Dr. Kunal Mangesh Dingore

Ph.D. (Chem), M.Sc. (Analytical Chem.)

Nashik, MH.
Cell: +91-9673280664
kunal.dingore87@gmail.com

Summary of Qualifications

Academic professional with excellent knowledge of Chemistry. Solid knowledge of comprehensive synthetic procedures and excellent skills and demonstrable knowledge in the research Field. Result Oriented and Having Excellent Oral and Written Communication Skills. Successfully completed Ph.D. in the Chemistry.

Employment History

Senior Research Fellow

Organic Chemistry Research Centre, K.T.H.M. College. Nashik 2014 – 2018

- Set up and conduct chemical experiments, tests and analyses using techniques such as chromatography, spectroscopy, pH metry, conductometry, potentiometry, physical and chemical separation techniques
- Synthesis of fused pyrazole heterocycles, study of these compounds for their photphysical properties and interaction with serum albumins
- Measurement of fluorescence intensities and calculation of their quantum yields.
- Characterization of synthesized compounds with spectral and analytical data.

Achievements

- Synthesized novel linear pyrazolo fused heterocycles and have applicatications in opto-electronic devices.
- Improved synthetic laboratory skills.

Assistant Professor/Chemistry Teacher

K.T.H.M. College, Nashik **2019 – 2022**

Private coaching Institutions, Nashik **2013 – 2022**

- Preparing lectures for M.Sc., B.Sc., IGCSE, CBSE, State board & JEE & NEET.
- Creating lesson plans,
- Creating and supervising laboratory activities for students,
- Evaluating student performance,
- Maintaining records and participating in events.
- To develop ability to observe, interpret objectively, an understanding of the concepts and theories in chemistry and encourage them in the field of research.

Achievements

- The best & dedicated teacher award for 2015-2016 by coaching institution
- Increase in percentage of candidates who qualified entrance exams and admission to the institution.

Education

▪ SET	Pune University		2021
▪ PET	Pune University		2014
▪ Ph.D.(Chemistry)	Pune University		2018
▪ M.Sc. (Analytical Chem)	Pune University	62.65%	2012
▪ B.Sc (Chemistry)	Pune University	76.66%	2009
▪ H.S.C	Bharti Vidyapeeth	60.00%	2005
▪ S.S.C	Karmaveer Bhaorao Patil	61.46%	2003

Skills

- **Teaching**: Communication, time management, problem-solving, co-operation
- **Research:** Skill in synthesis of organic fused heterocycles, method development for novel molecules, study of photo physical properties including absorption and fluorescence emission wavelengths, study of effect of solvent polarity on measurement of emission wavelength

- **Laboratory**: Instruments handling skill such as pH meter, conductometer, potentiometer, UV-visible spectrophotometer, chromatography, etc
- **IT:** Maharashtra state certificate of information technology (MSCIT)

Publications

- Dingore KM, Deore R, Toche R, Jachak M, Synthesis of pyrazolo napththyridines and study of their fluorescence properties, Indian Journal of Chemistry (under review)
- Deshmukh S, Dingore KM, Gaikwad VB, Jachak M, An efficient synthesis of pyrazolopyrimidines and evaluation of their antimicrobial activities. Journal of Chemical Sciences. 2016, Vol. 128, Page-1459-1468.
- Dingore KM, Deore R, Toche R, Jachak M, An efficient synthesis and photophysical properties of pyrazolo pyridine and naphthyridines, Journal of Fluorescence, 2015, DOI-10.1007/s10895-015-1674-2.
- Patil S, Patil S, Dingore KM, Toche R, Synthesis of series of novel pyrimido quinolone derivatives, International Journal of Chemistry,2016, Vol.4(2), Page - 262-270.

Training

- Space technology and its applications- conducted by ISRO.
- Geospatial technologies and archaeological studies- conducted by ISRO.
- Application for flood hazard mapping and monitoring-conducted by ISRO.
- National workshop on research methodology, Kanchipuram- IIITDM.
- Avishkar- Zonal Level Research Project Competition-2016.
- Certificate of achievement in Artificial Intelligence- conducted by JP international School, Noida.
- Certificate of appreciation in National Education Policy- conducted by LINGAYA'S Institute.
- Certificate of appreciation in Discoveries and Inventions- conducted by Swarnprastha public school, Sonipat.
- Certificate of appreciation in Energy Resource and management- conducted by AICTE, Haryana.
- Principles, laws and concepts in thermodynamics- conducted by advanced educational Institutes.
- Fundamentals in diet and nutrition- conducted by Avlokan Shiksha Niketan.
- Certificate of merit in Indian Heritage and Culture, LINGAYA'S institute.

Conference and Workshops

- International conference - Paper presentation at Indian Science Congress Association, Tirupati-2017.
- International conference - Paper presentation at Indian Science Congress Association, Musuru-2016.
- Research Fellowship-2015-17 -Council of scientific and industrial research, CSIR, New Delhi.
- Annual cultural function award- 2018-19 - Maratha Vidya Prasarak Samaj, Nashik.

Thesis Work Done

- **Title - "Synthesis of Pyrazolo fused heterocycles, study of their fluorescence properties & interaction with human & animal proteins"**
- **Introduction:**
  In this work synthetic applications of *Friedlander* condensation of Pyrazolo carbaldehyde with reactive methylenes, yielded pyrazolo fused heterocycles. The synthesized compounds were studied with respect to their photophysical properties and interaction of these molecules after binding it with human and animal proteins.
- **Methods:**
  The methods employed for the synthesis of pyrazolo fused heterocyclesinvolved *Vilsmaeyer-Hack* formylation, hydrolysis of amide, reduction of carboxylic group to hydroxyl group further oxidation to carbonyl compounds and finally *Friedlander* condensation to target molecules. All synthesized compounds were characterized by spectral and analytical methods. Photophysical properties were studied by measuring absorption, emission of fluorescence wavelengths and calculated their quantum yields.
- **Result:**
  All synthesized compounds were obtained in good yields & characterized by spectral and analytical way. Photophysical properties were studied by measuring absorption, emission of fluorescence wavelengths and calculated their quantum yields.

- **Conclusion:**

  All synthesized compounds emit high blue, yellow and green fluorescence. Absorption and emission properties of these compounds greatly influenced by solvent polarities. These strongly fluorescent compounds may find applications in optoelectronic devices and are addition in the library of new heterocyclic compounds.

Personals:

- **DOB**: 03 December 1987.
- **Languages**: Spoken and Written English, Marathi and Hindi
- **Permanent Address**: Nashik, Maharashtra-422009, India
