

## CURRICULUM VITAE

### Prof. Siddappa A. Patil, FRSC

Centre for Nano and Material Sciences  
Jain (Deemed-to-be-University), Jain Global Campus  
Jakkasandra Post, Kanakapura Taluk, Ramanagara District-562112  
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### PROFESSIONAL EXPERIENCE

**May 2021 – Present** : Professor, CNMS, Jain University, Bangalore, India.  
**July 2022 – Sept. 2022** : Visiting Scientist, Florida Gulf Coast University, USA.  
**Aug. 2019 – Present** : Affiliated Faculty, Florida Gulf Coast University, USA.  
**Sept. 2016 – Apr. 2021** : Associate Professor, CNMS, Jain University, Bangalore, India.  
**Oct. 2016 – July 2019** : Affiliated Faculty, University of Texas at Arlington, USA.  
**Apr. 2014 - Aug. 2016** : Assistant Professor, CNMS, Jain University, Bangalore, India.  
**Oct. 2013 - Mar.2014** : Visiting scientist, Northern Illinois University, USA.  
**Feb. 2013 - Sept. 2013** : Postdoctoral Research Associate, University of Texas at Arlington, USA.  
**Nov. 2010 - Jan. 2013** : Postdoctoral Research Associate, Central Michigan University, USA.  
**Nov. 2008 - Oct. 2010** : IRCSET Postdoctoral Fellow, University College Dublin, Ireland.  
**May 2007 - Aug. 2008** : Postdoctoral Fellow, National Chung-Hsing University, Taiwan.  
**Dec. 2006 - April 2007** : Research Scientist, Padmini Aromatics Pvt. Ltd., Bangalore, India.

### EDUCATION

**Ph. D.** in Chemistry - Karnatak University Dharwad, India, awarded in 2006.  
**M. Sc.** in Chemistry - Karnatak University Dharwad, India, awarded in 2001.  
**B. Sc.** in Chemistry - Karnatak University Dharwad, India, awarded in 1999.

### ACHIEVEMENTS AND AWARDS

- **August 2023** : Awarded FRSC (Fellow of the Royal Society of Chemistry), London, UK.
- **August 2023** : Name appeared in Stanford's list of top 2% scientists in the world in 2023.
- **April 2023** : Silver Medal, Chirantan Rasayan Sanstha (CRS), West Bengal, India.
- **July 2022 – Sept. 2022** : Visiting Scientist, Florida Gulf Coast University, Florida, USA
- **Oct. 2022** : Name appeared in Stanford's list of top 2% scientists in the world in 2022.
- **Nov. 2021** : Name appeared in Stanford's list of top 2% scientists in the world in 2021.
- **Nov. 2020** : Name appeared in Stanford's list of top 2% scientists in the world in 2020.
- **Oct. 2013-Mar. 2014** : Visiting Scientist, Northern Illinois University, Illinois, USA.
- **Feb. 2013-Sept. 2013** : Postdoctoral Research Associate, University of Texas at Arlington, USA.
- **Nov. 2010-Jan. 2013** : National Science Foundation (NSF) Postdoctoral Fellowship, CMU, USA.
- **Nov. 2008-Oct. 2010** : Government of Ireland IRCSET Postdoctoral Fellowship, UCD, Ireland.
- **May 2007-Aug. 2008** : National Science Council Postdoctoral Fellowship, NCHU, Taiwan.
- **March 2007** : Selected for a CONICET Postdoctoral Fellowship, Argentina.

- **June 2007** : Selected for a FCT Postdoctoral Fellowship, Portugal.
- **Nov. 2006** : Selected for a SERC Bio-inorganic Postdoctoral Fellowship, IITB, India.
- **2001-2005** : Awarded University Research Scholarship for doctoral studies.
- **1999-2000** : Awarded Dr. V.V. Badiger Merit Scholarship in M. Sc.
- **1999-2001** : Awarded University Merit Scholarship in M. Sc.
- **1997-1999** : Awarded University Merit Scholarship in B. Sc.

### CONSULTATION EXPERT OPINION

**Dec. 2023- Present:** Consultation expert opinion to Padmini Aromatics Pvt. Ltd., Bangalore, India.

### PROFESSIONAL MEMBERSHIP

Fellow of the Royal Society of Chemistry (FRSC), London, UK

American Chemical Society (ACS)

Life Member of Catalysis Society of India

Life Membership of Chirantan Rasayan Sanstha (CRS)

### RESEARCH INTERESTS

- ❖ Cleaner and greener synthesis of metal nanoparticles as recyclable nanocatalyst.
- ❖ Sustainable solid waste-based recyclable catalysts.
- ❖ Magnetic nanoparticle, molybdenum disulfide and graphitic carbon nitride in catalysis.
- ❖ Boron nitride, MXene, graphene oxide, carbon nanotubes and graphene nanoribbons in catalysis.
- ❖ Environmental pollutant degradation.
- ❖ Wastewater treatment.
- ❖ Double layered hydroxide, black phosphorus and boehmite in catalysis.
- ❖ Heterocyclic compounds as bioactive compounds.
- ❖ *N*-heterocyclic carbene metal complexes as bioorganometallic drugs and catalysts.
- ❖ Nanotechnology driven synthesis of carboranes and metallocarboranes

### PROJECTS HANDLED

- 1) Design and Development of Noble Metals Nanoparticles Tethered *N*-Heterocyclic Carbene Functionalized Covalent Organic Frameworks for Treating Wastewater Contaminants.  
*Funding Agency:* Jain (Deemed-to-be-University), Minor Research Project (MRP).  
*Duration:* 1 year (Oct.2022 – Sept. 2023) (Principal Investigator).
- 2) Mono, bis, and tris 1,2,3-triazole-based palladium(II) and nickel(II) *N*-heterocyclic carbene complexes as C-C/C-N coupling and olefin polymerization catalysts.  
*Funding Agency:* Science & Engineering Research Board, Department of Science and Technology.  
*Duration:* 3 years (Feb.2016 – Jan. 2019) (Principal Investigator)
- 3) Application of emerging nanomaterials in health, energy and water.  
*Funding Agency:* Nano Mission, Department of Science and Technology.  
*Duration:* 3 years (Oct.2015 – Sept. 2018) (Co-Principal Investigator).

## TEACHING EXPERIENCE

September 2014-to-date: Teaching post-graduate organometallic, bioorganometallic, inorganic, chemistry of biomolecules and environmental chemistry courses at Centre for Nano & Material Sciences, Jain Global Campus, Jain University, Bangalore, India.

## HUMAN RESOURCE DEVELOPMENT

### Scientists/ postdocs/ associates

Three postdocs are completed. Presently, one visiting scientist and one postdoc are working.

### Doctoral students

Nine students are awarded their PhD degree. Currently, nine students are working for their PhD degree.

### Master students

Eleven students are awarded their M. Sc. Degree. Presently, one student is working for completion of her M. Sc. degree.

## RESEARCH PUBLICATIONS

Total number of publications: **158**

Total Citations: **5402**

***h*-index 39, *i*10-index 105**

Orchid research ID: [orcid.org/0000-0002-2855-5302](https://orcid.org/0000-0002-2855-5302)

<https://scholar.google.co.in/citations?user=y0hvr1UAAAJ&hl=en>

**2024**

- 158) Chamanmalik, M. I.; Antony, A. M.; Algethami, J. S.; Alsaiari, M.; Harraz, F. A.; Patil, S. A.\* Unraveling of *Tectona grandis* reduced palladium nanoparticles decorated on Mg-Al layered double hydroxide as an efficient nanocatalyst for cross-coupling reactions and azo dye degradation. *Surf. Interfaces*. **2024**, <https://doi.org/10.1016/j.surfin.2024.104374>.
- 157) Nandini, R.; Thrilokraj, R.; Kshirsagar, U. A.; Hegde, R. V.; Ghosh, A.; Patil, S. A.; Malecki, J. G.; Dateer, R. B. Facile access to 1,2-disubstituted benzimidazoles and 2,3-dihydro-1H-perimidines using a biogenically synthesized single phase  $\delta$ -MnO<sub>2</sub> NP catalyst and its dye removal study. *New J. Chem.* **2024**, 48, 1327-1335.
- 156) Nikam, R. R.; Manikanta, P.; Patil, K. N.; Mounesh.; Kainthla, I.; Patil, S. A.; Nagaraja, B. M. State-of-the-art for the development of Cu-based heterogeneous catalysts for efficient utilization of furfural to value chemicals via liquid-phase and gas-phase reactions. *Catalysis reviews* **2023**, <https://doi.org/10.1080/01614940.2023.2267286>.
- 155) Sampatkumar, H. G.; Rhakho, N.; Kandathil, V.; Kempasiddaiah, M.; Shirahatti, A. M.; Dateer, R. B.; Samal, A. K.\*; Patil S. A.\* Green synthesis of palladium nanoparticles immobilised on graphitic carbon nitride as a sustainable nanocatalyst for the reduction of nitroarenes and removal of fluorinated substances. *Catal. Lett.* **2024**, 154(2), 352-365.
- 154) Nesaragi, A. R.; Ahmed, J.; Alsaiari, M.; Naik, L.; Kalagatur, N. K.; Chandan, H. R.; Hoolageri, S. R.; Harraz, F. A.; Geetha Balakrishna, R.; Patil, S. A.\* Fluorescent imidazole derived sensor for selective in vitro and in vivo Fe<sup>+2</sup> detection and bioimaging in zebrafish with DFT studies. *Opt. Mater.* **2024**, 148, 114850.

- 153) Nesaragi, A. R.; Algethami, J. S.; Alsaieri, M.; Alsareii, S. A.; Mathada, B. S.; Ningaiah, S.; Sasidhar, B. S.; Harraz, F. A.; Patil, S. A.\* A Comprehensive Overview of Coumarinyl-Triazole Hybrids as Anticancer Agents. *J. Mol. Struct.* **2024**, 1302, 137478.
- 152) Sherugara, P.; Antony, A. M.; Nordin, M. A. H. M.; Patil, S. A.\*; Padaki, P. Tailoring the CH<sub>4</sub>/CO<sub>2</sub>/N<sub>2</sub> separation performance of ultrapermeable polymeric composite membranes by altering the concentration of Pd/g-C<sub>3</sub>N<sub>4</sub>. *Fuel* **2024**, 361, 130731.
- 151) Isbel, S. R.; Patil, S. A.; Bugarin, A. NHCs silver complexes as potential antimicrobial agents. *Inorg. Chim. Acta.* **2024**, 563, 121899.
- 150) Divakar, S.; Sampatkumar, H. G.; Naik, S. S.; Malladi, S.; Padaki, M.; Patil, S. A.; Geetha Balakrishna, R. Graphitic carbon nitride enriched phytochemicals-based integrated membranes for perilous Chromium (VI) ion removal. *Sep. Purif. Technol.* **2024**, 334, 125953.

### 2023

- 149) Ghosh, A.; Hegde, R. V.; Limaye, A. K.; Thrilokraj, R.; Patil, S. A.; Dateer, R. B. Biogenic Synthesis of  $\delta$ -MnO<sub>2</sub> Nanoparticles: A Sustainable Approach for C-Alkylation and Quinoline synthesis via Acceptorless Dehydrogenation and Borrowing Hydrogen Reactions. *Appl Organomet Chem.* **2023**, 37: e7119.
- 148) Swain, S.; Antony, A. M.; Patil, S. A.\*; Samal, A. K. Designing PdxCu<sub>y</sub> Octahedra Alloy Nanocatalysts Supported on Solid Substrates for Solvent-free Sonogashira Cross-Coupling Reaction: Rational Optimization of Metal Precursors. *Mater. Today Nano.* **2023**, 24, 100416.
- 147) Banu, A.; Antony, A. M.; Sasidhar, B. S.; Patil, S. A.; Patil, S. A.\* Palladium Nanoparticles Grafted onto Phytochemical Functionalized Biochar: A Sustainable Nanozyme for Colorimetric Sensing of Glucose and Glutathione. *Molecules* **2023**, 28(18), 6676.
- 146) Hegde, R. V.; Bhondwe, R.; Sree Raj, K. A.; Ghosh, A.; Rout, C. S.; Thrilokraj, R.; Patil, S. A.; Sridhar, B.; Dateer, R. B. C–H Activation of Benzamides Using Biogenically Synthesized Pd@CNTs Catalyst under External Ligand Free Condition: Access to Isoquinolones and A DFT Study of Phytochemicals. *ChemistrySelect* **2023**, 8(23), e202300673.
- 145) Patil, S. A.\*; Rodríguez-Berriós, R. R.; Chavez-Flores, D.; Wagle, D.; Bugarin, A. Recent Advances in the Removal of Radioactive Iodine and Iodide from the Environment. *ACS ES&T Water* **2023**, 3, 8, 2009-2023.
- 144) Antony, A. M.; Chamanmalik, M. I.; Kandathil, V.; Sampatkumar, H. G.; Sasidhar, B. S.; Yelamaggad, C. V.; Patil, S. A.\* Biomacromolecule supported N-heterocyclic carbene-palladium(II) as a novel catalyst for Suzuki-Miyaura and Mizoroki-Heck cross-coupling reactions. *Cellulose* **2023**, 30, 7551-7573.
- 143) Nesaragi, A. R.\*; Ravikumar, C. H.; Kalagatur, N. K.; Hoolageri, S. R.; Mussuvir Pasha K. M.; Geetha Balakrishna, R.\*; Patil, S. A.\* In vitro and in vivo nanomolar Hg<sup>2+</sup> detection in live cells and zebrafish, theoretical studies. *J. Photochem. Photobiol. A: Chem.* **2023**, 445, 115079.

- 142) Chamanmalik, M. I.; Antony, A. M.; Yelamaggad, C. V.; Patil, S. A.; Patil, S. A.\* Biogenic silver nanoparticles/Mg-Al layered double hydroxides with peroxidase-like activity for mercury detection and anti-bacterial activity. *Molecules* **2023**, *28*, 5754.
- 141) Patil S. A.\*; Marichev, K. O.; Patil S. A.; Bugarin, A. Advances in the Synthesis and Applications of 2D MXene-Metal Nanomaterials. *Surf. Interfaces* **2023**, *38*, 102873.
- 140) Swain, S.; Kandathil, V.; Karim, G.; Maiti, U.; Patil S. A.\*; Samal, A. K.\* Computational and Experimental Design of Octahedral PdFe Alloy Nanocatalyst for Hiyama Cross-Coupling and Environmental Pollutant Degradation. *ACS Appl. Nano Mater.* **2023**, *6*, 5, 3254-3267.
- 139) Antony, A. M.; Kandathil, V.; Kempasiddaiah, M.; Dateer, R. B.; Patil S. A.\* Magnetic nanoparticles embedded hexagonal boron nitride tethered N-heterocyclic carbene-palladium(II): An efficient and reusable magnetic catalyst for fluoride-free Hiyama cross-coupling and 4-nitrophenol reduction reactions. *J. Phys. Chem. Solids* **2023**, *177*, 111283.
- 138) Antony, A. M.; Yelamaggad, C. V.; Patil, S. A. Palladium Nanoparticles Decorated on Functionalized Graphitic Carbon Nitride as an Efficient and Retrievable Nanocatalyst for Organic Dye Degradation and Hydrogen Peroxide Sensing. *Mater. Chem. Phys.* **2023**, *297*, 127370.
- 137) Patil, S. A.; Nesaragi, A.; Rodríguez-Berríos, R. R.; Hampton, S. M.; Bugarin, A.; Patil, S. A. Coumarin triazoles as potential antimicrobial agents. *Antibiotics* **2023**, *12*(1), 160.
- 136) Limaye, A. K.; Alsaiani, M.; Shinde, P. V.; Ghosh, A.; Jalalah, M.; Rout, C.; Patil, S.; Harraz, F. A.; Dateer, R. Greener approach for Pd-NPs synthesis using mangifera indica leaf extract: heterogeneous nano catalyst for direct C-H arylation of (poly)fluorobenzene, Hiyama coupling reaction and hydrogen evolution reaction study. *Catal. Lett.* **2023**, *153*, 1988-2004.
- 135) Mohan, S.; Ajay Krishna, M. S.; Chandramouli, M.; Keri, R. S.; Patil, S. A.; Ningaiah, S.; Sasidhar B. S. Antibacterial natural products from microbial and fungal sources: a decade of advances, *Mol. Divers.* **2023**, *27*(1), 517-541.

## 2022

- 134) Sampatkumar, H. G.; Antony, A. M.; Trivedi, M.; Sharma, M.; Ghate, M.; Baidya M.; Dateer, R. B.; Patil, S. A.\* In situ biosynthesis of palladium nanoparticles on banana leaves extract-coated graphitic carbon nitride: An efficient and reusable heterogeneous catalyst for organic transformations and antimicrobial agent. *Biomass Convers. Biorefin.* **2022**, <https://doi.org/10.1007/s13399-022-03222-5>.
- 133) Kandathil, V.; Moolakkil, A.; Kulkarni, P.; Veetil, A. K.; Kempasiddaiah, M.; Sasidhar B. S.; Geetha Balakrishna, R.; Patil, S. A.\* Pd/Fe<sub>3</sub>O<sub>4</sub> supported on bio-waste derived cellulosic-carbon as a nanocatalyst for C-C coupling and electrocatalytic application. *Front. Chem. Sci. Eng.* **2022**, *16*(10), 1514-1525.
- 132) Patil, S. A.; Patil, S. A.; Ble-González, E. A.; Isabel, S. R.; Hampton, S. M.; Bugarin, A. Carbazole Derivatives as Potential Antimicrobial Agents. *Molecules* **2022**, *27*(19), 6575.

- 131) Patil, S. A.; Kandathil, V.; Sharma, A.; Somappa, B. S.; Feldman, M. R.; Bugarin, A.; Patil, S. A. Comprehensive Review on Medicinal Applications of Coumarin-Derived Imine–Metal Complexes. *Molecules* **2022**, *27*(16), 5220.
- 130) Antony, A. M.; Kandathil, V.; Kempasiddaiah, M.; Shwetharani, R.; Geetha Balakrishna, R.; El-Bahy, S. M.; Hessien, M. M.; Mersal, G. A. M.; Ibrahim, M. M.; Patil, S. A.\* Graphitic carbon nitride supported palladium nanocatalyst as an efficient and sustainable catalyst for treating environmental contaminants and hydrogen evolution reaction. *Colloids Surf. A Physicochem. Eng.* **2022**, *647*, 129116.
- 129) Ghosh, A.; Limaye, A. S.; Manjunatha, K. N.; Patil, S. A.; Dateer, R. B. Zn-Mediated Selective Reduction of Nitroarenes: A Sustainable Approach for Azoxybenzenes Synthesis, *Org. Prep. Proced. Int.* **2022**, *54*(3), 284-293.
- 128) Patil, M.; Noonikara-Poyil, A.; Joshi, S. D.; Patil, S. A.; Patil, S. A.\*; Lewis, A. M.; Bugarin, A. Synthesis, molecular docking studies, and in vitro antimicrobial evaluation of piperazine and triazolo-pyrazine derivatives. *Mol. Divers.* **2022**, *26*, 827-841.
- 127) Marichev, K. O.; Patil, S. A.; Patil, S. A.; Heras Martinez, H. M.; Bugarin, A. N-Heterocyclic carbene metal complexes as therapeutic agents: a patent review. *Expert Opin. Ther. Pat.* **2022**, *32*(1), 47-61.

## 2021

- 126) Hegde, R.; Ghosh, A.; Nizam, A.; Patil, S. A.; Peter, F.; Dateer, R. B.; Jadhav, A. H. Catalyst- and Additive-Free Approach to Construct Benzo-oxazine, Benzo-oxazepine and Benzo-oxazocine: O-Atom Transfer, C=O, C-N and C-O Bond Formation at Room Temperature. *Org. Lett.* **2021**, *23*(21), 8189-8193.
- 125) Hegde, R.; Ghosh, A.; Nizam, A.; Patil, S. A.; Peter, F.; Dateer, R. B.; Jadhav, A. H. Biogenic synthesis of Pd-nanoparticles using areca nut husk extract: a greener approach to access  $\alpha$ -keto imides and stilbenes. *New J. Chem.* **2021**, *45*, 16213-16222.
- 124) Patil, S. A.; Patil, S. A.; Fariyike, T.; Marichev, K. O.; Heras Martinez, H. M.; Bugarin, A. Medicinal applications of coumarins bearing azetidinone and thiazolidinone moiety. *Future Med. Chem.* **2021**, *13*(21), 1907-1934.
- 123) Kempasiddaiah, M.; Sree Raj, K. A.; Kandathil, V.; Dateer, R. B.; Sasidhar B. S.; Yelamaggad, C. V.; Rout, C. K.; Patil, S. A.\* Waste biomass-derived carbon-supported palladium-based catalyst for cross-coupling reactions and energy storage applications. *Appl. Surf. Sci.* **2021**, *570*, 151156.
- 122) O'Beirne, C.; Piatek, M. E.; Fossen, J.; Müller-Bunz, H.; David R. Andes, D. R.; Kavanagh, K.; Patil, S. A.; Baumann, M.; Tacke, M. Continuous flow synthesis and antimicrobial evaluation of NHC\* silver carboxylate derivatives of SBC3 in vitro and in vivo. *Metallomics* **2021**, *13*(2), mfaa011.

- 121) Kandathil, V.; Veetil, K. A.; Patra, A.; Moolakkil, A.; Kempasiddaiah, M.; Sasidhar B. S.; Rout, C. K.; Patil, S. A.\* A green and sustainable cellulosic-carbon shielded Pd-MNP hybrid material for catalysis and energy storage applications. *J. Nanostruct. Chem.* **2021**, *11*, 395-407.
- 120) Kandathil, V.; Patil, S. A.\* Single-atom nanozymes and environmental catalysis: A perspective. *Adv. Colloid Interface Sci.* **2021**, *294*, 102485.
- 119) Kempasiddaiah, M.; Kandathil, V.; Dateer, R. B.; Sasidhar B. S.; Patil, S. A.; Patil, S. A.\* Palladium-catalyzed denitrogenative cross-coupling of aryl halides with arylhydrazines under mild reaction conditions. *Transition Met. Chem.* **2021**, *46*, 273-281.
- 118) Antony, A. M.; Kandathil, V.; Kempasiddaiah, M.; Sasidhar, B. S.; Patil, S. A.; Patil, S. A. Hexagonal boron nitride supported N-heterocyclic carbene-palladium(II): A new, efficient and recyclable heterogeneous catalyst for Suzuki-Miyaura cross-coupling reaction. *Catal. Lett.* **2021**, *151*, 1293-1308.
- 117) Hegde, R. V.; Ong, T.; Ambre, R.; Jadhav, A. H.; Patil, S. A.; Dateer, R. B. Regioselective direct C<sub>2</sub> arylation of indole, benzothiophene and benzofuran: utilization of reusable Pd NPs and NHC-Pd@MNPs catalyst for C-H activation reaction. *Catal. Lett.* **2021**, *151*, 1397-1405.
- 116) Gautam, A.; Shahini, C. R.; Patil, S. A.; Grzegorz, M. J.; Ahipa, T. N.; Hemavathi, B.; Budagumpi, S. Palladium(II) complexes of coumarin substituted 1,2,4-triazol-5-ylidenes for catalytic C-C cross-coupling and C-H activation reactions. *J. Organomet. Chem.* **2021**, *934*, 121540.
- 115) Kumbar, A. S.; Shettar, A.; Joshi, S. D.; Patil, S. A. \* Design, synthesis, molecular docking and biological activity studies of novel coumarino-azetidiones. *J. Mol. Struct.* **2021**, *1231*, 130016.
- 114) Patil, S. A.\*; Heras-Martinez, H. M.; Lewis, A. M.; Patil, S. A.; Bugarin, A. Synthesis, structural diversity, and applications of mesoionic 1,2,3-triazol-5-ylidene metal complexes, an update (2017-2020). *Polyhedron* **2021**, *194(15)*, 114935.
- 113) Heras-Martinez, H. M.; Flores, D. C.; Hillesheim, P. C.; Patil, S. A.; Bugarin, A. Crystal structure and spectroscopic properties of (E)-1,3-dimethyl-2-[3-(4-nitrophenyl)triaz-2-enylidene]-2,3-dihydro-1H-imidazole. *Acta Cryst. E* **2021**, *E77*, 130-133.
- 112) Kempasiddaiah, M.; Kandathil, V.; Datter, R. B.; Baidya, M.; Patil, S. A.\* Efficient and recyclable palladium enriched magnetic nanocatalyst for reduction of toxic environmental pollutants. *J. Environ. Sci.* **2021**, *101*, 189-204.

## 2020

- 111) Patil, S. A.; Hoagland, A. P.; Patil, S. A.; Bugarin, A. N-heterocyclic carbene-metal complexes as bio-organometallic antimicrobial and anticancer drugs, an update (2015-2020). *Future Med. Chem.* **2020**, *12(24)*, 2239-2275.

- 110) Kandathil, V.; Siddiqa, A.; Patra, A.; Kulkarni, B.; Kempasiddaiah, M.; Sasidhar B. S.; Patil S. A.; Rout, C. K.; Patil S. A.\* NHC-Pd complex heterogenized on graphene oxide for cross-coupling reactions and supercapacitor applications. *Appl. Organomet. Chem.* **2020**, *34(11)*, e5924.
- 109) Patil, V.; Noonikara-Poyil, A.; Joshi, S. D.; Patil, S. A.; **Patil, S. A.\***; Lewis, A. M.; Bugarin, A.\* Synthesis, molecular docking studies, and in vitro evaluation of 1, 3, 5-triazine derivatives as promising antimicrobial agents. *J. Mol. Struct.* **2020**, *1220*, 128687.
- 108) Swain, S.; Bhavya, M. B.; Kandathil, V.; Bhol, P.; Samal, A. K.\*; Patil S. A.\* Controlled Synthesis of Palladium Nanocubes as an Efficient Nanocatalyst for Suzuki–Miyaura Cross-Coupling and Reduction of p-Nitrophenol. *Langmuir* **2020**, *36*, 5208–5218.
- 107) Ghosh, A.; Mane, M.; Rode, H.; Patil, S. A.; Sridhar, B.; Datter, R. B. Catalyst-Free Regioselective (3+2)-Cycloadditions of  $\alpha$ ,  $\beta$ -unsaturated N-arylnitrones with Alkenes to Access Functionalized Isoxazolidines: A DFT Study. *Chem. Asian J.* **2020**, *15*, 899-903.
- 106) Kempasiddaiah, M.; Kandathil, V.; Dateer, R. B.; Sasidhar, B. S.; Patil, S. A.; **Patil, S. A.\*** Immobilizing biogenically synthesized palladium nanoparticles on cellulose support as a green and sustainable dip catalyst for cross-coupling reaction. *Cellulose* **2020**, *27*, 3335-3357.
- 105) Dana, S.; Dey, P.; Patil, S. A.; Baidya, M. Enhancing Ru(II)-Catalysis with Visible-Light Mediated Dye-Sensitized TiO<sub>2</sub> Photocatalysis for Oxidative C–H Olefination of Arene Carboxylic Acids at Room Temperature. *Chem. Asian J.* **2020**, *15*, 564-567.
- 104) Kandathil, V.; Kempasiddaiah, M.; Nataraj, S. K.; Sasidhar, B. S.; **Patil, S. A.\*** DNA as a Bioligand Supported on Magnetite for Grafting Palladium Nanoparticles for Cross-Coupling Reaction. *Appl. Organomet. Chem.* **2020**, *34(3)*, e5357.
- 103) Kandathil, V.; Bhakti, K.; Siddiqa, A.; Kempasiddaiah, M.; Sasidhar, B. S.; Patil, S. A.; **Patil, S. A.\*** Immobilized *N*-heterocyclic carbene-palladium(II) complex on graphene oxide as efficient and recyclable catalyst for Suzuki–Miyaura cross-coupling and reduction of nitroarenes. *Catal. Lett.* **2020**, *150*, 384-403.

## 2019

- 102) Hegde, R. V; Ghosh, A.; **Patil, S. A.\***; Dateer, R. B. Pd-Nanoparticles Catalyzed Denitrogenative Coupling of Aryl Halides with Arylhydrazines: Greener Approach for Biaryls Synthesis under Ligand-Free Condition. *Tetrahedron* **2019**, *75(52)*, 130777.
- 101) Patil, M.; Noonikara-Poyil, A.; Joshi, S. D.; Patil, S. A.; **Patil, S. A.\***; Bugarin, A. New Urea Derivatives as Potential Antimicrobial Agents: Synthesis, Biological Evaluation, and Molecular Docking Studies. *Antibiotics* **2019**, *8(4)*, 178.
- 100) Patil, M.; Noonikara-Poyil, A.; Joshi, S. D.; Patil, S. A.; **Patil, S. A.\***; Bugarin, A. Design, synthesis, and molecular docking study of new piperazine derivative as potential antimicrobial agents. *Bioorg. Chem.* **2019**, *92*, 103217.



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#### PATENTS AND PATENT DISCLOSERS

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#### BOOK CHAPTERS

- 1) **Patil, S. A.**; Patil, V.; Patil, R.; Bugarin, A.; Patil, S. A. "Antimicrobial Activity of Newly Synthesized Thiabendazoles". *Current Advances in Chemistry and Biochemistry*, **2021**, *12*, 1-13.
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- 3) Yarabahally, G.; Karthikeyarajan, V.; **Patil, S.**; Geetha Balakrishna, R.; Kuppe, P. "Various Synthetic Strategies to Prepare Metal-Organic Frameworks" *ACS Symposium Series Book "Logic for Metal-Organic Frameworks (MOFs) Selection"*. **2023**.
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- 5) Sampatkumar, H. G.; Banuprakash, G.; **Patil, S. A.** "Properties and functionalization of 2D metals" *2D Metals: Fundamentals, Emerging Applications, and Challenges*. CRC Press. **2023**.

- 6) Sampatkumar, H. G.; Gundakanal, S. S; **Patil, S. A.** “Nanomaterials Synthesis using Green Chemistry Mediated Benign Routes: Emerging Trends and Future Scope”. *Green Synthesized Nanomaterials: From Fundamentals to Applications*. Wiley Scrivener Publications **2024**.

#### PRESENTATIONS IN CONFERENCES

- 103) Antony, A. M.; **Patil, S. A.** Hexanal boron nitride/silver nanocomposite: A green nanocatalyst for wastewater treatment. DST sponsored two-day national conference on sustainable chemistry and climate change (NCSC<sub>3</sub>). Hosted by the Department of Chemistry, CHRIST (Deemed to be University), Bangaluru on 26-27<sup>th</sup> March 2024 (*Best Oral*).
- 102) Antony, A. M.; **Patil, S. A.** Copper nanoparticles decorated on hydroxyapatite: A green nanocatalyst for N-arylation. International conference on transformative chemistry for a sustainable future. Organized by Department of Chemistry at St. Aloysius (Deemed to be University), Mangaluru on 15<sup>th</sup> March 2024 (*Oral*).
- 101) Antony, A. M.; **Patil, S. A.** Silver Nanoparticles Supported on Hexagonal Boron Nitride for Treatment of Environmental Pollutants. International conference on bridging enzymes and industry for sustainable future (ENZYbridge 2k24). Organized by faculty of biological and chemical sciences at St. Aloysius (Deemed to be University), Mangaluru on 14<sup>th</sup> March 2024 (*Best Oral*).
- 100) Bhuwaneshwari C.; Geetha Balakrishna R.; **Patil, S. A.** Contriving of palladium nanoparticles encapsulated on biogenically synthesized boron doped carbon nitride and its application in C-N arylation reaction. International conference on transformative chemistry for a sustainable future. Organized by Department of Chemistry at St. Aloysius (Deemed to be University), Mangaluru on 15<sup>th</sup> March 2024 (*Poster*).
- 99) **Patil, S. A.** Nature-inspired nanomaterials for catalytic and biomedical applications. Three days faculty development program on Nanotechnology: Applications, challenges and prospects. Department of Chemistry, Gogte Institute of Technology, Belagavi, on 18th January 2024. (*Invited Talk*).
- 98) Bhuwaneshwari C.; Geetha Balakrishna R.; **Patil, S. A.** Facile synthesis of phytogetic palladium nanoparticles supported on boron carbon nitride and its application as a catalyst in C-N arylation reaction. 6<sup>th</sup> International conference on nanomaterials for energy and environment [Nano-E2]. Organized jointly by Department of Chemistry, The New College, Kolhapur and Shri Yashwantrao Patil Science College, Solankur during December 21-23, 2023 (*Best poster award*).
- 97) Bhuwaneshwari C.; Geetha Balakrishna R.; **Patil, S. A.** Biogenic synthesis of palladium nanoparticles supported on boron carbon nitride as a catalyst for organic transformations. 3<sup>rd</sup> International Conference on Global Trends in Sustainable Technology and its Applications in Applied Sciences. Organized by School of Applied Sciences, REVA University in collaboration with Indian Association of Applied Microbiologists at REVA University, Bangalore, Karnataka during October 30-31, 2023 (*Poster*).
- 96) **Patil, S. A.** Participated in International Symposium on Science Beyond Boundary: Invention, Discovery, Innovation and Society “RASAYAN 17” jointly organized by CRS and Jain University at Jain Global campus, Bengaluru, Karnataka during October 9-10, 2023 (*Poster*).

- 95) Bhuwaneshwari, C. R.; Geetha Balakrishna, R.; **Patil, S. A.** Boron carbon nitride as support for immobilization of palladium nanoparticles: An efficient nanocatalyst for Suzuki-Miyaura cross-coupling reaction. International Symposium on Science Beyond Boundary: Invention, Discovery, Innovation and Society “RASAYAN 17” jointly organized by CRS and Jain University at Jain Global campus, Bengaluru, Karnataka during October 9-10, 2023 (*Poster*).
- 94) Antony, A. M.; **Patil, S. A.** Fabrication of silver nanoparticles on functionalized Mg-Al layered double hydroxide for application in electrochemical sensing of drug molecules. International Symposium on Science Beyond Boundary: Invention, Discovery, Innovation and Society “RASAYAN 17” jointly organized by CRS and Jain University at Jain Global campus, Bengaluru, Karnataka during October 9-10, 2023 (*Awarded as Best Poster*).
- 93) **Patil, S. A.** Green and Eco-Friendly Synthesis of Nanocatalysts for Organic Transformations and Treating Environmental Contaminants. Interacting and engaging students as the resource person at Department of Science, Christ Academy Institute for Advanced Studies, Bengaluru, October 5<sup>th</sup>, 2023.
- 92) Sampatkumar, H. G.; **Patil, S. A.** A sustainable synthesis of palladium nanoparticles supported on waste plastic derived carbon; A step towards the quantification of biothiol compound. International Conference on “SusChem E 2.0-Sustainable Chemistry & Engineering” organized by Institute of Chemical Technology, Mumbai during September 14-16, 2023. (*Awarded as Best Poster*).
- 91) Banu A.; Antony, A. M.; **Patil, S. A.** Palladium nanoparticles grafted on phytochemical functionalized biochar: A sustainable nanozyme for colorimetric sensing of glucose. International Conference on “SusChem E 2.0-Sustainable Chemistry & Engineering” organized by Institute of Chemical Technology, Mumbai during September 14-16, 2023. (*Oral*).
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- 88) Antony, A. M.; **Patil, S. A.** Phytochemical assisted engineering of silver nanoparticles on hexagonal boron nitride: An efficient nanocatalyst for reduction of 4-nitrophenol. International Conference on “Emerging Trends in Engineering and Interdisciplinary Sciences (ETEIS-2023)” organized by Department of Science and Humanities, Global Academy of Technology, Bengaluru – 560098 during July 6-8, 2023. (*Poster*).
- 87) Sampatkumar, H. G.; **Patil, S. A.** Transforming waste plastic into carbon-supported palladium nanoparticles as a nanozyme; One step towards quantification of biothiol compound. International Conference on “Emerging Trends in Engineering and Interdisciplinary Sciences (ETEIS-2023)” organized by Department of Science and Humanities, Global Academy of Technology, Bengaluru – 560098 during July 6-8, 2023. (*Oral*).

- 86) Aakhila Banu, A.; **Patil, S. A.** N-heterocyclic carbene functionalized boehmite-supported silver nanoparticles as nanocatalyst for water treatment. International Conference on “Emerging Trends in Engineering and Interdisciplinary Sciences (ETEIS-2023)” organized by Department of Science and Humanities, Global Academy of Technology, Bengaluru – 560098 during July 6-8, 2023. (*Oral*).
- 85) Bhuwaneshwari, C.; Geetha Balakrishna, R.; **Patil, S. A.** Fabrication of Pd nanoparticles tethered boron carbon nitride: A new effective ligand free nanocatalyst towards cross-coupling reactions. International Conference on “Emerging Trends in Engineering and Interdisciplinary Sciences (ETEIS-2023)” organized by Department of Science and Humanities, Global Academy of Technology, Bengaluru – 560098 during July 6-8, 2023. (*Poster*).
- 84) **Patil, S. A.** chaired as session chair in the online poster presentation at the international conference on chemical sciences ICCS – 2023 organized by department of science, Christ academy institute for advanced studies Bangalore, India on June 22-23, 2023.
- 83) **Patil, S. A.** Fabrication of environmentally sustainable nanosystems for organic transformations and treating environmental contaminants. One day international symposium on science beyond boundary: invention, discovery, innovation and society. “Rasayan 16” Chirantan rasayan sanstha (CRS) in collaboration with the Department of Chemistry, Vidyasagar University, Midnapore, West Bengal, 28<sup>th</sup> April 2023. (*Award lecture*).
- 82) Mishra Sonal kumari R.; **Patil, S. A.** Biosynthesis of Silver Nanoparticles Supported on Hexagonal Boron Nitride as an Efficient Nanocatalyst for Amidation Reaction in Aqueous Medium. 2<sup>nd</sup> International conference on ‘Advanced materials for health energy and environment’ AMHEE-2023 organized by department of chemistry, in association with department of biotechnology environmental engineering and polymer science and technology, Sri Jayachamarajendra college of engineering, JSS technical institutions campus, Mysuru - 570006 during February 28<sup>th</sup>, 2023. (*Poster*).
- 81) Chamanmalik, M. I.; **Patil, S. A.** Biomacromolecule Supported N-heterocyclic Carbene-Palladium(II) as a Novel Catalyst for Suzuki-Miyaura and Mizoroki-Heck Cross-Coupling Reactions. 2<sup>nd</sup> International conference on ‘Advanced materials for health energy and environment’ AMHEE-2023 organized by department of chemistry, in association with department of biotechnology environmental engineering and polymer science and technology, Sri Jayachamarajendra college of engineering, JSS technical institutions campus, Mysuru - 570006 during February 28<sup>th</sup>, 2023. (*Poster*).
- 80) Aakhila Banua, A.; **Patil, S. A.** Biochar-Silver Nanocomposites as Anti-bacterial Agents: A Comprehensive Study. 2<sup>nd</sup> International conference on ‘Advanced materials for health energy and environment’ AMHEE-2023 organized by department of chemistry, in association with department of biotechnology environmental engineering and polymer science and technology, Sri Jayachamarajendra college of engineering, JSS technical institutions campus, Mysuru - 570006 during February 28<sup>th</sup>, 2023. (*Poster*).
- 79) Sampatkumar, H. G.; Samal, A. K.; **Patil, S. A.** An Expedient Route for the Synthesis of Palladium Nanoparticles Decorated on Graphitic Carbon Nitride as a Versatile Nanocatalyst for Cross-Coupling Reaction, Antimicrobial Activity and Removal of Water Pollutant. 2<sup>nd</sup> International conference on ‘Advanced materials for health energy and environment’ AMHEE-2023 organized by department of chemistry, in association with department of biotechnology

environmental engineering and polymer science and technology, Sri Jayachamarajendra college of engineering, JSS technical institutions campus, Mysuru - 570006 during February 28<sup>th</sup>, 2023. (*Oral*).

- 78) Antony, A. M.; **Patil, S. A.** Palladium Nanoparticles Decorated on Functionalized Graphitic Carbon Nitride as an Efficient and Retrievable Nanocatalyst for Organic Dye Degradation. International conference on 'Recent Advancements in Chemistry' organized by Department of chemistry, Field Marshal K. M. Cariappa College, Madikeri, India during November 23<sup>rd</sup>, 2022. (*Oral*).
- 77) Chamanmalik, M. I.; **Patil, S. A.** Biomacromolecule Supported N-heterocyclic Carbene-Palladium(II) as a Novel Catalyst for Suzuki-Miyaura and Mizoroki-Heck Cross-Coupling Reactions. International conference on 'Recent Advancements in Chemistry' organized by Department of chemistry, Field Marshal K. M. Cariappa College, Madikeri, India during November 23<sup>rd</sup>, 2022. (*Poster*).
- 76) Swaina, S.; **Patil, S. A.** Samal, A. K. Computational and Experimental Design of Octahedral PdFe Alloy Nanocatalyst for Hiyama Cross-Coupling and Environmental Pollutant Degradation. International conference on 'Recent Advancements in Chemistry' organized by Department of chemistry, Field Marshal K. M. Cariappa College, Madikeri, India during November 23<sup>rd</sup>, 2022. (*Awarded as Best Poster*).
- 75) Harini, G.; **Patil, S. A.** Green synthesis of palladium nanoparticles immobilised on graphitic carbon nitride as a sustainable nanocatalyst for the organic transformation, antimicrobial activity and removal of fluorinated substances. International conference on 'Recent Advancements in Chemistry' organized by Department of chemistry, Field Marshal K. M. Cariappa College, Madikeri, India during November 23<sup>rd</sup>, 2022. (*Awarded as Bes Oral*).
- 74) Harini, G.; **Patil, S. A.** In situ biosynthesis of palladium nanoparticles on banana leaves extract-coated graphitic carbon nitride: an efficient and reusable heterogeneous catalyst for organic transformations and antimicrobial agent. International conference on "Chemical Sciences: Academia, Industry & Society Interface (ICCS 2022)" organized by Department of chemistry, Jyoti Nivas College Autonomous, Bangalore, India during June 23<sup>rd</sup>-25<sup>th</sup>, 2022. (*Poster*).
- 73) **Patil, S. A.** A new era of Nanocatalysts and biomedical applications. Faculty development programme, Vijay College, R. V. Road, Basavanagudi, Bengaluru on 6th July 2022. (*Invited Talk*).
- 72) Harini, G.; **Patil, S. A.** Biogenically synthesized palladium nanoparticles loaded graphitic carbon nitride as an effective and reusable nanocatalyst for organic transformations. 58<sup>th</sup> Annual convention of chemists, 2021 and international conference on recent trends in chemical sciences (RTCS-2021) organized by the Indian Chemical Society, Kolkata during December 21<sup>st</sup>-24<sup>th</sup>, 2021. (*Oral*).
- 71) **Patil, S. A.** Greener and sustainable nanomaterials for organic transformations. 3<sup>rd</sup> Indian Materials Conclave and 32<sup>nd</sup> Annual General Meeting of MRSI (MRSI AGM 2021), 20<sup>th</sup>-23<sup>rd</sup> December 2021. (*Invited Talk*).
- 70) Antony, A. M.; **Patil, S. A.** Magnetic nanoparticles embedded hexagonal boron nitride tethered N-heterocyclic carbene palladium(II) as an efficient heterocatalyst for Hiyama coupling. Department of Chemistry, School of Applied Sciences. Reva University, Bangalore, India. Conference on frontiers in chemistry (CFC-2021), 21<sup>st</sup> - 23<sup>rd</sup> October 2020. (*Oral*).

- 69) Patil, M. V.; **Patil, S. A.** New urea derivatives as potential antimicrobial agents: Synthesis, biological evaluation, and molecular docking studies. Department of Chemistry, School of Applied Sciences. Reva University, Bangalore, India. Conference on frontiers in chemistry (CFC-2021), 21<sup>st</sup> – 23<sup>rd</sup> October 2020. (*Poster*).
- 68) Antony, A. M.; **Patil, S. A.** Graphitic Carbon Nitride Supported Palladium Nanocatalyst for Treating Environmental Contaminants. 1st Online International Conference on Emerging Trends in Catalysis for Sustainable Chemical Processes (ETCSCP-2021), 26<sup>th</sup> -28<sup>th</sup> August, 2021. (*Awarded as Best Poster*).
- 67) Patil, M. V.; **Patil, S. A.** New urea derivatives as potential antimicrobial agents: Synthesis, biological evaluation, and molecular docking studies. 1st Online International Conference on Emerging Trends in Catalysis for Sustainable Chemical Processes (ETCSCP-2021), 26<sup>th</sup> -28<sup>th</sup> August, 2021. (*Poster*).
- 66) **Patil, S. A.** Greener and sustainable nanomaterials for biomedical and catalytic applications, online course on Applied Design Thinking & Nano Research, Department of Chemistry, BMS Institute of Technology & Management, Doddaballapur Main Road, Avalahalli, Yelahanka, Bengaluru, Karnataka, India, 1<sup>st</sup>-5<sup>th</sup> June 2021. (*Invited Talk*).
- 65) **Patil, S. A.** attended as member of the technical committee of 2<sup>nd</sup> National Seminar on Frontiers in Material and Chemical Sciences, Centre for Nano and Material Sciences, Jain University, Bangalore, Karnataka, India, August 31<sup>st</sup> to September 4<sup>th</sup> 2020.
- 64) **Patil, S. A.** chaired the online poster presentation sessions in the Organic Chemistry section in the International Conference on Accelerating Innovations in Material Science (AIMS-2020) organized by Department of Chemistry, BMS Institute of Technology & Management, Bengaluru, India from 4<sup>th</sup> to 7<sup>th</sup> August, 2020.
- 63) Manjunatha, K.; **Patil, S. A.** Pd-catalyzed denitrogenative cross-coupling of aryl hydrazines with aryl halides under ligand free condition. International conference on accelerating innovations in material science (AIMS-2020), Department of Chemistry, BMS Institute of Technology & Management, Bengaluru, Karnataka, India, on 4<sup>th</sup> to 7<sup>th</sup> August 2020. (*Poster*).
- 62) Veetil, A. K.; Kandathil, V.; **Patil, S. A.** A Green and sustainable cellulosic-carbon shielded Pd-MNP nanocatalyst for Suzuki-Miyaura cross-coupling reaction. International conference on accelerating innovations in material science (AIMS-2020), Department of Chemistry, BMS Institute of Technology & Management, Bengaluru, Karnataka, India, on 4<sup>th</sup> to 7<sup>th</sup> August 2020. (*Oral*).
- 61) Kumbar, S. S.; Joshi, S. D.; **Patil, S. A.** Design, synthesis, molecular docking and biological activity studies of novel coumarino-azetidinones. International conference on accelerating innovations in material science (AIMS-2020), Department of Chemistry, BMS Institute of Technology & Management, Bengaluru, Karnataka, India, on 4<sup>th</sup> to 7<sup>th</sup> August 2020. (*Oral*).
- 60) Kandathil, V.; **Patil, S. A.** Magnetite supported DNA as a bioligand for grafting palladium nanoparticles for cross-coupling reactions. Frontiers of catalysis science and technology and its applications (FOCSTA-2020), St. Joseph's college (Autonomous), Bengaluru-27, Karnataka, India, on 10<sup>th</sup> and 11<sup>th</sup> January 2020. (*Oral*).
- 59) Manjunatha, K.; **Patil, S. A.** N-heterocyclic carbene palladium(II) complex embedded on magnetic nanoparticles; an efficient catalytic reduction of toxic environmental pollutants.

Frontiers of catalysis science and technology and its applications (FOCSTA-2020), St. Joseph's college (Autonomous), Bengaluru-27, Karnataka, India, on 10<sup>th</sup> and 11<sup>th</sup> January 2020. (*Oral*).

- 58) **Patil, S. A.** Smart Nanomaterials in Catalysis and Medicinal Applications, one week faculty development programme on Recent Trends in Biological and Environmental Science held at Ramaiah Institute of Technology, Bangalore-54, Karnataka, India, on 14th January 2020. (*Invited Talk*).
- 57) **Patil, S. A.** Sustainable Nanomaterials for Organic Transformations and Biomedical Applications, one day symposium on Nanotechnology-Fundamentals, Applications and Commercialization organized by Department of Microbiology, Ramaiah College of Arts, Science and Commerce, Bangalore Karnataka, India, 19<sup>th</sup> September 2019. (*Invited Talk*)
- 56) Patil, M.; Poyil, N.; Bugarin, A.; Joshi, S. D.; **Patil, S. A.**; Patil, S. A. Design, synthesis, and antimicrobial evaluation of substituted urea derivatives containing alkyl/aryl moieties, 257th ACS National Meeting & Exposition, Orlando, FL, United States, Mar. 31-Apr. 4, 2019 (*Poster*)
- 55) Patil, M.; **Patil, S. A.** Design, Facile Synthesis and Molecular Docking Study of New Piperazine Derivatives as Potential Antimicrobial Agents, International conference on Frontiers in Materials from Basic Science to Real-time Applications (F2DM), Centre for Nano and Material Sciences, Jain (Deemed-to-be University), Bengaluru, 13<sup>th</sup>-16<sup>th</sup> March 2019 (*Poster*)
- 54) Patil, V.; Kandathil, V.; Poyil, N.; Bugarin, A.; Joshi, S. D.; Patil, S. A.; **Patil, S. A.** New Triazene Compounds as a Novel and Effective Class of Antimicrobial Agents, International conference on Frontiers in Materials from Basic Science to Real-time Applications (F2DM), Centre for Nano and Material Sciences, Jain (Deemed-to-be University), Bengaluru, 13<sup>th</sup>-16<sup>th</sup> March 2019 (*Poster*)
- 53) Kandathil, V.; **Patil, S. A.** From Agriculture Residue to Catalyst Support; A Green and Sustainable Cellulose-Based Dip Catalyst for C-C Coupling and Direct Arylation Reactions, International conference on Frontiers in Materials from Basic Science to Real-time Applications (F2DM), Centre for Nano and Material Sciences, Jain (Deemed-to-be University), Bengaluru, 13<sup>th</sup>-16<sup>th</sup> March 2019 (*Poster*)
- 52) Manjunatha, K.; **Patil, S. A.** Green and Biogenic Synthesis of Palladium Nanoparticles Supported on Cellulose Fiber: A new "Dip-catalyst" for Organic transformations from Waste Banana Pseudostem, International conference on Frontiers in Materials from Basic Science to Real-time Applications (F2DM), Centre for Nano and Material Sciences, Jain (Deemed-to-be University), Bengaluru, 13<sup>th</sup>-16<sup>th</sup> March 2019 (*Oral*)
- 51) Manjunatha, K.; **Patil, S. A.** Green and Biogenic Synthesis of Palladium Nanoparticles Supported on Cellulose Fiber: A Novel "Dip-catalyst" for Organic transformations from Waste Banana Pseudostem, Prof. K.V. Thomas Endowment International symposium on New Trends in Applied Chemistry (NTAC-2019), Department of Chemistry, Sacred Heart College, Thevara, Kochi, Kerala, India, January 14-15, 2019 (*Poster*)
- 50) Antony, A. M.; Kandathil, V.; **Patil, S. A.** NHC-Pd(II) complexes grafted on heterogeneous support as an efficient catalyst for various organic transformations, Prof. K.V. Thomas Endowment International symposium on New Trends in Applied Chemistry (NTAC-2019), Department of Chemistry, Sacred Heart College, Thevara, Kochi, Kerala, India, January 14-15, 2019 (*Poster*)

- 49) Siddappa A. Patil, attended the KSTA sponsored national seminar on Frontiers in Materials and Chemical Sciences held at CNMS, JAIN (Deemed-to-be University), Bengaluru, India during 30<sup>th</sup> and 31<sup>st</sup> August 2018.
- 48) Siddappa A. Patil, participated in the national conference on recent advances in Chemical and Material Sciences - (RACMS-18) held on 3<sup>rd</sup> February 2018 at School of Engineering and Technology, Jain University, Bengaluru.
- 47) Patil, V.; **Patil, S. A.**; Patil, R.; Bugarin, A.; Beaman, K.; Patil, S. Exploration of (hetero)aryl derived thienylchalcones for antiviral and anticancer activities, 256th ACS National Meeting & Exposition, Boston, MA, United States, August 19-23, 2018 (*Poster*)
- 46) Kulkarni, B.; Kandathil, V.; **Patil, S. A.** Immobilized N-heterocyclic carbene-palladium(II) complex on graphene oxide as an efficient and recyclable catalyst for Suzuki-Miyaura cross-coupling and reduction of nitroarene reactions, International conference on Green Methods for Separation, Purification and Nanomaterial Synthesis, Centre for Nano and Material Sciences, Jain University, Bangalore, Karnataka, India, 24<sup>th</sup> and 25th April 2018. (*Poster*)
- 45) Manjunatha K.; **Patil, S. A.** Magnetite tethered mesoionic carbene-palladium(II): A new, efficient and recyclable catalyst for Suzuki-Miyaura and Mizoroki-Heck cross-coupling under green reaction conditions, International conference on Green Methods for Separation, Purification and Nanomaterial Synthesis, Centre for Nano and Material Sciences, Jain University, Bangalore, Karnataka, India, 24<sup>th</sup> and 25th April 2018. (*Poster*)
- 44) Siddiqa, A.; Kandathil, V.; **Patil, S. A.** Highly active N-heterocyclic carbene-palladium(II) complex immobilized on graphene oxide for Suzuki-Miyaura cross-coupling and reduction of nitroarene reactions, International conference on Green Methods for Separation, Purification and Nanomaterial Synthesis, Centre for Nano and Material Sciences, Jain University, Bangalore, Karnataka, India, 24<sup>th</sup> and 25th April 2018. (*Poster*)
- 43) Kandathil, V.; **Patil, S. A.** Biogenic synthesis of palladium nanoparticles: Applications in coupling and cyanation reactions under ligand free environment, International conference on Green Methods for Separation, Purification and Nanomaterial Synthesis, Centre for Nano and Material Sciences, Jain University, Bangalore, Karnataka, India, 24<sup>th</sup> and 25th April 2018. (*Oral presentation*)
- 42) **Patil, S. A.** Greener and Sustainable Nanocatalysts For Organic Transformations, International conference on Green Methods for Separation, Purification and Nanomaterial Synthesis, Centre for Nano and Material Sciences, Jain University, Bangalore, Karnataka, India, 24<sup>th</sup> and 25th April 2018. (*Invited Talk*)
- 41) Kandathil, V.; **Patil, S.**; Patil, S. Biosynthesized palladium nanoparticles mediated by black pepper extract as highly efficient and reusable nanocatalyst in aryl halide cyanation and Hiyama cross-coupling reactions under ligand free conditions, 255th American Chemical Society (ACS) National Meeting held at New Orleans, LA, United States, March 18-22, 2018. (*Poster*)
- 40) **Patil, S.** Nanomaterials for catalytic and medicinal applications, one week faculty development programme on Recent advances in material science and applications held at Ramaiah Institute of Technology, Bangalore-54, Karnataka, India, on 18th July 2018. (*Invited Talk*)
- 39) Manjunath, K.; **Patil, S.** Abnormal N-heterocyclic carbene palladium(II) enriched magnetic nanoparticles based nanomagnetic catalyst for Suzuki-Miyaura and Mizoroki-Heck cross-



- coupling reactions, Applied Catalysis in Emerging Technologies for Chemicals, 23<sup>rd</sup> National Symposium on Catalysis (CATSYMP-23) held at Bengaluru, Karnataka, India, January 17-19, 2018. (*Poster*)
- 38) Kandathil, V.; **Patil, S.** Green synthesized palladium nanoparticles as highly efficient and reusable nanocatalyst in aryl halide cyanation and Hiyama cross-coupling reactions, Applied Catalysis in Emerging Technologies for Chemicals, 23<sup>rd</sup> National Symposium on Catalysis (CATSYMP-23) held at Bengaluru, Karnataka, India, January 17-19, 2018. (*Invited Talk*)
- 37) **Patil, S.** delivered a talk on X-ray crystallography of organometallic drugs at theme meeting on X-ray micro-imaging using synchrotron radiation and its applications at RRCAT, Indore, India, during September 14-16, **2017**. (*Invited Talk*)
- 36) **Patil, S.** delivered a talk on Nanocatalysts for organic transformations and metal nanoparticles in biomedical applications at one week faculty development programme on recent trends in photonic techniques held at Ramaiah Institute of Technology, Bangalore-54, Karnataka, India, during 31<sup>st</sup> July-5<sup>th</sup> August 2017 (*Invited Talk*)
- 35) Patil, S. A.; Patil, V.; Patil, R.; Beaman, K.; Patil, S. A. Identification of novel 5,6-dimethoxy indan-1-one derivatives as antiviral agents, 254<sup>th</sup> American Chemical Society (ACS) National Meeting held at Washington, DC, United States, August 20-24, 2017 (*Poster*)
- 34) Patil, V.; Patil, S. A.; Patil, S. Design, synthesis and characterization of novel thiazole based molecules, 253<sup>rd</sup> American Chemical Society (ACS) National Meeting held at San Francisco, CA, United States, April 2-6, 2017 (*Poster*)
- 33) Manjunatha K.; Tuhin S. K.; Vishal K.; **Patil S. A.** Palladium(II)-Schiff Base Complex Anchored to Magnetic Nanoparticles as Highly Active and Recoverable Catalyst for Cross-Coupling Reactions, International conference on green chemistry & nanotechnology opportunities and challenges - 2017, St Aloysius College (autonomous) Mangalore – 575003, Karnataka, India, February 27 and 28, **2017**. (*Awarded as Best Poster*)
- 32) Tuhin S. K.; Manjunatha K.; Vishal K.; **Patil S. A.** Magnetic Nanoparticle-Supported Palladium(II)-Schiff Base Complex: An Efficient and Recyclable Catalyst for Cross-Coupling Reactions, International conference on green chemistry & nanotechnology opportunities and challenges - 2017, St Aloysius College (autonomous) Mangalore – 575003, Karnataka, India, February 27 and 28, **2017**. (*Poster*)
- 31) Shahini C. R.; **Patil S.** Novel N-Heterocyclic Carbene-Silver(I) Complexes: Design, synthesis, characterization and preliminary biological evaluation, International conference on green chemistry & nanotechnology opportunities and challenges - 2017, St Aloysius College (autonomous) Mangalore – 575003, Karnataka, India, February 27 and 28, **2017**. (*Presentation*)
- 30) Vishal K.; **Patil S.** Efficient and Recyclable Palladium(II)-N-Heterocyclic Carbene Nanomagnetic Catalyst for Cross-coupling Reactions, International Symposium on New Trends in Applied Chemistry (NTAC-2017), Department of Chemistry, Sacred Heart College, Thevara, Kochi, India, February 9-11, **2017**. (*Poster*)
- 29) Shahini C. R.; **Patil S.** Synthesis, Characterization and Preliminary Biological Evaluation of Benzoate Substituted N-Heterocyclic Carbene-Silver(I) Complexes, International Symposium on

New Trends in Applied Chemistry (NTAC -2017), Department of Chemistry, Sacred Heart College, Thevara, Kochi, India, February 9-11, **2017**. (*Poster*)

- 28) Vishal K.; **Patil S.** Palladium Based Nanocatalyst for Cross-Coupling Reactions, International Conference on Smart Engineering Materials - ICSEM-2016, RVCE-Bengaluru, October 20-22, **2016**. (*Awarded as Best Poster*)
- 27) **Patil, S.** delivered a talk on Nano Catalysts and Bioorganometallic Chemistry at Symposium on Transcending Frontiers in Chemistry. Department of Chemistry, Gulbarga University, Kalaburagi, Karnataka, India, August 27, **2016**. (*Invited Talk*)
- 26) Vishal, K.; **Patil, S.**; Patil, S. Magnetic Nanoparticle Supported Palladium-Based Nanocatalysts. 252<sup>nd</sup> American Chemical Society (ACS) National Meeting held at Philadelphia, Pennsylvania, United States, August 21-25, **2016**. (*Poster*)
- 25) Shahini C. R.; **Patil S.** Novel *N*-heterocyclic carbene-silver(I) complexes as potential pharmaceutical candidates. International Congress on Recent Advances in Chemistry and Chemical Engineering (ICRACCE-2016), Department of Chemistry, Jawaharlal Nehru Technological University, Hyderabad, July 11-13, **2016** (*Awarded as Bester Poster*)
- 24) Patil, V.; **Patil, S.**; Patil, S. Design, synthesis and characterization of novel 5, 6-dimethoxy indanone molecules. 251<sup>st</sup> American Chemical Society (ACS) National Meeting held at San Diego, California, United States, March 13-17, **2016**. (*Poster*)
- 23) Gautam Achar N. B.; Shahini C. R.; **Patil S. A.**; Budagumpi S. Coumarine tethered silver(I) benzimidazol-2-lydine complexes as effective antimicrobial and anticancer agents. 6<sup>th</sup> International Conference on Metal in Genetics, Chemical Biology and Therapeutics (ICMG 2016), Indian Institute of Science, Bangalore, India. February 17-20, **2016** (*Poster*).
- 22) Shahini C. R.; Gautam Achar N. B.; Budagumpi S.; **Patil S. A.** Synthesis and biological evaluation of 4-nitrobenzyl substituted *N*-heterocyclic carbene-silver(I) complexes. 6<sup>th</sup> International Conference on Metal in Genetics, Chemical Biology and Therapeutics (ICMG 2016), Indian Institute of Science, Bangalore, India. February 17-20, **2016** (*Poster*)
- 21) **Patil, S.** Metal nanoparticles in catalysis and biomedical applications. Symposium on nanomaterials for biomedical application. Yenepoya research centre, Yenepoya University, Mangalore, Karnataka, India, December 12, **2015**. (*Invited Talk*)
- 20) White, K.; **Patil, S.**; Bugarin. A. Syntheses of azides for the preparation of triazenes: Spectroscopic studies of triazenes. 247<sup>th</sup> ACS National Meeting & Exposition, Dallas, TX, United States, March 16-20, **2014**. (*Poster*)
- 19) Bugarin, A.; **Patil, S.**; White, K. Synthesis of useful building blocks via a triazene intermediate. 247<sup>th</sup> ACS National Meeting & Exposition, Dallas, TX, United States, March 16-20, **2014**. (*Poster*)
- 18) Bugarin, A.; **Patil, S.**; White, K. Chemical transformation of triazenes: Synthesis of useful building blocks. 69<sup>th</sup> Southwest Regional Meeting of the American Chemical Society, Waco, TX, United States, November 16-19, **2013**. (*Poster*)
- 17) **Patil, S. A.**; Medina, P. A.; Fahlman, B. D. Novel hafnium complexes with versatile unsymmetrical  $\beta$ -diketiminato ligands: Synthesis, characterization, and potential precursors for

- MOCVD of HfO<sub>2</sub> thin films. 68<sup>th</sup> Annual Fall Scientific Meeting, Midland Section of the American Chemical Society (ACS), Midland, Michigan, USA, October 20, **2012**. (*Poster*)
- 16) Medina, P. A.; Lubitz, M.; Antic, A.; **Patil, S. A.**; Fahlman, B. D. Precursor design for the atomic layer deposition of hafnium oxide thin films. 68<sup>th</sup> Annual Fall Scientific Meeting, Midland Section of the American Chemical Society (ACS), Midland, Michigan, USA, October 20, **2012**. (*Poster*)
  - 15) **Patil, S. A.**; Fahlman, B. D. Synthesis and characterization of hafnium(IV) complexes with chelating  $\beta$ -ketoiminato ligands: Potential precursors for MOCVD of hafnium oxide thin films. 244<sup>th</sup> American Chemical Society (ACS) National Meeting held at Philadelphia, Pennsylvania, USA, August 19-23, **2012**. (*Poster*)
  - 14) Medina, P. A.; **Patil, S. A.**; Fahlman, B. D. Precursor design for the atomic layer deposition of hafnium oxide/oxynitride thin films. 244<sup>th</sup> American Chemical Society (ACS) National Meeting held at Philadelphia, Pennsylvania, USA, August 19-23, **2012**. (*Poster*)
  - 13) Uthaisar, C.; **Patil, S. A.**; Barone, V.; Fahlman, B. D. Synthesis, characterization, and DFT study of graphene nanoribbon precursors. 244<sup>th</sup> American Chemical Society (ACS) National Meeting held at Philadelphia, Pennsylvania, USA, August 19-23, **2012**. (*Poster*)
  - 12) Dever, S. W.; Gonzalez-Flores, D.; **Patil, S. A.**; Fahlman, B. D. Synthesis and characterization of hafnium (IV)  $\beta$ -ketoiminates as potential precursors for the MOCVD of hafnium oxide. 244<sup>th</sup> American Chemical Society (ACS) National Meeting held at Philadelphia, Pennsylvania, USA, August 19-23, **2012**. (*Poster*)
  - 11) **Patil, S. A.**; Fahlman, B. D. Novel hafnium complexes with versatile  $\beta$ -diketiminato ligands: Synthesis, characterization, and potential precursors for MOCVD of HfO<sub>2</sub> thin films. 43<sup>rd</sup> Central Regional Meeting of the American Chemical Society (ACS), Dearborn, MI, United States, June 5-9, **2012**, CERM-159. (*Poster*)
  - 10) **Patil, S. A.**; Uthaisar, C.; Barone, V.; Fahlman, B. D. Synthesis, characterization, and DFT study of graphene nanoribbon precursor, 1-bromo-4-(3,7-dimethyloctyl)benzene. 67<sup>th</sup> Annual Fall Scientific Meeting, Midland Section of the American Chemical Society, Midland, Michigan, USA, October 22, **2011**. (*Poster*)
  - 9) **Patil, S. A.**; Uthaisar, C.; Barone, V.; Fahlman, B. D. Synthesis, characterization, and DFT study of graphene nanoribbon precursor, 1-bromo-4-(3,7-dimethyloctyl)benzene. Central Michigan University, Mount Pleasant, Michigan, USA, September 30, 2011. (*Poster*)
  - 8) **Patil, S.**; Tacke, M. NHC-silver(I) acetates as bioorganometallic anticancer and antibacterial drugs. XXIII international conference on coordination and bioorganic chemistry, Smolenice, Slovakia, June 5-10, **2011**. (*Talk*)
  - 7) **Patil, S. A.**; Gonzalez-Flores, D.; Medina, P. A.; Stentzel, M.; Fahlman, B. D. Synthesis and characterization of hafnium(IV) complexes with chelating  $\beta$ -ketiminato and  $\beta$ -diketiminato ligands: Potential precursors for MOCVD of HfO<sub>2</sub> thin films. 17<sup>th</sup> Annual Student Research and Creative Endeavors Exhibition, Central Michigan University, Mount Pleasant, Michigan, USA, 20<sup>th</sup> April **2011**. (*Poster*)
  - 6) **Patil, S.**; Tacke, M. Synthesis, cytotoxicity and antibacterial studies of *p*-methoxybenzyl-substituted and benzyl-substituted *N*-heterocyclic carbene-silver complexes. 3<sup>rd</sup> Meeting of the

Irish Institute for Metal-Based Drugs (IIMBD), Dublin Institute of Technology (DIT) Ireland on 26<sup>th</sup> November **2009**. (*Poster*)

- 5) **Patil, S.** Delivered a talk on Synthesis, Cytotoxicity and Antibacterial studies of N-heterocyclic carbene-silver complexes at Conway Lecture and Seminar Series 09/10, UCD School of Biomolecular & Biomedical Science, University College Dublin, Ireland on 2<sup>nd</sup> October **2009**. (*Invited Talk*)
- 4) **Patil, S.;** Tacke, M. Synthesis, cytotoxicity and antibacterial studies of *p*-methoxybenzyl-substituted and benzyl-substituted *N*-heterocyclic carbene-silver complexes. IRCSET Symposium, IRCSET, Brooklawn House, Crampton Avenue, Shelbourne Road, Dublin 4, Ireland on 25<sup>th</sup> September **2009**. (*Poster*)
- 3) **Patil, S. A.;** Gudasi, K. B. Crystal structure of nonadentate tricompartamental ligand derived from pyridine-2,6-dicarboxylic acid and its ligating diversity towards transition metal(II) ions. AICQOM-2007, ISEC campus Nagarabhavi, Bangalore, India, 27-28<sup>th</sup> January, **2007**. (*Awarded as Best Poster*).
- 2) **Patil, S. A.** Attended three-day workshop on research methodology for research students. Department of Dr. B. R. Ambedkar studies, Karnatak University Dharwad, India, on 17-19<sup>th</sup> January **2004**.
- 1) **Patil, S. A.** Attended astrazeneca lectures, astrazeneca research foundation, Bangalore, India on 23<sup>rd</sup> February **2004**.