BHARATKUMAR CHAUDHARY

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Work Experience

- **Team Leader, R&D Chemistry** ***Feb 2021 – Present***

  AnSys Laboratories LLP, Ahmedabad, Gujarat

  Group Leader: Dr. Nehal Sheth

  - Responsibility of entire R&D department of AnSys Laboratories LLP for day to day work.
  - Led team of six research associate to synthesize target molecules and deliver in time period.
  - Perform literature search, designing of route for the multi-step synthesis of targeted molecules and carry out synthetic experiments safely and efficiently.
  - Confer with team on weekly planning, work distribution, troubleshooting, alternate route of synthesis and interpretation of analytical data.
  - Experience with writing experimental procedure and preparing analytical report.
  - Delivered compounds in timeline to the client.

- **Research Associate, R&D Chemistry** ***Jun 2014 - Aug 2015***

  Piramal Discovery Solution (PDS) Pvt. Ltd Ahmedabad,

  Team Leader: Mr. Tanay Ghoshal, **Group Leader**: Dr. Nehal Sheth

  - Quickly adapted the work culture of team and learned to work with minimal guidance.
  - Within three-month of time period, promoted as research associate from trainee and started working independently in highest priority compounds among the team of 12 scientists and delivered the compound on time.

Education

- **PhD, Medicinal Chemistry** ***2015 - 2020***

  NIPER-Ahmedabad, Opposite Air force Station,
  Palaj, Gandhinagar-382355, Gujarat, India

- **M.S. (Pharm.), Medicinal Chemistry (8.22 CGPA)** ***2012 - 2014***
  NIPER-Ahmedabad, Opposite Air force Station,
  Palaj, Gandhinagar-382355, Gujarat, India
- **B. Pharmacy (7.99 CGPA)** ***2008 - 2012***
  Shri B M Shah College of Pharmaceutical Education and Research,
  Modasa-383315, Gujarat, India

Research Experience

PhD Research work*,* **Mentor**: Dr. Satyasheel Sharma

Title: Synthesis of diverse trifluoromethylated molecules via C–H activation strategy and their anti-cancer evaluation.

- Worked on the development of new methodology for construction of trifluoromethylated small molecules via C–H bond activation using transition metal catalyst.
- Performed optimization of reaction condition by screening catalysts, solvents, additives, temperature and time.
- Performed the substrate scope for functional group tolerance using optimized reaction condition and reaction diversification for synthesis of medicinally important compound.
- Wrote the experimental procedure and analytical data and scientific papers.
- Screened synthesized molecules for anti-cancer activity using *in vitro* cell-based assay.

Technical Skills

- Well versed in literature search by use of all available tools (Reaxys/SciFinder)
- Efficient at handling the team of 5-8 scientists for design and perform synthetic experiments safely and efficiently, while capturing all relevant details of the experimental procedure and observation effectively.
- Competent to perform synthesis of complex organic molecules using conventional methods, functional group transformation and transition metal catalyst individually as well as by team.
- Very good handling of pyrophoric reagent and low temperature reaction.
- Good expertise in purification of compounds by re-crystallization, distillation, solvent trituration and chromatography separation technique.
- Wide knowledge of structure elucidation, data interpretation using ^{1}H NMR, ^{13}C NMR, 2D NMR, IR and Mass spectrometry.

- Strong problem-solving and troubleshooting skills for synthesis, purification and data interpretation.
- Good knowledge of writing and reviewing, lab notebooks, electronic lab notebooks and writing reports and manuscripts.
- Well versed in handling and maintaining the instrument such Glove box, Combiflash, Microwave synthesizer, Melting point, IR, Rotary Evaporator, Parallel Synthesizer, Lyophilizer, Vacuum oven, Multimode reader.
- Well-versed in working with various software's such as Chemdraw, Endnote, MestReNova, Topspin, Graphpad-Prism, MS office.
- Knowledge of *in vitro* cell-based assay and enzyme assay for screening of compound for various biological activity.
- Knowledge of *in silico* study for drug design, such as molecular docking, site map, homology modeling using various software (Autodock, Schrodinger).

Leadership and Teamwork

- **Secretary of AANA** (**A**lumni **A**ssociation of **NI**PER **A**hmedabad) ***2017*** - ***2020***

✓ While working as a secretary of AANA, I have worked hard to strengthen the bond connecting alumni and institute for betterment of the students. We have also introduced a new alumni portal for easy communication between alumni and current students of the institute

- **Secretary of Sport Club, NIPER-Ahmedabad** ***2016*** - ***2019***

✓ Coordinated whole Inter-NIPER Sports Meet from 18th to 23th Feb 2019 (INSM-2019), held at NIPER Ahmedabad, Gandhinagar, Gujarat.

✓ Represented NIPER Ahmedabad sports team during INTER-NIPER (SPARDHA-2018) held at NIPER S.A.S. Nagar, Mohali, Punjab.

✓ Coordinated Intra-NIPER sport week and encouraged volunteers and players and develop healthy sports culture in institute as well as in hostel.

Interest

- Playing and watching sports
- Reading novel
- Watching movies and series
- Farming

Publication

Research articles:

- **Bharatkumar Chaudhary**, Neeraj Kulkarni and Satyasheel Sharma, "Rhodium (III)-catalyzed synthesis of 3-trifluoromethylindanones from N-methoxybenzamides via C–H activation and Claisen/retro-Claisen reaction." *Organic Chemistry Frontiers*, **2020**, *7*, 1512-1519
- **Bharatkumar Chaudhary**, Prashant Auti, Suchita Dattatray Shinde, Prasanna Anjaneyulu Yakkala, Deepesh Giri and Satyasheel Sharma, "Rh (III)-Catalyzed [3+ 2] Annulation via C–H Activation: Direct Access to Trifluoromethyl-Substituted Indenamines and Aminoindanes." *Organic letters*, **2019**, *21*, 2763-2767
- Prasanna Anjaneyulu Yakkala, Deepesh Giri, **Bharatkumar Chaudhary**, Prashant Auti and Satyasheel Sharma, "Regioselective C–H alkylation and alkenylation at the C5 position of 2-amino-1, 4-naphthoquinones with maleimides under Rh (iii) catalysis." *Organic Chemistry Frontiers*, **2019**, *6*, 2441-2446
- **Bharatkumar Chaudhary**, Monika Diwaker and Satyasheel Sharma, "Regioselective indole C2-alkylation using β-CF_3-substituted enones under redox neutral Rh (III) catalysis." *Organic Chemistry Frontiers*, **2018**, *5*, 3133-3137

Review article:

- **Bharatkumar Chaudhary**, Neeraj Kulkarni, Nehanaz Saiyed, Meenakshi Chaurasia, Surbhi Desai, Sagar Potkule and Satyasheel Sharma, "β-Trifluoromethyl α,β-unsaturated Ketones: Efficient Building Blocks for Diverse Trifluoromethylated Molecules." *Advanced Synthesis & CatalysisI*, **2020**, *362*, 4794-4819
- Khemchand Surana, **Bharatkumar Chaudhary**, Monika Diwaker and Satyasheel Sharma, "Benzophenone: a ubiquitous scaffold in medicinal chemistry." *MedChemComm*, **2018**, *9*, 1803-1817

Workshops and Poster Presentations

- Poster Presentation on "**Regioselective Rh(III) Catalyzed C–H Alkylation and Annulation with β-CF_3-Substituted Enones**", at 25th ISCB International conference (ISCBC-2019), trends in chemical and biolocal science: impact on health and environment, held at Hotel Golden Tulip, Lucknow, India. ***Jan 2019***

- Attended a **3-day** workshop and conference on "**International Conference on Drug Design (ICDD)**", organized by Schrodinger, held at Convention Center, Jawaharlal Nehru University, New Delhi, India. ***Apr 2017***

References

- **Dr. Satyasheel Sharma**

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  Department of Natural Products
  NIPER Ahmedabad
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Declaration

I hereby certify that all the information provided above is true to the best of my knowledge.

Date: 10 July 2021

Place: Ahmedabad

Bharatkumar Chaudhary