



# SAI RAM ENGINEERING COLLEGE

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## DEPARTMENT OF CHEMISTRY

Name : Dr. J. PITCHAIMANI



Designation : Associate professor

Email : [pitchaimani.chem@sairamit.edu.in](mailto:pitchaimani.chem@sairamit.edu.in)

Qualification : M.Sc, Ph.D. Post-Doc (China)

Specialization : CHEMISTRY

Research Interest : Catalysis, Optoelectronics, Material Science & Organic synthesis

Experience in years : Teaching UG  PG  Industry/ Post-doc

No. of Workshop/Conferences/  
FDP attended : Workshop  Conferences  FDP

No. of Workshop/Conferences/  
FDP Organized : Workshop  Conferences  FDP

Professional Membership	<ol style="list-style-type: none"> <li>1. ACS community Associate membership</li> <li>2. IEEE Member from 2022 onwards</li> <li>3. Member in IEEE Photonics Society</li> <li>4. Member in IEEE Reliability Society</li> <li>5. Member in IEEE Oceanic Engineering Society</li> <li>6. Member in Electron Device Society</li> <li>7. Member in Nanotechnology Council</li> </ol>
Publications	SCI Indexed-24
Research Funded Projects	<ol style="list-style-type: none"> <li>1. Guangdong Province Postdoctoral Talent Introduction Program Award 2019 East-West Wings and Northern Eco-Development Zones, People's Republic of China. (10,000 CNY (1100000 INR)).</li> <li>2. FONDECYT Postdoctoral Competition 2022 Selected Projects for Award FONDECYT, Chile</li> </ol>

Patents	1. Title of the invention: ACIDOCHROMIC AND FLUORESCENT RESPONSE OF CALOTROPIS PROCERA LATEX: A NATURAL INDICATOR FOR MINERAL ACID DETECTION. Published Date : 21/03/2025.
Book chapter published	1
Achievements	1. Guangdong Province Postdoctoral Talent Introduction Program Award 2019 East-West Wings and Northern Eco-Development Zones, People's Republic of China. 2. FONDECYT Postdoctoral Competition 2022 Selected Projects for Award FONDECYT, Chile. 3. Best poster award at NCMM-2018 conference Karunya Institute of Technology and Sciences (Deemed to be University).
Any Other Information	1. <b>Anna University recognized as Ph.D supervisor (Ref.No: 4270028).</b> 2. <b>Post-Doctoral Research Fellow</b> 2 years (2019-2021), Prof. Li Dang research group, Department of Chemistry, Prof. Li Dang research group, Shantou University, Guangdong Province, China. 3. <b>Journal Reviewer-</b> Catalysis Science and Technology & RSC Advances (Royal Society of Chemistry, London).

### List of Publications:-

1. **J. Pitchaimani**, S. F. Ni, L. Dang, Metal Dithiolene Complexes in Olefin Addition and Purification, Small Molecule Absorption, H<sub>2</sub> Evolution and CO<sub>2</sub> Reduction, *Coordination Chemistry Reviews*, 2020, 420, 213398 (IF: 24.83). (SCI Indexed)
2. **J. Pitchaimani**, N. Gunasekaran, S. P. Anthony, D. Moon, V. Madhu, "Hydrogenation of Nitroaromatics to Anilines Catalyzed by Air Stable Arene Ruthenium(II)-NNN Pincer Complexes" *Appl Organomet Chem.* 2019, 33, e4689. (IF: 4.10). (SCI Indexed)
3. **J. Pitchaimani**, A. Kundu, S. Karthikeyan, S. P. Anthony, D. Moon, V. Madhu, "A crab claw shaped molecular receptor for selective recognition of picric acid: supramolecular self-assembly mediated aggregation induced emission and color change" *CrystEngComm.* 2017, 19, 3557-3561 (IF: 3.75). (SCI Indexed)
4. V. G. Landge, **J. Pitchaimani**, S. P. Midya, M. Subaramanian, V. Madhu, E. Balaraman, "Phosphine-free cobalt pincer complex catalyzed Z-selective semi-hydrogenation of unbiased alkynes" *Catal. Sci. Technol.* 2018, 8, 428-433 (IF: 6.11). (SCI Indexed).
5. S. P. Midya, **J. Pitchaimani**, V. G. Landge, V. Madhu, E. Balaraman, "Direct Access to N-Alkylated Amines and Imines Via Acceptorless Dehydrogenative Coupling Catalyzed by Co(II)-NNN Pincer Complex" *Catal. Sci. Technol.*, 2018, 8, 3469-3473 (IF: 6.11). (SCI Indexed).
6. J. Pitchaimani, S. Karthikeyan, N. Lakshminarasimhan, S. P. Anthony, Dohyun Moon, and V. Madhu, "Reversible Thermochromism of Nickel(II) Complexes and Single-Crystal-to-Single-Crystal Transformation" *ACS Omega*, 2019, 4, 9, 13756-13761 (IF: 4.13). (SCI Indexed).

7. **J. Pitchaimani**, M. R. Charan Raja, S. Sujatha, S. K. Mahapatra, D. Moon, S. P. Anthony, V. Madhu, "Arene ruthenium(II) complexes with chalcone, aminoantipyrine and aminopyrimidine based ligands: synthesis, structure and preliminary evaluation of anti-leukemiaactivity" *RSC Adv.*, 2016, 6, 90982–90992 (IF: 4.036). (SCI Indexed)
8. S. Midya, J. Rana, **J. Pitchaimani**, N. Avanashiappan, V. Madhu, E. Balaraman, "Ni-catalyzed  $\alpha$ -alkylation of inactivated amides and esters with alcohols via hydrogen auto-transfer strategy" *ChemSusChem*, 2018, 11, 3911-3916 (IF: 9.14). (SCI Indexed)
9. **J. Pitchaimani**, A. Kundu, S. P. Anthony, D. Moon, and V. Madhu "Facile Synthetic Route for Direct Access of Perylenediimide Single Crystals in High Yield through In Situ Crystallization, *Chemistryselect*, 2019, 5, 2070-2074 (IF: 2.30). (SCI Indexed)
10. A. Kundu, **J. Pitchaimani**, V. Madhu, P. Sakthivel, P.; R. Ganesamoorthy, S. P. Anthony, "Bay Functionalized Perylenediimide with Pyridine Positional Isomers: NIR Absorption and Selective Colorimetric/Fluorescent Sensing of  $Fe^{3+}$  and  $Al^{3+}$  Ions, *J Fluoresc.* 2017, 27, 491-500 (IF: 2.52). (SCI Indexed)
11. P. S. Hariharan, **J. Pitchaimani**, V. Madhu, S. P. Anthony "Perylene Diimide Based Fluorescent Dyes for Selective Sensing of Nitroaromatic Compounds: Selective Sensing in Aqueous Medium Across Wide pH Range" *J Fluoresc.* 2016, 26, 395–401(IF: 2.52). (SCI Indexed)
12. P. Nagarasu, A. Kundu, **J. Pitchaimani**, S. P. Anthony, D. Moon and V. Madhu "Structure controlled solvatochromism and halochromic fluorescence switching of 2,2'- bipyridine based donor–acceptor derivatives" *New J. Chem.*, 2020, 44, 14421-14428 (IF: 3.91). (SCI Indexed)
13. **J. Pitchaimani**, S. T. Rex Jeya Rajkumar, S. M. Mahalingam, S. P. Anthony, D. Moon, V. Madhu, Coordination diversity in transition metal complexes with 4-aminoantipyrine tethered bis(imino)pyridine ligand: structures, superoxide dismutase and anticancer properties, *J. Coord. Chem.*, 2020, 73, 3174-3185 (IF: 1.80). (SCI Indexed)
14. S. Sowmiyha, V. Vinod Kumar, **J. Pitchaimani**, V. Madhu, R. Thiagarajan, N. Sai Subramnaian, S. P. Anthony, "Self-assembly of water soluble perylene tetracarboxylic acid with metal cations mediated selective fluorescence sensing of  $Cu^{2+}$  and  $Pb^{2+}$  ions in paper strips, zebrafish and yeast" *Journal of Luminescence*. 2018, 203, 42–49 (IF: 4.17). (SCI Indexed)
15. P. S. Hariharan, **J. Pitchaimani**, V. Madhu, S. P. Anthony, "A halochromic stimuli-responsive reversible fluorescence switching 3, 4, 9, 10-perylene tetracarboxylic acid dye for fabricating rewritable platform" *Optical Materials*. 2017, 64, 53- 57 (IF: 3.75). (SCI Indexed).
16. P. Ramesh, **J. Pitchaimani**, S. Amalraj, R. Koutavarapu, "One-pot eco-friendly synthesis and supercapacitor applications: Simultaneously oxidation and intercalation of iodinated graphene oxide" *Diamond & Related Materials*, 2022, 127, 109140 (IF: 3.85). (SCI Indexed)
17. P. Ramesh, A. A. Kalicharan, **J. Pitchaimani\***, R. Koutavarapu, Green Approach for the Synthesis of Monolayer Reduced Graphene Oxide: One-Step Protocol with Simultaneous Iodination and Reduction, *New J. Chem.* 2023, 47, 4609-4613 (IF: 3.91). (SCI Indexed).
18. P. Ramesh, **J. Pitchaimani**, A. A. Kalicharan, R. Koutavarapu, "Salen-complex of amino-alcohol incorporated in 2D matrices for Supercapacitor applications" *Materials Chemistry and Physics* 310, 128485 (IF: 4.77). (SCI Indexed).
19. I Jemina, **J Pitchaimani**, P Ramesh, N Mani, Eco-friendly@ one-pot-simultaneous oxygen and chlorine intercalation on graphite surface at low-cost, *Materials Letters*. 2024, 362, 136207 (SCI Indexed)..

**20.** A Kalicharan, **J Pitchaimani**, C Barath Kanna, V Rajesh, MR Tamtam, Green Chemistry Approach for One-Step Synthesis of Iodinated Graphene Material for Supercapacitor Applications, *ChemistrySelect*. 2023, 9 (18), e202400820 (**SCI Indexed**)..

**21.** I Jemina, N Mani, P Ramesh, **J Pitchaimani**, *ChemistrySelect*, 2024, 10 (4), e202404441 (**SCI Indexed**)..

**22.** M. Sangeetha, **J. Pitchaimani\***, V. Madhu, *Anal.Methods*, 2025, 17, 3856 (**SCI Indexed**)..

**23.** R. Selvam, P. Ramesh, **J. Pitchaimani**, K. G. Rose Rex, M. Santhamoorthy, S. Kumar Sadasivam, *Soil and Sediment Contamination: An International Journal*, 2025, 1-26. <https://doi.org/10.1080/15320383.2025.2497859> (**SCI Indexed**)..

**24.** I. Jemina, N. Mani, P. Pamesh, **J. Pitchaimani**, *ChemistrySelect*, 2025, 10 (4), e202404441(**SCI Indexed**).

#### **Book chapter published**

1. S. Sekar, J. Pitchaimani, A. Tamilselvi, *Smart Nanomaterials for Antiseptic Application*, 2024, <https://doi.org/10.1002/9781394175222.ch2> (Wiley).

#### **Workshop / Conferences / FDP Attended:-**

1. J. Pitchaimani, D. Premnath, V. Madhu, CRSI symposium in chemistry 2015, National Institute of Technology & Bharathidasan University, Tiruchirappalli. Tamil Nadu, India
2. J. Pitchaimani, D. Moon, S. P. Anthony, V. Madhu, Symposium on Inorganic Chemical Biology, Madurai Kamaraj University, Madurai, Tamil Nadu, India.
3. J. Pitchaimani, M. R. Charan Raja, S. Sujatha, S. K. Mahapatra, D. Moon, S. P. Anthony, V. Madhu, International Conference on Materials for Sustainable Future, SASTRA University, Thanjavur, Tamil Nadu, India .
4. NCMM-2018, Karunya Institute of Technology and Sciences, Coimbatore.
5. International Conference on Materials for Sustainable Future, 2016, SASTRA University, Thanjavur.
6. UGC Sponsored National seminar on Frontier in Chemistry (2013), Department of Chemistry, Madura College.
7. National Conference on Innovations in Chemistry- Health and Energy (i-CHEM-HE 2014), Department of Chemistry, Karunya Institute of Technology and Sciences (Deemed to be University), Coimbatore.
8. National Conference on Innovations in Chemistry- Health and Energy (i-CHEM-HE 2014) organized by Department of Chemistry, Karunya Institute of Technology and Sciences (Deemed to be University), Coimbatore, Tamil Nadu.
9. Lecture Workshop on “Recent Advances in Chemical Sciences” (RACS-15) in Department of Chemistry, Karunya Institute of Technology and Sciences (Deemed to be University), Coimbatore, Tamil Nadu.
10. One Day Workshop On the “Analysis of Oils and Fats” 2010, VHNSN College, Virudhunagar.
11. Hands-on Training Workshop on “UV-Visible and Fluorescence Spectroscopy” (HUVF 2015) at Department of Chemistry, Karunya Institute of Technology and Sciences (Deemed to be University), Coimbatore, Tamil Nadu.
12. Colloquium on Research Practices, Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu, India.

**13.** FDP on Essential Industrial Chemistry for Engineers Conducted by Applied Science Department from 05/09/2022 to 09/09/2022 (One Week) at Sathyabama Institute of Science and Technology, deemed to be University.

**14.** FDP on 2D Nanomaterials: Potential & Applications through ICT conducted by Applied Science Department from 17.10.2022 to 21.10.2022 (One Week) at Sathyabama Institute of Science and Technology (Deemed to be University), Chennai (Tamil Nadu).

**15.** FDP on Recent Research in Material Physics and Nano Devices organized by Department of Physics and IQAC, Raju's College, Rajapalayam.

**Workshop / Conferences / FDP Organized:-**