

CURRICULUM VITAE

Prof. Siddappa A. Patil

Centre for Nano and Material Sciences
Jain (Deemed-to-be-University), Jain Global
Campus Jakkasandra Post, Kanakapura Taluk
Ramanagara District-562112
Bangalore Rural, Karnataka,
India



E-mail: p.siddappa@jainuniversity.ac.in/patilsiddappa@gmail.com

PROFESSIONAL EXPERIENCE

May 2021 – Present: Professor, CNMS, Jain University, Bangalore, India.

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

Research 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

- **Nov. 2021** : Name appeared in Stanford's list of top 2% scientists in the world in 2020.
- **Nov. 2020** : Name appeared in Stanford's list of top 2% scientists in the world in 2019.
- **Oct. 2013-Mar. 2014** : Visiting Research Scientist, Northern Illinois University, USA.

- **Feb. 2013-Sept. 2013** : Postdoctoral Research Associate, University of Texas at Arlington, USA.
- **Nov. 2010-Jan. 2013** : National Science Foundation 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.
- **Sept. 2009** : Best poster award from the IRCSET Symposium, Dublin, Ireland.
- **Jan. 2007** : Best poster award from the National Symposium, Bangalore, 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.

PROFESSIONAL MEMBERSHIP

American Chemical Society (ACS)

Life Member of Catalysis Society of India

RESEARCH INTERESTS

- ❖ Magnetic nanoparticle supported metal-based nanocatalysts and nanodrugs.
- ❖ Cleaner and greener synthesis of metal nanoparticles recyclable nanocatalyst.
- ❖ Green and sustainable biomass waste-based recyclable catalysts.
- ❖ Boron nitride, molybdenum disulfide and graphitic carbon nitride in catalysis.
- ❖ Graphene oxide, carbon nanotubes and graphene nanoribbons 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 HANDLING

- 1) 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).
- 2) 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, bio-organometallic, inorganic and environmental chemistry courses at Centre for Nano & Material Sciences, Jain Global Campus, Jain University, Bangalore, Karnataka, India.

HUMAN RESOURCE DEVELOPMENT

Scientists/ postdocs

1. Dr. Vishal K. (Postdoc)
2. Dr. Suresh Kumbar (Postdoc)
3. Dr. Shrinivas D. Joshi (Visiting scientist)

Doctoral students

1. Ms. Shahini. C. R. (PhD degree awarded)
2. Mr. Vishal K (PhD degree awarded)
3. Mr. Manjunath K (PhD degree awarded)
4. Mr. Mahadeva Patil (PhD degree awarded)
5. Mr. Gautam Achar (PhD degree awarded)
6. Mr. Arnab Ghosh (PhD thesis submitted)
7. Mr. Rajeev V. Hegde (PhD thesis writing)
8. Mr. Vikrant Patil (PhD thesis writing)
9. Ms. Arnet Maria (PhD degree ongoing)
10. Ms. Harini Gudur (PhD degree ongoing)

Master students

1. Mr. Subramanya Prasad T. V. (M. Sc. degree awarded)
2. Mr. Manjunatha K (M. Sc. degree awarded)
3. Mr. Tuhin Subhara Koley (M. Sc. degree awarded)
4. Ms. Aisha Siddiqa (M. Sc. degree awarded)
5. Ms. Bhakti Kulkarni (M. Sc. degree awarded)
6. Ms. Himaja C. R. (M. Sc. degree awarded)
7. Ms. Manda Lavanya Sridhari (M. Sc. degree awarded)
8. Ms. Masira Malik (M. Sc. degree ongoing)

Internship students

1. Mr. Akshay M. (M. Sc. degree awarded)
2. Mr. Alaap. K. V. (M. Sc. degree awarded)

RESEARCH PUBLICATIONS

Total number of publications: **130**

Total Citations: **3377**

h-index 31

Orchid research ID: orcid.org/0000-0002-2855-5302

[https://scholar.google.co.in/citations?user=y0hvr1UAAA
AJ&hl=en](https://scholar.google.co.in/citations?user=y0hvr1UAAA&hl=en)

2022

- 131) 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.* **2022**, <https://doi.org/10.1007/s11030-022-10417-5>.

- 130) 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**, <https://doi.org/10.1080/00304948.2021.2022441>.
- 129) Kandathil, V.; Moolakkil, A.; Kulkarni, P.; Veetil, A. K.; Kempasiddaiah, M.; Sasidhar B. S.; Geetha Balakrishna, R.; Patil, S. A. □ Pd/Fe₃O₄ supported on bio-waste derived cellulosic-carbon as a nanocatalyst for C-C coupling and electrocatalytic application. *Front. Chem. Sci. Eng.* **2022**, in press.
- 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.* **2021**, <https://doi.org/10.1007/s11030-021-10190-x>.
- 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 α -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.; Yelamagad, 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 C2 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-azetidinones. *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.; Siddiqua, 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 α , β -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 TiO₂ 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.
- 99) Noonikara-Poyil, A.; Barragan, E.; **Patil, S.**; Bugarin, A. Methylene: The Linker of Two Aromatic Iminium Salts. *J. Mex. Chem. Soc.* **2019**, *63(3)*, 84-92.
- 98) Kandathil, V.; Kempasiddaiah, M.; Sasidhar, B. S.; **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, *Carbohydr Polym.* **2019**, *223*, 115060.

- 97) Ghosh, A.; Hegde, R.; Makane, V.; Sridhar, B.; Rode, H.; **Patil, S. A.**; Dateer, R. B. Transition Metal-Free Functionalized Hydration of Alkynes: One-Pot Synthesis of 3-imino-2-fluoro-1-ones using Selectfluor. *Org. Biomol. Chem.* **2019**, *17*, 4440-4445.
- 96) Shahini, C. R.; Achar, G.; Budagumpi, S.; Dateer, R. B.; Müller-Bunz, H; Tacke, M.; **Patil, S. A.** □ Convenient and efficient Suzuki-Miyaura and Heck-Mizoroki cross-coupling reactions catalyzed by 1,3,4-trisubstituted-1,2,3-triazolium iodide and palladium salt systems. *J. Coord. Chem.* **2019**, *72(3)*, 528-549.
- 95) Kempasiddaiah, M.; Kandathil, V.; Dateer, R. B.; Sasidhar, B. S.; Patil, S. A.; **Patil, S. A.** □ Magnetite tethered mesoionic carbene-palladium(II): an efficient and reusable nanomagnetic catalyst for Suzuki-Miyaura and Mizoroki-Heck cross-coupling reactions in aqueous medium. *Appl. Organomet. Chem.* **2019**, *33(5)*, e4846.
- 94) Patil, M.; Noonikara-Poyil, A.; Joshi, S. D.; Patil, S. A.; **Patil, S. A.** □; Bugarin, A. □ Synthesis, Molecular Docking Studies, and Antimicrobial Evaluation of New Structurally Diverse Ureas. *Bioorg. Chem.* **2019**, *87*, 302-311.
- 93) Achar, G.; Shahini, C. R.; **Patil, S. A.** □, Malecki, J.; Budagumpi, S., Coumarin substituted 1,2,4- triazole derived silver(I) and gold(I) complexes: synthesis, characterization and anticancer studies. *NewJ. Chem.* **2019**, *43*, 1216-12
- 92) Patil, V.; **Patil, S. A.** □; Patil, R.; Bugarin, A.; Beaman, K.; Patil, S. A.* Exploration of (hetero)aryl derived thienylchalcones for antiviral and anticancer activities. *Medicinal Chemistry* **2019**, *15(2)*, 150-161.

2018

- 91) Mohan, B.; Chettiyan Thodi F.; Salfeena, Ashitha, K. T.; Krishnan, G. V.; Jesmina, A. R. S.; Varghese, A. M.; **Patil, S. A.**; Nair S. B.; Kumar, D.; Sasidhar, B. S. Functionalized Pyrimidines from Alkynes and Nitriles: Application towards the Synthesis of Marine Natural Product Meridianin Analogs, *ChemistrySelect* **2018**, *3*, 6394-6398.
- 90) Marichev, K. O.; **Patil S. A.**; Bugarin, A. Recent advances in the synthesis,

structural diversity, and applications of mesoionic 1,2,3-triazol-5-ylidene metal complexes, *Tetrahedron* **2018**, 74(21), 2523-2546.

- 89) Kandathil, V.; Dateer, R. B.; Sasidhar, B. S.; Patil, S. A.; **Patil, S. A.** □ Green synthesis of palladium nanoparticles: Applications in aryl halide cyanation and Hiyama cross-coupling reaction under ligand free conditions. *Catal. Lett.* **2018**, 148, 1562-1578.
- 88) Kusuma, J.; **Patil, S. A.**; Jyothi, M. S.; Chandan, H. R.; Shwetha, R.; Balakrishna, G. Exploration of Graphene Oxide Nanoribbons as Excellent Electron Conducting Network for Third Generation Solar Cells. *Sol. Energy Mater Sol. Cells.* **2018**, 183, 211-219.
- 87) Shahini, C. R.; Achar, G.; Budagumpi, S.; Müller–Bunz, H; Tacke, M.; **Patil, S. A.** □ Benzoxazole and dioxolane substituted benzimidazole–based *N*–heterocyclic carbene–silver(I) complexes: Synthesis, structural characterization and *in vitro* antimicrobial activity. *J. Organomet. Chem.* **2018**, 868, 1-13.
- 86) Kandathil, V.; Koley, T. S.; Manjunatha, K.; Dateer, R. B.; Keri, R. S.; Sasidhar, B. S.; Patil, S. A.; **Patil, S. A.** □ A new magnetically recyclable heterogeneous palladium(II) as a green catalyst for Suzuki–Miyaura cross-coupling and reduction of nitroarenes in aqueous medium at room temperature. *Inorg. Chim. Acta* **2018**, 478, 195-210.
- 85) Achar, G.; Shahini, C.R.; **Patil, S. A.**; Małeckı, J. G.; Pan, S. –H.; Lan, A.; Chen, X. – R.; Budagumpi, S. Sterically modulated silver(I) complexes of coumarin substituted benzimidazol–2– ylidenes: Synthesis, crystal structures and evaluation of their antimicrobial and antitumor cancer potentials. *J. Inorg. Biochem.* **2018**, 183, 43-57.
- 84) Manjunatha K.; Koley T. S.; Kandathil V.; Dateer R. B.; Balakrishna G.; Sasidhar B. S.; Patil S. A.; **Patil, S. A.** □ Magnetic nanoparticle tethered Schiff base–palladium(II): highly active and reusable heterogeneous catalyst for Suzuki–Miyaura cross-coupling and reduction of nitroarenes in aqueous medium at room temperature. *Appl. Organomet. Chem.* **2018**; 32(4), e4266.

2017

- 83) Shahini C. R.; Achar, G.; Budagumpi, S.; Tacke, M.; **Patil, S. A.** □ Non–symmetrically *p*– nitrobenzyl–substituted *N*–heterocyclic carbene–silver(I) complexes as metallopharmaceutical agents. *Appl. Organomet. Chem.* **2017**; 31(12),

e3819.

- 82) Keri, R. S.; Chand, K.; Budagumpi, S.; Sasidhar, B. S.; **Patil, S. A.** Nagaraja, B. M., An overview of benzo[*b*]thiophene-based medicinal chemistry. *Eur. J. Med. Chem.* **2017**, *138*, 1002-1033.
- 81) **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. *Medicinal Chemistry* **2017**, *13*(8), 787-795.
- 80) Kandathil, V.; Fahlman, B. D.; Sasidhar B. S.; S. A.; **Patil, S. A.**, A Convenient, Efficient and Reusable N-Heterocyclic Carbene-Palladium(II) Based Catalyst Supported on Magnetite for Suzuki–Miyaura and Mizoroki–Heck Cross-Coupling Reactions. *New J. Chem.* **2017**, *41*, 9531- 9545.
- 79) Patil, V.; Barragan, E.; Patil, S. A.; **Patil, S. A.**, Bugarin, A. A Practical Method, NaOCl- Mediated, to Prepare Bioactive Thiabendazoles via Intramolecular Amination Reaction. *Tetrahedron Lett.* **2017**, *58*(35), 3474-3477.
- 78) Shahini C. R.; Achar, G.; Budagumpi, S.; Tacke, M.; **Patil, S. A.** Synthesis, structural investigation and antibacterial studies of non-symmetrically *p*-nitrobenzyl substituted benzimidazole N-heterocyclic carbene-silver(I) complexes. *Inorg. Chim. Acta* **2017**, *466*, 432- 441.
- 77) **Patil, S. A.**; Patil, R.; Patil, S. A. Recent developments in biological activities of indanones. *Eur. J. Med. Chem.* **2017**, *138*, 182-198.
- 76) **Patil, S. A.**; Patil, S. A.; Patil, R. Medicinal applications of (benz)imidazole and indole-based macrocycles. *Chem. Biol. Drug. Des.* **2017**, *89*, 639–649.
- 75) Vishal, K.; Fahlman, B. D.; Sasidhar, B. S.; Patil, S. A.; **Patil, S. A.**, Magnetic Nanoparticle Supported N-Heterocyclic Carbene-Palladium(II): A Convenient, Efficient and Recyclable Catalyst for Suzuki-Miyaura Cross-Coupling Reactions. *Catal. Lett.* **2017**, *147*, 900-918.
- 74) Budagumpi, S.; Keri, R. S.; Biffis, A.; **Patil, S. A.** Olefin poly/oligomerizations by metal precatalysts bearing non-heterocyclic N-donor ligands. *Appl. Catal. A* **2017**, *535*, 32-60.
- 73) Achar, G.; Shahini, C.R.; **Patil, S. A.**; Budagumpi, S., Synthesis, structural characterization, crystal structures and antibacterial potentials of coumarin-tethered

N-heterocyclic carbene silver(I) complexes. *J. Organomet. Chem.* **2017**, 833, 28-42.

- 72) Subramanya Prasad, T. V.; Shahini, C. R.; Patil, S. A.; Huang, X.; Bugarin, A.; **Patil, S. A.**, Non-Symmetrically *p*-Nitrobenzyl- and *p*-Cyanobenzyl-Substituted *N*-Heterocyclic Carbene-Silver(I) Complexes: Synthesis, Characterization and Antibacterial Studies. *J. Coord. Chem.* **2017**, 70(4), 600-614.

2016

- 71) Keri, R. S.; Rajappa, C. K.; **Patil, S. A.**; Nagaraja, B. M. Benzimidazole-core as an antimycobacterial agent. *Pharmacol Rep.* **2016**, 68, 1254-1265.
- 70) Patil, V.; Barragan, E.; Patil, S. A.; **Patil, S. A.**; Bugarin, A. Direct Synthesis and Antimicrobial Evaluation of Structurally Complex Chalcones. *ChemistrySelect*, **2016**, 1, 3647-3650.
- 69) Patil, R.; **Patil, S. A.**; Patil, S. A. Indole molecules as inhibitors of tubulin polymerization: potential new anticancer agents, an update (2013-2015). *Future Med Chem.* **2016**, 8(11), 1291-1316.
- 68) **Patil, S. A.**; Patil, S. A.; Patil, R. Magnetic nanoparticles supported carbene and amine based metal complexes in catalysis. *J. Nano Res.* **2016**, 42, 112-135.
- 67) **Patil, S.**; Bugarin, A. Fifty years of π -conjugated triazenes. *Eur. J. Org. Chem.* **2016**, 5, 860-870.
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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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PRESENTATIONS IN CONFERENCES

- 72) Harini G.; **Patil, S. A.** Biogenically synthesized palladium nanoparticles loaded graphitic carbon nitride as an effective and reusable nanocatalyst for organic transformations. 58th 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 21st-24th, 2021. (*Oral*).
- 71) **Patil, S. A.** Greener and sustainable nanomaterials for organic transformations. 3rd Indian Materials Conclave and 32nd Annual General Meeting of MRSI (MRSI AGM 2021), 20th-23rd 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), 21st – 23rd October 2021. (*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), 21st – 23rd October 2021. (*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), 26th -28th 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), 26th -28th 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, 1st-5th June 2021. (*Invited Talk*).
- 65) **Patil, S. A.** attended as member of the technical committee of 2nd National Seminar on Frontiers in Material and Chemical Sciences, Centre for Nano and Material Sciences, Jain University, Bangalore, Karnataka, India, August 31st to September 4th 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 4th to 7th 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 4th to 7th 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 4th to 7th 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 4th to 7th 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 10th and 11th 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 10th and 11th 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, 19th 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, 13th-16th 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, 13th-16th 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, 13th-16th 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, 13th-16th 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 30th and 31st August 2018.
- 48) Siddappa A. Patil, participated in the national conference on recent advances in Chemical and Material Sciences - (RACMS-18) held on 3rd 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, 24th 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, 24th and 25th April 2018. (*Poster*)
- 44) Siddiqua, 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, 24th 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, 24th 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, 24th 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 Hiyamacross-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, 23rd 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, 23rd 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 31st July-5th 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, 254th 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, 253rd 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. 252nd 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. 251st 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. 6th 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. 6th 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. 247th 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. 247th 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. 69th 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 β -diketiminato ligands: Synthesis, characterization, and potential precursors for MOCVD of HfO₂ thin films. 68th 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. 68th 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 β -ketoiminato ligands: Potential precursors for MOCVD of hafnium oxide thin films. 244th 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. 244th 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. 244th 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) β -ketoiminates as potential precursors for the MOCVD of hafnium oxide. 244th 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 β -diketimate ligands: Synthesis, characterization, and potential precursors for MOCVD of HfO₂ thin films. 43rd 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. 67th 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 β -ketimate and β -diketimate ligands: Potential precursors for MOCVD of HfO₂ thin films. 17th Annual Student Research and Creative Endeavors Exhibition,

Central Michigan University, Mount Pleasant, Michigan, USA, 20th 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. 3rd Meeting of the Irish Institute for Metal-Based Drugs (IIMBD), Dublin Institute of Technology (DIT) Ireland on 26th 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 2nd 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 25th 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, 27-28th January, **2007**. (*Talk*)
- 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 17-19th January **2004**.
- 1) **Patil, S. A.** Attended astrazeneca lectures, astrazeneca research foundation, Bangalore, India on 23rd February **2004**.