

CURRICULUM VITAE**DR. KIRAN RAMNATH PHATANGARE**

M. Sc., Ph. D (Organic Chemistry),

Pashan, Pune 411 045. phatangarekiran@gmail.com, Mo: 7276514751**Date of birth:** 30th May, 1983, **Marital Status:** Married**SUMMARY**

Ph. D in Organic Chemistry with 5 years professionals experience in specialty chemicals, oil and gas field services, research & development. Timely manner project management and its execution. Expert in design, synthesis, cost effective process development of multistep, organic intermediates and polymers. New technology, product development & formulation as per the market/customer need. Coordinating the performance and application development, testing process, generating intellectual properties and providing technical solutions.

ACADEMIC CREDENTIALS

Education	University	Year	Grade
Ph. D (Organic Chemistry)	Institute of Chemical Technology, Mumbai, India	2008-2013	Awarded
M. Sc. (Organic)	University of Pune, Pune	2005-2007	First class
B. Sc. (Chemistry)	University of Pune, Pune	2002-2005	Distinction

PROFESSIONAL EXPERIENCE➤ **AQUAPHARM CHEMICAL PVT LTD, PUNE, INDIA** (February 2016 to till date)**Assistant Manager (Oil Field):** (With one reporting subordinate)

- **H₂S Scavenger:** Triazine and Non Triazine based H₂S scavengers has been designed and synthesized at commercial scale and evaluated for its performance.
- **Iron Corrosion for fuel additive:** Intellectually potential novel succinamide based aromatic derivative has been synthesized as iron Corrosion for fuel additive from process waste material of one of the Aquapharm Product. Imidazole and amide based iron corrosion inhibitor has been designed and developed as a pipeline corrosion inhibitor.
- **Fluid Loss additive:** AMPS-Acrylamide based fluid loss additive for cementing application has been developed in laboratory and evaluated in house for its performance.
- **Copper and Silver Corrosion Inhibitors:** Preliminary candidate molecules has been synthesized and evaluated for performance evaluation at lab scale.
- **Non P green scale inhibitor:** Environment friendly non-phosphorus green scale inhibitor has been successfully synthesized and scaled up at pilot level.

➤ **NALCO, An ECOLAB COMPANY, PUNE, INDIA** (March 2013 to January 2016)**Post-Doctoral Researcher****Projects delivered:** Fluorescent Polymer Technology Development for Industrial Waste Water Application.

- New technology was developed for waste water application.
- Designed and synthesized novel tagged fluorescent water soluble polymers with novel fluorophores. Rhodamine, Rosamine, Nile blue, cyanines, Phenoxazine etc.) Two patent applications for the above work have been submitted.

Projects under development

- **Molecular sensor:** Design and synthesis of fluorescent polymer formulation for dish washing application.
- **Supper polyelectrolyte:** Design and synthesis of highly water soluble polymers with high positive charges.

➤ **MERCK DEVELOPMENT CENTER, MUMBAI, INDIA** (June 2007 to April 2008)

Trainee Research Chemist

Project delivered: Process development of antimigraine drug molecules.

- Successfully transferred technology from lab to pilot plant to plant scale.
- Filed process patent for the same research work.
- Well versed with plant operations and laboratory safety practices.

PH. D (2008-2013)

THESIS TITLE: *Synthesis of Fused Heterocyclic Fluorescent Colorants for Functional Applications.*

ADVISOR: Prof. Dr. N. Sekar

INSTITUTE: Dyestuff Technology Department, Institute of Chemical Technology, Matunga, Mumbai-400019.

- Synthesis, characterization of new fluorophores, photophysical property study and Time Dependent-Density Functional Theory (TD-DFT) base approach towards their photophysical properties.
- Synthesized fluorophores like Naphthoxazolyl Benzoxazoles, Metal complexes, Benzazolyl Coumarins, Phenalenones, Bispirazolones, Quinolines and Fluorescein derivatives etc.
- Sensor development for the detection of herbicides by Fluorescence Polarization Immunoassay (FPIA) technique and human blood sensing using fluorescein derivatives.
- Process development and Synthesis of naphthalene based dye intermediates, green chemistry and methodology.
- Use of solid acid and surfactant as a catalyst for various organic transformations.

HANDS ON INSTRUMENTS & APPLICATION TEST EVALUATION

- Rust Prevention Apparatus for iron corrosion test evaluation as a fuel additive.
- Silver and copper corrosion evaluation by ASTM test methods.
- Expert in H₂S Scavenger performance evaluation.
- Hands on FANN Fluid loss additive test instrument for fluid loss test evaluation.
- NMR, Mass, FTIR for organic molecular characterization.
- DSC, TGA and particle size analyzer for molecular property study.
- SEC, GPC and Rheometer for polymer characterization.
- UV-Visible & Fluorescence spectrophotometer, fluorescence polarization instrument for photo-physical property study.

AWARDS AND HONOURS

- University Grant Commission sponsored Special Assistance Program meritorious Senior Research Fellowship (**UGC-SAP SRF**) 2010-2012.
- University Grant Commission sponsored Special Assistance Program meritorious Junior Research Fellowship (**UGC-SAP JRF**) 2008-2010.
- **Best Paper presentation Award in Conference on Green Chemistry-Recent Trends and Application** 28-29th Sep. 2010, organized by DAV- College, Punjab University. Amritsar.
- Delivered four lectures on '**Science Research as their Career**' on 09-10th December 2008 in Aurangabad district of Maharashtra state jointly organized by Marathi Vidnyan Parishad (MVP), Mumbai and Institute of chemical Technology (ICT), Mumbai.

PUBLICATIONS

PATENTS

1. Process for preparation of Zolmitriptan, Salts And Solvates Thereof, Datta, Debashish; Gore, Vinyak G, Gadkar, Maheshkumar S; Pokharkar, Kiran; **Phatangare, Kiran**. WO 2009044211 A1 Aril 2009.
2. Fluorescent polymers for water treatment, WO2016149471A1

3. Molecular Sensor for dish washing application. Appl. Number 62/384444.

RESEARCH PAPERS (International Peer Reviewed Journals)

1. Synthesis, characterization and antibacterial activity of novel (1H-benzo[d]imidazole-2-yl)-6-(diethylamino)-3H-one-xanthene, phenoxazine and oxazine. Vikas Patil, Vikas Padalkar, **Kiran Phatangare**, N. Sekar. *J. of Heterocyclic Chemistry*, **2015**, 52, 1, 124-129.
2. Phenalenone Fluorophores-Synthesis, Photophysical Properties and DFT Study. **Kiran Phatangare**, Sandip Lanke, Nagayian Sekar, *Journal of Fluorescence*, **2014**, 24, 6, 1827-1840.
3. Fluorescent coumarin derivatives with viscosity sensitive emission Synthesis, photophysical properties computational studies, **Kiran Phatangare**, Sandip Lanke, Nagayian Sekar, *Journal of Fluorescence*, **2014**, 24, 4, 1263-1274.
4. ESIPT inspired fluorescent 2-(4-benzo[d]oxazol-2-yl)naphtho[1,2-d] oxazol-2-yl phenol: Synthesis and DFT based approach to photophysical properties. **Kiran Phatangare**, Vinod Gupta, Abhinav Tathe, Vikas Padalkar, Vikas Patil, Ponnadurai Ramasami, Nagayian Sekar. *Tetrahedron*, **2013**, 69 (6), 1767-1777.
5. Synthesis and characterization of novel yellow azo dyes from 2-morpholin-4-yl-1,3-thiazol-4(5H)-one and study of their azo-hydrazone tautomerism Prashant Umape, Vikas Patil, Vikas Padalkar, **Kiran Phatangare**, Vinod Gupta, Abhinav Tathe, N. Sekar. *Dyes and Pigments*, **2013**, 99, (2) 291-298.
6. Synthesis, photophysical property study of novel fluorescent 4-(1,3-benzoxazol-2-yl)-2-phenylnaphtho[1,2-d][1,3]oxazole derivatives and their antimicrobial activity. **Kiran Phatangare**, Bhushan Borse, Vikas Padalkar, Vikas Patil, Vinod Gupta, Prashant Umape, N. Sekar. *J. of Chemical Sciences*, **2012**, 125 (1), 141-151.
7. Phosphomolybdic acid: An efficient and recyclable solid acid catalyst for the synthesis of 4,4'-(arylmethylene) bis(1H-pyrazol-5-ols). **Kiran Phatangare**, Vikas Padalkar, Vikas Patil, Vinod Gupta, Prashant Umape, N. Sekar. *Synthetic Communications*, **2012**, 42 (9), 1349-1358.
8. Synthesis of new ESIPT-fluorescein: Photophysics of pH sensitivity and fluorescence. Vikas Patil, Vikas Padalkar, **Kiran Phatangare**, Gupta N, Umape P, Sekar, N. *Journal of Physical Chemistry: A*, **2012**, 116, (1), 536-545.
9. Micellar media accelerated Baylis-Hillman reaction. Pawar, B., Padalkar, V., **Phatangare Kiran**, Nirmalkar, S., Chaskar, A. *Catalysis Science and Technology*, **2011**, 1, 1641-1644.
10. IBX in aqueous medium: a green protocol for the Biginelli reaction. Santosh Takale, Sanket Parab, Kiran Phatangare, Rajaram Pisal and Atul Chaskar *Catalysis Science and Technology*, **2011**, 1, 1128-1132.
11. Synthesis of nanodispersible 6-aryl-2,4-diamino-1,3,5-triazine and its derivatives. Vikas Padalkar, Vikas Patil, **Kiran Phatangare**, Vinod Gupta, Umape Prashant, N. Sekar. *Materials Science and Engineering: B*, **2010**, 170, 77-87.
12. Heteropoly acids as useful recyclable heterogeneous catalysts for the facile and highly efficient aza-cope rearrangement of N-allylanilines. V. Padalkar, **Kiran Phatangare**, K. Patil, A. Chaskar. *Applied Catalysis A: General*, **2009**, 359, (1-2), 84-88.
13. **And 24 coauthored** other papers based **fluorophore synthesis, their photophysical property study & methodology development** (Solid acid catalyst and surfactants catalyzed). Presented research papers in **13 national & international conferences**.

REFERENCES

1. **Dr. Hemant Mondkar**
Technical Lead, Total Oil India Pvt. Ltd.
Mahape-400710, Navi Mumbai, India. Email: hemantmondkar@gmail.com
2. **Dr. Deepak Rane**
Staff Scientist, Nalco, An Ecolab Company,
Sade Satra Nali, Pune- 411028. India. Email: deepak.rane24@rediffmail.com

Date

Dr. Kiran Ramnath Phatangare