

National Institute of Technology, Tiruchirappalli

CV of Dr. R. Karvembu

Curriculum Vitae



Brief Profile:

Dr. R. Karvembu is working as Professor in the Department of Chemistry at National Institute of Technology, Tiruchirappalli, India. His areas of interest are Coordination Chemistry, Organometallic Chemistry, Catalysis and Bioinorganic Chemistry. He has qualified CSIR-NET, obtained Ph.D. from Bharathiar University, India and subsequently carried out post-doctoral research at Pohang University of Science and Technology, South Korea. He has authored more than 200 research articles and guided many graduate and master students. He has successfully completed projects sponsored by DST, SERB, CSIR, DAE-BRNS and TEQIP for the total amount of Rs 7.0 Crore. He has received many fellowships/awards such as UK-India Staff Exchange Fellowship (UKIERI), Sophia Lecturing-Research Grant (Japan), top cited author award from the Journal of Organometallic Chemistry (Elsevier) and Chemical Engineering Journal (Elsevier), Distinguished Alumnus Award from St. Joseph's College, Trichy *etc.* He is in the editorial board of Inorganica Chimica Acta (Elsevier), and acted as Guest Editor for the special issue 'Inorganic Compounds of Biological Interest – Dedicated to Prof. M. Palaniandavar'. He was a Visiting Professor in Sophia University (Japan), University of Glasgow (Scotland, UK) and Vienna University of Technology (Austria). He has organized many national level conferences and workshops like CRSI Symposium (2015), Science Academies' Lecture Workshop (2010) *etc.*, and delivered more than 100 invited lectures, notably in Modern Trends in Inorganic Chemistry (MTIC) – 2017 & 2022, National Convention of Electrochemists (NCE-SAEST) – 2022, refresher courses for college teachers, endowment programmes *etc.*

His papers are cited more than 6800 times. His h index is 47 and i10 index is 149. These data clearly indicate the impact of his work in the concerned field. His works have been cited in the reputed journals including Angewandte Chemie International Edition, Journal of American Chemical Society, ACS Catalysis, *etc.*

He has made significant contributions in both basic and applied fields. Observation of new coordination modes for acylthiourea, guanidine, hydrazone and thiosemicarbazone ligands lead to many other investigations in basic Coordination/Organometallic Chemistry (*New J. Chem.* 2016,

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40, 5401-5413; *Organometallics* 2019, 38, 753-770; *Eur. J. Inorg. Chem.* 2019, 3869-3882; *Inorg. Chem.* 2020, 59, 17109-17122; *Organometallics* 2022, 41, 1621-1630). Many effective catalytic systems (homogeneous, heterogenized, heterogeneous, nanocatalysis and organocatalysis) have been developed for industrially important oxidation, reduction, hydrogen transfer, alkylation and coupling (C–C, C–N, C–O & C–S) reactions (*J. Phys. Chem. C* 2013, 117, 23582-23596; *ACS Catal.* 2014, 4, 2118-2129; *ACS Sustain. Chem. Eng.* 2015, 3, 2478-2488; *Ind. Eng. Chem. Res.* 2018, 57, 14386-14393; *Org. Biomol. Chem.* 2020, 18, 7884-7891). His group has developed a class of Ru-arene chiral catalysts for the asymmetric transfer hydrogenation of ketones, which were later utilized by many groups (*Organometallics* 2014, 33, 540-550; *Catal. Sci. Technol.* 2015, 5, 4790-4799; *RSC Adv.* 2016, 6, 68494-68503). His investigations in sustainable catalysis provided processes for biomass conversions such as 5-hydroxymethylfurfural (HMF) to 2,5-furandicarboxylic acid (FDCA), levulinic acid to γ -valerolactone (GVL), vanillin to vanillyl alcohol *etc.* (*ACS Sustain. Chem. Eng.* 2020, 8, 17069-17078; *New J. Chem.* 2020, 44, 8223-8231; *Mol. Catal.* 2021, 516, 112004). Transition metal complexes which have excellent anticancer activity (close to cisplatin) and less toxicity to normal cells have been reported by his group (*Dalton Trans.* 2014, 43, 16395-16410; *Inorg. Chem. Front.* 2015, 2, 780-798; *Dalton Trans.* 2016, 45, 12518-12531; *Organometallics* 2018, 37, 1242-1257; *New J. Chem.* 2019, 43, 3188-3198). Extensive structure-activity relationships have been studied particularly with respect to Ru-arene compounds, which will be useful for the design of effective anticancer drugs (*ACS Omega* 2019, 4, 6245-6256; *Dalton Trans.* 2020, 49, 9411-9424; *Chem. Eur. J.* 2021, 27, 7418-7433; *Dalton Trans.* 2021, 50, 16311-16325; *Coord. Chem. Rev.* 2022, 459, 214403). Recently, he involves in the development of electrocatalysts based on metal/covalent organic frameworks for water splitting, oxygen reduction reaction (ORR) and CO₂ conversion (*ACS Appl. Energy Mater.* 2021, 4, 9341-9352; *ACS Appl. Energy Mater.* 2022, 5, 557-566). Right now, he is focusing on Co-based organometallic systems (*Adv. Synth. Catal.* 2021, 363, 4309-4331) and metal organic frameworks (MOFs) for catalyzing important organic transformations. In this direction, few new MOFs have been successfully prepared, and further investigations are underway. Further, he has just started a new area called as ‘in-cell catalysis’ for cancer therapy.

Full list of publications is given from Page 23.

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1. Name: Dr. R. Karvembu
2. Designation: Professor
3. Office Address: Department of Chemistry
National Institute of Technology
Tiruchirappalli - 620 015
India
4. Telephone (Direct): +91-431-2503636
Mobile: +91-9442268653
Website: www.karvembur.com
5. Email (Primary): kar@nitt.edu Email (Secondary)
karvembu@rediffmail.com
6. Field(s) of Specialization:
Coordination Chemistry
Organometallic Chemistry
Catalysis
Bioinorganic Chemistry

7. Employment Profile:

Job Title	Employer	From	To
Professor	Department of Chemistry National Institute of Technology Tiruchirappalli – 620 015, India	March 2018	Till date
Associate Professor	Department of Chemistry National Institute of Technology Tiruchirappalli – 620 015, India	April 2010	March 2018
Assistant Professor	Department of Chemistry National Institute of Technology Tiruchirappalli – 620 015, India	April 2007	April 2010
Lecturer	Department of Chemistry National Institute of Technology Tiruchirappalli – 620 015, India	April 2006	April 2007
Lecturer	Department of Science and Humanities Sri Krishna College of Engineering and Technology Coimbatore – 641 008, India	July 2005	March 2006

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Lecturer	Department of Chemistry (PG & Research) Kongunadu Arts and Science College Coimbatore – 641 029, India	June 2004	June 2005
Guest Lecturer	Department of Chemistry Bharathiar University Coimbatore – 641 046, India	February 2004	May 2004
Post-Doctoral Scientist	Department of Chemistry Pohang University of Science and Technology (POSTECH) San 31 Hyojadong, Pohang 790-784 Republic of Korea	November 2002	November 2003
Guest Lecturer	M.Sc. Bioinformatics course Bharathiar University Coimbatore – 641 046, India	July 2002	November 2002

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	Bharathiar University	1997-2002	Commended	Inorganic Chemistry
M.Phil.	Bharathiar University	1996-1997	Commended	Organic Chemistry
M.Sc.	Bharathidasan University	1994-1996	70.08	Chemistry
B.Sc.	Bharathidasan University	1991-1994	76.40	Chemistry
XII Standard	State	1990-1991	75.41	Maths, Physics, Chemistry & Biology
X Standard	State	1988-1989	80.40	Maths & Science

9. Academic/Administrative Responsibilities within the Institute:

Position	Faculty/Department/ Centre/Institution	From	To
Coordinator National Service Scheme (NSS)	NITT	2007	2010
Warden (Coral Hostel)	NITT	2010	2012
Head of Chemistry Department	NITT	2012	2015
Associate Dean (Academic & Students Welfare)	NITT	2015	2018

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Professor in-charge (First Year)	NITT	2019	Till date
Chairman M.S./Ph.D. Admissions Committee	NITT	2015	2018
Chairman M.S./Ph.D. Admissions Committee	NITT	2022	Till date
Chairman UG Admissions Committee	NITT	2017	2020
Member Academic Reforms Committee (PG & Ph.D.)	NITT	2022	Till date
Member of Senate Sub-committee for Academic Reforms	NITT	2015	2015
Coordinator, Academic Audit (for all UG and PG programmes)	NITT	2013	2014
Member, Students Academic Grievance Committee	NITT	2015	2016
Member, Special Task Force, Centre of Excellence in Corrosion and Surface Engineering	Centre	2014	Till date
Member Board of Studies (I B.Tech.)	NITT	2007	2008
Member Board of Studies (I B.Tech.)	NITT	2015	2016
Chairman, Board of Studies (M.Sc. Chemistry)	Dept. of Chemistry	2013	2014
Member, Academic Reforms Committee	NITT	2017	2018
Convener, Committee for Recommending Biotechnology Courses	NITT	2017	2017
Member, Recruitment Cell for Group A Non-teaching Posts	NITT	2017	2017
Faculty Advisor	Pragyan, Festember and NITTFEST	2017	2018
Faculty Advisor	E-Cell, Delta Club, Dance Troupe	2016	2018
Convener, Inter NIT Sports Committee	NITT	2017	2017
Member, Fee Revision Committee	NITT	2019	2019
Member of Committee for Monitoring the Activities under NITT-GAIL Collaborations	NITT	2020	Till date

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10. Academic/Administrative Responsibilities outside the Institute:

Position	Institution	From	To
Member Board of studies	Central University of Tamil Nadu, Tiruvarur	2015	2017
Member Board of school	Central University of Tamil Nadu, Tiruvarur	2019	Till date
Member-Board of studies	National Institute of Technology, Puducherry	2019	Till date
Member-Faculty promotion application scrutiny committee	National Institute of Technology, Nagaland	2018	2019
Member-Technical staff selection committee	National Institute of Technology, Nagaland	2022	Till date
Subject Expert-Adhoc faculty recruitment committee	National Institute of Technology, Andhra Pradesh	2022	2022
Subject Expert-Selection committee under UGC-CAS scheme	Periyar University, Salem	2022	2022
Member Board of Faculty (Engineering & Technology)	Annamalai University, Chidambaram	2020	Till date
Member Board of studies	Bharathiar University, Coimbatore	2013	2016
Member Board of studies	Alagappa University, Karaikudi	2014	Till date
Member Board of studies	Periyar University, Salem	2021	Till date
Member Research council	PSGR Krishnammal College for Women, Coimbatore	2022	Till date
Member Board of studies	PSG College of Technology, Coimbatore	2016	2018
Member Board of studies	Thiagarajar Engineering College, Madurai	2014	2016
Member Board of studies	St. Joseph's College, Trichy	2012	2017
Member Board of studies	Bishop Heber College, Trichy	2018	Till date

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Member Board of studies	National College, Trichy	2022	Till date
Member Board of studies	Kongunadu Arts and Science College, Coimbatore	2004	2005
Member Board of studies	Kongunadu Arts and Science College, Coimbatore	2007	2010
Member Board of studies	Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore	2011	2014
Member Board of studies	Gobi Arts & Science College, Gobichettipalayam	2019	2022
Member Board of studies	Bannari Amman Institute of Technology, Sathyamangalam	2014	Till date
Member Board of studies	Dr. Mahalingam College of Engineering and Technology, Pollachi	2012	2013
Member Board of studies	M. Kumarasamy College of Engineering, Karur	2017	Till date
Member Board of Studies	Srimad Andavan Arts & Science College, Trichy	2014	Till date
Member Board of studies	Sona College of Technology, Salem	2019	Till date
Member Board of studies	KPR Institute of Engineering and Technology, Coimbatore	2019	Till date
Member Board of studies	K. Ramakrishnan College of Engineering, Trichy	2021	Till date
Member Board of studies	Kamaraj College of Engineering and Technology, Virudhunagar	2021	Till date
Member Board of studies	Kumaraguru College of Technology, Coimbatore	2021	Till date
Member Board of studies	Dhanalakshmi Srinivasan College of Arts and Science for Women, Perambalur	2022	Till date
Member- Faculty selection committee	VIT University, Vellore	2022	2022
Member- Faculty promotion committee	Bannari Amman Institute of Technology, Sathyamangalam	2022	2022
Member Purchase committee	Manonmaniam Sundaranar University, Tamil University & Bharathidasan University	2018	2022
Reviewer	10 th standard Science textbook of Government of Tamil Nadu	2010	-

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Member, Editorial Support Group of National Translation Mission.	Ministry of Human Resource Development, Government of India	2011	-
Member, Students Welfare Bureau	Bharathiar University	2001	2002

11. Awards:

Year of Award	Name of the Award	Awarding Organization
2022	Distinguished Alumnus Award	St. Joseph's College, Trichy
2015	Adjunct Professor	Karunya University, Coimbatore
2013	Top cited author	Journal of Organometallic Chemistry, Elsevier
2013	Top cited paper	Chemical Engineering Journal, Elsevier
2006	DST Fast Track Young Scientist Project	Department of Science & Technology (DST), India
1996	Best student award	New Hostel, St. Joseph's College, Trichy, India

12. Fellowships:

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
2013	Sophia Lecturing-Research Grant	Sophia University, Japan	May 2013	May 2013
2012	UK-India Staff Exchange Fellowship (University of Glasgow, UK)	UKIERI	May 2012	June 2012
2009	Sophia Lecturing-Research Grant	Sophia University, Japan	May 2009	August 2009
2007	Visiting Researcher Fellowship (Vienna University of Technology, Austria)	TEQIP	June 2007	July 2007
2002	Post-Doctoral Fellowship	Pohang University of Science & Technology, Republic of Korea	November 2002	November 2003

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13. Details of Academic Work:

- (i) Curriculum Development
 Framed Chemistry syllabus for I year B.Tech. students (I semester)
 Framed Inorganic Chemistry syllabus for M.Sc. (Chemistry) students
- Courses taught at Doctoral, Postgraduate and Undergraduate levels
 Chemistry I & II (I year B.Tech.)
 Organic Chemistry (II year B.Tech. Chemical Engineering)
 Coordination Chemistry, Organometallic Chemistry, Bioinorganic Chemistry,
 Solid State Chemistry, Applications of Spectroscopy, Inorganic & Organic
 Practicals (M.Sc. Chemistry), Research Methodology
- Projects guided
 Ph.D. - 16 + 2*; M.Phil. - 1; M.Sc. - 49; M.S. (by research) - 1
 * Co-guided
- Other contributions
 Course Coordinator for I year B.Tech.
 Class Committee Chairman for M.Sc. (Chemistry)
 Course Coordinator for Ph.D. common courses
 Chairman / Member of many Doctoral Committee
 Question setter for SET, AIEEE, JEE (Main), VITEEE etc.
 NTA Observer for JEE (Main), UGC-NET and NEET
 Reviewer in many ACS, RSC, European Socirty, Elsevier, Springer, Wiley *etc.*
 journals
 Member in the National Advisory Committee of many conferences
 Examiner in many Universities/Institutes

14. Details of Major R&D Projects:

Title of Project	Funding Agency (Amount)	Duration		Status
		From	To	Ongoing/ Completed
Silica immobilized ruthenium- and enzyme-catalyzed dynamic kinetic resolution of secondary alcohols: A novel approach for chiral synthesis	DST under SERC Fast Track Scheme for Young Scientists (20.4 L)	2006	2009	Completed

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Synthetic, structural, DNA-binding and photocleavage studies of Ru(II) and Ru(III) complexes with modified benzimidazole ligands	CSIR (10.47 L)	2007	2010	Completed
Green conversion of alcohols to carbonyl compounds in ionic liquids using nickel catalysts containing PPh ₃ and N-(2-pyridyl)-N'-(salicylidene) hydrazine ligands	TEQIP under networking of institutions scheme (1.5 L)	2007	2010	Completed
New ruthenium chalconato complexes and their catalytic activities (Co-I)	CSIR (8.2 L)	2006	2009	Completed
Synthesis and characterization of nanomaterials for engineering applications (Co-I)	DST (5.7 C)	2009	2012	Completed
Transition metal complexes with P–N bond containing pincer ligands: Synthesis and catalytic applications	DST (30.67 L)	2011	2014	Completed
Nano silica immobilized acylthiourea complexes for catalytic applications	DAE-BRNS (21.2 L)	2015	2018	Completed
Design of guanidine based chiral ligands and their ruthenium arene complexes for asymmetric catalysis	SERB (30.0 L)	2017	2020	Completed
Investigations on effects of mechanical working and surface treatments on Al 3003 alloy for oil tank applications (CI)	DRDO-CARS (10.0 L)	2017	2019	Completed

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15. Details of Ph.D. guided: 16+2*

Name of the Ph.D.Scholar	Title of Ph.D. Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
N. Gunasekaran	Studies on synthesis, structure and catalytic applications of Ru(II), Ru(III), Cu(I) and Co(III) complexes containing <i>N</i> -[di(alkyl/aryl)carbamothioyl]benzamide derivatives and triphenylphosphine/triphenylarsine	Supervisor	2012
M. Muthu Tamizh	Synthesis, structure and catalytic applications of Ni(II), Pd(II) and Ru(II) complexes with ONS donor tridentate Schiff base ligand and triphenylphosphine or triethylphosphite	Supervisor	2012
S. Ganesh Babu	Copper based nanoparticles-catalyzed organic transformations	Supervisor	2013
S. Ganesamoorthy	Ruthenium and palladium based homogeneous and heterogenized catalytic systems for organic transformations	Supervisor	2014
N. Selvakumaran	Synthesis, characterization and biological evaluation of Ni(II), Pd(II), Cu(I) and Cu(II) complexes containing aroylthiourea ligands	Supervisor	2014
K. Jeyalakshmi	Copper(II) and ruthenium(II) complexes containing aroylthiourea/guanidine	Supervisor	2016
M. Mary Sheeba	Chiral ruthenium(II) half-sandwich complexes for asymmetric transfer hydrogenation of ketones	Supervisor	2016
P. Jerome	Catalytic applications of Pd(II) and Cu(II) pincer complexes	Supervisor	2017
J. Haribabu	DNA/protein binding and anticancer activity of Ni(II), Pd(II) and Ru(II) complexes bearing heterocyclic thiosemicarbazone ligands	Supervisor	2018
R. Kiruthiga	Electrode materials for sodium ion storage applications	Supervisor	2019
D. Sindhuja	Heterogenized transition metal complexes for catalytic applications	Supervisor	2020
P.N. Sathishkumar	Ru(II)-arene acylthiourea complexes for hydrogen transfer reactions	Supervisor	2021
M. Nithya	N-heterocyclic carbene catalyzed synthesis of heterocycles	Supervisor	2021

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P. Vasanthakumar	Transition metal-based catalysts for sustainable biomass conversions	Supervisor	2022
B. Nithya	Synthesis, characterization and biological applications of Zn(II), Pd(II), Ru(II) and Cu(II) complexes containing heterocyclic thiosemicarbazones	Supervisor	2022
S. Srividya	Acylthiourea ligands-based ruthenium(II)-arene complexes for anticancer applications	Supervisor	2022
J. Karupiah	Nonthermal plasma assisted catalytic oxidation of low concentrations of volatile organic compounds	Co-Supervisor	2012
G. Rohini	Synthesis and characterization of new Ru(II) and Pd(II) aroyl/acylthiourea complexes: Catalytic and biological applications	Co-Supervisor	2020

16. Participation in Workshops/Symposia/Seminars/Schools *etc.*:

Date(s)	Title of Activity	Level of Event (International /National/Local)	Role (Participant/Chairperson)	Event Organized by	Venue
26-27 Feb 2005	Workshop on Spectroscopy and its Applications	National	Participant	Indian Academy of Sciences	Kongunadu Arts and Science College, Coimbatore
2-3 Dec 2006	Workshop on Nanomaterials: Properties & Applications	National	Participant	Dept. of MME, NITT	NITT
16-17 March 2007	Group Monitoring Workshop in Inorganic Chemistry	National	Participant	DST	Bharathiar University, Coimbatore
21 April 2007	Workshop on Bioseparation Techniques	National	Participant	Dept. of Chem. Eng., NITT	NITT
21 Nov 2007	Seminar on Challenges and Opportunities in Surface Engineering Research	National	Participant	Dept. of MME, NITT	NITT

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4 Jan 2008	Symposium on Current Scenario in Microbial Technology	National	Co-Chairperson	Bharathidasan University	Bharathidasan University, Trichy
12 July 2008	International Symposium on Chemistry of Concerto Catalysis based on Synergy of Elements	International	Participant	University of Rennes, France	University of Rennes, France
8-10 Jan 2009	National Workshop on Advances in Coordination Chemistry	National	Participant	NIT-K, Surathkal	NIT-K, Surathkal
7 Sep 2009	Seminar on Intellectual Property and Innovation Management in Knowledge Era	Regional	Participant	National Research Development Corporation	NITT
10-12 Dec 2009	Seminar & Exhibition on Non-destructive Evaluation	National	Participant	BHEL & NITT	NITT
17 Feb 2010	One-day Crash Course on NSS	Local	Participant	Directorate of Collegiate Education	Chennai
9-10 May 2013	Two-day Workshop on Perspectives on Curriculum	Local	Participant	NITT	NITT
24-28 March 2019	Professional Development Training under TEQIP-III	National	Participant	IIM Trichy	IIM Trichy
30-31 October 2019	National Workshop on Training of Teachers for Student Induction Programme	National	Participant	UGC, South Eastern Regional Office	Bharathiar University, Coimbatore

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17. Workshops/Symposia/Conferences/Seminars Organized (Convener/Coordinator):

Title of Activity	Level of Event (International/ National/Local)	Date(s)	Role	Venue
National Level Student's Symposium on Innovative Catalysis	National	11-12 September 2016	Convener	NIT, Trichy
10 th Mid-Year Chemical Research Society of India (CRSI) Symposium in Chemistry	National	23-25 July 2015	Convener	NIT, Trichy
National Level Student's Symposium on Green Chemistry	National	5-6 October 2007	Convener	NIT, Trichy
Short term course on New Avenues in Chemical Sciences Research	National	18-22 March 2013	Coordinator	NIT, Trichy
Short term course on Computational Methods in Chemistry, July 23-27, 2012	National	23-27 July 2012	Coordinator	NIT, Trichy
Science Academies' Lecture Workshop on Spectroscopy	National	3-4 December 2010	Coordinator	NIT, Trichy
Recent Research Trends in Chemistry: An Interaction Programme-Faculty and PG students	National	27-28 October 2008	Coordinator	NIT, Trichy

21. Invited Talks delivered:

S. No.	Topic	Date	Inviting Organization
1	Coordination Chemistry	16.09.2006	Department of Chemistry, NITT
2	Special Topics in Inorganic Chemistry	25.11.2006	Department of Chemistry, NITT
3	Catalysis: An Overview	20.12.2006	St. Joseph's College, Trichy
4	Principles and Applications of Coordination Chemistry	12.10.2007	Department of Chemistry, NITT
5	Phase Rule	27.10.2007	Department of Chemistry, NITT

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6	Dynamic Kinetic Resolution of Secondary Alcohols: A Novel Approach for Chiral Synthesis	11.12.2007	Seethalakshmi Ramaswamy College, Trichy
7	Methods for Chiral Synthesis	28.12.2007	Kongunadu Arts and Science College, Coimbatore
8	Nanomaterials in Catalysis	08.01.2008	Kongunadu Arts and Science College, Coimbatore
9	Catalytic Applications of Nanomaterials	25.01.2008	Muthayammal College of Arts and Science, Rasipuram
10	Two lectures in refresher course in chemistry for college teachers	28.01.2008	Bharathiar University, Coimbatore
11	Chemistry of transition metals, lanthanides, actinides and organometallics	25.02.2008	Department of Chemistry, NITT
12	Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols and amines: A novel approach for chiral synthesis	28.02.2008	Dhanalakshmi Srinivasan College of Arts and Science for Women, Perambalur
13	Novel routes for chiral synthesis	20.05.2008	Institution of Engineers, Trichy
14	Coordination Chemistry: Facts and Future!	31.10.2008	Selvamm Arts and Science College, Namakkal
15	Science in India: Greatest Moments, Challenges and Opportunities	28.02.2009	Sudharsan Engineering College, Sathyamangalam
16	Refresher course for research scholars	21.03.2009	UGC Academic Staff College, Bharathiar University, Coimbatore
17	Ruthenium- and enzyme- catalyzed dynamic kinetic resolution (DKR) of alcohols: A novel approach for chiral synthesis	20.07.2009	Sophia University, Tokyo, Japan
18	Novel Approach for Chiral Synthesis	11.09.2009	Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore
19	Refresher course in chemistry	23.01.2010	Bharathiar University, Coimbatore
20	Catalytic applications of nanomaterials	01.03.2010	Thanthai Hans Rover College, Perambalur

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21	Catalysis: An Overview	05.03.2011	Raja Serfoji Government Arts College, Thanjavur
22	Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols and amines	13.07.2011	Cauvery College for Women, Trichy
23	Novel nano catalytic systems	19.07.2011	St. Joseph's College, Trichy
24	Refresher course for college teachers	15.12.2011	UGC Academic Staff College, Bharathidasan University, Trichy
25	Novel nano catalytic systems	15.02.2012	Mar Thoma College, Thiruvilla, Kerala
26	Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols and amines: A novel approach for chiral synthesis	15.06.2012	University of Glasgow, Scotland, UK
27	Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	30.08.2012	St. Joseph's College, Trichy
28	Atomic structure, periodic table, bonding, states of matter, crystal systems, crystal defects & grain boundary	15.10.2012	DRDL, Hyderabad
29	Inhibitors and their functions in corrosion control	19.10.2012	CECASE, NITT
30	Two lectures in refresher course for college teachers	03.12.2012	UGC Academic Staff College, Bharathidasan University, Trichy
31	Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	15.12.2012	Kongunadu Arts and Science College, Coimbatore
32	Applications of nanomaterials in catalysis	22.01.2013	Cauvery College for Women, Trichy
33	Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	25.01.2013	Sathyabama University, Chennai
34	Two lectures in refresher course in materials science for college teachers	02.02.2013	UGC Academic Staff College, Pondicherry University, Puducherry
35	Nanomaterials in catalysis	14.02.2013	Jamal Mohamed College, Trichy
36	Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols: A novel approach for chiral synthesis	14.03.2013	PSG College of Arts and Science, Coimbatore

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37	Two lectures in Short term course on New Avenues in Chemical Sciences Research	19.03.2013	Department of Chemistry, NITT
38	Nanomaterials in catalysis	01.07.2013	Sophia University, Tokyo, Japan
39	Nanomaterials in catalysis	02.07.2013	Tokyo Institute of Technology, Tokyo, Japan
40	Chiral ruthenium(II) complexes containing monodentate acylthiourea ligand for asymmetric transfer hydrogenation of ketones	26.07.2013	Advanced Industrial Science and Technology (AIST), Central Campus, Tsukuba, Japan
41	Nanomaterials in catalysis	02.08.2013	Shinshu University, Japan
42	Nanosciences	12.09.2013	Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore
43	Novel nano catalytic systems	04.07.2013	Dhirajlal Gandhi College College of Technology, Salem
44	Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols: A novel approach for chiral synthesis	15.06.2013	Holy Cross College, Trichy
45	Nanomaterials in Catalysis	02.12.2013	Anna University, Trichy
46	Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols: A novel approach for chiral synthesis	02.12.2013	Anna University, Trichy
47	Nanomaterials in catalysis	13.12.2013	Seethalakshmi Ramaswamy College, Trichy
48	Nanomaterials in catalysis	27.01.2014	Selvamm Arts and Science College, Namakkal
49	Two lectures in refresher course in chemistry for college teachers	03.02.2014	UGC Academic Staff College, Bharathidasan University, Trichy
50	National Science Day special address	28.02.2014	Sengunthar Engineering College, Tiruchengode
51	Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	07.05.2014	Department of Chemistry, NITT

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52	Characterization of inorganic compounds	10.07.2014	Department of Chemistry, NITT
53	Nanomaterials in catalysis	09.08.2014	Saranathan College of Engineering, Trichy
54	Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	13.08.2014	PSGR Krishnammal College for Women, Coimbatore
55	Nanomaterials in catalysis	27.10.2014	Coimbatore Institute of Technology, Coimbatore
56	Versatile coordination behaviour of acylthiourea ligands - Structures, catalysis and biological applications of transition metal complexes	11.12.2014	Kongu Engineering College, Perundurai
57	Chromatographic techniques	19.12.2014	Seethalakshmi Ramaswamy College, Trichy
58	Two lectures in refresher course in chemistry for college teachers	29.01.2015	UGC Academic Staff College, Bharathidasan University, Trichy
59	Nanomaterials in catalysis	13.05.2015	Anna University, Trichy
60	Nanocatalysis	06.08.2015	Srinivasan College of Arts and Science, Perambalur
61	Transition metal complexes with acyl/aroil thiourea ligands: Interesting structures and efficient catalysis	16.10.2015	Periyar University, Salem
62	Transition metal complexes with acyl/aroil thiourea ligands: Interesting structures and efficient catalysis	17.10.2015	Sri Shakthi Institute of Engineering and Technology, Coimbatore
63	Novel nano catalytic systems	09.12.2015	K. S. Rangasamy College of Technology, Tiruchengode
64	Corrosion inhibition	29.12.2015	NLC, Neyveli
65	Corrosion inhibition	15.02.2016	NLC, Neyveli
66	Transition metal complexes with acyl/aroil thiourea ligands: Interesting structures and efficient catalysis	18.02.2016	Nirmala College for Women, Coimbatore
67	Nanomaterials in catalysis	23.02.2016	Periyar E. V. R. College, Trichy
68	Surface chemistry	18.03.2016	M. Kumarasamy College of Engineering, Karur

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69	Transition metal complexes with acyl/aroyle thiourea ligands: Interesting structures and efficient catalysis	19.07.2016	Anna University, Trichy
70	Role of catalysis in biodiesel production	29.09.2016	Department of Mechanical Engineering, NITT
71	Two lectures in refresher course in materials science for college teachers	02.11.2016	UGC Human Resource Development Centre, Bharathidasan University, Trichy
72	Nanomaterials in catalysis	27.12.2016	Kings College of Engineering, Thanjavur
73	Versatile coordination behavior of acylthiourea ligands: Interesting structures and efficient catalysis	10.02.2017	Thiruvalluvar Government Arts College, Rasipuram
74	Complexes of acylthiourea ligands: Interesting structures and efficient catalysis	13.12.2017	IISER, Pune
75	One lecture in refresher course in nano science and technology for college teachers	20.12.2017	UGC Human Resource Development Centre, Bharathidasan University, Trichy
76	Nanomaterials in catalysis	08.02.2018	St. Joseph's College, Trichy
77	UV-Visible Spectroscopy	09.02.2018	Periyar University, Salem
78	Transition metal complexes with acyl/aroyle thiourea ligands: Interesting structures and efficient catalysis	26.02.2018	Sadakathullah Appa College, Tirunelveli
79	Two lectures in refresher course in materials science for college teachers	02.03.2018	UGC Human Resource Development Centre, Bharathidasan University, Trichy
80	Nanomaterials in catalysis	11.04.2018	M. Kumarasamy College of Engineering, Karur
81	Transition metal complexes with acyl/aroyle thiourea ligands: Interesting structures and efficient catalysis	06.07.2018	UGC Academic Staff College, Bharathiar University, Coimbatore
82	Transition metal complexes with acyl/aroyle thiourea ligands: Interesting structures and efficient catalysis	10.09.2018	NKP College for Women, Namakkal
83	Interesting aspects of coordination chemistry	25.09.2018	Ururu Dhanalakshmi College, Trichy

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84	Complexes of acylthiourea ligands: Interesting structures and efficient catalysis	24.06.2019	UGC Academic Staff College, Bharathiar University, Coimbatore
85	Coordination chemistry of acylthiourea ligand – Structures and catalysis	25.06.2019	Kongunadu College of Arts and Science, Coimbatore
86	Coordination chemistry of acylthiourea ligand – Structures and catalysis	26.09.2019	UGC Human Resource Development Centre, Bharathidasan University, Trichy
87	Energy conservation day – Special address	13.12.2019	Alagappa University, Karaikudi
88	Applications of nanomaterials in catalysis	09.01.2020	University of Madras, Chennai
89	Nanomaterials in catalysis	30.01.2020	Laxminarayana Arts & Science College for Women, Dharmapuri
90	Complexes of acylthiourea ligands: Interesting structures and efficient catalysis	11.05.2020	VIT University
91	Coordination Chemistry – An opportunity for interdisciplinary research	03.06.2020	Kongunadu Arts and Science College and Dr. M. Aruchami Research Foundation, Coimbatore
92	Complexes of acylthiourea ligands: Interesting structures and efficient catalysis	16.06.2020	Nesamony Memorial Christian College, Marthandam
93	An era of Ru-arene	25.06.2020	Saranathan College of Engineering, Trichy
94	An era of Ru-arene	18.07.2020	Madurai Kamaraj University, Madurai
95	Nanomaterials in catalysis	27.07.2020	Dr. Mahalingam College of Engineering and Technology, Pollachi
96	Ru-arene organometallic compounds as anticancer agents	29.07.2020	Sri Meenakshi College for Women, Madurai
97	Nanomaterials in catalysis	17.08.2020	B S Abdur Rahman Crescent Institute of Science and Technology, Chennai
98	Nanomaterials in catalysis	17.10.2020	Kongunadu Arts and Science College, Coimbatore

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99	Complexes with acylthiourea ligands interesting structures and catalysis	04.11.2020	Trichy and Madurai Chapter
100	Nanomaterials in catalysis	10.12.2020	Human Resource Development Centre, Madurai Kamaraj University, Madurai
101	Nanomaterials in catalysis	25.02.2021	M. R. Government Arts College, Mannargudi
102	Research challenges	26.02.2021	St. Joseph's College, Trichy
103	Transition metal-based catalysts for sustainable biomass conversions	25.09.2021	SRM Institute of Science and Technology, Chennai
104	My journey from BU to NIT	25.09.2021	Bharathiar University, Coimbatore
105	Metal-organic frameworks for biomass conversions	05.10.2021	S. V. National Institute of Technology, Surat
106	1. An era of Ru-arene 2. Sustainable catalysis for biomass conversions	17.11.2021	Bharathiar University, Coimbatore
107	Complexes of acylthiourea ligands - Interesting structures and efficient catalysis	10.11.2021	Madurai Kamaraj University, Madurai
108	1. Transition metal complexes of acylthiourea ligands - Interesting structures and efficient catalysis 2. Transition metal catalysts for sustainable biomass conversions	01.11.2021	North Eastern Hill University, Shillong
109	Transition metal-based catalysts for sustainable biomass conversions	15.03.2022	Kongunadu Arts and Science College, Coimbatore
110	Transition metal-based catalysts for sustainable biomass conversions	22.03.2022	Alagappa University, Karaikudi
111	Transition metal-based catalysts for sustainable biomass conversions	25.03.2022	Karpagam Academy of Higher Education, Coimbatore
112	Sustainable catalysis for biomass conversions	22.04.2022	Dr. Peter Pascal Regis Endowment Lecture, St. Joseph's College, Trichy
113	Sustainable catalysis for biomass conversions	27.05.2022	National College, Trichy
114	Fuels and combustion	25.07.2022	Kongu Engineering College, Perundurai

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19. Membership of Learned Societies:

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life member	Chemical Research Society of India	LM813
Life member	Catalysis Society of India	2006/5
Life member	Indian Science Congress Association	L13256
Life member	Indian Chemical Society	F/7441
Life member	Indian Council of Chemists	LF/1796

20. Academic Foreign Visits:

Country	Duration of Visit	Programme
South Korea	Nov 2002 – Nov 2003	Post-Doctoral Scientist
Austria	June 2007 – July 2007	Visiting Researcher under TEQIP grant
Japan	May 2009 – August 2009	Visiting Professor under STEC Fellowship
UK	May 2012 – June 2012	Visiting Professor under UKIERI Fellowship
Japan	May 2013 – August 2013	Visiting Professor under STEC Fellowship
France	July 2008	23 rd ICOMC – An international conference on organometallic chemistry
UK	August 2011	Europacat X – An international conference on catalysis

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21. Publications:

(A) Communications/Full Papers in Refereed Journals:

S.No.	Author(s)	Title of Paper	Journal	Vol. (No.)	Page (No.)	Year	Impact Factor
203.	D. P. Dorairaj, J. Haribabu, Y.-L. Chang, C. Echeverria, S. C. N. Hsu and R. Karvembu	Pd(II)-PPh ₃ complexes of halogen substituted acylthiourea ligands: Biomolecular interactions and <i>in vitro</i> anti-proliferative activity	Appl. Organometal. Chem.	36(8)	e6765	2022	4.072
202.	S. Swaminathan, J. Haribabu, M.K.M. Subarkhan, G. Manonmani, K. Senthilkumar, N. Balakrishnan, N. Bhuvanesh, C. Echeverria and R. Karvembu	Coordination Behaviour of acylthiourea ligands in their Ru(II)-Benzene complexes-structures and anticancer activity	Organometallics	41 (13)	1621-1630	2022	3.837
201.	Aswathi R. N. E., D. Sindhuja, N. Bhuvanesh and R. Karvembu	Synthesis of 1,2-disubstituted benzimidazoles via acceptorless dehydrogenative coupling using Ru(II)-arene catalysts containing ferrocene thiosemicarbazone	Eur. J. Inorg. Chem.	2022 (18)	e2022 00181	2022	2.551
200.	N. Balakrishnan, J. Haribabu, D. Mahendiran, S. Swaminathan and R. Karvembu	Impact of denticity of chromone/chromene thiosemicarbazones in the ruthenium(II)-DMSO complexes on their cytotoxicity against breast cancer cells	Appl. Organometal. Chem.	36(7)	e6750	2022	4.072
199.	D. P. Dorairaj, J. Haribabu, P. V. S. Shashankh, Y.-L. Chang, C. Echeverria, S. C. N. Hsu and R. Karvembu	Bidentate acylthiourea ligand anchored Pd-PPh ₃ complexes with biomolecular binding, cytotoxic, antioxidant and antihemolytic properties	J. Inorg. Biochem.	233	11843	2022	4.336

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198.	P. V. S. Sashankh, D. P. Dorairaj, J.-Y. Chen, Y.-L. Chang, K. Chand, R. Karvembu, C.-M. Chien and S. C. N. Hsu	Synthesis, in silico and in vitro studies of piperazinyl thiourea derivatives as apoptosis inducer for the treatment of colorectal carcinoma	J. Mol. Struct.	1262	133086	2022	3.841
197.	M. Mohanbabu, P. N. Sathishkumar, N. S. P. Bhuvanesh, R. Karvembu, K. Saravanan, E. Vinoth and S. Aravindhana	Synthesis, characterization, crystal structure, hirshfeld surface analysis and DFT calculations of N-(pyridin-2-ylmethyl)furan-2-carboxamide and its molecular docking	J. Mater. Sci. Mater. Electron.	33	9616–9628	2022	2.478
196.	J. R. Ramya, M. Jain, M. Mary Sheeba, K. Thanigaiarul, R. Karvembu, V. Srinivasan, V. Vaithiswaran, S. N. Kalkura and J. Venkataraman	Regional differences in bile acid composition in gallbladder bile	Gastroenterology, Hepatology and Endoscopy Practice	2(2)	47-50	2022	NA
195.	H. Rajasekaran, P. Jerome, E. V. Eliseenkov, V. P. Boyarskiy, N. Bhuvanesh and R. Karvembu	Half-sandwich Ru(II)-thioamide complexes as catalysts for one pot synthesis of aromatic 1,5-diketones	J. Organomet. Chem.	965-966	122322	2022	2.369
194.	B. Das, A. Ghosh, D. P. Dorairaj, M. Dolai, R. Karvembu, S. Mabhai, H. Im, S. Dey, A. Jana and A. Misra	Multiple ion (Al^{3+} , Cr^{3+} , Fe^{3+} , and Cu^{2+}) sensing using a cell-compatible rhodamine-phenolphthalein-derived Schiff-base probe	J. Mol. Liq.	354	118824	2022	6.165
193.	S. Vedachalam, P. Sekar, C. Nithya, N. Murugesha and R. Karvembu	Dopant-free main group elements supported covalent organic–inorganic hybrid conducting polymer for sodium-ion battery application	ACS Appl. Energy Mater.	5	557-566	2022	6.02

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192.	N. Balakrishnan, J. Haribabu, R. E. Malekshah, S. Swaminathan, C. Balachandran, N. Bhuvanesh, S. Aoki and R. Karvembu	Effect of N-benzyl group in indole scaffold of thiosemicarbazones on the biological activity of their Pd(II) complexes: DFT, biomolecular interactions, <i>in silico</i> docking, ADME and cytotoxicity studies	Inorg. Chim. Acta	534	12080 5	2022	2.545
191.	J. Haribabu, V. Garisetti, R. E. Malekshah, S. Srividya, D. Gayathri, N. Bhuvanesh, R. V. Mangalaraja, C. Echeverria and R. Karvembu	Design and synthesis of heterocyclic azole based bioactive compounds: Molecular structures, quantum simulation, and mechanistic studies through docking as multi-target inhibitors of SARS-CoV-2 and cytotoxicity	J. Mol. Struct.	1250	13178 2	2022	3.196
190.	M. Narwane, D. P. Dorairaj, Y.L. Chang, R. Karvembu, Y.H. Huang, H.W. Chang and S. C. N. Hsu	Tris-(2-pyridyl)-pyrazolyl borate zinc(II) complexes: Synthesis, DNA/protein binding and <i>in vitro</i> cytotoxicity studies	Molecules	26	7341	2021	4.412
189.	P. Vasanthakumar, D. Senthil Raja, D. Sindhuja, S. Swaminathan and R. Karvembu	Mixed-metal MOFs as efficient catalysts for transfer hydrogenation of furfural, levulinic acid and other carbonyl compounds	Mol. Catal.	516	11200 4	2021	5.062
188.	S. Swaminathan, J. Haribabu, M. K. M. Subarkhan, D. Gayathri, N. Balakrishnan, N. Bhuvanesh, C. Echeverria and R. Karvembu	Impact of aliphatic acyl and aromatic thioamide substituents on the anticancer activity of Ru(II)- <i>p</i> -cymene complexes with acylthiourea ligands - <i>In vitro</i> and <i>in vivo</i> studies	Dalton Trans.	50	16311- 16325	2021	4.390

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187.	J. Haribabu, N. Balakrishnan, S. Swaminathan, J. Peter, D. Gayathri, C. Echeverria, N. Bhuvanesh and R. Karvembu	Synthesis, cytotoxicity and docking studies (with SARS-CoV-2) of water-soluble binuclear Ru- <i>p</i> -cymene complex holding indole thiosemicarbazone ligand	Inorg. Chem. Commun.	134	109029	2021	2.495
186.	K. Gomathi, J. Haribabu, S. Saranya, D. Gayathri, K. Jeyalakshmi, S. Sendilvelan, C. Echeverria and R. Karvembu	Effective inhibition of insulin amyloid fibril aggregation by nickel(II) complexes containing heterocyclic thiosemicarbazones	Eur. Biophys. J.	50	109018	2021	1.733
185.	D. P. Dorairaj, J. Haribabu, Y.-L. Chang, S. C. N. Hsu, C. Echeverria, J. Echeverria and R. Karvembu	Effect of new Pd(II)-aroylthiourea complex on pancreatic cancer cells	Inorg. Chem. Commun.	134	109018	2021	2.495
184.	P. Sekar, N. Murugesu, R. Shanmugam, S. Senthil Kumar, S. Agnoli, N. Chandran, S. Vedachalam and R. Karvembu	Phosphazene-based covalent organic polymer decorated with NiCo ₂ O ₄ nanocuboids as a trifunctional electrocatalyst: A unique replacement for the conventional electrocatalysts	ACS Appl. Energy Mater.	4(9)	9341-9352	2021	6.02
183.	R. Pilliadugula, J. Haribabu, M. K. M. Subarkhan, C. Echeverria, R. Karvembu and N. Gopalakrishnan	Effect of morphology and (Sn, Cr) doping on in vitro antiproliferation properties of hydrothermally synthesized 1D GaOOH nanostructures	J. Sci.: Adv. Mater. Devices	6 (3)	351-363	2021	5.469
182.	D. P. Dorairaj, J. Haribabu, V. Chithravel, K. N. Vennila, N. Bhuvanesh, C. Echeverria, S. C. N. Hsu and R. Karvembu	Spectroscopic, anticancer and antioxidant studies of fluxional trans-[PdCl ₂ (S-acylthiourea) ₂] complexes	Results Chem. (Special issue on Inorganic Compounds of Biological Importance)	3	100157	2021	NA

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181.	D. P. Dorairaj, Y.-F. Lin, J. Haribabu, T. Murugan, M. Narwane, R. Karvembu, M. A. Neelakantan, C.-L. Kao, C.-C. Chiu and S. C. N. Hsu	Binding mode transformation and biological activity on the Ru(II)-DMSO complexes bearing heterocyclic pyrazolyl ligands	J. Inorg. Biochem.	223	11154 5	2021	4.155
180.	D. Sindhuja, M. Gopiraman, P. Vasanthakumar, N. Bhuvanesh and R. Karvembu	Ruthenium- <i>p</i> -cymene complexes with acylthiourea, and its heterogenized form on graphene oxide act as catalysts for the synthesis of quinoxaline derivatives	J. Organomet. Chem.	949	12193 3	2021	2.369
179.	P. Jerome, S. Ganesh Babu and R. Karvembu	Structural effect of pincer Pd(II)-ONO complexes modified with acylthiourea on sizes of the In situ generated Pd nanoparticles during Heck coupling reaction	Catal. Lett.	151 (6)	1633- 1645	2021	3.186
178.	M. Lavanya, J. Haribabu, K. Ramaiah, C. Suresh Yadav, R. K. Chitumalla, J. Jang, R. Karvembu, A. Varada Reddy and M. Jagadeesh	2'-Thiophenecarboxaldehyde derived thiosemicarbazone metal complexes of copper(II), palladium(II) and zinc(II) ions: Synthesis, spectroscopic characterization, anticancer activity and DNA binding studies	Inorg. Chim. Acta	524	12044 0	2021	2.545
177.	J. Haribabu, Y. Tamura, K. Yokoi, C. Balachandran, M. Umezawa, K. Tsuchiya, Y. Yamada, R. Karvembu and S. Aoki	Synthesis and anticancer properties of <i>bis</i> - and mono(cationic peptide) hybrids of cyclometalated iridium(III) complexes: Effect of the number of peptide units on anticancer activity	Eur. J. Inorg. Chem	2021 (18)	1796- 1814	2021	2.524

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176.	S. Swaminathan, J. Haribabu, N. K. Kalagatur, M. Nikhil, N. Balakrishnan, N. S. P. Bhuvanesh, K. Kadirvelu, P. Kolandaivel and R. Karvembu	Tunable anticancer activity of furoylthiourea-based RuII-arene complexes and their mechanism of action	Chem. Eur. J.	27 (26)	7418- 7433	2021	5.236
175.	J. Haribabu, O. I. Alajrawy, K. Jeyalakshmi, C. Balachandran, D. A. Krishnan, N. Bhuvanesh, S. Aoki, K. Natarajan and R. Karvembu	<i>N</i> -substitution in isatin thiosemicarbazones decides nuclearity of Cu(II) complexes- Spectroscopic, molecular docking and cytotoxic studies	Spectrochim. Acta Part A	246	11896 3	2021	4.098
174.	J. Haribabu, S. Srividya, D. Mahendiran, D. Gayathri, V. Venkatramu, N. Bhuvanesh and R. Karvembu	Synthesis of palladium(II) complexes <i>via</i> Michael addition: Antiproliferative effects through ROS-mediated mitochondrial apoptosis and docking with SARS- CoV-2	Inorg. Chem.	59 (23)	17109- 17122	2020	5.165
173.	N. Muruges, R. Karvembu and S. Vedachalam	A convenient synthesis of iguratimod-amine precursor <i>via</i> NHC-catalyzed aldehyde-nitrile cross coupling reaction	Chemistry Select	5(44)	13916- 13918	2020	2.109
172.	P. Vasanthakumar and R. Karvembu	Unmodified maghemite from river sand as a selective catalyst for base-free transfer hydrogenation of furfural, levulinic acid and <i>o</i> -vanillin: A pathway for sustainable biomass conversions	ACS Sustain. Chem. Eng	8(46)	17069- 17078	2020	8.198
171.	P. Jerome, J. Haribabu, N. S. P. Bhuvanesh and R. Karvembu	Pd(II)-NNN pincer complexes for catalyzing transfer hydrogenation of ketones	Chemistry Select	5(43)	13591- 13597	2020	2.109

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170.	J. K. Suyambulingam, R. Karvembu, N. S. P. Bhuvanesh, I. V. M. V. Enoch, P. M. Selvakumar, D. Premnath, C. Subramanian, P. Mayakrishnan, S.-H. Kim and I.-M. Chung	Synthesis, structure, biological/chemosensor evaluation and molecular docking studies of aminobenzothiazole Schiff bases	J. Adhes. Sci. Technol.	34 (23)	2590-2612	2020	2.077
169.	N. Muruges, R. Karvembu and S. Vedachalam	The base-induced regioselective radical arylation of 3-aminochromone with aryl hydrazine	Org. Biomol. Chem.	18	7884-7891	2020	3.876
168.	N. Balakrishnan, J. Haribabu, A. K. Dhanabalan, S. Swaminathan, S. Sun, D. F. Dibwe, N. Bhuvanesh, S. Awale and R. Karvembu	Thiosemicarbazone(s)-anchored water soluble mono- and bimetallic Cu(II) complexes: Enzyme like activities, biomolecular interactions, anticancer property and real-time live cytotoxicity	Dalton Trans.	49	9411-9424	2020	4.390
167.	J. Haribabu, S. Priyarega, N. S. P. Bhuvanesh and R. Karvembu	Synthesis and molecular structure of the zinc(II) complex bearing an N, S donor ligand	J. Struct. Chem.	61(1)	66-72	2020	1.071
166.	J. Haribabu, S. Srividya, R. Umaphathi, D. Gayathri, P. Venkatesu, N. Bhuvanesh and R. Karvembu	Enhanced anticancer activity of half-sandwich Ru(II)- <i>p</i> -cymene complex bearing heterocyclic hydrazone ligand	Inorg. Chem. Commun.	119	10805-4	2020	2.495
165.	P. Vasanthakumar, D. Sindhuja, D. Senthil Raja, C.-H. Lin and R. Karvembu	Iron and chromium MOFs as sustainable catalysts for transfer hydrogenation of carbonyl compounds and biomass conversions	New J. Chem.	44	8223-8231	2020	3.591

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164.	J. Haribabu, C. Balachandran, M. Muthu Tamizh, Y. Arun, N. S. P. Bhuvanesh, S. Aoki and R. Karvembu	Unprecedented formation of palladium(II)-pyrazole based thiourea from chromone thiosemicarbazone and [PdCl ₂ (PPh ₃) ₂]: Interaction with biomolecules and apoptosis through mitochondrial signaling pathway	J. Inorg. Biochem.	205	11098 8	2020	3.22
163.	P. N. Sathishkumar, P. Sachind Prabha, N. S. P. Bhuvanesh and R. Karvembu	Tuning acylthiourea ligands in Ru(II) catalysts for altering the reactivity and chemoselectivity of transfer hydrogenation reactions, and synthesis of 3-isopropoxy-1H-indole through a new synthetic approach	J. Organomet. Chem.	908	12108 7	2020	2.07
162.	D. Sindhuja, P. Vasanthakumar and R. Karvembu	Pd(II)-acylthiourea complex and its immobilized counterpart catalyzed condensation of phenylacetylene with aryl halides	Inorg. Chem. Commun.	112	10769 5	2020	1.80
161.	C.E. Satheesh, P. N. Sathish Kumar, P. Raghavendra Kumar, R. Karvembu, A. Hosamani and M. Nethaji	Half-sandwich Ru (II) complexes containing (N, O) Schiff base ligands: Catalysts for base-free transfer hydrogenation of ketones	Appl. Organometal. Chem.	33 (10)	E5111	2019	3.26
160.	A. Vignesh, C. Shalini, N. Dharmaraj, W. Kaminsky and R. Karvembu	Delineating the role of substituents on the coordination behavior of aroylhydrazone ligands in Pd(II) complexes and their influence on Suzuki-Miyaura coupling in aqueous media	Eur. J. Inorg. Chem.	2019 (34)	3869- 3882	2019	2.58

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159.	N. Muruges, J. Haribabu, K. Arumugam, C. Balachandran, R. Swaathy, S. Aoki, A. Sreekanth, R. Karvembu and S. Vedachalam	NHC-catalyzed green synthesis of functionalized chromones: DFT mechanistic insights and in vitro activities in cancer cells	New J. Chem.	43	13509-13525	2019	3.07
158.	R. Srinivasan, E. Elaiyappillai, H. Paul Pandian, R. Vengudusamy, P. M. Johnson, S. M. Chen and R. Karvembu	Sustainable porous activated carbon from Polyalthia longifolia seeds as electrode material for supercapacitor application	J. Electroanal. Chem.	849	11338-2	2019	3.22
157.	D. Sindhuja, P. Vasanthakumar, N. Bhuvanesh and R. Karvembu	Catalytic assessment of Copper(I) complexes and a polymer analog towards the one-pot synthesis of imines and quinoxalines	Eur. J. Inorg. Chem.	2019 (31)	3588-3596	2019	2.58
156.	S. Saranya, J. Haribabu, V. N. V. Palakkeezhillam, P. Jerome, K. Gomathi, K. Kameswara Rao, V. H. H. Surendra Babu, R. Karvembu and D. Gayathri	Molecular structures, Hirshfeld analysis and biological investigations of isatin based thiosemicarbazones	J. Mol. Struct.	1198	12690-4	2019	2.12
155.	S. Dharani, G. Kalaiarasi, D. Sindhuja, V. M. Lynch, R. Shankar, R. Karvembu and R. Prabhakaran	Tetranuclear palladacycles of 3-acetyl-7-methoxy-2H-chromen-2-one derived Schiff bases: Efficient catalysts for Suzuki–Miyaura coupling in an aqueous medium	Inorg. Chem.	58	8045-8055	2019	4.85
154.	M.P. Pachamuthu, V.V. Srinivasan, R. Karvembu and R. Luque	Preparation of mesoporous stannosilicates SnTUD-1 and catalytic activity in levulinic acid esterification	Microporous Mesoporous Mater.	287	159-166	2019	4.18

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153.	N. Balakrishnan, J. Haribabu, D.A. Krishnan, S. Swaminathan, D. Mahendiran, N.S.P. Bhuvanesh and R. Karvembu	Zinc(II) complexes of indole thiosemicarbazones: DNA/protein binding, molecular docking and in vitro cytotoxicity studies	Polyhedron	170	188- 201	2019	2.28
152.	S. Swaminathan, J. Haribabu, N.K. Kalagatur, R. Konakanchi, N. Balakrishnan, N. Bhuvanesh and R. Karvembu	Synthesis and anticancer activity of [RuCl ₂ (η ⁶ -arene)(aroylthi ourea)] complexes - High activity against the human neuroblastoma (IMR32) cancer cell line	ACS Omega	4	6245- 6256	2019	2.58
151.	A. Kalaiyarasi, J. Haribabu, D. Gayathri, K. Gomathi, N.S.P. Bhuvanesh, R. Karvembu and V.M. Biju	Chemosensing, molecular docking and antioxidant studies of 8- aminoquinoline appended acylthiourea derivatives	J. Mol. Struct.	1185	450- 460	2019	2.12
150.	Y.C. Huang, J. Haribabu, C.M. Chien, G. Sabapathi, C.K. Chou, R. Karvembu, P. Venuvanalingam, W.M. Ching, M.L. Tsai and S.C.N. Hsu	Half-sandwich Ru(η ⁶ - <i>p</i> - cymene) complexes featuring pyrazole appended ligands: Synthesis, DNA binding and in vitro cytotoxicity	J. Inorg. Biochem.	194	74-84	2019	3.06
149.	K. Jeyalakshmi, J. Haribabu, C. Balachandran, S. Swaminathan, N.S.P. Bhuvanesh and R. Karvembu	Coordination behavior of N,N',N''-trisubstituted guanidine ligands in their Ru-arene complexes: Synthetic, DNA/protein binding and cytotoxic studies	Organometal lics	38	753- 770	2019	4.05
148.	P. Jerome, S. Yasar Arafath, J. Haribabu, N.S.P. Bhuvanesh and R. Karvembu	Effect of 2- bromopyridine ancillary ligand in the catalysis of Pd(II)-NNN pincer complexes towards Suzuki-Miyaura cross- coupling reaction	Chemistry Select	4	2237- 2241	2019	1.50

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147.	K. Jeyalakshmi, J. Haribabu, C. Balachandran, E. Narmatha, N. S. P. Bhuvanesh, S. Aoki, S. Awale and R. Karvembu	Highly active copper(I) complexes of aroylthiourea ligands against cancer cells – Synthetic and biological studies	New J. Chem.	43	3188- 3198	2019	3.20
146.	K. Rathinakumar, M. Nagarajan, G. A. Pathanjali and R. Karvembu	Substitution of mercury with bismuth oxide in zinc electrode for alkaline silver-zinc battery	Adv. Sci. Eng. Med.	11	167– 171	2019	NA
145.	M. Mary Sheeba, M. Muthu Tamizh, N. S. P. Bhuvanesh and R. Karvembu	Water soluble Ru(II)– <i>p</i> -cymene complexes of chiral aroylthiourea ligands derived from unprotected D/L-alanine as proficient catalysts for asymmetric transfer hydrogenation of ketones	Appl. Organometal. Chem.	33(2)	e4667	2019	3.58
144.	K. Ramakrishnan, C. Nithya and R. Karvembu	Heterostructure of two different 2D materials based on MoS ₂ nanoflowers@rGO: An electrode material for sodium-ion capacitors	Nanoscale Adv.	1	334- 341	2019	
143.	K. Ramaiah, J. Prashanth, J. Haribabu, E. Srikanth, B. Venkatram Reddy, R. Karvembu and K. Laxma Reddy	Vibrational spectroscopic (FT-IR, FT-Raman), anti- inflammatory, docking and molecular characteristic studies of Ni(II) complex of 2- aminonicotinaldehyde using theoretical and experimental methods	J. Mol. Struct.	1175	769- 781	2019	2.01
142.	M. Mary Sheeba, N. S. P. Bhuvanesh and R. Karvembu	Piano-stool Ru(II)- benzene complexes bearing D/L-alanine derived chiral aroylthiourea ligands for asymmetric transfer hydrogenation of ketones in water	J. Chem. Sci.	130	163	2018	1.25

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141.	D. Sindhuja, P. Vasanthakumar, N. S. P. Bhuvanesh and R. Karvembu	An acylthiourea ligated Fe(II) complex on silica nanoparticles for transfer hydrogenation of carbonyl compounds	Ind. Eng. Chem. Res.	57 (43)	14386-14393	2018	3.14
140.	D. Babu, R. Karvembu and R. Anand	Impact of split injection strategy on combustion, performance and emissions characteristics of biodiesel fuelled common rail direct injection assisted diesel engine	Energy	165	577-592	2018	4.97
139.	P. N. Sathishkumar, N. Raveendran, N. S. P. Bhuvanesh and R. Karvembu	Chemoselective transfer hydrogenation of nitroarenes, ketones and aldehydes using acylthiourea based Ru(II)(<i>p</i> -cymene) complexes as precatalysts	J. Organomet. Chem.	876	57-65	2018	1.95
138.	R. R. Jayapalan, J. Venkataraman, M. Jain, V. Srinivasan, S. Sarika, B. Mohana, M. Mary Sheeba, K. Thanigaiarul, V. R. Vaithiswaran, R. Karvembu, M. Sharma, N. Kalkura	Regional differences in gall bladder bile acid composition in patients with gallstones	J. Clin. Exp. Hematol.	8 (S1)	S104	2018	NA
137.	G. Rohini, J. Haribabu, K. N. Anees Rahman, N. S. P. Bhuvanesh, K. Ramaiah, R. Karvembu and A. Sreekanth	Half-sandwich Ru(II)(η^6 - <i>p</i> -cymene) complexes bearing N-dibenzosuberonyl appended thiourea for catalytic transfer hydrogenation and in vitro anticancer activity	Polyhedron	152	147-154	2018	2.06
136.	J. Haribabu, M. Muthu Tamizh, C. Balachandran, Y. Arun, N. S. P. Bhuvanesh, A. Endo and R. Karvembu	Synthesis, structures and mechanistic pathways of anticancer activity of palladium(II) complexes with indole-3-carbaldehyde thiosemicarbazones	New J. Chem.	42	10818-10832	2018	3.20

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135.	R. Konakanchi, J. Haribabu, J. Prashanth, V. B. Nishtala, R. Mallela, S. Manchala, D. Gandamalla, R. Karvembu, B. V. Reddy, N. R. Yellu and L. R. Kotha	Synthesis, structural, biological evaluation, molecular docking and DFT studies of Co(II), Ni(II), Cu(II), Zn(II), Cd(II) and Hg(II) complexes bearing heterocyclic thiosemicarbazone ligand	Appl. Organometal. Chem.	32	e4415	2018	3.58
134.	J. Haribabu, G. Sabapathi, M. Muthu Tamizh, C. Balachandran, N. S. P. Bhuvanesh, P. Venuvanalingam, and R. Karvembu	Water-soluble mono- and binuclear Ru(η^6 - <i>p</i> -cymene) complexes containing indole thiosemicarbazones: Synthesis, DFT modeling, biomolecular interactions, and <i>in vitro</i> anticancer activity through apoptosis	Organometallics	37(8)	1242-1257	2018	4.18
133.	S. Ganesamoorthy, M. Muthu Tamizh, K. Shanmugasundaram and R. Karvembu	A sustainable heterogenized palladium catalyst for Suzuki cross coupling reaction of azaheteroaryl halides in aqueous media	J. Organomet. Chem.	862	76-85	2018	2.18
132.	C. Balachandran, J. Haribabu, K. Jeyalakshmi, N. S. P. Bhuvanesh, R. Karvembu, N. Emi and S. Awale	Nickel(II) bis(isatin thiosemicarbazone) complexes induced apoptosis through mitochondrial signaling pathway and G0/G1 cell cycle arrest in IM-9 cells	J. Inorg. Biochem.	182	208-221	2018	3.35
131.	R Kiruthiga, C. Nithya and R Karvembu	High performance sodium ion capacitor based on MoO ₂ @rGO nano composite and goat hair derived carbon electrodes	ACS Appl. Energy Mater.	1(2)	841-850	2018	
130.	S. Vedachalam, N. Murugesh, P. Chakraborty, R. Karvembu and X.W. Liu	NHC catalyzed enantioselective Coates-Claisen rearrangement: A rapid access to the dihydropyran core for oleuropein based secoiridoids	New J. Chem.	42(3)	1832-1839	2018	3.26

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129.	V. Vijayabala, N. Senthilkumar, K. Nehru and R. Karvembu	Hydrothermal synthesis and characterization of ruthenium oxide nanosheets using polymer additive for supercapacitor applications	J. Mater. Sci. Mater. Electron.	29(1)	323-330	2018	2.02
128.	G. Rohini, J. Haribabu, M. Mary Sheeba, K. N. Anees Rahman, N. S. P. Bhuvanesh, C. Balachandran, R. Karvembu and A. Sreekanth	Ruthenium(II)- η^6 -benzene complexes of dibenzosuberonyl appended aroyl/acylthiourea ligands: In vitro biomolecular interaction studies and catalytic transfer hydrogenation	Chemistry Select	3(1)	12077-12087	2018	2.3
127.	M. Lavanya, M. Jagadeesh, J. Haribabu, R. Karvembu, H. K. Rashmi, P. Uma Maheshwari Devi and A. Varada Reddy	Synthesis, crystal structure, DNA binding and antitumour studies of β -diketonate complexes of divalent copper, zinc and palladium	Inorg. Chim. Acta	469	76-86	2018	2.0
126.	J. Haribabu, D.S. Ranade, N.S.P. Bhuvanesh, P.P. Kulkarni and R. Karvembu	Ru(II)-p-cymene thiosemicarbazone complexes as inhibitors of amyloid β ($A\beta$) peptide aggregation and $A\beta$ -induced cytotoxicity	Chemistry Select	2(35)	11638-11644	2017	2.3
125.	R. Kiruthiga, C. Nithya, R. Karvembu and B. Venkata Rami Reddy	Reduced graphene oxide embedded V_2O_5 nanorods and porous honey carbon as high performance electrodes for hybrid sodium-ion supercapacitors	Electrochim. Acta	256	221-231	2017	4.8
124.	S. Ganesh Babu, E. Balakumar, P. Jerome and R. Karvembu	Pd/AIO(OH): A heterogeneous, never-leaching and recyclable catalyst for Buchwald-Hartwig cross coupling under ligand-free aerobic condition	Catal. Lett.	147	2619-2629	2017	2.8

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123.	K. N. Anees Rahman, J. Haribabu, C. Balachandran, N. S. P. Bhuvanesh, R. Karvembu and A. Sreekanth	Copper, nickel and zinc complexes of 3-acetyl coumarin thiosemicarbazone: Synthesis, characterization and in vitro evaluation of cytotoxicity and DNA/protein binding properties	Polyhedron	135	26-35	2017	1.93
122.	P. Jerome, P. N. Sathishkumar, N. S. P. Bhuvanesh and R. Karvembu	Towards phosphine-free Pd(II) pincer complexes for catalyzing Suzuki-Miyaura cross coupling reaction in aqueous medium	J. Organomet. Chem.	845	115-124	2017	2.18
121.	M. Muralisankar, S.M. Basheer, J. Haribabu, N.S.P. Bhuvanesh, R. Karvembu and A. Sreekanth	An investigation on the DNA/protein binding, DNA cleavage and in vitro anticancer properties of SNO pincer type palladium(II) complexes with N-substituted isatin thiosemicarbazone ligands	Inorg. Chim. Acta	466	61-70	2017	2.0
120.	S. M. Basheer, J. Haribabu, N. S. P. Bhuvanesh, R. Karvembu and A. Sreekanth	Naphthalenyl appended semicarbazone as colorimetric and "turn on" fluorescent chemosensor for selective recognition of fluoride ion	J. Mol. Struct.	1145	347-355	2017	1.75
119.	G. R. Subhashree, J. Haribabu, S. Saranya, P. Yuvaraj, D. Anantha Krishnan, R. Karvembu and D. Gayathri	<i>In vitro</i> antioxidant, anti-inflammatory and in silico molecular docking studies of thiosemicarbazones	J. Mol. Struct.	1145	160-169	2017	1.75
118.	K. Jeyalakshmi, J. Haribabu, C. Balachandran, N.S.P. Bhuvanesh, N. Emi and R. Karvembu	Synthesis of Ru(II)-benzene complexes containing aroylthiourea ligand, and their binding with biomolecules and in vitro cytotoxicity through apoptosis	New J. Chem.	41(7)	2672-2686	2017	3.26

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117.	M. Gopiraman, D. Deng, K.Q. Zhang, W. Kai, I.-M. Chung, R. Karvembu and I.S. Kim	Utilization of human hair as a synergistic support for Ag, Au, Cu, Ni and Ru nanoparticles: Application in catalysis	Ind. Eng. Chem. Res.	56(8)	1926- 1939	2017	2.58
116.	M. Mary Sheeba, M. Muthu Tamizh, L.J. Farrugia and 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	45-49	2017	2.18
115.	N. Gunasekaran, N.S.P. Bhuvanesh and R. Karvembu	Synthesis, characterization and catalytic oxidation property of copper(I) complexes containing monodentate acylthiourea ligands and triphenylphosphine	Polyhedron	122	39-45	2017	2.10
114.	S. JoneKirubavathy, R. Velmurugan, R. Karvembu, N.S.P. Bhuvanesh, I.V.M.V. Enoch, P.M. Selvakumar, D. Premnath and S. Chitra	Structural and molecular docking studies of biologically active mercaptopyrimidine Schiff bases	J. Mol. Struct.	1127	345- 354	2017	1.78
113.	J. Haribabu, K. Jeyalakshmi, Y. Arun, N.S.P. Bhuvanesh, P.T. Perumal and R. Karvembu	Synthesis of Ni(II) complexes bearing indole based thiosemicarbazone ligands for interaction with biomolecules and some biological applications	J. Biol. Inorg. Chem.	22(4)	461- 480	2017	2.89
112.	S. J. Kirubavathy, R. Velmurugan, R. Karvembu, N.S.P. Bhuvanesh, I.V.M.V. Enoch, P.M. Selvakumar and S. Chitra	Co(II) complex of 2- amino-6- methylbenzothiazole: Synthesis, structure and biological evaluation	Indian J. Chem.	55A	1297- 1304	2016	0.79

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111.	G. Kausalya, N. Manjubaashini, P. Jerome, R. Karvembu and T.D. Thangadurai	Single crystal cupric oxide nanoflakes with {111} facets for Pb ²⁺ ion adsorption and methylene blue dye decolorization	Mater. Lett.	185	218-221	2016	2.43
110.	S. JoneKirubavathy, R. Velmurugan, B. Tamilarasan, R. Karvembu, N. S. P. Bhuvanesh and S. Chitra	Synthesis, characterization, single crystal XRD and biological evaluation of nickel(II) salen sulphadiazine complex	Synth. React. Inorg. Met.- Org Nano Met. Chem.	46 (12)	1751-1758	2016	0.49
109.	K. Jeyalakshmi, J. Haribabu, N.S.P. Bhuvanesh and R. Karvembu	Half-sandwich RuCl ₂ (η ⁶ - <i>p</i> -cymene) core complexes containing sulfur donor aroylthiourea ligand: DNA and protein binding, DNA cleavage and cytotoxic studies	Dalton Trans.	45	12518-12531	2016	4.17
108.	M. Mary Sheeba, M. Muthu Tamizh, S. Ganesh Babu, N.S.P. Bhuvanesh and R. Karvembu	Ru(II)- <i>p</i> -cymene complexes containing ester of chiral D/L-phenylalanine derived aroylthiourea ligands for enantioselective reduction of pro-chiral ketones	RSC Advances	6(72)	68494-68503	2016	3.28
107.	N. Selvakumaran, L. Sandhiya, N.S.P. Bhuvanesh, K. Senthilkumar and R. Karvembu	Structural diversity in aroylthiourea copper complexes - Formation and biological evaluation of [Cu(I)(μ-S)SCI] ₂ , <i>cis</i> -Cu(II)S ₂ O ₂ , <i>trans</i> -Cu(II)S ₂ O ₂ and Cu(I)S ₃ cores	New J. Chem.	40(6)	5401-5413	2016	3.27
106.	M. Muralisankar, J. Haribabu, N.S.P. Bhuvanesh, R. Karvembu and A. Sreekanth	Synthesis, X-ray crystal structure, DNA/protein binding, DNA cleavage and cytotoxicity studies of thiosemicarbazone based copper(II)/nickel(II) complexes	Inorg. Chim. Acta	449	82-95	2016	1.91

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105.	S. G. Babu, M. Gopiraman, K. Wei, R. Karvembu and I.S. Kim	Robust Au-Ag/graphene bimetallic nanocatalyst for multifunctional activity with high synergism	Chem. Eng. J.	300	146-159	2016	5.31
104.	P. Jerome, N.S.P. Bhuvanesh and R. Karvembu	Synthesis and crystal structure of a trinuclear nickel(II) ONO pincer complex, Ni(pydc) ₂ [Ni(H ₂ O) ₅].2 H ₂ O. 2(C ₆ H ₁₅ N)	J. Struct. Chem.	57(3)	546-551	2016	0.53
103.	P.Emayavaramban, S. Ganesh Babu, R. Karvembu, K. Kadirvelu and N. Dharmaraj	Gold nanoparticles supported on magnesium oxide nanorods for oxidation of alcohols	J. Nanosci. Nanotechnol.	16	2517-2526	2016	1.33
102.	J. Haribabu, G. R. Subhashree, S. Saranya, K. Gomathi, R. Karvembu and D. Gayathri	Isatin based thiosemicarbazone derivatives as potential bioactive agents: Anti-oxidant and molecular docking studies	J. Mol. Struct.	1110	185-195	2016	1.78
101.	P. Jerome, G. Kausalya, T.D. Thangadurai and R. Karvembu	Green synthesis of CuO nanoflakes from copper pincer complex for effective <i>N</i> -arylation of benzimidazole	Catal. Commun.	75	50-54	2016	3.38
100.	R. Sivakami, S. Dhanuskodi and R. Karvembu	Estimation of lattice strain in nanocrystalline RuO ₂ by Williamson-Hall and size-strain plot methods	Spectrochim. Acta Part A	152(1)	43-50	2016	2.65
99.	R. Sivakami, S. Dhanuskodi, S. Ganesh Babu and R. Karvembu	Copper supported on lepidocrocite: A highly active magnetically separable nanocatalyst for <i>N</i> -arylation of imidazole	RSC Advances	5(12)	8571-8578	2015	3.28
98.	S. J.Kirubavathy, R. Velmurugan, R. Karvembu, N.S.P. Bhuvanesh, K. Parameswari and S. Chitra	Synthesis, structure and pharmacological evaluation of Co(III) complex containing tridentate Schiff base ligand	Russ. J. Coord. Chem.	41(5)	345-352	2015	0.51

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97.	J. Haribabu, G.R.Subhashree, S.Saranya, K. Gomathi, R. Karvembu and D. Gayathri	Synthesis, crystal structure, <i>in vitro</i> and <i>in silico</i> molecular characterization of novel acyl thiourea derivatives	J. Mol. Struct.	1094	281-291	2015	1.78
96.	J. Haribabu, K.Jeyalakshmi, Y. Arun, N.S.P. Bhuvanesh, P.T.Perumal and R. Karvembu	Synthesis, DNA/protein binding, molecular docking, DNA cleavage and <i>in vitro</i> anticancer activity of nickel(II) bis(thiosemicarbazone) complexes	RSC Advances	5(57)	46031-46049	2015	3.28
95.	M. Gopiraman, S. Ganesh Babu, Z.Khatri, B.-S. Kim, K.Wei, R.Karvembu and I.S. Kim	Photodegradation of dyes by TiO ₂ /RuO ₂ /GNS nanocatalyst derived from Ru/GNS after its use as catalyst in aerial oxidation of primary alcohols (GNS = graphene nanosheets)	React. Kinet. Mech. Catal.	115(2)	759-772	2015	1.26
94.	K. Jeyalakshmi, N.S.P. Bhuvanesh, Y. Arun, P.T. Perumal, A. Sreekanth and R. Karvembu	DNA/protein binding, DNA cleavage, cytotoxicity, superoxide radical scavenging and molecular docking studies of copper(II) complexes containing N-benzyl- <i>N'</i> -aryl- <i>N'</i> -benzoylguanidine ligands	Inorg. Chem. Front.	2(8)	780-798	2015	4.53
93.	M. Gopiraman, G. Yuan, C. Yin, K.-H. Song, J.S. Lee, R. Karvembu and I.S. Kim	Noble metal / functional cellulose nanofiber composites for catalytic applications	Carbohydr. Polym.	132	554-564	2015	4.21
92.	P. Emayavaramban, S. Ganesh Babu, R. Karvembu and N. Dharmaraj	Recyclable mesoporous ceria supported gold nanoparticles based catalyst for <i>O</i> -arylation of phenols	J. Nanosci. Nanotechnol.	15(12)	9358-9368	2015	1.33

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91.	M.Mary Sheeba, S. Preethi, A. Nijamudheen, M. Muthu Tamizh, A. Datta, L.J. Farugia and R. Karvembu	Half-sandwich Ru(η^6 -C ₆ H ₆) complexes with chiral aroylthioureas for enhanced asymmetric transfer hydrogenation of ketones - Experimental and theoretical studies	Catal. Sci. Technol.	5(10)	4790-4799	2015	5.28
90.	M. Gopiraman, D. Deng, S.G. Babu, T. Hayashi, R. Karvembu and I.S. Kim	Sustainable and versatile CuO/GNS nanocatalyst for highly efficient base free coupling reactions	ACS Sustain. Chem. Eng.	3(10)	2478-2488	2015	5.26
89.	M. Mary Sheeba, M. Muthu Tamizh, L. Farrugia, A. Endo and R. Karvembu	Chiral (η^6 - <i>p</i> -cymene) ruthenium(II) complexes containing monodentate acylthiourea ligands for efficient asymmetric transfer hydrogenation of ketones	Organometallics	33(2)	540-550	2014	4.18
88.	P. Emayavaramban, S. Ganesh Babu, R. Karvembu and N. Dharmaraj	Nickel oxide doped hydroxyapatite for catalytic oxidation of alcohols to carbonyl compounds at room temperature	Adv. Sci. Eng. Med.	6(6)	659-666	2014	1.40
87.	N. Selvakumaran, N.S.P. Bhuvanesh, A. Endo and R. Karvembu	Synthesis, structure, DNA and protein binding studies and cytotoxic activity of nickel(II) complexes containing 3,3-dialkyl/aryl-1-(2,4-dichlorobenzoyl)thiourea ligands	Polyhedron	75	95-109	2014	2.10
86.	K. Jeyalakshmi, N. Selvakumaran, N.S.P. Bhuvanesh, A. Sreekanth and R. Karvembu	DNA/protein binding and cytotoxicity studies of copper(II) complexes containing <i>N, N', N''</i> -trisubstituted guanidine ligands	RSC Advances	4(33)	17179-17195	2014	3.28
85.	M. Gopiraman, H. Bang, S. Ganesh Babu, K. Wei, R. Karvembu and I.S. Kim	Catalytic <i>N</i> -oxidation of tertiary amines on RuO ₂ NPs anchored graphene nanoplatelets	Catal. Sci. Technol.	4(7)	2099-2106	2014	5.42

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84.	M. Gopiraman, R. Karvembu and I.S. Kim	Highly active, selective and reusable RuO ₂ /SWCNT catalyst for Heck olefination of aryl halides	ACS Catal.	4(7)	2118-2129	2014	9.30
83.	S. Ganesamoorthy, P. Jerome, K. Shanmugasundaram and R. Karvembu	Highly efficient homogeneous and heterogenized ruthenium catalysts for transfer hydrogenation of carbonyl compounds	RSC Advances	4(53)	27955-27962	2014	3.28
82.	S. Ganesh Babu, S. Krishnamoorthi, R. Thiruneelakandan and R. Karvembu	V ₂ O ₅ anchored RuO ₂ – An efficient, reusable and heterogeneous nanocatalyst for aerial oxidation of alcohols	Catal. Lett.	144 (7)	1245-1252	2014	2.30
81.	M. Gopiraman, S. Ganesh Babu, R. Karvembu and I.S. Kim	Nanostructured RuO ₂ on MWCNTs: Efficient catalyst for transfer hydrogenation of carbonyl compounds and aerial oxidation of alcohols	Appl. Catal. A: Gen.	484	84-96	2014	4.01
80.	N. Selvakumaran, N.S.P. Bhuvanesh and R. Karvembu	Self-assembled Cu(II) and Ni(II) metallamacrocycles formed from 3,3,3',3'-tetrabenzyl-1,1'-aroylbis(thiourea) ligands: DNA and protein binding studies, and cytotoxicity of trinuclear complexes	Dalton Trans.	43(43)	16395-16410	2014	4.17
79.	S. Ganesh Babu, R. Sakthivel, N. Dharmaraj and R. Karvembu	α -Arylation of β -diketones with aryl halides catalyzed by CuO on aluminosilicate	Tetrahedron Lett.	55 (50)	6873-6877	2014	2.34
78.	M. Muthu Tamizh, B.F.T. Cooper, C.L.B. Macdonald and R. Karvembu	Palladium(II) complexes with salicylideneimine based tridentate ligand and triphenylphosphine: Synthesis, structure and catalytic activity in Suzuki-Miyaura cross coupling reaction	Inorg. Chim. Acta	394 (1)	391-400	2013	1.91

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77.	M. Muthu Tamizh, K. Senthilkumar, B.F.T. Cooper, C.L.B. Macdonald and R. Karvembu	Theoretical and experimental studies on the structures and spectroscopic properties of Ni(II) complexes of the type [Ni(L)(PPh ₃)] [H ₂ L = 5-methyl- <i>N</i> -(2-mercaptophenyl) salicylideneimine and 5-chloro- <i>N</i> -(2-mercaptophenyl) salicylideneimine]	J. Mol. Struct.	1037	367-375	2013	1.78
76.	S. Ganesh Babu and R. Karvembu	Room temperature Ullman type C–O and C–S cross coupling of aryl halides with phenol/thiophenol catalyzed by CuO nanoparticles	Tetrahedron Lett.	54 (13)	1677-1680	2013	2.34
75.	S. Ganesamoorthy, K. Shanmugasundaram and R. Karvembu	Remarkable catalytic activity of [PdCl ₂ (CH ₃ CN) ₂] in Suzuki-Miyaura cross coupling reaction in aqueous media under mild conditions	J. Mol. Catal. A: Chem.	371	118-124	2013	3.95
74.	N. Neelakandeswari, R. Karvembu and N. Dharmaraj	Mesoporous nickel-aluminosilicate nanocomposite: A solid acid catalyst for ether synthesis	J. Nanosci. Nanotechnol.	13	2853-2863	2013	1.33
73.	M. Gopiraman, S. Ganesh Babu, Z. Khatri, K. Wei, R. Karvembu and I.S. Kim	Facile and homogeneous decoration of RuO ₂ nanorods on graphene nanoplates for transfer hydrogenation of carbonyl compounds	Catal. Sci. Technol.	3(6)	1485-1489	2013	5.42
72.	S. Ganesh Babu, N. Neelakandeswari, N. Dharmaraj, S. David Jackson and R. Karvembu	Copper(II) oxide on aluminosilicate mediated Heck coupling of styrene with aryl halides in water	RSC Advances	3(21)	7774-7781	2013	3.28

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71.	N. Selvakumaran, A. Pratheepkumar, S.W. Ng, E.R.T. Tiekink and R. Karvembu	Synthesis, structural characterization and cytotoxicity of nickel(II) complexes containing 3,3-dialkyl/aryl-1- benzoylthiourea ligands	Inorg. Chim. Acta	404 (1)	82-87	2013	1.91
70.	M. Gopiraman, S. Ganesh Babu, Z. Khatri, W. Kai, Y.A. Kim, M. Endo, R. Karvembu and I.S. Kim	An efficient, reusable copper-oxide/carbon- nanotube catalyst for <i>N</i> - arylation of imidazole	Carbon	62	135- 148	2013	6.19
69.	M. Gopiraman, S. Ganesh Babu, Z. Khatri, W. Kai, Y.A. Kim, M. Endo, R. Karvembu and I.S. Kim	Dry synthesis of easily tunable nano ruthenium supported on graphene - Novel nanocatalysts for aerial oxidation of alcohols and transfer hydrogenation of ketones	J. Phys. Chem. C	117 (45)	23582- 23596	2013	4.50
68.	S. Ganesamoorthy, M.Muthu Tamizh, K.Shanmugasundara m and R. Karvembu	Immobilization of Ru(III) complex on silica: A heterogeneous catalyst for oxidation of alcohols in water at room temperature	Tetrahedron Lett.	54 (51)	7035- 7039	2013	2.34
67.	M. Muthu Tamizh, D. Kesavan, P.M. Sivakumar, K. Mereiter, M. Deepa, K. Kirchner, M. Doble and R. Karvembu	Antibacterial activities of 4-substituted-2-[(<i>E</i>)- {[(<i>1S,2R</i>)/(<i>1R,2S</i>)-1- hydroxy-1-phenylpropan- 2-ylimino}methyl]phenol	Chem. Biol. Drug Des.	79(2)	177- 185	2012	2.80
66.	M. Gopiraman, N. Selvakumaran, D. Kesavan and R. Karvembu	Adsorption and corrosion inhibition behavior of <i>N</i> - (phenylcarbamoithiyl) benzamide on mild steel in acidic medium	Prog. Org. Coat.	73(1)	104- 111	2012	2.63
65.	J. Karuppiah, R. Karvembu and Ch. Subrahmanyam	The catalytic effect of MnO _x and CoO _x on the decomposition of nitrobenzene in a non- thermal plasma reactor	Chem. Eng. J.	180	39-45	2012	5.31

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64.	N. Gunasekaran, P. Jerome, S.W. Ng, E.R.T. Tiekink and R. Karvembu	Tris-chelate complexes of cobalt(III) with N- [di(alkyl/aryl)carbamothio oyl] benzamide derivatives: Synthesis, crystallography and catalytic activity in TBHP oxidation of alcohols	J. Mol. Catal. A: Chem.	353- 354	156- 162	2012	3.95
63.	N. Neelakandeswari, G. Sangami, P. Emayavaramban, S. Ganesh Babu, R. Karvembu and N. Dharmaraj	Preparation and characteriz of nickel aluminosilicate nanocomposites for transfe hydrogenation of carbonyl compounds	J. Mol. Catal. A: Chem.	356	90-99	2012	3.95
62.	N. Gunasekaran, S.W. Ng, E.R.T. Tiekink and R. Karvembu	Hypodentate coordination of N- [(dibenzyl/methylpentyl) carbamothioyl] benzamide in Cu(I) complexes	Polyhedron	34(1)	41-45	2012	2.10
61.	M. Muthu Tamizh, K. Mereiter, K. Kirchner and R. Karvembu	Ruthenium(II) carbonyl complexes containing 'pincer like' ONS donor Schiff base and triphenylphosphine as catalyst for selective oxidation of alcohols at room temperature	J. Organomet. Chem.	700	194- 201	2012	2.33
60.	S. Priyarega, D. Senthil Raja, S. Ganesh Babu, R. Karvembu, T. Hashimoto, A. Endo and K. Natarajan	Novel binuclear palladium(II) complexes of 2-oxo-quinoline-3- carbaldehyde Schiff bases: Synthesis, structure and catalytic applications	Polyhedron	34(1)	143- 148	2012	2.10
59.	S. Priyarega, M. Muthu Tamizh, S. Ganesh Babu, R. Karvembu and K. Natarajan	Copper(II) complexes with ONS donor ligand and triphenylphosphine: Synthesis, characterization and catalytic applications	Indian J. Chem.	51A	453- 457	2012	0.79

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58.	R. Prabhakaran, P. Kalaivani, S.V. Renukadevi, R. Huang, K. Senthilkumar, R. Karvembu and K. Natarajan	Copper ion mediated selective cleavage of C–S bond in ferrocenylthiosemicarbazone forming mixed geometrical [(PPh ₃)Cu(μ-S) ₂ Cu(PPh ₃) ₂] having Cu ₂ S ₂ core: Toward a new avenue in copper-sulfur chemistry	Inorg. Chem.	51(6)	3525-3532	2012	4.82
57.	N. Neelakandeswari, G. Sangami, P. Emayavaramban, R. Karvembu, N. Dharmaraj and H.Y. Kim	Mesoporous nickel hydroxyapatite nanocomposite for microwave-assisted Henry reaction	Tetrahedron Lett.	53 (24)	2980-2984	2012	2.34
56.	M. Gopiraman, N. Selvakumaran, D. Kesavan and R. Karvembu	Chemical and physical interactions of 1-benzoyl-3,3-disubstituted thiourea derivatives on mild steel surface – Corrosion inhibition in acidic medium	Ind. Eng. Chem. Res.	51 (23)	7910-7922	2012	2.58
55.	S. Ganesh Babu, B. Thomas, A. Nijamudeen, A. Datta and R. Karvembu	Cu/Al(O)OH-Catalyzed formation of β-enamino ketones and esters under solvent, ligand and base free conditions - Experimental and computational studies	Catal. Sci. Technol.	2(9)	1872-1878	2012	5.42
54.	J. Karuppiah, L. Sivachandiran, R. Karvembu and Ch. Subrahmanyam	Nonthermal plasma assisted photocatalytic oxidation of dilute benzene	J. Chem. Sci.	124 (4)	841-845	2012	1.29
53.	D. Kesavan, M. Muthu Tamizh, M. Gopiraman, N. Sulochana and R. Karvembu	Physicochemical studies of 4-substituted <i>N</i> -(2-mercaptophenyl)-salicylideneimines: Corrosion inhibition of mild steel in acid medium	J. Surfact. Deterg.	15(5)	567-576	2012	1.85

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52.	M. Muthu Tamizh and R. Karvembu	Synthesis of triethylphosphite complexes of Ni(II) and Pd(II) with tridentate Schiff base ligand for catalytic application in carbon-carbon coupling reactions	Inorg. Chem. Commun.	25(1)	30-34	2012	1.76
51.	J. Karuppiah, E. Linga Reddy, P. M. Kumar Reddy, B. Ramaraju, R. Karvembu and Ch. Subrahmanyam	Abatement of mixture of volatile organic compounds (VOCs) in a catalytic nonthermal plasma reactor	J. Hazard. Mat.	237-238 (1)	283-289	2012	4.83
50.	D. Kesavan, M. Muthu Tamizh, N. Sulochana and R. Karvembu	2-[(E)-{(1S,2R)-1-Hydroxy-1-phenylpropan-2-ylimino}methyl]phenol for inhibition of acid corrosion of AISI 1010 steel	J. Surfact. Deterg.	15(6)	751-756	2012	1.85
49.	S. Ganesh Babu, P. Aruna Priyadarsini and R. Karvembu	Copper on boehmite: A simple, selective, efficient and reusable heterogeneous catalyst for aerobic oxidation of alcohols with periodic acid in water at room temperature	Applied Catal. A: Gen.	392 (1-2)	218-224	2011	4.01
48.	R. Prabhakaran, S. Anantharaman, M. Thilagavathi, M.V. Kaveri, P. Kalaivani, R. Karvembu, N. Dharmaraj, H. Bertagnolli, F. Dallemer and K. Natarajan	Preparation, spectroscopy, EXAFS, electrochemistry and pharmacology of new ruthenium(II) carbonyl complexes containing ferrocenylthiosemicarbazone and triphenylphosphine / arsine	Spectrochim. Acta Part A	78(2)	844-853	2011	2.65
47.	N. Gunasekaran, N. Remya, S. Radhakrishnan and R. Karvembu	Ruthenium(II) carbonyl complexes with <i>N</i> -[di(alkyl/aryl)carbamothioyl] benzamide derivatives and triphenylphosphine as effective catalysts for oxidation of alcohols	J. Coord. Chem.	64(3)	491-501	2011	1.7

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46.	J. Karuppiah, L. Sivachandiran, R. Karvembu and Ch. Subrahmanyam	Catalytic plasma reactor for abatement of dilute nitrobenzene	Chin. J. Catal.	32(5)	795- 799	2011	2.62
45.	S. Priyarega, M. Muthu Tamizh, R. Karvembu, R. Prabhakaran and K. Natarajan	Synthesis, spectroscopic characterization and catalytic oxidation properties of ONO / ONS donor Schiff base ruthenium(III) complexes containing PPh ₃ / AsPh ₃	J. Chem. Sci.	123 (3)	319- 325	2011	1.08
44.	G. R. Kannan, R. Karvembu and R. Anand	Effect of metal based additive on performance emission and combustion characteristics of diesel engine fuelled with biodiesel	Applied Energy	88 (11)	3694- 3703	2011	5.74
43.	R. Prabhakaran, R. Sivasamy, J. Angayarkanni, R. Huang, P. Kalaivani, R. Karvembu, F. Dallemer and K.Natarajan	Topoisomerase II inhibition activity of new square planar Ni(II) complexes containing <i>N</i> - substituted thiosemicarbazones: Synthesis, spectroscopy, X-ray crystallography and electrochemical characterization	Inorg. Chim. Acta	374 (1)	647- 653	2011	1.91
42.	S. Ganesh Babu and R. Karvembu	CuO Nanoparticles: A simple, effective, ligand free and reusable heterogeneous catalyst for <i>N</i> -arylation of benzimidazole	Ind. Eng. Chem. Res.	50 (16)	9594- 9600	2011	2.58
41.	N. Selvakumaran, S.W. Ng, E.R.T. Tiekink and R. Karvembu	Versatile coordination behavior of <i>N,N</i> - di(alkyl/aryl)- <i>N'</i> - benzoylthiourea ligands: Synthesis, crystal structure and cytotoxicity of palladium(II) complexes	Inorg. Chim. Acta	376 (1)	278- 284	2011	1.91

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40.	N. Gunasekaran, P. Ramesh, M.N. Ponnusamy and R. Karvembu	Monodentate coordination of <i>N</i> -[di(phenyl/ethyl)carbamothioyl]benzamide ligands: Synthesis, crystal structure and catalytic oxidation property of Cu(I) complexes	Dalton Trans.	40	12519-12526	2011	4.17
39.	M. Muthukumar, S. Sivakumar, P. Viswanathamurthi, R. Karvembu, R. Prabhakaran and K. Natarajan	Studies on ruthenium(III) chalcone thiosemicarbazone complexes as catalysts for carbon-carbon coupling reactions	J. Coord. Chem.	63(2)	296-306	2010	1.7
38.	D. Ramakrishna, B.R. Bhat and R. Karvembu	Catalytic oxidation of alcohols by nickel(II) Schiff base complexes containing triphenylphosphine in ionic liquid: An attempt towards green oxidation process	Catal. Commun.	11(1)	498-501	2010	3.38
37.	N. Gunasekaran and R. Karvembu	Synthesis, characterization, and catalytic applications of Ru(III) complexes containing <i>N</i> -[di(alkyl/aryl)carbamothioyl]benzamide derivatives and triphenylphosphine / triphenylarsine	Inorg. Chem. Commun.	13(8)	952-955	2010	1.76
36.	M. Muthu Tamizh, B. Varghese, A. Endo and R. Karvembu	NMR (1D & 2D) and X-ray crystallographic studies of Ni(II) complex with <i>N</i> -(2-mercaptophenyl)-4-methoxysalicylideneimine and triphenylphosphine	Spectrochim. Acta Part A	77(2)	411-418	2010	2.65
35.	M. Muthukumar, P. Viswanathamurthi and R. Karvembu	Studies on ruthenium(III) chalconate complexes containing PPh ₃ / AsPh ₃	Phosphorus Sulfur and Silicon	185 (11)	2201-2211	2010	0.72

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34.	J. Karuppiah, L. Sivachandiran, R. Karvembu and Ch. Subrahmanyam	Catalytic nonthermal plasma reactor for the abatement of low concentrations of isopropanol	Chem. Eng. J.	165 (1)	194-199	2010	5.31
33.	M. Muthu Tamizh, K. Mereiter, K. Kirchner, B. R. Bhat and R. Karvembu	Synthesis, crystal structures and spectral studies of square planar nickel(II) complexes containing ONS donor Schiff base and triphenylphosphine	Polyhedron	28 (11)	2157-2164	2009	2.10
32.	S. Ganesamoorthy, K. Shanmugasundaram and R. Karvembu	Mild oxidation of alcohols with periodic acid catalyzed by $[\text{Ru}(\text{acac})_2(\text{CH}_3\text{CN})_2]\text{PF}_6$ in water	Catal. Commun.	10(14)	1835-1838	2009	3.38
31.	R. Prabhakaran, S.V. Renukadevi, R. Karvembu, R. Huang, J. Mautz, G. Huttner, R. Subash Kumar and K. Natarajan	Structural and biological studies of mononuclear palladium(II) complexes of <i>N</i> -substituted thiosemicarbazones	Eur. J. Med. Chem.	43(2)	268-273	2008	3.90
30.	R. Prabhakaran, R. Huang, S.V. Renukadevi, M. Zeller, R. Karvembu and K. Natarajan	Coordination behaviour of ferrocenylthiosemicarbazone in a novel hetero trinuclear nickel(II) complex: Synthesis, spectral, electrochemistry and X-ray crystallography	Inorg. Chim. Acta	361(8)	2547-2552	2008	1.91
29.	R. Prabhakaran, R. Huang, R. Karvembu, C. Jayabalakrishnan and K. Natarajan	Formation of unusual ruthenium(III) carbonyl complex through ONS tricoordination of salicylaldehyde- <i>N</i> -phenylthiosemicarbazone	Inorg. Chim. Acta	360 (2)	691-694	2007	1.91
28.	S. Priyarega, R. Prabhakaran, K.R.Aranganayagam, R. Karvembu and K. Natarajan	Synthetic and catalytic investigations of ruthenium(III) complexes with triphenylphosphine / triphenylarsine and tridentate Schiff base	Appl. Organometal. Chem.	21(9)	788-793	2007	2.45

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27.	K.P.Balasubramanian, R. Karvembu, R. Prabhakaran, V. Chinnusamy and K. Natarajan	Synthesis, spectral, catalytic and antimicrobial studies of PPh ₃ / AsPh ₃ complexes of Ru(II) with dibasic tridentate ONS donor ligands	Spectrochim. Acta Part A	68(1)	50-54	2007	2.65
26.	S. Manivannan, R. Prabhakaran, K.P.Balasubramanian, V. Dhanabal, R. Karvembu, V. Chinnusamy and K. Natarajan	Syntheses, spectral, electrochemical and catalytic studies of new Ru(III) tetradentate Schiff base complexes	Appl. Organometal. Chem.	21(11)	952- 957	2007	2.45
25.	V. Mahalingam, R. Karvembu, V. Chinnusamy and K. Natarajan	Spectral, redox and catalytic studies of triphenylphosphine / triphenylarsine complexes of ruthenium(III) with N,O donor ligands derived from 2-hydroxy-1- naphthaldehyde and primary amines	Spectrochim. Acta Part A	64(4)	886- 890	2006	2.65
24.	R. Karvembu and S. Priyarega	Ru/ γ -Al ₂ O ₃ as reusable catalyst for dehydrogenation of alcohols without hydrogen acceptor	React. Kinet. Catal. Lett.	88(2)	333- 338	2006	1.26
23.	R. Prabhakaran, R. Karvembu, T. Hashimoto, K. Shimizu and K. Natarajan	Formation of structurally different solvated and non-solvated [Ni(PTSC)(PPh ₃)] (PTSC = Salicylaldehyde- <i>N</i> - phenylthiosemicarbazide anion) crystals from single pot	Inorg.Chim. Acta	358(6)	2093- 2096	2005	1.91
22.	P. Viswanathamurthi, A. Geetha, R. Karvembu and K. Natarajan	Mixed ligand triphenylphosphine / arsine Schiff base complexes of ruthenium(II) and their catalytic activities towards oxidation of alcohols	Indian J. Chem.	44A	90-93	2005	0.79

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21.	P. Viswanathamurthi, R. Karvembu, V. Tharaneeswaran and K. Natarajan	Ruthenium(II) complexes containing bidentate Schiff bases and triphenylphosphine or triphenylarsine	J. Chem. Sci.	117 (3)	235- 238	2005	1.08
20.	S. Kanchanadevi, K.P. Balasubramanian, V. Chinnusamy, R. Karvembu and K. Natarajan	Synthesis, characterization and catalytic studies of Ru(II) Schiff base complexes	Transition Met. Chem.	30(3)	330- 333	2005	1.46
19.	M.V. Kaveri, R. Prabhakaran, R. Karvembu and K. Natarajan	Synthesis and spectral studies of [RuCl(CO)(L)(PPh ₃)(B)] (HL = 2'- hydroxychalcones and B = PPh ₃ , pyridine or piperidine) and their catalytic and biological applications	Spectrochim. Acta Part A	61(13 -14)	2915- 2918	2005	2.65
18.	R. Karvembu, R. Prabhakaran, K. Senthilkumar, P. Viswanathamurthi and K. Natarajan	Ru/Al ₂ O ₃ -catalyzed transfer dehydrogenation of alcohols	React. Kinet. Catal. Lett.	86(1)	211- 216	2005	1.26
17.	K. Saridha, R. Karvembu, P. Viswanathamurthi and S. Yasodhai	New ruthenium(III) complexes with tridentate Schiff base and their catalytic activity towards oxidation of alcohols	Synth. React. Inorg. Met.- Org. Nano- Met. Chem.	35(9)	707- 711	2005	0.49
16.	K.P. Balasubramanian, R. Karvembu, V. Chinnusamy and K. Natarajan	Synthesis, characterization, electrochemistry, catalytic and biological activities of ruthenium(III) complexes containing dibasic tridentate Schiff bases	Indian J. Chem.	44A	2450- 2454	2005	0.79
15.	W.H. Kim, R. Karvembu and J. Park	Alumina-supported ruthenium catalysts for the racemization of secondary alcohols	Bull. Korean Chem. Soc.	25(6)	931- 933	2004	0.79
14.	R. Karvembu, J.H. Choi and J. Park	Synthesis of aminocyclopentadienyl ruthenium chloride	Inorg. Chem. Commun.	7(8)	988- 989	2004	1.76

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13.	R. Prabhakaran, A. Geetha, M. Thilagavathi, R. Karvembu, Venkata Krishnan, H. Bertagnolli and K. Natarajan	Synthesis, characterization, EXAFS investigation and antibacterial activities of new Ru(III) complexes containing tetradentate Schiff base complexes	J. Inorg. Biochem.	98 (12)	2131- 2140	2004	3.20
12.	K.P.Balasubramanian, V. Chinnusamy, R. Karvembu and K. Natarajan	Ruthenium(II) complexes containing triphenylphosphine / triphenylarsine and bidentate Schiff bases derived from 2-hydroxy- 1-naphthaldehyde and primary amines	Transition Met. Chem.	29(6)	644- 648	2004	1.46
11.	R. Karvembu, S. Hemalatha, R. Prabhakaran and K. Natarajan	Synthesis, characterization and catalytic activities of ruthenium complexes containing triphenylphosphine / triphenylarsine and tetradentate Schiff bases	Inorg. Chem. Commun.	6(5)	486- 490	2003	1.76
10.	C. Jayabalakrishnan, R. Karvembu and K. Natarajan	Ruthenium(III) Schiff base complexes: Catalytic activity in aryl- aryl coupling reaction and antimicrobial activity	Synth. React. Inorg. Met.- Org. Chem.	33(9)	15351 553	2003	0.49
9.	S. P. Rajendran and R. Karvembu	Synthesis and antifungal activities of Schiff bases derived from 3-amino- 2H-pyrano(2.3- <i>b</i>)quinolin-2-ones	Indian J. Chem.	41B	222- 224	2002	0.47
8.	R. Karvembu and K. Natarajan	Synthesis and spectral studies of binuclear ruthenium(II) carbonyl complexes containing bis(β -diketones) and their applications	Polyhedron	21(2)	219- 223	2002	2.10
7.	C. Jayabalakrishnan, R. Karvembu and K. Natarajan	Synthesis, characterisation, catalytic and biocidal studies of ruthenium(III) complexes containing thiosemicarbazones of β - diketoesters	Synth. React. Inorg. Met.- Org. Chem.	32(6)	1099- 1113	2002	0.49

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6.	R. Karvembu and K. Natarajan	Synthetic, catalytic and biological studies of new binuclear ruthenium(II) complexes containing thiobis(β -diketones) and triphenylphosphine	Polyhedron	21 (17)	1721-1727	2002	2.10
5.	R. Karvembu, C. Jayabalakrishnan and K. Natarajan	Thiobis(β -diketonato)-bridged binuclear ruthenium(III) complexes containing triphenylphosphine or triphenylarsine: Synthetic, spectral, catalytic and antimicrobial studies	Transition Met. Chem.	27(6)	574-579	2002	1.46
4.	R. Karvembu, C. Jayabalakrishnan, N. Dharmaraj, S.V. Renukadevi and K. Natarajan	Binuclear ruthenium(III) complexes: Synthesis, characterisation, catalytic activity in aryl-aryl couplings and antifungal activity	Transition Met. Chem.	27(6)	631-638	2002	1.46
3.	C. Jayabalakrishnan, R. Karvembu and K. Natarajan	Catalytic and antimicrobial activities of new ruthenium(II) unsymmetrical Schiff base complexes	Transition Met. Chem.	27(7)	790-794	2002	1.46
2.	R. Karvembu and K. Natarajan	Synthesis, characterization, electrochemistry and biological activities of dicarboxylato bridged binuclear ruthenium(III) complexes	Synth. React. Inorg. Met.-Org. Chem.	31(5)	743-756	2001	0.49
1.	R. Ramesh, N. Dharmaraj, R. Karvembu and K. Natarajan	Monofunctional bidentate Schiff base complexes of ruthenium(III) containing triphenylphosphine or triphenylarsine	Indian J. Chem.	39A	1079-1082	2000	0.79

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(B) General Article/ Review articles

S. No.	Author	Title of Paper	Journal	Vol (No.)	Page Nos.	Year	Impact Factor
8.	S. Swaminathan, J. Haribabu, N. Balakrishnan, P. Vasanthakumar and R. Karvembu	Piano stool Ru(II)-arene complexes having three monodentate legs: A comprehensive review on their development as anticancer therapeutics over the past decade	Coord. Chem. Rev.	459	21440-3	2022	22.315
7.	S. Priyarega, J. Haribabu and R. Karvembu	Development of thiosemicarbazone-based transition metal complexes as homogeneous catalysts for various organic transformations	Inorg. Chim. Acta	532	12074-2	2022	2.545
6.	S. Sunny and R. Karvembu	Recent advances in cobalt-catalyzed, directing-group-assisted C–H bond amidation reactions	Adv. Synth. Catal.	363	4309-4331	2021	5.837
5.	R. Karvembu and R. Mayilmurugan	Inorganic compounds of biological interest – Dedicated to Professor MallayanPalaniandavar	Inorg. Chim. Acta	526	12050-3	2021	2.545
4.	S. Ganesh Babu and R. Karvembu	Copper based nanoparticles-catalyzed organic transformations	Catal. Surv. Asia	17	156-176	2013	3.125
3.	R. Karvembu, R. Prabhakaran, M. Muthu Tamizh and K. Natarajan	Ruthenium and enzyme-catalyzed dynamic kinetic resolution of alcohols	Comptes Rendus Chimie	12	951-962	2009	0.756
2.	R. Karvembu, R. Prabhakaran and K. Natarajan	Shvo's diruthenium complex: A robust catalyst	Coord. Chem. Rev.	249	911-918	2005	12.99
1.	R. Karvembu	Organometallic Chemistry	Current Science	96(2)	190-191	2009	0.96

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(C) Book Chapters:

S.No.	Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/IS BN Number
3	J. Haribabu, K. Jeyalakshmi and R. Karvembu	Biomolecular interactions and anticancer activity of Ni, Pd and Ru	LAP LAMBERT Academic Publishing, Germany	2021	ISBN: 978-620-4-19015-0
2	S. Ganesh Babu, M. Gopiraman, R. Karvembu and I. S. Kim	Chemical Functionalization of Carbon Nanomaterials: Chemistry and Applications(Chapter title: Carbon materials supported nanostructures in catalysis)	Taylor & Francis, CRC Press, USA.	2015	ISBN 9781482 253948
1	R. Karvembu and A. Endo	Handbook of Inorganic Chemistry Research(Chapter title: Synthesis and electrochemical properties of binuclear ruthenium complexes with bridging ligands)	Nova Science Publishers Inc., USA.	2010	ISBN97 8-1-61668-010-7

(D) Patent:

S.No.	Author(s)	Title of Patent/Monograph	Name of Patent	Year of Publication	Ref. No.
2	M. Gopiraman, R. Karvembu, K. Watanabe and I.S. Kim	Processed animal tissues in catalysis, animal tissues as catalyst support - Fabrication process and catalytic applications	Japanese Patent	2016	JP 2016-064398 A
1	S. Vedachalam, M. Nithya and R. Karvembu	A process of synthesis of 5.5'-(furan-2,5-diyl)bis(thiophene-5,2-diyl)dimethanol	Indian Patent	Patent application published on 01.10.2021	Appl. No. 202141042633 A

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(E) Structure Reports:

S.No.	Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year
23	M. Mohanbabu, P. N. Sathishkumar, N. S. P. Bhuvanesh, R. Karvembu and S. Aravindhan	N-[(Pyridin-2-yl)methyl]thiophene-2-carboxamide	IUCr Data	4	x190980	2019
22	S. Saranya, J. Haribabu, N.S.P. Bhuvanesh, R. Karvembu and D. Gayathri	Crystal structures of the Schiff base derivatives (E)-N'-[(1H-indol-3-yl)methylidene]isonicotinohydrazide ethanol monosolvate and (E)-N-methyl-2-[1-(2-oxo-2H-chromen-3-yl)ethylidene]hydrazinecarbothioamide	Acta Cryst. E	73(4)	594-597	2017
21	G. Vimala, J. Haribabu, S. Srividya, R. Karvembu and A. SubbiahPandi	Crystal structure of N-[(4-ethoxyphenyl)carbamo-thioyl]cyclohexanecarboxamide	Acta Cryst. E	71(10)	o820-o821	2015
20	G. Vimala, J. Haribabu, S. Aishwarya, R. Karvembu and A. SubbiahPandi	Crystal structure of N-[(naphthalen-1-yl)carbamo-thioyl]cyclo-hexa-necarboxamide	Acta Cryst. E	71(7)	o508-o509	2015
19	R. Gangadharan, J. Haribabu, R. Karvembu and K. Sethusankar	Crystal structures of two hydrazinecarbothioamide derivatives: (E)-N-ethyl-2-((4-oxo-4H-chromen-3-yl)methylene)hydrazinecarbothioamide hemihydrate and (E)-2-((4-chloro-2H-chromen-3-yl)methylidene)-N-phenylhydrazinecarbothioamide	Acta Cryst. E	71(3)	o305-o308	2015
18	G. Vimala, J. Haribabu, R. Karvembu, B.V.N.P. Kumar and A. SubbiahPandi	Crystal structure of (Z)-2-(1-benzyl-2-oxoindolin-3-ylidene)-N-phenylhydrazine-1-carbothioamide	Acta Cryst. E	71(3)	o160-o161	2015

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17	G. Vimala, J. Govindaraj, J. Haribabu, R. Karvembu and A. SubbiahPandi	Crystal structure of (2E)-N-methyl-2-(2-oxo-1,2-dihydroacenaphthylen-1-ylidene)hydrazinecarbothioamide	Acta Cryst. E	70(11)	415-417	2014
16	G. Vimala, J. Govindaraj, J. Haribabu, R. Karvembu and A. SubbiahPandi	Crystal structure of (2E)-N-methyl-2-[(4-oxo-4H-chromen-3-yl)methyl-idene] hydrazine-carbo-thio-amide	Acta Cryst. E	70(11)	1151	2014
15	R. Gangadharan, J. Haribabu, R. Karvembu and K. Sethusankar	Crystal structure of (E)-2-[(4-chloro-2H-chromen-3-yl)methylidene]-N-cyclohexylhydrazinecarbothioamide	Acta Cryst. E	70(9)	o1039- o1040	2014
14	N. Selvakumaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	1-{{3-({[Bis(2-methylpropyl)carbamo-thioyl]amino}carbonyl)phenyl}carbonyl}-3,3-bis(2-methylpropyl)thiourea	Acta Cryst. E	69(9)	o1368	2013
13	N. Selvakumaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	3-{{(Dibenzylcarbamo-thioyl)amino}carbonyl}benzamide	Acta Cryst. E	69(7)	o1184- o1185	2013
12	N. Selvakumaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	3-({[Bis(2-methylpropyl)carbamo-thioyl]amino}carbonyl)benzamide	Acta Cryst. E	69(7)	o1183	2013
11	N. Selvakumaran, M. Mary Sheeba, R. Karvembu, S.W. Ng and E.R.T. Tiekink	1-Benzoyl-3-(4-chlorophenyl)thiourea dichloromethane hemisolvate	Acta Cryst. E	68(12)	o3313	2012
10	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)	o3259	2012
9	N. Selvakumaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	Dibenzylazanium chloride	Acta Cryst. E	68(3)	o577	2012
8	N. Selvakumaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	Dicyclohexylammonium thiocyanate: monoclinic polymorph	Acta Cryst. E	67(11)	o2843	2011

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7	N. Selvakumaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	Bis(3-benzoyl-1,1-di-sec-butylthiourea- κ^2 O,S)palladium(II)	Acta Cryst. E	67(10)	m1394	2011
6	N. Gunasekaran, P. Jerome, R. Karvembu, S.W. Ng and E.R.T. Tiekink	1-Benzoyl-3-methyl-3-pentylthiourea	Acta Cryst. E	67(5)	o1149	2011
5	M. M. Tamizh, R. Karvembu, B. Varghese and E.R.T. Tiekink	{4-Bromo-2-[(2-sulfidophenyl)iminomethyl]phenolato- κ^3 S,N,O}triphenylphosphane- κ P}nickel(II)	Acta Cryst. E	67(4)	m441	2011
4	N. Selvakumaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	1-Benzoyl-3,3-bis(2-methylpropyl)thiourea	Acta Cryst. E	67(3)	o602	2011
3	N. Gunasekaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	1-Benzoyl-3,3-dibutylthiourea	Acta Cryst. E	66(10)	o2601	2010
2	N. Gunasekaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	3-Benzoyl-1,1-dibenzylthiourea	Acta Cryst. E	66(10)	o2572- o2573	2010
1	N. Gunasekaran, R. Karvembu, S.W. Ng and E.R.T. Tiekink	1-Benzoyl-3,3-bis(propan-2-yl)thiourea	Acta Cryst. E	66(8)	o2113	2010

(F) Conferences/Workshops/Symposia:

S.No.	Author(s)	Title of Abstract/Paper	Conference Theme	Venue	Year
1	K. Natarajan and R. Karvembu	Synthesis, characterization and catalytic activities of ruthenium complexes containing triphenylphosphine / triphenylarsine and tetradentate Schiff bases	Thirty-fifth International Conference on Coordination Chemistry	University of Heidelberg, Germany	2002

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2	W.H. Kim, R. Karvembu and J. Park	Reusable ruthenium catalyst for the efficient racemization of secondary alcohols	Third International Symposium of X-ray and Neutron Scattering on Integrated Molecular Systems	Pohang University of Science and Technology, South Korea	2005
3	R. Karvembu and M. Muthu Tamizh	Ruthenium(II) carbonyl complexes containing ONS donor ligand and PPh ₃ / AsPh ₃ : Synthesis, characterization and applications	Twenty third International Conference on Organometallic Chemistry	University of Rennes, France	2008
4	R. Dileep, R. Karvembu and B. R. Bhat	Homogeneous catalytic oxidation of alcohols using Ni(II) complexes	International Conference on Coordination and Organometallic Chemistry	Mangalore University, India	2008
5	R. Karvembu, M. Muthu Tamizh, Kurt Mereiter and Karl Kirchner	Crystal structures of two Ni(II) complexes with ONS donor ligand and PPh ₃	International Conference on Coordination and Organometallic Chemistry	Bharathiar University, Coimbatore, India	2009
6	M. Muthu Tamizh and R. Karvembu	Palladium(II) complexes containing tridentate Schiff base ligand and triphenylphosphine: Synthesis, structure and applications	International Conference on Coordination and Organometallic Chemistry	Bharathiar University, Coimbatore, India	2009
7	N. Gunasekaran and R. Karvembu	Synthesis and characterization of four coordinated Ni(II) complexes containing tridentate ligand and triphenylphosphine	International Conference on Coordination and Organometallic Chemistry	Bharathiar University, Coimbatore, India	2009
8	N. Gunasekaran and R. Karvembu	Synthesis, characterization and catalytic applications of Ru(III) complexes containing <i>N</i> -[di(alkyl/aryl)carbamothioyl] benzamide derivatives and triphenylphosphine / triphenylarsine	International Conference on Materials for the Millennium	Cochin University of Science and Technology, Kochi	2010
9	S. Ganesh Babu and R. Karvembu	Copper on Boehmite-catalyzed ligand free synthesis of diaryl ethers and diaryl thioethers	International Conference on Catalysis	University of Glasgow, Scotland, UK	2011

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10	S. Ganesh Babu, B. Thomas and R. Karvembu	Preparation of β -ketoamines catalyzed by Cu/AIO(OH)	International Conference on Catalysis	University of Glasgow, Scotland, UK	2011
11	M. Gopiraman, K. Fujimori, B.S. Kim, R. Karvembu and I.S. Kim	Adsorption and inhibition effect of environment friendly green inhibitor on mild steel in acidic medium	The 4 th International Symposium on High-Tech Fiber Engineering for Young Researchers	Shinshu University, Nagano, Japan	2011
12	N. Selvakumaran, and R. Karvembu	Synthesis and cytotoxicity of Pd(II) complexes containing <i>N,N</i> -di(alkyl/aryl)- <i>N'</i> -benzoylthiourea	3 rd Asian Conference on Coordination Chemistry (ACCC-3)	India Habitat Center, New Delhi, India, organized by IIT-Kanpur & IIT-Delhi	2011
13	M. Gopiraman, S. Ganesh Babu, B.S. Kim, R. Karvembu and I.S. Kim	CuO nanoparticles decorated on CNT as an effective nanohybrid catalyst for <i>N</i> -arylation of heterocycles	An International Conference on Nanomaterials & Nanotechnology	University of Delhi, New Delhi	2011
14	A. Sreekanth, R. Karvembu, N. Selvakumaran and S.L. Ashok Kumar	Spectroscopic and advanced surface characterization studies on inhibition in mild steel involving Schiff bases	26 th International Conference on Surface Modification Technologies (SMT 26)	Ecole Centrale, Lyon, France	2012
15	S. Ganesamoorthy, M. Muthu Tamizh, G. Manickam, K. Shanmugasundaram and R. Karvembu	Recyclable silica supported palladium catalyst for Suzuki-Miyaura cross-coupling reaction in water	40 th International Conference on Coordination Chemistry	University of Valencia, Spain	2012
16	N. Selvakumaran, A. Pratheepkumar and R. Karvembu	Metallamacrocyclic complexes of Cu(II) and Zn(II) with 3,3,3',3'-tetraaryl/alkyl-1,1'-isophthaloylbis(thiourea)	40 th International Conference on Coordination Chemistry	University of Valencia, Spain	2012
17	S. Ganesh Babu and R. Karvembu	Heck coupling of styrene with aryl halides-catalyzed by CuO on aluminosilicate in water	2 nd International Indo-German Symposium on Green Chemistry and Catalysis	Institute of Chemical Technology, Mumbai	2012
18	S. Ganesh Babu, R. Karvembu and I.S. Kim	CuO/aluminosilicate-catalyzed α -arylation of β -diketones	7 th Asian Conference on Electrochemical Power Sources (ACEPS-7)	Osaka, Japan,	2013

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19	M. Gopiraman, R. Karvembu and I.S. Kim	RuO ₂ Nanorods on graphene nanoplatelets catalyst for transfer hydrogenation of carbonyl compounds	7 th Asian Conference on Electrochemical Power Sources (ACEPS-7)	Osaka, Japan,	2013
20	M. Gopiraman, R. Karvembu and I.S. Kim	An efficient copper- oxide/carbon-nanotube catalyst for <i>N</i> -arylation of imidazole	The International Conference on Nanoscience and Nanotechnology (ICONN 2014)	Adelaide Convention Centre, South Australia	2014
21	K. Jeyalakshmi, P. Jerome and R. Karvembu	Synthesis, DNA/protein binding and cytotoxicity studies of Ru-arene complexes containing guanidine ligands	13 th Eurasia Conference on Chemical Sciences	Indian Institute of Science, Bangalore	2014
22	M. Mary Sheeba, S. Preethi and R. Karvembu	Half-sandwich chiral ruthenium(II) arene complexes for asymmetric transfer hydrogenation of ketones (<i>Best poster award</i>)	13 th Eurasia Conference on Chemical Sciences	Indian Institute of Science, Bangalore	2014
23	P. Jerome and R. Karvembu	Preparation of CuO nanoflakes catalyst from copper pincer complex for <i>N</i> -arylation of benzimidazole	International Conference on Nanomaterials for Energy, Environment, Catalysis and Sensors (ICNEECS- 15)	Madurai Kamaraj University, Madurai	2015
24	P.N. Sathishkumar and R. Karvembu	Heck and Suzuki-Miyaura cross coupling reactions in aqueous medium catalyzed by dicarboxamide based palladium(II) complex	International Conference on Recent Advances in Materials and Chemical Sciences (ICRAMCS-2015)	Gandhigram Rural Institute, Gandhigram	2015
25	J. Haribabu and R. Karvembu	Nickel(II) complexes with indole based thiosemicarbazone ligands for biological applications	Sixth International Conference on Metals in Genetics, Chemical Biology and Therapeutics	Indian Institute of Science, Bangalore	2016
26	M. Nithya, S. Vedachalam and R. Karvembu	An efficient NHC- catalyzed green synthesis of chromones	International Conference on Emerging Frontiers in Chemical Sciences	Farook College, Kozhikode	2017

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27	D. Sindhuja and R. Karvembu	A non-phosphine ligated Fe(II) complex on silica for transfer hydrogenation of carbonyl compounds(<i>Best oral presentation</i>)	International Conference on Emerging Frontiers in Chemical Sciences	Farook College, Kozhikode	2017
28	R. Sivakami and R. Karvembu	Magnetically retrievable silica-immobilized Ru-TsDPEN catalysts for asymmetric transfer hydrogenation of ketones	International Conference on Advanced Nanomaterials (ICAN – 2018)	Alagappa University, Karaikudi	2018
29	S.P. Rajendran and R. Karvembu	Utility of 2-chloro-3-formylquinolines Part VII: A simple synthesis of 3-amino-2H-pyrano(2,3-b)quinolin-2-ones	National Symposium in Chemistry	Indian Institute of Science, Bangalore	1999
30	R. Karvembu and K. Natarajan	Binuclear ruthenium(II) carbonyl complexes containing bis(β -diketone) and	Nineteenth Conference of Indian Council of Chemists	Kuvempu University, Shimoga	2000
31	R. Karvembu and K. Natarajan	Synthesis and characterisation of binuclear ruthenium(III) complexes containing acetylacetonate and bis(β -diketones)	Twentieth conference of Indian Council of Chemists	University of Mysore, Mysore	2004
32	R. Karvembu, J. Park and K. Natarajan	Synthesis of aminocyclopentadienyl ruthenium chloride	National Conference on Recent Trends in Inorganic Chemistry	Cochin University of Science and Technology, Kochi	2004
33	V. Mahalingam, R. Karvembu, V. Chinnusamy and K. Natarajan	Synthesis, characterization, redox behaviour and catalytic activity of some new mixed ligand ruthenium(III) complexes	UGC Sponsored Regional Symposium on Current Research Trends in Chemistry	Kongunadu Arts and Science College, Coimbatore	2004
34	N. Chitrapriya, R. Karvembu and K. Natarajan	Synthesis, characterization and catalytic studies of new Ni(II) and Cu(II) complexes	UGC Sponsored Regional Symposium on Current Research Trends in Chemistry	Kongunadu Arts and Science College, Coimbatore	2004
35	K. Saridha, R. Karvembu and S. Yasodhai	Synthesis and spectral studies of ruthenium(III) complexes containing triphenylphosphine / arsine and tridentate Schiff base	Second Regional CRSI Symposium in Chemistry	Bharathidasan University, Tiruchirappalli	2005

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36	R. Karvembu, S. Priyarega and K. Natarajan	Ru/Al ₂ O ₃ -Catalyzed transfer dehydrogenation of alcohols	National Seminar on Emerging Trends and New Vistas in Chemistry	University of Calicut, Calicut	2005
37	S. Priyarega, R. Karvembu and K. Natarajan	Synthesis and applications of ruthenium(III) complexes containing tridentate Schiff base and triphenylphosphine	National Seminar on Emerging Trends and New Vistas in Chemistry	University of Calicut, Calicut	2005
38	R. Karvembu and J. Park	Ru/ γ -Al ₂ O ₃ : An efficient and reusable catalyst for the racemization of secondary alcohols without additives	National Conference on Recent Advances in Chemistry	Periyar University, Salem	2007
39	S. Ganesamoorthy, K. Shanmugasundara m and R. Karvembu	Mild oxidation of alcohols to carbonyl compounds with periodic acid catalyzed by [Ru(acac) ₂ (CH ₃ CN) ₂]PF ₆ in water	10 th CRSI National Symposium in Chemistry	Indian Institute of Science, Bangalore	2008
40	M. Muthu Tamizh, B. Varghese and R. Karvembu	NMR (1D & 2D) and X ray crystallographic studies of [Ni(L)(PPh ₃)] (H ₂ L = <i>N</i> -(2- mercaptophenyl)-4- methoxysalicylideneimin)	National Conference on Recent Trends in Chemical Research	National Institute of TechnologyK arnataka, Surathkal	2010
41	S. Ganesamoorthy, M. Muthu Tamizh, K. Shanmugasunda ram and R. Karvembu	"Click" immobilization of Ru(II) and Ru(III) catalysts over silica	National Conference on Recent Trends in Chemical Research	National Institute of TechnologyK arnataka, Surathkal	2010
42	S. Ganesh Babu and R. Karvembu	Catalytic activity of copper(II) oxide nanoparticles in <i>N</i> - arylation of heterocycles	National Seminar on Recent Advances in Inorganic and Nano Chemistry	Madurai Kamaraj University, Madurai	2010
43	N. Gunasekaran and R. Karvembu	Catalytic oxidation of alcohols by Ru(II) carbonyl complexes containing <i>N</i> - [di(alkyl/aryl)carbamothio yl]benzamide and triphenylphosphine	5 th Mid-year Chemical Research Society of India Symposium in Chemistry	CSIR-NIIST, Trivandrum	2010

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44	B. Thomas, S. Ganesh Babu and R. Karvembu	Copper on Boehmite: Efficient nano catalyst for the synthesis of β - ketoimines	National Level Student's Symposium on Nanomaterials and its Applications (Horizon 2010)	National Institute of Technology, Trichy	2010
45	S. Ganesh Babu, P. Aruna Priyadarsini and R. Karvembu	Cu/AIO(OH)-Catalyzed selective oxidation of alcohols with periodic acid in water (<i>Hindustan platinum award for the best poster presentation</i>)	20 th National Symposium on Catalysis for Energy Conversion and Conservation of Environment	Indian Institute of Technology Madras, Chennai	2010
46	S. Ganesh Babu and R. Karvembu	Nano CuO-catalyzed Ullmann type ether synthesis	11 th Tamil Science Congress	Gandhigram Rural University, Gandhigram	2011
47	M. Muthu Tamizh and R. Karvembu	Some Ni(II) and Pd(II) complexes containing tridentate Schiff base and triethylphosphite	11 th Tamil Science Congress	Gandhigram Rural University, Gandhigram	2011
48	N. Selvakumaran, A. Pratheepkumar, S.W. Ng, E.R.T. Tiekink and R. Karvembu	Synthesis and structure of nickel(II) complexes containing 1,1- dialkyl/aryl-3- benzoylthiourea ligands and its cytotoxic activity	National Conference on Recent Advances in Inorganic Chemistry	Bharathidasan University, Trichy	2012
49	K. Jeyalakshmi and R. Karvembu	Synthesis of copper(II) guanidine complexes for superoxide dismutase (SOD) activity	15 th CRSI National Symposium in Chemistry	Banaras Hindu University, Varanasi	2013
50	M. Mary Sheeba and R. Karvembu	Chiral Ru(II) complexes as catalyst for asymmetric transfer hydrogenation of ketones	15 th CRSI National Symposium in Chemistry	Banaras Hindu University, Varanasi	2013
51	M. Mary Sheeba and R. Karvembu	Chiral acyl thiourea ligands and their Ru(II) complexes as efficient catalysts for asymmetric transfer hydrogenation of ketones	Symposium on Modern Trends in Inorganic Chemistry [MTIC-XV]	IIT, Roorkee	2013
52	K. Jeyalakshmi and R. Karvembu	Synthesis, DNA binding and cytotoxicity of copper(II) complexes containing guanidine ligands (<i>Best oral presentation</i>)	National Conference on Evolutionary Trends in Biological and Pharmaceutical Chemistry	Holy Cross College, Trichy	2014

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53	P. Jerome and R. Karvembu	Ru(III)-NCN pincer complexes as catalyst for the transfer hydrogenation of ketones (Received RSC travel grant)	16 th CRSI National Symposium in Chemistry	IIT Bombay	2014
54	J. Haribabu, R.Gangadharan, K. Sethusankar and R.Karvembu	Crystal structure of (E)-2-[(4-chloro-2H-chromen-3-yl)methylidene]-N-cyclohexylhydrazinecarbo thioamide	National Seminar on Recent Trends in X-ray Crystallography	Seethalakshmi Ramaswami College, Trichy	2014
55	P. Jerome and R. Karvembu	Pd(II)-NNN pincer complexes as catalysts for the Suzuki-Miyaura cross coupling reaction under aqueous medium	National Symposium on Transcending Frontiers in Organic Chemistry	CSIR-NIIST, Trivandrum	2014
56	E. Balakumar, S. Ganesh Babu and R. Karvembu	Pd/AIO(OH): An efficient reusable heterogeneous catalyst for Buchwald-Hartwig coupling under ligand free aerobic condition	National Symposium on Transcending Frontiers in Organic Chemistry	CSIR-NIIST, Trivandrum	2014
57	J. Haribabu, N.S.P. Bhuvanesh and R. Karvembu	Novel water soluble organobimetallic Ru(II) complexes containing indole based thiosemicarbazone ligands: Synthesis, structure and <i>in vitro</i> biological evaluation	17 th CRSI National Symposium in Chemistry	NCL, Pune	2015
58	P. Jerome and R. Karvembu	Pd(II)-NNN pincer complexes containing CH ₃ CN or PPh ₃ for the Suzuki-Miyaura cross coupling reaction	National Conference on Recent Advances in Chemical Sciences	Gandhigram Rural Institute	2015
59	J. Haribabu and R.Karvembu	Synthesis, DNA/protein binding, molecular docking, DNA cleavage and <i>in vitro</i> anticancer activity of nickel(II) bis(thiosemicarbazone) complexes	10 th Mid-Year CRSI Symposium in Chemistry	NIT, Trichy	2015

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60	P.N. Sathishkumar and R. Karvembu	Palladium(II) catalyst containing dicarboxamide based tetradentate ligand for the Suzuki-Miyaura and Heck coupling reactions <i>(Best poster award)</i>	10 th Mid-Year CRSI Symposium in Chemistry	NIT, Trichy	2015
61	S. Yasar Arafath, P. Jerome and R. Karvembu	Pd(II)-NNN chiral pincer complexes containing CH ₃ CN for the transfer hydrogenation of ketones	10 th Mid-Year CRSI Symposium in Chemistry	NIT, Trichy	2015
62	P.N. Sathishkumar and R. Karvembu	Palladium(II) catalyst containing dicarboxamide based ligand for the Suzuki-Miyaura and Heck coupling reactions	Indian National Conference on Development in Inorganic Applications	Periyar University, Salem	2015
63	P. Vasanthakumar, M. Priyadharshini, P. Kanchana and R. Karvembu	Synthesis of copper MOF's and its application in heterogenous catalysis	One-day National Symposium on Recent Developments in Chemistry	Madurai Kamaraj University, Madurai	2016
64	M. Mary Sheeba and R. Karvembu	Unprotected D/L-alanine derived thiourea ligands and their water soluble Ru(II)- <i>p</i> -cymene complexes for asymmetric reduction of pro-chiral ketones	RSC-NIT Symposium on Heterogeneous Catalysis and Sustainable Chemistry	NIT, Trichy	2016
65	J. Haribabu and R. Karvembu	Unprecedented formation of Pd(II)-pyrazole based thiourea from chromone thiosemicarbazone and [PdCl ₂ (PPh ₃) ₂]-Apoptosis by the complexes through mitochondrial signaling pathway	5 th Symposium on Advanced Biological Inorganic Chemistry organized by TIFR, Mumbai and IACS	Jadavpur at Kolkata	2017
66	M. Mary Sheeba and R. Karvembu	Chiral water soluble Ru(II)-arene complexes for asymmetric hydrogenation of pro-chiral ketones	Multidisciplinary National Conference on Research in Present Scenario	Nesamony Memorial Christian College, Marthandam	2017
67	D. Sindhuja and R. Karvembu	Fe(II) complex on silica nanoparticles for transfer hydrogenation of carbonyl compounds	One day National Level Conference on Innovative Research in Material Science	Sri Akilandeswari Women's College, Wandiwash	2017

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68	M. Nithya, S. Vedachalam and R. Karvembu	An efficient NHC catalyzed green synthesis of chromones	One day National Level Conference on Innovative Research in Material Science	Sri Akilandeswari Women's College, Wandiwash	2017
69	S. Vedachalam, M. Nithya and R. Karvembu	N-Heterocyclic carbene catalyzed C-glycosylation: A concise approach for the formal synthesis of scleropentases A	One day National Level Conference on Innovative Research in Material Science	Sri Akilandeswari Women's College, Wandiwash	2017
70	P. Vasanthakumar and R. Karvembu	Non-precious metal based MOF's as transfer hydrogenation catalyst	Conference on Advances in Catalysis for Energy and Environment	Tata Institute of Fundamental Research, Mumbai	2018
71	D. Sindhuja and R. Karvembu	Polymer bound Cu(I) complexes catalyzed synthesis of imines	Conference on Advances in Catalysis for Energy and Environment	Tata Institute of Fundamental Research, Mumbai	2018
72	R. Sivakami and R. Karvembu	Excellent catalytic activity of magnetically recoverable Fe-Pt-MWCNT nanocomposite towards asymmetric transfer hydrogenation of aromatic ketones	Conference on Advances in Catalysis for Energy and Environment	Tata Institute of Fundamental Research, Mumbai	2018
73	A. Kalaiyarasi, J. Haribabu, R. Karvembu and V.M. Biju	Synthesis, characterization and molecular docking studies of 8-aminoquinoline appended thiourea compounds	Indian Analytical Science Congress 2018	Mahatma Gandhi University, Kottayam	2018
74	J. Haribabu and R. Karvembu	Formation of Pd(II)-pyrazole based thiourea from chromone thiosemicarbazone – Apoptosis by the complexes	International Conference on Synthetic Materials for Science and Engineering Applications	M. Kumarasamy College of Engineering, Karur	2018
75	P. N. Sathishkumar and R. Karvembu	A comparative study of acylthiourea and pseudo-acylthiourea based Ru(II)-(η^6 - <i>p</i> -cymene) complexes for chemoselective transfer hydrogenation reactions (<i>Best oral presentation</i>)	International Conference on Synthetic Materials for Science and Engineering Applications	M. Kumarasamy College of Engineering, Karur	2018

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76	Y-C. Huang, J. Haribabu, S. C. N. Hsu and R. Karvembu	An investigation on DNA binding and <i>in vitro</i> anticancer properties of organometallic Ru(II)-(η^6 - <i>p</i> -cymene) complexes containing pyrazole based ligands	Republic of China Biomedical Materials and Drug System Society 2018 annual meeting	Kaohsiung Medical University, Taiwan	2018
77	A. Kalaiyarasi, R. Karvembu and V.M. Biju	1-Acyl-3-quinolin-8-yl thiourea derivatives as chemosensors and its determination using optical and spectroscopic methods	2 nd International Conference on Recent Trends in Analytical Chemistry	University of Madras, Chennai	2018
78	R. Sivakami, V. Pravitha, R. Karvembu and S. Jone Kirubavathy	Micro-structural analysis of lepidocrocite and silica coated lepidocrocite nanoparticles using Williamson-Hall method	Third International Conference on Nanomaterials: Synthesis, Characterization and Applications	Mahatma Gandhi University, Kottayam	2018
79	M. Nithya, S. Vedachalam and R. Karvembu	The green synthesis of functionalised 3-aminochromones and its biological evaluations	2 nd World Cancer Congress-2018 and 2 nd World Congress on Drug Discovery and Development - 2018	Royal Orchid Resort and Convention Centre, Bangalore	2018
80	B. Nithya and R. Karvembu	Investigation of substituent effect on DNA binding and <i>in vitro</i> anticancer activity through apoptosis by palladium(II) complexes bearing heterocyclic thiosemicarbazones	2 nd World Cancer Congress-2018 and 2 nd World Congress on Drug Discovery and Development - 2018	Royal Orchid Resort and Convention Centre, Bangalore	2018
81	P. N. Sathishkumar and R. Karvembu	Influence of coordination mode of acylthiourea in Ru(II)- η^6 - <i>p</i> -cymene complexes towards chemoselective transfer hydrogenation of nitroarenes and carbonyl compounds	International Conference on Frontiers in Chemical sciences	IIT Guwahati	2018
82	P. Vasanthakumar and R. Karvembu	Exploring catalytic activity of γ -Fe ₂ O ₃	International Conference on Frontiers in Chemical sciences	IIT Guwahati	2018

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83	V. V. Srinivasan and R. Karvembu	Mesoporous zirconium oxophosphates as catalysts for liquid fuel precursor synthesis	International Conference on Frontiers in Chemical sciences	IIT Guwahati	2018
84	Aswathi N. R. E. and R. Karvembu	Ferrocene thiosemicarbazone-based Ru(II) complex as catalyst for the synthesis of 1,2-disubstituted benzimidazoles via acceptorless dehydrogenative coupling	International Conference on Emerging Trends in Synthetic Organic Chemistry - 2021 (ICETSOC-2021)	NIT-Puducherry	2021
85	R. Deepak and R. Karvembu	Sustainable Friedel-Crafts Alkylation of Indoles with β -Nitrostyrenes using Ammonium Niobium Oxalate as the Recyclable Catalyst	Organic Chemistry Conference 2021	NIT-Trichy	2021
86	R. Haritha and R. Karvembu	Half-sandwich Ru(II)-thioamide complexes as catalysts for one-pot synthesis of aromatic 1,5-diketones	8th CRSI-National symposium in Chemistry & 15th CRSI RSC Joint symposium	IIT Guwahati	2022
87	D. Dorothy Priyanka, J. Haribabu and R. Karvembu	Design, synthesis, biomolecular binding, cytotoxic, antioxidant and antihemolytic properties of Pd(II) acylthiourea anchored triphenylphosphine complexes	8th CRSI-National symposium in Chemistry & 15th CRSI RSC Joint symposium	IIT Guwahati	2022