

Curriculum Vitae

Dr. Dipratn Khandare

Assistant Professor (Adhoc),
Department of Chemistry,
Modern College, Ganeshkhind, Pune-16.



Google Scholar Link: <https://scholar.google.co.in/citations?user=9-QTk-sAAAAJ&hl=en>

EDUCATIONAL QUALIFICATION

Ph.D. (2017): Completed Ph. D. in Organic Chemistry under the supervision of Prof. Amrita Chatterjee, BITS Pilani- K. K. Birla Goa Campus, Goa, India

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

M. Sc. Organic Chemistry: Completed in 2009 with 72%, Dr. Babasaheb Ambedkar Marathwada, University, Aurangabad, Maharashtra, India.

B.Sc. (Chem, Bot, Zoo): Completed in 2007 with 76%, Milind College of Science (With distinction), 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., I have worked as Junior Research Fellow (JRF) and Senior Research Fellow (SRF) in the Department of Science and Technology, New Delhi, India, sponsored Project entitled Development of Synthesis of “turn-on” type chemodosimers for selective sulfhydryl-containing amino acids and peptides in aqueous media.

2017 to till date: Currently working in Department of Chemistry, as Assistant Professor on Adhoc basis in Modern College of Arts, Science and Commerce, Ganeshkhind, Pune, India.

Areas of Interest

- Organic Synthesis
- Molecular/Fluorescence Sensing
- Material Chemistry
- Green Chemistry

Understanding of Instrumental Techniques:

NMR, IR, UV-Vis Spectroscopy, MALDI- Mass Spectroscopy, Powder XRD, Spectrofluorimeter, 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.

[8] Amrita Chatterjee, Mainak Banerjee, **Dipratn G. Khandare**, Ram U. Gawas, Starlaine C. Mascarenhas, Anasuya Ganguly, Rishabh Gupta, and Hrishikesh Joshi, Aggregation-Induced Emission-Based Chemodosimeter Approach for Selective Sensing and Imaging of Hg(II) and Methylmercury Species, **Analytical Chemistry**, 2017, 89 (23), 12698.

Book Chapter- 01

Book chapter entitled "AIE Materials for Cell Membrane Imaging" accepted and has come online in the book series "PMBTS: Advances in Aggregation Induced Emission Materials in Biosensing and Imaging for Biomedical Applications Volume 184", (**Book impact factor = 3.075**).

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 has been 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 postgraduate students at Deogiri College, Aurangabad, Maharashtra, India.

(I) Basic 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: CHEMF242).

[3] Currently working as Assistant Professor for Organic Chemistry in Modern College of Arts, Science and Commerce, Ganeshkhind Pune-16, India.

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