

National Institute of Technology, Tiruchirappalli

CV of Dr. R. Karvembu

Curriculum Vitae



Brief Profile:

Dr. R. Karvembu is working as Associate 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 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 100 research articles and guided many graduate and master students. He has successfully completed projects sponsored by DST, CSIR, DAE-BRNS and TEQIP. His group has developed many efficient catalytic systems and biologically active complexes. He has received many 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), etc. He is in the editorial board of Current Organocatalysis and Journal of Catalyst & Catalysis. 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, and delivered invited lectures.

1. Name: Dr. R. Karvembu
2. Designation: Associate Professor
3. Office Address: Department of Chemistry
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6. Field(s) of Specialization:

Coordination Chemistry

Organometallic Chemistry

Catalysis

Bioinorganic Chemistry

7. Employment Profile:

Job Title	Employer	From	To
Associate Professor	Department of Chemistry National Institute of Technology Tiruchirappalli – 620 015, India	April 2010	till date
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
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

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

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	Bharathiar University	1998-2002	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	Till date
Chairman M.S./Ph.D. Admissions Committee	NITT	2015	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	Till date
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

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Chairman, Board of Studies (M.Sc. Chemistry)	Dept. of Chemistry	2013	2014
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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	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	PSG College of Technology, Coimbatore	2016	Till date
Member Board of studies	Thiagarajar Engineering College, Madurai	2014	2016
Member Board of studies	St. Joseph's College, Trichy	2012	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	Till date
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 (University representative), Board of Studies	Srimad Andavan Arts & Science College, Trichy	2014	Till date
Reviewer	10 th standard Science text book of Government of Tamil Nadu	2010	-
Member, Editorial Support Group of National Translation Mission.	Ministry of Human Resource Development, Government of India	2011	-
Observer for JEE (Main)	-	2013	-
Observer for UGC-NET	-	2015	2016
Member, Students Welfare Bureau	Bharathiar University	2001	2002

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11. Awards, Associate ships etc.:

Year of Award	Name of the Award	Awarding Organization
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

13. Details of Academic Work:

- (i) Curriculum Development
Framed Chemistry syllabus for I B.Tech. students (I semester)
Framed Inorganic Chemistry syllabus for M.Sc. (Chemistry) students

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- (ii) Courses taught at Postgraduate and Undergraduate levels
 Chemistry I & II (I B.Tech.)
 Organic Chemistry (II B.Tech. Chemical Engineering)
 Coordination Chemistry, Organometallic Chemistry, Bioinorganic Chemistry, Solid State Chemistry, Natural Products & Heterocyclics, Applications of Spectroscopy, Inorganic & Organic Practicals, Petroleum & Petrochemicals, Analytical Chemistry, Environmental Chemistry, Polymer Chemistry, (M.Sc. Chemistry)
- (iii) Projects guided at Postgraduate level
 Ph.D. - 7; M.Phil. - 1; M.Sc. - 32
- (iv) Other contribution(s)
 Course Coordinator for I 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), etc.
 Reviewer in many ACS, RSC, 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	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	2006	2009	Completed
Synthetic, structural, DNA-binding and photocleavage studies of Ru(II) and Ru(III) complexes with modified benzimidazole ligands	CSIR	2007	2010	Completed

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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	2007	2010	Completed
New ruthenium chalconato complexes and their catalytic activities (Co-PI)	CSIR	2006	2009	Completed
Synthesis and characterization of nanomaterials for engineering applications (Co-PI)	DST	2009	2012	Completed
Transition metal complexes with P-N bond containing pincer ligands: Synthesis and catalytic applications	DST	2011	2014	Completed
Nano silica immobilized acylthiourea complexes for catalytic applications	DAE-BRNS	2014	2017	Ongoing

15. Number of PhDs guided: 7

Name of the PhD Scholar	Title of PhD 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 N-[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

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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
J. Karuppiyah	Nonthermal plasma assisted catalytic oxidation of low concentrations of volatile organic compounds	Co-Supervisor	2012

16. Participation in Workshops/Symposia/Conferences/Colloquia/Seminars/Schools etc. (mentioning the role):

Date(s)	Title of Activity	Level of Event (International/National/Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	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

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21 Nov 2007	Seminar on Challenges and Opportunities in Surface Engineering Research	National	Participant	Dept. of MME, NITT	NITT
4 Jan 2008	Symposium on Current Scenario in Microbial Technology	National	Co-Chairperson	Bharathidasan University	Bharathidasan University
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

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17. Workshops/Symposia/Conferences/Colloquia/Seminars Organized (as Chairman/
Organizing Secretary/Convenor/Co-Convenor):

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
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

18. Invited Talks delivered:

Topic	Date	Inviting Organization
Coordination Chemistry	16.09.2006	Department of Chemistry, NITT
Special Topics in Inorganic Chemistry	25.11.2006	Department of Chemistry, NITT
Catalysis: An Overview	20.12.2006	St. Joseph's College, Trichy
Principles and Applications of Coordination Chemistry	12.10.2007	Department of Chemistry, NITT
Phase Rule	27.10.2007	Department of Chemistry, NITT
Dynamic Kinetic Resolution of Secondary Alcohols: A Novel Approach for Chiral Synthesis	11.12.2007	Seethalakshmi Ramaswamy College, Trichy
Methods for Chiral Synthesis	28.12.2007	Kongunadu Arts and Science College, Coimbatore
Nanomaterials in Catalysis	08.01.2008	Kongunadu Arts and Science College, Coimbatore

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Catalytic Applications of Nanomaterials	25.01.2008	Muthayammal College of Arts and Science, Rasipuram
Two lectures in refresher course in chemistry for college teachers	28.01.2008	Bharathiar University, Coimbatore
Chemistry of transition metals, lanthanides, actinides and organometallics	25.02.2008	Department of Chemistry, NITT
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
Novel routes for chiral synthesis	20.05.2008	Institution of Engineers, Trichy
Coordination Chemistry: Facts and Future!	31.10.2008	Selvamm Arts and Science College, Namakkal
Science in India: Greatest Moments, Challenges and Opportunities	28.02.2009	Sudharsan Engineering College, Sathyamangalam
Refresher course for research scholars	21.03.2009	UGC Academic Staff College, Bharathiar University, Coimbatore
Ruthenium- and enzyme- catalyzed dynamic kinetic resolution (DKR) of alcohols: A novel approach for chiral synthesis	20.07.2009	Sophia University, Tokyo, Japan
Novel Approach for Chiral Synthesis	11.09.2009	Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore
Refresher course in chemistry	23.01.2010	Bharathiar University, Coimbatore
Catalytic applications of nanomaterials	01.03.2010	Thanthai Hans Rover College, Perambalur
Catalysis: An Overview	05.03.2011	Raja Serfoji Government Arts College, Thanjavur
Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols and amines	13.07.2011	Cauvery College for Women, Trichy
Novel nano catalytic systems	19.07.2011	St. Joseph's College, Trichy
Refresher course for college teachers	15.12.2011	UGC Academic Staff College, Bharathidasan University, Trichy
Novel nano catalytic systems	15.02.2012	Mar Thoma College, Thiruvilla, Kerala
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

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Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	30.08.2012	St. Joseph's College, Trichy
Atomic structure, periodic table, bonding, states of matter, crystal systems, crystal defects & grain boundary	15.10.2012	DRDL, Hyderabad
Inhibitors and their functions in corrosion control	19.10.2012	CECASE, NITT
Two lectures in refresher course for college teachers	03.12.2012	UGC Academic Staff College, Bharathidasan University, Trichy
Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	15.12.2012	Kongunadu Arts and Science College, Coimbatore
Applications of nanomaterials in catalysis	22.01.2013	Cauvery College for Women, Trichy
Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	25.01.2013	Sathyabama University, Chennai
Two lectures in refresher course in materials science for college teachers	02.02.2013	UGC Academic Staff College, Pondicherry University, Puducherry
Nanomaterials in catalysis	14.02.2013	Jamal Mohamed College, Trichy
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
Two lectures in Short term course on New Avenues in Chemical Sciences Research	19.03.2013	Department of Chemistry, NITT
Nanomaterials in catalysis	02.07.2013	Tokyo Institute of Technology, Tokyo, Japan
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
Nanomaterials in catalysis	02.08.2013	Shinshu University, Japan
Nanosciences	12.09.2013	Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore
Novel nano catalytic systems	04.07.2013	Dhirajlal Gandhi College College of Technology, Salem
Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols: A novel approach for chiral synthesis	15.06.2013	Holy Cross College, Trichy

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Nanomaterials in Catalysis	02.12.2013	Anna University, Trichy
Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols: A novel approach for chiral synthesis	02.12.2013	Anna University, Trichy
Nanomaterials in catalysis	13.12.2013	Seethalakshmi Ramaswamy College, Trichy
Nanomaterials in catalysis	27.01.2014	Selvamm Arts and Science College, Namakkal
Two lectures in refresher course in chemistry for college teachers	03.02.2014	UGC Academic Staff College, Bharathidasan University, Trichy
National Science Day special address	28.02.2014	Sengunthar Engineering College, Tiruchengode
Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	07.05.2014	Department of Chemistry, NITT
Characterization of inorganic compounds	10.07.2014	Department of Chemistry, NITT
Nanomaterials in catalysis	09.08.2014	Saranathan College of Engineering, Trichy
Transition metal complexes with simple ligands: Interesting structures and efficient catalysis	13.08.2014	PSGR Krishnammal College for Women, Coimbatore
Nanomaterials in catalysis	27.10.2014	Coimbatore Institute of Technology, Coimbatore
Versatile coordination behaviour of acylthiourea ligands - Structures, catalysis and biological applications of transition metal complexes	11.12.2014	Kongu Engineering College, Perundurai
Chromatographic techniques	19.12.2014	Seethalakshmi Ramaswamy College, Trichy
Two lectures in refresher course in chemistry for college teachers	29.01.2015	UGC Academic Staff College, Bharathidasan University, Trichy
Nanomaterials in catalysis	13.05.2015	Anna University, Trichy
Nanocatalysis	06.08.2015	Srinivasan College of Arts and Science, Perambalur

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Transition metal complexes with acyl/aroil thiourea ligands: Interesting structures and efficient catalysis	16.10.2015	Periyar University, Salem
Transition metal complexes with acyl/aroil thiourea ligands: Interesting structures and efficient catalysis	17.10.2015	Sri Shakthi Institute of Engineering and Technology, Coimbatore
Novel nano catalytic systems	09.12.2015	K. S. Rangasamy College of Technology, Tiruchengode
Corrosion inhibition	29.12.2015	NLC, Neyveli
Corrosion inhibition	15.12.2016	NLC, Neyveli
Transition metal complexes with acyl/aroil thiourea ligands: Interesting structures and efficient catalysis	18.02.2016	Nirmala College for Women, Coimbatore
Nanomaterials in catalysis	23.02.2016	Periyar E. V. R. College, Trichy
Surface chemistry	18.03.2016	M. Kumarasamy College of Engineering, Karur
Transition metal complexes with acyl/aroil thiourea ligands: Interesting structures and efficient catalysis	19.07.2016	Anna University, Trichy
Role of catalysis in biodiesel production	29.09.2016	Department of Mechanical Engineering, NITT
Two lectures in refresher course in materials science for college teachers	02.11.2016	UGC Human Resource Development Centre, Bharathidasan University, Trichy

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

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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

21. Publications:

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor
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.	In press		2017	2.49
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

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S. Jone Kirubavathy, R. Velmurugan, R. Karvembu, N. S. P. Bhuvanesh, I. V. M. V. Enoch, P. Mosae 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
S. Jone Kirubavathy, R. Velmurugan, R. Karvembu, N. S. P. Bhuvanesh, I. V. M. V. Enoch, P. Mosae 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
G. Kausalya, N. Manjubaashini, P. Jerome, R. Karvembu and T. Daniel 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
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
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

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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
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
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
P. Jerome, N. S. P. Bhuvanesh and R. Karvembu	Synthesis and crystal structure of a trinuclear nickel(II) ONO pincer complex, Ni(pydc) ₂] ₂ [Ni(H ₂ O) ₅].2H ₂ O. 2(C ₆ H ₁₅ N)	J. Struct. Chem.	57(3)	546-551	2016	0.53
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
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
P. Jerome, G. Kausalya, T. Daniel Thangadurai and R. Karvembu	Green synthesis of CuO nanoflakes from copper pincer complex for effective N-arylation of benzimidazole	Catal. Commun.	75	50-54	2016	3.38
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

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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
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
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
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
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-N'- aryl-N'-benzoylguanidine ligands	Inorg. Chem. Front.	2(8)	780-798	2015	4.53
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

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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
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
S. Jone 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
R. Sivakami, S. Dhanuskodi, S. Ganesh Babu and R. Karvembu	Copper supported on lepidocrocite: A highly active magnetically separable nanocatalyst for N-arylation of imidazole	RSC Advances	5(12)	8571-8578	2015	3.28
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
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
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

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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
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
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
M. Gopiraman, H. Bang, S. Ganesh Babu, K. Wei, R. Karvembu and I.S. Kim	Catalytic N-oxidation of tertiary amines on RuO ₂ NPs anchored graphene nanoplatelets	Catal. Sci. Technol.	4(7)	2099- 2106	2014	5.42
K. Jeyalakshmi, N. Selvakumaran, N.S.P. Bhuvanesh, A. Sreekanth and R. Karvembu	DNA/protein binding and cytotoxicity studies of copper(II) complexes containing N, N', N''- trisubstituted guanidine ligands	RSC Advances	4(33)	17179- 17195	2014	3.28
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)thioure a ligands	Polyhedron	75	95-109	2014	2.10
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

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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	Organometal lics	33(2)	540-550	2014	4.18
S. Ganesamoorthy, M. Muthu Tamizh, K. Shanmugasundaram 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
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
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 N- arylation of imidazole	Carbon	62	135-148	2013	6.19
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
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
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

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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
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
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
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
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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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
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
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
S. Ganesh Babu and R. Karvembu	Copper based nanoparticles-catalyzed organic transformations	Catal. Surv. Asia	17 (3-4)	156-176	2013	2.03
D. Kesavan, M. Muthu Tamizh, N. Sulochana and R. Karvembu	2-[(E)-{(1 <i>S</i> ,2 <i>R</i>)-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
J. Karuppiah, E. Linga Reddy, P. Manoj 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

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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
D. Kesavan, M. Muthu Tamizh, M. Gopiraman, N. Sulochana and R. Karvembu	Physicochemical studies of 4-substituted N-(2-mercaptophenyl)-salicylideneimines: Corrosion inhibition of mild steel in acid medium	J. Surfact. Deterg.	15(5)	567-576	2012	1.85
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
S. Ganesh Babu, Brijith 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
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
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

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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
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
S. Priyarega, D. Senthil Raja, S. Ganesh Babu, R. Karvembu, T. Hashimoto, A. Endo and K. Natarajan	Novel binuclear palladium(II) complexes of 2-oxoquinoline-3-carbaldehyde Schiff bases: Synthesis, structure and catalytic applications	Polyhedron	34(1)	143-148	2012	2.10
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
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
N. Neelakandeswari, G. Sangami, P. Emayavaramban, S. Ganesh Babu, R. Karvembu and N. Dharmaraj	Preparation and characterization of nickel aluminosilicate nanocomposites for trans hydrogenation of carbonyl compounds	J. Mol. Catal. A: Chem.	356	90-99	2012	3.95

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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)carbamothioyl] benzamide derivatives: Synthesis, crystallography and catalytic activity in TBHP oxidation of alcohols	J. Mol. Catal. A: Chem.	353-354	156-162	2012	3.95
J. Karuppiah, R. Karvembu and Ch. Subrahmanyam	The catalytic effect of MnOx and CoOx on the decomposition of nitrobenzene in a non-thermal plasma reactor	Chem. Eng. J.	180	39-45	2012	5.31
M. Gopiraman, N. Selvakumaran, D. Kesavan and R. Karvembu	Adsorption and corrosion inhibition behavior of N-(phenylcarbamothioyl) benzamide on mild steel in acidic medium	Prog. Org. Coat.	73(1)	104-111	2012	2.63
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-[(E)-{[(1 <i>S</i> ,2 <i>R</i>)/(1 <i>R</i> ,2 <i>S</i>)-1-hydroxy-1-phenylpropan-2-ylimino}methyl]phenol	Chem. Biol. Drug Des.	79(2)	177-185	2012	2.80
N. Gunasekaran, P. Ramesh, M.N. Ponnusamy and R. Karvembu	Monodentate coordination of N-[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
N. Selvakumaran, S. W. Ng, E. R.T. Tiekink and R. Karvembu	Versatile coordination behavior of N,N-di(alkyl/aryl)-N'-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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S. Ganesh Babu and R. Karvembu	CuO Nanoparticles: A simple, effective, ligand free and reusable heterogeneous catalyst for N-arylation of benzimidazole	Ind. Eng. Chem. Res.	50 (16)	9594-9600	2011	2.58
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 N-substituted thiosemicarbazones: Synthesis, spectroscopy, X-ray crystallography and electrochemical characterization	Inorg. Chim. Acta	374 (1)	647-653	2011	1.91
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
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
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
N. Gunasekaran, N. Remya, S. Radhakrishnan and R. Karvembu	Ruthenium(II) carbonyl complexes with N-[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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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 ferrocenylthiosemicarb azone and triphenylphosphine / arsine	Spectrochim. Acta Part A	78(2)	844-853	2011	2.65
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
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
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
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- methoxysalicylideneim ine and triphenylphosphine	Spectrochim. Acta Part A	77(2)	411-418	2010	2.65

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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
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
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
S. Ganesamoorthy, K. Shanmugasundaram and R. Karvembu	Mild oxidation of alcohols with periodic acid catalyzed by [Ru(acac) ₂ (CH ₃ CN) ₂]PF ₆ in water	Catal. Commun.	10(14)	1835-1838	2009	3.38
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
R. Karvembu, R. Prabhakaran, M. Muthu Tamizh and K. Natarajan	Ruthenium and enzyme-catalyzed dynamic kinetic resolution of alcohols	Comptes Rendus Chimie	12(9)	951-962	2009	1.79
R. Prabhakaran, R. Huang, S.V. Renukadevi, M. Zeller, R. Karvembu and K. Natarajan	Coordination behaviour of ferrocenylthiosemicarbazone in a novel heterotrinary nickel(II) complex: Synthesis, spectral, electrochemistry and X-ray crystallography	Inorg. Chim. Acta	361(8)	2547-2552	2008	1.91

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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 N-substituted thiosemicarbazones	Eur. J. Med. Chem.	43(2)	268-273	2008	3.90
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
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
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
R. Prabhakaran, R. Huang, R. Karvembu, C. Jayabalakrishnan and K. Natarajan	Formation of unusual ruthenium(III) carbonyl complex through ONS tricoordination of salicylaldehyde-N-phenylthiosemicarbazone	Inorg. Chim. Acta	360(2)	691-694	2007	1.91
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

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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
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
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
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
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
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

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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
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
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-N-phenylthiosemicarbazide anion) crystals from single pot	Inorg. Chim. Acta	358(6)	2093-2096	2005	1.91
R. Karvembu, R. Prabhakaran and K. Natarajan	Shvo's diruthenium complex: A robust catalyst	Coord. Chem. Rev.	249 (9-10)	911-918	2005	12.99
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
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
R. Karvembu, J.H. Choi and J. Park	Synthesis of aminocyclopentadienyl ruthenium chloride	Inorg. Chem. Commun.	7(8)	988-989	2004	1.76
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

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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)	1535-1553	2003	0.49
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
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
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
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
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
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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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
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
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
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

(B) Conferences/Workshops/Symposia Proceedings:

Author(s)	Title of Abstract/Paper	Conference Theme	Venue	Year
K. Natarajan, 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
W.H. Kim, R. Karvembu, 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
R. Karvembu, 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

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R. Dileep, R. Karvembu, B. R. Bhat	Homogeneous catalytic oxidation of alcohols using Ni(II) complexes	International Conference on Coordination and Organometallic Chemistry	Mangalore University, India	2008
R. Karvembu, M. Muthu Tamizh, Kurt Mereiter, 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
M. Muthu Tamizh, 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
N. Gunasekaran, 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
N. Gunasekaran, R. Karvembu	Synthesis, characterization and catalytic applications of Ru(III) complexes containing N-[di(alkyl/aryl)carbamothioyl] benzamide derivatives and triphenylphosphine / triphenylarsine	International Conference on Materials for the Millennium	Cochin University of Science and Technology, Kochi	2010
S. Ganesh Babu, 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
S. Ganesh Babu, B. Thomas, R. Karvembu	Preparation of β -ketoamines catalyzed by Cu/AIO(OH)	International Conference on Catalysis	University of Glasgow, Scotland, UK	2011
M. Gopiraman, K. Fujimori, B.S. Kim, R. Karvembu, 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
N. Selvakumaran, R. Karvembu	Synthesis and cytotoxicity of Pd(II) complexes containing N,N-di(alkyl/aryl)-N'-benzoylthiourea	3 rd Asian Conference on Coordination Chemistry (ACCC-3)	India Habitat Center, New Delhi, India, organized by IIT-Kanpur & IIT-Delhi	2011

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M. Gopiraman, S. Ganesh Babu, B.S. Kim, R. Karvembu, I. S. Kim	CuO nanoparticles decorated on CNT as an effective nanohybrid catalyst for N-arylation of heterocycles	An International Conference on Nanomaterials & Nanotechnology	University of Delhi, New Delhi	2011
A. Sreekanth, R. Karvembu, N. Selvakumaran, 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
S. Ganesamoorthy, M. Muthu Tamizh, G. Manickam, K. Shanmugasundaram, 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
S. Ganesh Babu, 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
S. Ganesh Babu, R. Karvembu, I. S. Kim	CuO/aluminosilicate-catalyzed α -arylation of β -diketones	7 th Asian Conference on Electrochemical Power Sources (ACEPS-7)	Osaka, Japan,	2013
M. Gopiraman, R. Karvembu, 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
M. Gopiraman, R. Karvembu, I.S. Kim	An efficient copper-oxide/carbon-nanotube catalyst for N-arylation of imidazole	The International Conference on Nanoscience and Nanotechnology (ICONN 2014)	Adelaide Convention Centre, South Australia	2014
K. Jeyalakshmi, P. Jerome, 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
M. Mary Sheeba, S. Preethi, R. Karvembu	Half-sandwich chiral ruthenium(II) arene complexes for asymmetric transfer hydrogenation of ketones	13 th Eurasia Conference on Chemical Sciences	Indian Institute of Science, Bangalore	2014

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P. Jerome, R. Karvembu	Preparation of CuO nanoflakes catalyst from copper pincer complex for N-arylation of benzimidazole	International Conference on Nanomaterials for Energy, Environment, Catalysis and Sensors (ICNEECS-15)	Madurai Kamaraj University, Madurai	2015
P. N. Sathishkumar, 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
J. Haribabu, 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
P. Vasanthakumar, M. Priyadharshini, P. Kanchana, 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
S. P. Rajendran, 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
R. Karvembu, K. Natarajan	Binuclear ruthenium(II) carbonyl complexes containing bis(β -diketone) and	Nineteenth Conference of Indian Council of Chemists	Kuvempu University, Shimoga	2000
R. Karvembu, K. Natarajan	Synthesis and characterisation of binuclear ruthenium(III) complexes containing acetylacetonone and bis(β -diketones)	Twentieth conference of Indian Council of Chemists	University of Mysore, Mysore	2004
R. Karvembu, J. Park, K. Natarajan	Synthesis of aminocyclopentadienyl ruthenium chloride	National Conference on Recent Trends in Inorganic Chemistry	Cochin University of Science and Technology, Kochi	2004
V. Mahalingam, R. Karvembu, V. Chinnusamy, 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

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N. Chitrapriya, R. Karvembu, 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
K. Saridha, R. Karvembu, 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, Tiruchirapalli	2005
R. Karvembu, S. Priyarega, 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
S. Priyarega, R. Karvembu, 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
R. Karvembu, 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
S. Ganesamoorthy, K. Shanmugasundaram, 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
M. Muthu Tamizh, B. Varghese, R. Karvembu	NMR (1D & 2D) and X-ray crystallographic studies of [Ni(L)(PPh ₃)] (H ₂ L = N-(2-mercaptophenyl)-4-methoxysalicylideneimine)	National Conference on Recent Trends in Chemical Research	National Institute of Technology Karnataka, Surathkal	2010
S. Ganesamoorthy, M. Muthu Tamizh, K. Shanmugasundaram, R. Karvembu	"Click" immobilization of Ru(II) and Ru(III) catalysts over silica	National Conference on Recent Trends in Chemical Research	National Institute of Technology Karnataka, Surathkal	2010
S. Ganesh Babu, R. Karvembu	Catalytic activity of copper(II) oxide nanoparticles in N-arylation of heterocycles	National Seminar on Recent Advances in Inorganic and Nano Chemistry	Madurai Kamaraj University, Madurai	2010

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N. Gunasekaran, R. Karvembu	Catalytic oxidation of alcohols by Ru(II) carbonyl complexes containing N-[di(alkyl/aryl)carbamothioyl]benzamide and triphenylphosphine	5 th Mid-year Chemical Research Society of India Symposium in Chemistry	CSIR-NIIST, Trivandrum	2010
B. Thomas, S. Ganesh Babu, 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
S. Ganesh Babu, P. Aruna Priyadarsini, R. Karvembu	Cu/AlO(OH)-Catalyzed selective oxidation of alcohols with periodic acid in water (Received Hindustan platinum award for the best poster presentation).	20 th National Symposium on Catalysis for Energy Conversion and Conservation of Environment	Indian Institute of Technology Madras, Chennai	2010
S. Ganesh Babu, R. Karvembu	Nano CuO-catalyzed Ullmann type ether synthesis	11 th Tamil Science Congress	Gandhigram Rural University, Gandhigram	2011
M. Muthu Tamizh, 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
N. Selvakumaran, A. Pratheepkumar, S.W. Ng, E.R.T. Tiekink, 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
K. Jeyalakshmi, 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
M. Mary Sheeba, 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
M. Mary Sheeba, 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

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K. Jeyalakshmi, R. Karvembu	Synthesis, DNA binding and cytotoxicity of copper(II) complexes containing guanidine ligands	National Conference on Evolutionary Trends in Biological and Pharmaceutical Chemistry	Holy Cross College, Trichy	2014
P. Jerome, R. Karvembu	Ru(III)-NCN pincer complexes as catalyst for the transfer hydrogenation of ketones	16 th CRSI National Symposium in Chemistry	IIT Bombay	2014
J. Haribabu, R. Gangadharan, K. Sethusankar, R. Karvembu	Crystal structure of (E)-2-[(4-chloro-2H-chromen-3-yl)methylidene]-N-cyclohexylhydrazinecarbohydramide	National Seminar on Recent Trends in X-ray Crystallography	Seethalakshmi Ramaswami College, Trichy	2014
P. Jerome, 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
E. Balakumar, S. Ganesh Babu, 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
J. Haribabu, N.S.P. Bhuvanesh, 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
P. Jerome, R. Karvembu	Pd(II)-NNN pincer complexes containing CH ₃ CN or PPh ₃ for the Suzuki-Miyaura cross coupling reaction	10 th Mid-Year CRSI Symposium in Chemistry	NIT, Trichy	2015
J. Haribabu, 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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P. N. Sathishkumar, R. Karvembu	Palladium(II) catalyst containing dicarboxamide based tetradentate ligand for the Suzuki-Miyaura and Heck coupling reactions	10 th Mid-Year CRSI Symposium in Chemistry	NIT, Trichy	2015
S. Yasar Arafath, P. Jerome, 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
P. N. Sathishkumar, 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
M. Mary Sheeba, 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

(B) Books & Monographs:

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number
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 9781482253948
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	ISBN 978-1-61668-010-7