4, 39606.
- [7] **Dipratn G. Khandare**, Mainak Banerjee, Rishabh Gupta, Nupur Kumar, Anasuya Ganguly, Deepak Singha and Amrita Chatterjee, Green synthesis of a benzothiazole based “turn-on” type fluorimetric probe and its use for the selective detection of thiophenols in environmental samples and living cells, **RSC Advances**, 2016, 6, 52790.

Conferences:

- [1] **Dipratn G. Khandare**, Mainak Banerjee and Amrita Chatterjee, Fluorescence „turn-off“ Detection of nitrite ions with Aggregation-Induced Emission Active Tetraphenylethene, presented poster at CRSI, 16th National Symposium in Chemistry (NCS-16), held during February 7-9, 2014, IIT Powai, Mumbai.
- [2] **Dipratn G. Khandare**, Mainak Banerjee and Amrita Chatterjee, An aggregation-induced emission based “turn-on” fluorescent chemodosimeter for the selective detection of Pb²⁺ ions, presented poster at INDO-UK International Workshop On Advanced Materials And Their Applications In Nanotechnology (AMAN 2014), held during May 17-19, 2014, BITS Pilani-K. K. Birla Goa Campus, Goa.
- [3] **Dipratn G. Khandare**, Shivesh Anand, Mainak Banerjee and Amrita Chatterjee, A Highly Fluorescent “Turn-on” Type Chemodosimeter For Selective Detection of Perborate Ion, presented poster at 17th CRSI National Symposium in Chemistry, held during February 6-8, 2015, NCL, Pune.
- [4] **Dipratn G. Khandare**, Mainak Banerjee and Amrita Chatterjee, Aggregation Induced Emission Based “Turn-on” Type Tetraphenylethylene Chemodosimeter For Detection of Mercury ion, presented poster at International Conference On Nascent Developments In Chemical Science: Opportunities For Academia-Industry Collaboration, held during October 16-18, 2015, BITS Pilani, Pilani
- [5] **Dipratn G. Khandare**, Mainak Banerjee and Amrita Chatterjee, Aggregation Induced Emission Based “Turn-on” Type Tetraphenylethylene Chemodosimeter For Detection of Mercury ion and methyl mercury, presented poster at New Frontiers In Chemistry-From Fundamentals To Applications (NFCFA-2015), held during December 18-19, 2015, BITS Pilani-K. K. Birla Goa Campus, Goa.

Statement of research:

My research is focused on the design and synthesis of Aggregation-Induced Emission based chemosensors/chemodosimeters and its application for the detection of toxic/biologically important analytes such as Ascorbic Acid, Nitrite and Nitrate, Aromatic thiol, Lead, Carbon dioxide etc., in real samples.

Teaching experience:

- [1] Teaching Experience as post graduate teacher in Organic Chemistry for post graduate students at Deogiri College, Aurangabad, Maharashtra, India.

- (I) Organic Chemistry
- (II) Organic Synthesis
- (III) Retrosynthesis
- (IV) Experiments in Organic Chemistry

[2] As a teaching assistant at BITS, Pilani- K. K. Birla Goa Campus, Goa.

(I) Measurement techniques I (Course code: CHEM F110)

(II) Chemical Experimentation II (Course code: CHEM F242)

