
Dr. PRABU M

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ACADAMIC QUALIFICATIONS

2025-Present: Assistant Professor, Department of Science and Humanities, Bharathidasan Engineering College, Natrampalli, Tirupattur District, Tamil Nadu-635 854.

2021-2023: Postdoctoral Researcher - NRF grant by National Research Foundation of Korea Department of Chemistry, Kyungpook National University, 80 Daehak-ro, Daegu, South Korea.

2014-2020: Ph.D., Chemistry - Indian Institute of Science Education and Research Thiruvananthapuram (IISER-TVM), Thiruvananthapuram, Kerala, India.

Thesis title: “Investigation of Physical Properties and Electrocatalytic Activities of Inorganic-Organic Hybrid Materials”

2010 - 2012: Master of Science, Chemistry - Loyola College, Nungambakkam, Chennai, Tamil Nadu, India. Grade: First class (65 %).

PUBLICATIONS

(1) **Mani, P.;** Son, Y.; Kim, J.; Yoon, Synthetic approaches and electrocatalytic reactions of pristine metal–organic frameworks for energy conversion. *CrystEngComm*, **2023**, *25*, 4395. DOI:10.1039/D3CE00407D (IF: 2.6, Q2)

(2) **Mani, P.;** Rao, P. C.; Son, Y.; Kim, J.; Yoon, M. Organic Guest Molecule Induced Ultrafast Breathing of an Epitaxially Grown Metal-Organic Framework on a Self-Assembled Monolayer. *Chem. Commun.* **2021**, *57*, 10158. DOI:10.1039/D1CC90343H (IF: 6.2, Q2)

(3) Mandal, S.; Natarajan, S.; **Mani, P.;** Pankajakshan, A., Post-synthetic Modifications of Metal-Organic Frameworks Towards Applications. *Adv. Funct. Mater.* **2020**, *31*, 2006291. DOI:10.1002/adfm.202006291 (IF: 19, Q1)

(4) **Mani, P.;** Mandal, N.; Roopesh, M.; Gopalakrishnan, H.; Datta, A.; Mandal, S. Enhancement in Electrical Conductivity of a Porous Indium-based Metal-Organic Framework Upon I₂ Uptake: Combined Experimental and Theoretical Investigations. *J. Mater. Chem. C* **2020**, *8*, 4836. DOI: 10.1039/D0TC00475H (IF: 5.7, Q1)

(5) **Mani, P.;** Sheelam, A.; Karthik, E. P.; Ramanujam, K.; Mandal, S., Nickel-Based Coordination Polymer for Oxygen Reduction Reaction. *ACS Appl. Energy Mater.* **2020**, *3*, 6408. DOI: 10.1021/acsaem.0c00615 (IF: 5.4, Q2)

(6) **Mani, P.;** Bandyopadhyay, A.; Mukharjee, P. K.; Nath, R. C.; Pati, S. K.; Mandal, S., Long-range Ferromagnetism in Nickel-based Hybrid Structure with Semiconductor Behavior. *Chem. Commun.* **2019**, *55*, 5211. DOI: 10.1039/C8CC09840A (IF: 6.2, Q2)

(7) **Mani, P.;** Selvi, T.; Devadas, S.; Karthik, E. P.; Ramanujam, K.; Mandal, S., Sodalite-type Cu-based Three-dimensional Metal-Organic Framework for Efficient Oxygen Reduction Reaction. *Chem. Asian J.* **2019**, *14*, 4814. DOI:10.1002/asia.201901242. (IF: 4.1, Q1)

- (8) **Mani, P.**; Sheelam, A.; Das, S.; Wang, G.; Ramani, V. K.; Ramanujam, K.; Pati, S. K.; Mandal, S., Cobalt-Based Coordination Polymer for Oxygen Reduction Reaction. *ACS Omega* **2018**, *3*, 3830. DOI: 10.1021/acsomega.8b00088. (IF: 3.7, Q1)
- (9) **Mani, P.**; Mukharjee, P.; Hegde, N. G.; Nath, R. C.; Mandal, S., Triangular and linear Co₃ cluster-based metal-organic frameworks: Structures and magnetic properties. *J. Solid State Chem.* **2018**, *265*, 123. DOI: 10.1016/j.jssc.2018.05.029. (IF: 3.2, Q2)
- (10) **Mani, P.**; Ranjith, K. M.; Mandal, S.; Paul, A. K., Comparative Studies on Optical and Electronic Behavior of Lanthanide-based Coordination Polymers: Synthesis, Structure, Absorption-Emission and Magnetic Properties. *J. Chem. Sci.* **2018**, *130*, 60. DOI: 10.1007/s12039-018-1464-x. (IF: 1.7, Q3)
- (11) **Mani, P.**; Ojha, A. A.; Reddy, V. S.; Mandal, S., “Turn-on” Fluorescence Sensing and Discriminative Detection of Aliphatic Amines Using a 5-Fold-Interpenetrated Coordination Polymer. *Inorg. Chem.* **2017**, *56*, 6772. DOI: 10.1021/acs.inorgchem.7b00787. (IF: 4.3, Q2)
- (12) **Mani, P.**; Asha, K. S.; Sinha, M.; Poduval, A.; Mandal, S., The Structural Diversity, Bandgap energy and Photoluminescence Properties of Thiophenedicarboxylate-based Coordination Polymers. *CrystEngComm* **2016**, *18*, 536. DOI: 10.1039/C5CE01886B. (IF: 2.6, Q2)
- (13) Kim, J.; Na, C.; Son, Y.; **Mani, P.**; Yoon, M., Stilbene ligand-based metal–organic frameworks for efficient dye adsorption and nitrobenzene detection. *Bull. Korean Chem. Soc.* **2023**, *44*, 507. DOI: 10.1002/bkcs.12683. (IF: 2.3, Q2)

EXAMS QUALIFIED

- ❖ State eligibility test for lectureship (SET-2012) in India
- ❖ Graduate aptitude test in engineering (GATE-2013) in India

CONFERENCES ATTENDED

- ❖ Flash talk presented in the Asian Crystallographic Association (AsCA 2022), Jeju Island, Republic of Korea - October 30 - November 2, 2022.
 - ❖ Poster presented in MOF-2018 conference held at University of Auckland, Auckland, New Zealand - December 2018.
 - ❖ Poster presented in 24th Congress and General Assembly of the International Union of Crystallography (IUCR) held at Hyderabad, India - August 2017.
 - ❖ Poster presented in Modern Trends in Inorganic Chemistry (MTIC-XVII) held at CSIR-NCL, Pune, and IISER-Pune, India - December 2017.
 - ❖ Poster presented in Inter IISER Chemistry Meet (IICM) held at IISER-Bhopal, Bhopal India - January 2017.
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