

**NANJIL CATHOLIC COLLEGE OF ARTS AND SCIENCE
KALIYAKKAVILAI**

FACULTY PROFILE



Name	Dr. MARY SHEEBA M.				
Department	Chemistry				
Designation	Assistant Professor				
Address	Kadayara Vilai, Parakunnu Vanniyoor Post				
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Academic Qualifications (with Name of Degree awarding university)	S.No	Course	Board/ University	Year	Percentage
	1	M.Sc	Mother Teresa Womens University	2010	87
	2	M.Phil	Bharathidasan University	2011	74
	3	Ph.D	National Institute of Technology, Tiruchirappalli	2016	-
Teaching Experience	Level	Years of Service	Institution		
	UG	1	National Institute of Technology, Tiruchirappalli		
	UG & PG	7	Nanjil Catholic College of Arts and Science		
Specialization	Inorganic Chemistry, Organometallics and catalysis				
Publications/ Participation in Seminars/ Conferences etc			International	National	
	No. of Research Papers in Journals		16	-	
	No. of Publications in Conference Proceedings		1	4	
	No. of Conferences Participated in		2	25	

	Books	-	2
Projects	-		
Details of Research Supervision	On going	Completed	
	-	-	
Honours and Awards	<ul style="list-style-type: none"> ✓ M. Sc. 1st Rank holder (Gold Medalist) ✓ Awarded DST-INSPIRE fellowship by Department of Science and Technology, Ministry of Science and Technology, Government of India, for pursuing Ph.D. ✓ Received RSC best poster award in 13th Eurasia Conference on Chemical Sciences held during 14 to 18 December 2014 at Indian Institute of Science, Bangalore. ✓ Awarded Women Post-doctoral Fellow, Department of Chemistry, Indian Institute of Technology, Madras from 9th October 2017 to 8th April 2018. 		
Posts held	-		
Any other Information			

List of Publications:

1. N. Selvakumaran, **M. Mary Sheeba**, R. Karvembu, S.W. Ng and E.R.T. Tiekink, 3-Benzoyl-1-(2-methoxyphenyl)thiourea, *Acta Cryst. E* 68(12), 2012, o3259.
2. N. Selvakumaran, **M. Mary Sheeba**, R. Karvembu, S.W. Ng and E.R.T. Tiekink, 1-Benzoyl-3-(4-chlorophenyl)thiourea dichloromethanehemisolvate, *Acta Cryst. E* 68(12), 2012, o3313.
3. **M. Mary Sheeba**, M. Muthu Tamizh, L. J. Farrugia, A. Endo, R. Karvembu, Chiral (η^6 -*p*-cymene)ruthenium(II) complexes containing monodentate acylthiourea ligands for efficient asymmetric transfer hydrogenation of ketones, *Organometallics* 33, 2014, 540–550.
4. **M. Mary Sheeba**, S. Preethi, A. Nijamudheen, M. Muthu Tamizh, A. Datta, L. J. Farrugia, R. Karvembu, Half-sandwich Ru(η^6 -C₆H₆) complexes with chiral arylthioureas for enhanced asymmetric transfer hydrogenation of ketones – experimental and theoretical studies, *Catal. Sci. Technol.*, 5, 2015, 4790–4799.

5. **M. Mary Sheeba**, M. Muthu Tamizh, S. Ganesh Babu, N. S. P. Bhuvanesh, R. Karvembu, Ru(II)-*p*-cymene complexes containing ester of chiral D/L-phenylalanine derived aroylthiourea ligands for enantioselective reduction of pro-chiral ketones, *RSC Adv.*, 6, 2016, 68494–68503.
6. **M. Mary Sheeba**, M. Muthu Tamizh, L. J. Farrugia, R. Karvembu, Enantioselective reduction of pro-chiral ketones catalyzed by chiral Ru(II)-benzene complexes containing amino acid based aroylthiourea ligands, *J. Organomet. Chem.* 831, 2017, 45-49.
7. G. Rohini, J. Haribabu, **M. Mary Sheeba**, K. N. Aneesrahman, N. S. P. Bhuvanesh, C. Balachandran, R. Karvembu, A. Sreekanth, Ruthenium(II)- η^6 -benzene complexes of dibenzosuberonyl appended aroyl/acylthiourea ligands: *In vitro* biomolecular interaction studies and catalytic transfer hydrogenation, *Chem. Select* 3, 2018, 18-28.
8. **M. Mary Sheeba**, M. Muthu Tamizh, N. S. P. Bhuvanesh, R. Karvembu, Water soluble Ru(II)-*p*-cymene complexes bearing unprotected D/L-alanine derived thiourea ligands for asymmetric reduction of pro-chiral ketones, *J. Appl. Organomet. Chem.* 33, 2, 2018, e4667.
9. **M. Mary Sheeba**, N. S. P. Bhuvanesh, R. Karvembu, Piano-stool chiral Ru(II)-benzene complexes bearing D/L-alanine derived thiourea ligands for asymmetric transfer hydrogenation of ketones in water, *J. chem. Sci.* 130, 163 (2018).
10. R. R. Jeyapalan, J. Venkataraman, M. Jain, V. Srinivasan, S. Sarika, B. Mohana, **M. Mary Sheeba**, K. Thanigaiarul, V. Vaithiswaran, R. Karvembu, M. Sharma, N. Kalkura, Regional differences in gall bladder bile acids composition in patients with gallstones, *J. Clin. Exp. Hepatol.* 8, 2018, S104.
11. **M. Mary Sheeba**, T. Shalini, Determination of comparison of ascorbic acid in vegetables, 8 (6), (2021) f202-f207 (ISSN – 2349-5162).
12. K. Priya Rajini, C. Agatha Christie, L. Lisy, T. Alwin and **M. Mary Sheeba** Green synthesis and characterization of zinc oxide nanoparticle using *centella asiatica* leaf extract, *IJCRT*, Volume 10, Issue 2 February 2022
13. J. R. Ramya, M. Jain, **M. Mary Sheeba**, K. Thanigaiarul, R. Karvembu, V. Srinivasan, V. Vaithiswaran, S. N. Kalkura, Jayanthi Venkataraman Regional Differences in Bile acid Composition in Gallbladder Bile, *Gastroenterology, Hepatology and Endoscopy Practice*, Volume 2, Issue 2, April-June 2022
14. K. Priya Rajini, **M. Mary Sheeba** and T. Alwin Green synthesis and characterization of zinc oxide nanoparticle using *azadirachta indica* leaf extract, Proceedings of international conference on biomaterials, biodegradables and biomimetics, 2023, ISBN:978-93-83006-24-3.

15. K. Priya Rajini, **M. Mary Sheeba** and C. Agatha Christie, Characterisation of Azadirachta indica based silver nanoparticles, JETIR, Volume 11, Issue 10, October 2024.
16. K. Priya Rajini and **M. Mary Sheeba**, Studies of Silveroxide Nanoparticles from Orange Peel IJCRT, Volume 14, Issue 3, March 2026.

List of Papers Presented in National/International Conferences:

1. Chiral water soluble Ru(II)-arene complexes for asymmetric hydrogenation of pro-chiral ketones, M. Mary Sheeba and R. Karvembu, Multidisciplinary National Conference on 'Research in Present Senario' held in Nesamony Memorial Christian College, Marthandam, India on January 27, 2017.
2. Unprotected D/L-alanine derived thiourea ligands and their water soluble Ru(II)-p-cymene complexes for asymmetric reduction of pro-chiral ketones, M. Mary Sheeba and R. Karvembu, RSC-NIT Symposium held in National Institute of Technology, Trichy, India on November 5, 2016
3. Half-sandwich chiral ruthenium(II) arene complexes for asymmetric transfer hydrogenation of ketones, M. Mary Sheeba, S. Preethi, and R. Karvembu, 13th Eurasia Conference on Chemical Sciences held in Indian Institute of Science Bangalore, India from December 14 to 18, 2014 (**Received RSC best poster award**)
4. Chiral acyl thiourea ligands and its Ru(II) complexes as efficient catalysts for asymmetric transfer hydrogenation of ketones, M. Mary Sheeba and R. Karvembu, Symposium on modern trends in inorganic chemistry (MTIC) - XV held in Indian Institute of Technology Roorkee, India from December 13 to 16, 2013
5. Chiral Ru(II) complexes as catalyst for asymmetric transfer hydrogenation of ketones, M. Mary Sheeba and R. Karvembu, CRSI 15th National symposium in chemistry (NSC-15) held in Banaras Hindu University, Varanasi, India from February 1 to 3, 2013