

## डॉ. रा. रंजीत कुमार

सह-प्राध्यापक

रसायन विज्ञान विभाग

तमिलनाडु केन्द्रीय विश्वविद्यालय

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## Dr. R. RANJITH KUMAR

Associate Professor

Department of Chemistry

Central University of Tamil Nadu

Thiruvavur – 610005

Tamil Nadu, INDIA



### BIRTHPLACE & DATE

Madithorai Village, The Nilgiris, Tamil Nadu; 12, July 1977

### ACADEMIC PROFILE

**Associate Professor** of Chemistry, CUTN, Thiruvavur, 01 December, 2022 till date

**Assistant Professor** of Organic Chemistry, MKU, Madurai, 18.03.2010 to 30.11.2022

**Visiting Scientist**, Universidad Complutense, Madrid, Spain, Sep–Nov 2011

**Post-Doctorate Fellow** under Prof. Henri B. Kagan, University of Paris, France, 2008–09

**Ph.D.** in Chemistry, Madurai Kamaraj University, Madurai, 2003–2008

**Software Engineer**, SSi Ltd., Coimbatore, 2001–2003

**M.Sc.** in Chemistry, Govt. Arts College, Ooty (Bharathiar University), 2001

**Certificate Course** in Software Programming Languages, SSi Ltd. Coimbatore, 1999

**B.Sc.** in Chemistry, Govt. Arts College, Ooty (Bharathiar University), 1997

**HSC**, (Tamil Nadu State Board), Green Valley Matric. Hr. Sec. School, Kotagiri, 1994

**SSC**, (CBSE), Rex Higher Secondary School, Ooty, 1992

### TEACHING

One- and Two- Dimensional NMR Spectroscopy, UV, IR, Mass Spectroscopy, Reaction Mechanism, General Chemistry, Physical Organic Chemistry, Retrosynthesis, Reagents, Asymmetric Synthesis, Steroids, Organic and Inorganic Practical, Research Methodology, Course Work, Good Lab Practices, Project Guidance.

### RESEARCH INTEREST

Synthesis and photophysical studies of small molecule fluorogenic chemosensors

Synthesis of hybrid heterocycles of biological importance

Structural elucidation by one- and two-dimensional NMR and X-ray crystallography

### RESEARCH GUIDANCE

	Awarded	Submitted	Ongoing
Ph.D.	Guide: <b>11</b> ; Co-guide: <b>1</b>	Guide: <b>1</b> ; Co-guide: <b>1</b>	–
M.Phil.	<b>13</b>	–	–
P.G. Project	<b>39</b>	–	<b>12</b>

### PUBLICATIONS (UGC Listed/Scopus/Web of Science Indexed/ISSN Journals/Book Chapters): **136**

Peer Reviewed Journals	:	<b>72</b>
Single Crystal X-ray Publications	:	<b>64</b> (Total No of Single Crystals: <b>151</b> )
Single Crystal X-ray Deposits in CCDC	:	<b>39</b>
Contribution to Book Chapters	:	<b>02</b>
<i>h</i> Index (31, Jul 2023)	:	<b>22</b> (Scopus)
<i>i10</i> Index (31, Jul 2023)	:	<b>36</b> (Scopus)
Citations (31, Jul 2023)	:	<b>1776</b> (Scopus)
Cumulative Impact Factor	:	<b>227.376</b> (Based on JCR Impact Factor 2022)

### CONFERENCES / SEMINARS / WORKSHOP

International-paper presented	:	<b>21</b>
National-paper presented	:	<b>25</b>
Participation	:	<b>04</b>

## CONFERENCES / SEMINARS ORGANIZED

1. **Coordinator**, UGC Sponsored Online Refresher Course – “Frontiers in Chemistry”  
UGC-HRDC, Madurai Kamaraj University, 10–23, Nov 2021
2. **Convenor**, DST sponsored National Seminar, “Current Trends in Organic Synthesis”  
School of Chemistry, Madurai Kamaraj University, 19, Jun 2013

## GRANTS RECEIVED UNDER MAJOR RESEARCH PROJECTS

Title of Research Project	Funding Agency	Period	PI/ Co-PI/ Joint PI	Amt. Rs in Lakhs	No of Papers
Development of Functional Nanomaterials for Green Energy and Environment	RUSA	2020 to 2022	Joint PI	20	3
Synthesis and biological evaluation of novel thienopyridine derivatives <i>(Out of the 165 major research projects evaluated during the midterm evaluation on 10<sup>th</sup> Dec 2014, this project has been rated as “VERY GOOD” – one among the three rated so)</i>	UGC, New Delhi	2013 to 2017	PI	11.94	19 <b>X-ray: 17</b>
Synthesis and Anti-tubercular Evaluation of Some Modified Steroids <i>(The progress made on the project was graded as “VERY GOOD” by the Fast-Track Expert Committee in the Group Monitoring Workshop meeting held on March 15 and 16, 2013 at IIT-Guwahati)</i>	DST, New Delhi	2010 to 2013	PI	7.20	9 <b>X-ray: 34</b>

## MENTORING DST-INSPIRE JRF/SRF

Name of the DST-INSPIRE JRF	Title of the Project	Period	PhD Status	No of Papers
Mrs. S. S. Roja	Synthesis, Characterization and Biological Evaluation of Novel Hybrid Heterocycles	2017 to 2022	Thesis Submitted	5
Dr. A. Shylaja	Synthesis of Novel Heterocycles Employing Green Protocols	2016 to 2020	Degree Awarded	6

## MEMBERSHIP IN PROFESSIONAL BODIES

1. Life Member – Chemical Research Society of India
2. Life Member – National Magnetic Resonance Society of India

## ACTIVE REVIEWER

ACS, RSC, Elsevier, Wiley, Thieme, Taylor & Francis, Bentham Science, Springer  
No. of manuscripts reviewed (2015 till date): **66**

## AWARDS & HONORS

1. Citation award in appreciation of remarkable research contribution during Jan 2016 to Jul 2017, by Madurai Kamaraj University on 15, Jul 2017
2. Visiting Scientist, Universidad Complutense, Madrid, Spain, Sep–Dec 2011
3. Young Scientist Fellowship, DST, New Delhi, 2009–2010
4. CNRS Post-doctorate Fellowship, Paris, France, 2008–2009

## **ACADEMIC ACTIVITIES**

1. In-charge 400 MHz NMR, Dept. of Chemistry, CUTN, Thiruvavur, Dec 2022 to date
2. Univ. Nominee, BoS, UG Chemistry, SN College, Madurai, 02.07.2021 to 30.11.2022
3. Univ. Nominee, BoS, UG Chemistry, MTN College, 26.03.2021 to 30.11.2022
4. Member, PG Non-semester Central Valuation Board, DDE, MKU, 2015–2022
5. External Examiner, PG Chemistry, Bharathidasan University, Trichy, 2017 to date
6. Member, PI Group, DST-PURSE, School of Chemistry, MKU, Nov 2016–2022
7. External Examiner, PG Chemistry, Bharathiar University, Coimbatore, 2015 to date
8. Member, BoS, UG & PG Chemistry, Lady Doak College, Madurai, 2015 to date
9. Univ. Nominee, BoS, MPhil Chemistry, VHNSN College, 20.05.2019 to 19.05.2021
10. Univ. Nominee, BoS, UG Chemistry, Sourashtra College, 26.11.2018 to 25.11.2020
11. In-charge, 300 MHz NMR, School of Chemistry, MKU, Jul 2011 to Mar 2020
12. Exam Coordinator, School of Chemistry, MKU, 01.07.2016 to 31.07.2017
13. Member 400 MHz NMR Instrument Committee (DST-FIST) GRI, Dindigul, 2014–15
14. DC Member: GRI, Dindigul, Bharathiar University, Karunya University, Coimbatore, BS Abdur Rahman University, Chennai, VIT University, Vellore & Chennai (2012-22)
15. External Examiner, Madras University, Bharathiar University, Bharathidasan University, Alagappa University, Lady Doak College, American College, Sadakathulla Appa College (2012 to date)

## **INVITED LECTURES / RESOURCE PERSON (52 Lectures)**

1. Mangalore University, Mangaluru, Karnataka
2. The Srinivasa Ramanujan Institute of Basic Sciences, Kottayam, Kerala – Kerala State Council for Science Technology and Environment, Govt. of Kerala
3. Government Victoria College, Palakkad, Kerala
4. Government Arts and Science College, Kozhikode, Kerala
5. Government College, Kattappana, Kerala
6. T. M. Jacob Memorial Government College, Ernakulam, Kerala
7. Sree Narayana College, Punalur, Kerala
8. T. K. Madhava Memorial College, Nangiarkulangara, Kerala
9. Maharaja's College, Ernakulam, Kerala
10. Mar Athanasius College, Kothamangalam, Kerala
11. Central University of Tamil Nadu, Thiruvavur, Tamil Nadu
12. Bharathiar University, Coimbatore, Tamil Nadu
13. Mother Theresa University, Kodaikanal, Tamil Nadu
14. School of Advance Sciences, VIT University, Vellore, Tamil Nadu
15. Government Arts College, Ooty, Tamil Nadu
16. V.V. Vanniaperumal College for Women, Virudhunagar, Tamil Nadu
17. Hajee Karutha Rowther Howdia College, Uthamapalayam, Tamil Nadu
18. Kandaswamy Kandar's College, Namakkal, Tamil Nadu
19. APC Mahalakshmi College for Women, Thoothukudi, Tamil Nadu
20. Virudhunagar Hindu Nadars Senthikumara Nadar College, Virudhunagar, Tamil Nadu
21. Ayya Nadar Janaki Ammal College, Sivakasi, Tamil Nadu
22. Nanjil Catholic College of Arts and Science, Kanyakumari, Tamil Nadu
23. VPMM Arts and Science College for Women, Krishnankovil, Tamil Nadu
24. Vivekananda College, Madurai, Tamil Nadu
25. Lady Doak College, Madurai, Tamil Nadu
26. Fatima College, Madurai, Tamil Nadu
27. Madura College, Madurai, Tamil Nadu
28. Nadar Mahajana Sangam S Vellaichamy Nadar College, Madurai, Tamil Nadu
29. UGC-HRDC, Madurai Kamaraj University, Madurai, Tamil Nadu

## ADMINISTRATIVE RESPONSIBILITIES

1. Deputy Director, IQAC, CUTN, Thiruvarur (22-06-2023 till date)
2. Member, IQAC, CUTN, Thiruvarur (06.01.2023 to 21.06.2023)
3. Nodal Officer, Welfare of the Differently-abled, MKU (13.02.2021 to 30.11.2022)
4. Member Secretary, Internal Quality Assurance Cell, MKU (22.11.2018 to 30.11.2022)
5. Univ. Representative, Managing Committee, NMSSVN Coll., Madurai, (2021 to 2022)
6. Member, NIRF Core Working Committee, MKU (2017–2018)
7. In charge, “Earn While You Learn” program, School of Chemistry, MKU under the UGC-University with Potential for Excellence scheme (2010–2012)
8. Organizing Committee Member, “Virtual Training on Psychosocial Interventions During COVID-19”, MKU (with Technical Support of NIMHANS, Bengaluru, Apr 2020)

## OTHER CONTRIBUTIONS

1. Member, NAAC SSR review Committee, Bharathiar University, 21.10.2022
2. Member, NAAC Mock Peer Review Team, Annamalai University, 5–7, Mar 2022
3. Member, NAAC SSR Review Committee, Yogi Vemana University, Kadappa, Dec 2021
4. Expert Member, NAAC SSR Review Committee, Periyar University, Salem, 28–30 Jul 2021 and 20–21, Mar 2021
5. Member, NAAC SSR Review Committee, Mother Teresa University, Apr 2021
6. Member, NAAC SSR Review Committee, Annamalai University, 27–29, Mar 2021
7. Member, NAAC Mock Peer Review Team, Sankara College of Science and Commerce, Coimbatore, 06.08.2022
8. Member, NAAC SSR Review Committee, Hindustan College of Arts and Science, Coimbatore, 18.02.2022

## FACULTY DEVELOPMENT PROGRAMS/WORKSHOPS ATTENDED

Name of the Program	Place	Duration	Sponsor
National Skill Development Workshop on "Intellectual Property Rights, Start-up & Innovation"	Madurai Kamaraj University	01.07.2022	RUSA
Refresher Course in ICT in Education – “Technology Enabled Teaching, Learning and Assessment”	UGC-HRDC, Madurai Kamaraj University	08.12.2021 to 21.12.2021	UGC
Clarivate Journal Citation Reports (JCR) Certification Series	Online	08.07.2021	---
AICTE-ATAL Online Elementary FDP on “Novel Materials”	Online	05.07.2021 to 09.07.2021	AICTE
One-day State Level Workshop on “Global Rankings of Universities: Present Scenario”	Madurai Kamaraj University	22.03.2019	IQAC, MKU
Refresher Course in Basic Science – “Progresses in Basic Sciences Through Interdisciplinary Approach”	UGC-HRDC, Madurai Kamaraj University	09.03.2018 to 29.03.2018	UGC
Workshop on “Intellectual Property Rights and Innovation Management in Knowledge Era”	Madurai Kamaraj University	10.04.2017	IQAC, MKU
Refresher Course in Chemistry – “Current Trends in Chemistry”	UGC-ASC, MKU	12.07.2012 to 01.08.2012	UGC
Orientation Programme	UGC-ASC, MKU	27.07.2011 to 23.08.2011	UGC
Induction Programme	UGC-ASC, MKU	23.04.2010 to 29.04.2010	UGC-ASC, MKU

## LANGUAGES KNOWN

Read, Write and Speak : English, Tamil  
Read, Speak : Hindi  
Speak : Kannada, Badaga

## DETAILS OF PUBLICATIONS

(Scopus h-Index – 22, Total Citations since 2007: 1776)

S No	Journal Name	Impact Factor (IF)*	No of Papers Published			Total No of Papers
			During PhD	During Post-Doc	From 2010 till date	
1	J Med Chem	8.039	1			1
2	Eur J Med Chem	7.088	1		1	2
3	Org Lett	6.072			2	2
4	Adv Synth Catal	5.981		1		1
5	Front. Chem	5.545			1	1
6	Bioorg Chem	5.307			1	1
7	Dyes Pigments	5.122			1	1
8	Molecules	4.927			1	1
9	J Org Chem	4.198			1	1
10	RSC Adv	4.036			2	2
11	New J Chem	3.925			1	1
12	ACS Comb Sci	3.903			4	4
13	J Mol Struct	3.841			7	7
14	Bioorg Med Chem	3.461	1			1
15	Mol Divers	3.364			1	1
16	Eur J Org Chem	3.261			1	1
17	Asian J Org Chem	3.116			1	1
18	Synthesis	2.969			1	1
19	Bioorg Med Chem Lett	2.940	2		2	4
20	Steroids	2.760			2	2
21	Beilstein J Org Chem	2.544			2	2
22	Tetrahedron	2.388	5		2	7
23	Chem Select	2.307			4	4
24	Synlett	2.170		1		1
25	J Heterocycl Chem	2.035			2	2
26	Tetrahedron Lett	2.032	1		9	10
26	Synth Commun	1.937	1		5	6
28	Aust J Chem	1.224			1	1
29	Acta Cryst C	1.184			3	3
30	Acta Cryst E	NA	13		42	55
31	Chem Data Coll	NA			2	2
32	IUCrData	NA			1	1
33	J Mol Biochem	NA			4	4
34	Phy Sci Int J	NA			1	1
35	CSTA	NA			1	1
<b>TOTAL</b>			<b>25</b>	<b>2</b>	<b>109</b>	<b>136</b>

\*Based on JCR Impact Factor 2022

## CONTRIBUTIONS TO BOOK CHAPTERS

### 1. "Seven-membered Rings with Three Heteroatoms 1,2,5"

Comprehensive Heterocyclic Chemistry III – A review of the literature 1995–2007  
Volume 13, Chapter 15, pp 433–487 March 2008, Elsevier publications  
Executive Editor: Alan R Katritzky, ISBN: 978-0-08-044992-0

**R. Ranjith Kumar**, S. Perumal and M. Balasubramanian

<https://www.sciencedirect.com/science/article/pii/B9780080449920012153>

### 2. "Name Reactions for Homologation, Part 2"

Chapter 1, March 2009, Wiley publications

Editor: Jie Jack Li, Foreword: E. J. Corey; ISBN: 978-0-470-46721-3

Section 1.1.10. Wolff Rearrangement

**R. Ranjith Kumar** and M. Balasubramanian

Section 1.2.1. Beckmann Rearrangement

**R. Ranjith Kumar**, K. A. Vanitha and M. Balasubramanian

Section 1.3.1. Benzilic acid Rearrangement

**R. Ranjith Kumar** and M. Balasubramanian

Section 1.3.6. Payne Rearrangement

**R. Ranjith Kumar** and S. Perumal

Section 1.3.7. Smiles Rearrangement

**R. Ranjith Kumar** and S. Perumal

Section 1.3.8. Stevens Rearrangement

**R. Ranjith Kumar**, K. A. Vanitha and M. Balasubramanian

<https://onlinelibrary.wiley.com/doi/book/10.1002/9780470487044>

## PUBLICATIONS IN UGC LISTED PEER REVIEWED JOURNALS (Scopus/Web of Science Indexed Journals)

**72.** One-Pot Three-Component Domino Synthesis of Isoxazolo[5,4-*b*]pyrano[2,3-*f*]quinolines: An Efficient Fluorescent Turn-off Chemosensor for Picric Acid, S. Raja Rubina, S. Indhu Leka, K. Sathya Priya, **R. Ranjith Kumar\***, S. Murugesan,\* *ChemistrySelect* **2022**, 7, e202203902, **IF: 2.307**

<https://doi.org/10.1002/slct.202203902>

**71.** Synthesis of Epiminocyclohepta[*b*]pyrazolo[4,3-*e*]pyridines from Tropinone: Fluorescent "Turn On-Off" Chemosensors for the Sequential Detection of Al<sup>3+</sup>, Cd<sup>2+</sup> and Pb<sup>2+</sup> in Nanomolar Concentration, S. Raja Rubina, P. Stalin, C. S. Meenatchi, S. Murugesan\*, **R. Ranjith Kumar\***, *J. Mol. Struct.*, **2022**, 1269, 133724, **IF: 3.841**

<https://doi.org/10.1016/j.molstruc.2022.133724>

**70.** Phenothiazine Tethered Biaryls as Fluorescent Probes for Multi-analyte Detection, S. S. Roja, S. Raja Rubina, A. Shylaja, **R. Ranjith Kumar\***, *ChemistrySelect* **2022**, 7, e202200217, **IF: 2.307**

<https://doi.org/10.1002/slct.202200217>

**69.** Pyrano[2,3-*f*]pyrazolo[3,4-*b*]quinoline-3-carbonitriles: A three-component synthesis and AChE inhibitory studies, R. V. Sumesh, **R. Ranjith Kumar\***, A. I. Almonsour, R. Suresh Kumar, M. K. M. Ashraf, *Synth. Commun.* **2021**, 51, 1058–1065, **IF: 1.973**

<https://doi.org/10.1080/00397911.2020.1866612>

**68.** Imidazolium ylide mediated tandem Knoevenagel–Michael–O-cyclization sequence for the synthesis of multi-substituted 4,5-dihydrofurans, S. Sivakumar, A.I. Almonsour, R. Suresh Kumar, N. Arumugam, **R. Ranjith Kumar\*** *Synth. Commun.* **2021**, 51, 234–244, **IF: 1.973**

<https://doi.org/10.1080/00397911.2020.1821226>

**67.** Structural, Hirshfeld, spectroscopic, quantum chemical and molecular docking studies of N'-(4-(4-Chlorophenyl)-1,3-dicyano-5,6,7,8,9,10-hexahydrobenzo[8]annulen-2-yl)N,N-dimethyl-formimidamide as CCR2 inhibitors, S. Pangajavalli, **R. Ranjith Kumar**, S. Ramaswamy, *J. Mol. Struct.*, **2021**, 1239, 130503, **IF: 3.841**

<https://doi.org/10.1016/j.molstruc.2021.130503>

66. Coordinated compliance of chloro-methyl and bromo-methyl exchange rule in two dihydrofuran carbonitrile derivatives, V. Rajni Swamy, R.V. Krishnakumar, N. Srinivasan, S. Sivakumar, **R. Ranjith Kumar**, *J. Mol. Struct.* **2021**, 1228, 129741, **IF: 3.841**  
<https://doi.org/10.1016/j.molstruc.2020.129741>
65. Ionic liquid mediated synthesis and *in vitro* mechanistic exploration of polycyclic cage-like heterocyclic hybrid, R. Suresh Kumar, A. I. Almonsour, N. Arumugam, D. Kotresha, J. C. Menendez, **R. Ranjith Kumar**, *J. Heterocycl. Chem.* **2021**, 58, 580–588, **IF: 2.035**  
<https://doi.org/10.1002/jhet.4197>
64. Thiazole-Tethered Biaryls as Fluorescent Chemosensors for the Selective Detection of Fe<sup>3+</sup> Ions, B. Mariammal, A. Shylaja, S. Vivek Kumar, S. Raja Rubina, **R. Ranjith Kumar\*** *J. Heterocycl. Chem.* **2020**, 57, 3882–3889, **IF: 2.035**  
<https://doi.org/10.1002/jhet.4093>
63. Phenothiazine Tethered 2-Aminopyridine-3-carbonitrile: Fluorescent Turn-off Chemosensor for Fe<sup>3+</sup> Ions and Picric Acid, S. S. Roja, A. Shylaja, **R. Ranjith Kumar\*** *ChemistrySelect* **2020**, 5, 2279–2283, **IF: 2.307**  
<https://doi.org/10.1002/slct.201904425>
62. Novel Blue Emissive Dimethylfuran Tethered 2-Aminopyridine-3-carbonitrile: Dual Responsive Fluorescent Chemosensor for Fe<sup>3+</sup> and Picric Acid in Nanomolar Detection Limit, A. Shylaja, S. Raja Rubina, S. S. Roja, **R. Ranjith Kumar\*** *Dyes Pigments* **2020**, 174, 108062, **IF: 5.122**  
<https://doi.org/10.1016/j.dyepig.2019.108062>
61. Access to highly substituted Oxazoles by the reaction of  $\alpha$ -Azidochalcone with potassium thiocyanate, M. Harisha, P. Dhanalakshmi, R. Suresh, **R. Ranjith Kumar**, S. Muthusubramanian, *Beilstein J. Org. Chem.* **2020**, 16, 2109–2118, **IF: 2.544**  
<https://doi.org/10.3762/bjoc.16.178>
60. Azafluorene derivatives as inhibitors of SARS CoV-2 RdRp: Synthesis, physicochemical, quantum chemical, modeling and molecular docking analysis, M. Venkateshan, M. Muthu, J. Suresh, **R. Ranjith Kumar**, *J. Mol. Struct.*, **2020**, 1220, 128741, **IF: 3.841**  
<https://doi.org/10.1016/j.molstruc.2020.128741>
59. In vitro Mechanistic Exploration of Novel Spiropyrrolidine Heterocyclic Hybrids as Anticancer Agents, R. Suresh Kumar, A. I. Almonsour, N. Arumugam, F. Mohammad, **R. Ranjith Kumar**, *Front. Chem.* **2020**, 8, Article 465, doi: 10.3389/fchem.2020.00465, **IF: 5.545**  
<https://doi.org/10.3389/fchem.2020.00465>
58. Structural, Hirshfeld, spectroscopic, quantum chemical and molecular docking studies on 6b', 7', 8',9'-Tetrahydro-2H,6'H-spiro[acenaphthylene-1,11'-chromeno[3,4-a]pyrrolizine]-2,6'(6a'H,11a'H) dione, S.Pangajavalli, **R. Ranjith Kumar**, S.Ramaswamy, *J.Mol.Struct.*, **2020**,1209, 127921, **IF: 3.841**  
<https://doi.org/10.1016/j.molstruc.2020.127921>
57. Substitution induced switch between Pictet-Spengler and Eschweiler-Clarke reactions: Selective synthesis of spiro acenaphthylene pyrrolo[1,2-b]isoquinoline/pyrrolidine hybrids, R. S. Kumar, A.I. Almansour, N. Arumugam, **R. Ranjith Kumar**, *Tetrahedron Lett.* **2020**, 61, 151606, **IF: 2.032**  
<https://doi.org/10.1016/j.tetlet.2020.151606>
56. TMSOTf-Catalysed Synthesis of 2,4,5-Trisubstituted Imidazoles from Vinyl Azides and Nitriles, M. B. Harisha, P. Dhanalakshmi, R. Suresh, **R. Ranjith Kumar**, S. Muthusubramanian, N. Bhuvanesh, *ChemistrySelect* **2019**, 4, 2954-2958, **IF: 2.307**  
<https://doi.org/10.1002/slct.201801543>

55. Discovery of novel cage-like heterocyclic hybrids as anti-inflammatory agents through the inhibition of nitrite, PGE2 and TNF- $\alpha$ , R. Suresh Kumar, P. Antonisamy, A. I. Almansour, N. Arumugam, D. M. Al-thamili, **R. Ranjith Kumar**, H-R. Kim, K-B. Kwon, *Bioorg. Chem.* **2019**, *91*, 103180, **IF: 5.307**  
<https://doi.org/10.1016/j.bioorg.2019.103180>
54. Four-Component Domino Synthesis of Pyrazolo[3,4-*h*]quinoline-3-carbonitriles: "Turn-Off" Fluorescent Chemosensor for Fe<sup>3+</sup> Ions, A. Shylaja, S.S. Roja, R. Vishnu Priya, **R. Ranjith Kumar**,\* *J. Org. Chem.* **2018**, *83*, 14084-14090, **IF: 4.198**  
<https://doi.org/10.1021/acs.joc.8b01991>
53. A one-pot access to pyridine/benzo fused cyclododecanes via multi-component tandem reactions, S. Vivek Kumar, M. Anusha Rani, A.I. Almansour, R. Suresh Kumar, S. Athimoolam, **R. Ranjith Kumar**,\* *Tetrahedron*, **2018**, *74*, 4569-4577, **IF: 2.388**  
<https://doi.org/10.1016/j.tet.2018.07.020>
52. Synthesis of spiro-linked quinolinone-pyrrolidine/pyrrolo[1,2-*c*]thiazole-oxindole/acenaphthalene hybrids via multi-component [3+2] cycloaddition, R.V. Sumesh, A. Shylaja, **R. Ranjith Kumar**,\* A.I. Almansour, R. S. Kumar, *Tetrahedron Lett.* **2018**, *59*, 4086-4089, **IF: 2.032**  
<https://doi.org/10.1016/j.tetlet.2018.10.002>
51. Synthesis of indole-cycloalkyl[*b*]pyridine hybrids via a four-component six-step tandem process, M. Muthu, R. Vishnu Priya, A.I. Almansour, R. Suresh Kumar, **R. Ranjith Kumar**\* *Beilstein J. Org. Chem.* **2018**, *14*, 2907-2915, **IF: 2.544**  
<https://doi.org/10.3762/bjoc.14.269>
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**DETAILS OF SINGLE CRYSTAL X-RAY DATA DEPOSITED IN CCDC**

No	Compound	CCDC No	Date
39	4-(4-Chlorophenyl)-9-[(4-chlorophenyl)methylidene]-3,11-dimethyl-1-phenyl-1,5,6,7,8,9-hexahydro-5,8-epiminocyclohepta[ <i>b</i> ]pyrazolo[4,3- <i>e</i> ]pyridine	2160194	19-03-2022
38	2-Amino-4-(4- <i>t</i> -butylphenyl)-6-(2,5-dimethylfuran-3-yl)pyridine-3-carbonitrile	1923165	15-06-2019
37	2-(5-Bromo-1 <i>H</i> -indol-3-yl)-4-(4-fluorophenyl)-5,6,7,8,9,10-hexahydro-cycloocta[ <i>b</i> ]pyridine-3-carbonitrile	1859053	30-07-2018
36	4-(2,6-Difluorophenyl)-2-(1 <i>H</i> -indol-3-yl)-1,4,5,6,7,8,9,10,11,12,13,14-dodecahydrocyclo-dodeca[ <i>b</i> ]pyridine-3-carbonitrile	1859052	30-07-2018
35	2-Amino-4-phenyl-5,6,7,8,9,10,11,12,13,14-decahydrocyclo-dodeca[ <i>b</i> ]pyridine-3-carbonitrile	1840402	30-04-2018
34	2-Amino-4-(4-chlorophenyl)-5,6,7,8,9,10,11,12,13,14-decahydrobenzo[12]annulene-1,3,3(4 <i>H</i> )-tricarbonitrile	1840401	30-04-2018
33	2-Amino-4-(4-chlorophenyl)-7-phenyl-6,7-dihydro-5 <i>H</i> -pyrazolo[3,4- <i>h</i> ]quinoline-3-carbonitrile	1837442	16-04-2018
32	4'-(2,4-Dichlorophenyl)-1'-methyl-2''-phenyl-7'',8''-dihydro-5'' <i>H</i> -dispiro[indole-3,2'-pyrrolidine-3',6''-quinoline]-2,5''(1 <i>H</i> )-dione	1557215	20-06-2017
31	7'-(2-Chlorophenyl)-2''-phenyl-7'',7'',7 <i>a</i> ',8''-tetrahydro-1' <i>H</i> ,2 <i>H</i> ,3' <i>H</i> ,5'' <i>H</i> -dispiro[acenaphthylene-1,5'-pyrrolo[1,2- <i>c</i> ][1,3]thiazole-6',6''-quinoline]-2,5''-dione	1537101	20-06-2017
30	5 <i>a</i> ,10 <i>a</i> -Dihydroxy-3-methyl-2,3,4,5,5 <i>a</i> ,10 <i>a</i> -hexahydro-1,5-methanoindeno[1,2- <i>d</i> ]azepine-10,11(1 <i>H</i> )-dione	1532101	10-02-2017
29	5-Benzyl-7 <i>a</i> -hydroxy-1-methyl-2,3,5,6,7,7 <i>a</i> -hexahydro-1 <i>H</i> -3 <i>a</i> ,7-methanoindeno[2,1- <i>d</i> ]pyrrolo[3,2- <i>c</i> ]azepine-12,13(4 <i>H</i> )-dione	1532100	10-02-2017
28	1'-Methyl-2 <i>H</i> -dispiro[cyclooctane-1,3'-pyrrolidine-2',2''-indene]-1'',2,3''-trione	1532099	10-02-2017
27	6 <i>a</i> -Hydroxy-1-methyl-4-phenyl-2,3,6,6 <i>a</i> -tetrahydro-1 <i>H</i> ,4 <i>H</i> ,11 <i>H</i> -3 <i>a</i> ,6-methanoindeno[2',1':4,5]thiopyrano[4,3- <i>b</i> ]pyrrole-11,12-dione	1532098	10-02-2017
26	( <i>Z</i> )-5''-(2-Chlorobenzylidene)-7'-(2-chlorophenyl)-7',7 <i>a</i> '-dihydro-1' <i>H</i> ,2'' <i>H</i> ,3' <i>H</i> -dispiro[indoline-3,5'-pyrrolo[1,2- <i>c</i> ]thiazole-6',3''-thiophene]-2,4''(5'' <i>H</i> )-dione	1469239	17-03-2016
25	( <i>Z</i> )-6-Amino-3-(2-bromobenzylidene)-10-(2-bromophenyl)-4-oxo-8-( <i>p</i> -tolyl)-2-thiaspiro[4.5]deca-6,8-diene-7-carbonitrile	1456372	27-02-2016
24	4-(3,7,7-Trimethyl-5-oxo-5,6,7,8-tetrahydro-1 <i>H</i> -pyrazolo[3,4- <i>b</i> ]quinolin-1-yl)benzoxonitrile	1445690	06-01-2016
23	3-Methyl-1-phenyl-1,6,7,8-tetrahydro-5 <i>H</i> -pyrazolo[3,4- <i>b</i> ]quinolin-5-one	1445689	06-01-2016
22	4'-(2,4-Dichlorophenyl)-1',3''-dimethyl-1''-phenyl-7'',8''-dihydrodispiro[indole-3,2'-pyrrolidine-3',6''-pyrazolo[3,4- <i>b</i> ]quinoline]-2,5''(1 <i>H</i> ,1'' <i>H</i> )-dione	1445688	06-01-2016
21	2-Amino-4-(4-chlorophenyl)-3,4,5,6,7,8,9,10-octahydrobenzo[ <i>a</i> ]cyclooctene-1,3,3-tricarbonitrile	1435196	05-11-2015
20	1-Benzyl-2-imino-4-(3,4,5-trimethoxyphenyl)-1,2,5,6,7,8,9,10-octahydro-cycloocta[ <i>b</i> ]pyridine-3-carbonitrile	1419200	15-08-2015
19	2-(Benzylamino)-4-(4-chlorophenyl)-6,7-dihydro-5 <i>H</i> -cyclopenta[ <i>b</i> ]pyridine-3-carbonitrile	1419199	15-08-2015
18	7'-(4-Chlorophenyl)-1''-methyl-7',7 <i>a</i> '-dihydro-1' <i>H</i> ,4'' <i>H</i> -dispiro[indeno[1,2- <i>b</i> ]quinoxaline-11,5'-pyrrolo[1,2- <i>c</i> ][1,3]thiazole-6',3''-piperidin]-4''-one	1418617	13-08-2015
17	3''-(2-Cyclopropyl-1-(2-fluorophenyl)-2-oxoethyl)-2'-(2-thienyl)-5',6',7',7 <i>a</i> '-tetrahydro-2'' <i>H</i> ,4'' <i>H</i> -dispiro[indole-3,3'-pyrrolizine-1',5''-[1,3]thiazolidine]-2,2'',4''(1 <i>H</i> )-trione	1035191	20-11-2014
16	Ethyl 2,3''-dioxo-3'',4'',7',7 <i>a</i> '-tetrahydro-1' <i>H</i> ,2 <i>H</i> -dispiro[acenaphthylene-1,5'-pyrrolo[1,2- <i>c</i> ][1,3]thiazole-6',2''-[1,4]benzothiazine]-7'-carboxylate	1021459	27-08-2014
15	( <i>Z</i> )-3-Methyl-7-(2-chlorobenzylidene)-1-phenyl-4-(2-chlorophenyl)-6,7-dihydro-1 <i>H</i> -pyrazolo[3,4- <i>b</i> ]thieno[2,3- <i>e</i> ]pyridine	1011898	02-07-2014
14	(6-Amino-8-(3-fluorophenyl)-9-nitro-1,3,4,8-tetrahydro-2 <i>H</i> -pyrido[1,2- <i>a</i> ]pyrimidin-7-yl)(4-chlorophenyl)methanone	1000387	30-04-2014
13	5-Hydroxy-7-(4-methoxyphenyl)-8-nitro-5-phenyl-1,2,3,5,6,7-hexahydroimidazo[1,2- <i>a</i> ]pyridine-6-carbonitrile	1000386	30-04-2014

12	5'-Chloro-5-imino-6-(1 <i>H</i> -indol-3-ylcarbonyl)-8-nitro-2,3,5,6-tetrahydro-1 <i>H</i> -spiro[imidazo[1,2- <i>a</i> ]pyridine-7,3'-indol]-2'(1' <i>H</i> )-one	1000385	30-04-2014
11	5-Amino-6-benzoyl-5'-chloro-8-nitro-2,3-dihydro-1 <i>H</i> -spiro[imidazo[1,2- <i>a</i> ]pyridine-7,3'-indol]-2'(1' <i>H</i> )-one	1000384	30-04-2014
10	2,4-Dichloro-5'-methyl-6a,6b,7,8,9,11a-hexahydro-6 <i>H</i> -spiro[chromeno[3,4- <i>a</i> ]pyrrolizine-11,3'-indole]-2',6(1' <i>H</i> )-dione	985757	07-02-2014
9	3-Hydroxy-10,13-dimethyl-7'-(4-methylphenyl)-1,3,4,5,6,7,7',7a',8,9,10,11,12,13,14,15-hexadecahydro-1' <i>H</i> -dispiro[cyclopenta[ <i>a</i> ]phenanthrene-16,6'-pyrrolo[1,2- <i>c</i> ][1,3]thiazole-5',3''-indole]-2'',17(1'' <i>H</i> ,2 <i>H</i> )-dione	959195	04-09-2013
8	Ethyl 4-(2-methoxyphenyl)-6-(methylamino)-5-nitro-1-phenyl-1,4-dihydro-2,3- <i>c</i> ]pyrazole-3-carboxylate	952473	25-07-2013
7	4-(2-Chlorophenyl)-2-ethoxy-5,6,7,8,9,10-hexahydrocycloocta[ <i>b</i> ]pyridine-3-carbonitrile	942545	03-06-2013
6	4-(4-Methoxyphenyl)- <i>N</i> ,3-dimethyl-5-nitro-1-phenyl-1,4-dihydro-2,3- <i>c</i> ]pyrazol-6-amine	938837	13-05-2013
5	2-Amino-4-(2-chlorophenyl)-5,6,7,8,9,10-hexahydrobenzo[8]annulene-1,3-dicarbonitrile	931925	31-03-2013
4	5-Amino-7-(4-isopropylphenyl)-2-phenyl-2,3-dihydro-1-benzothiophene-4,6-dicarbonitrile	911687	20-11-2012
3	4-(4-Bromophenyl)-6-(methylamino)-5-nitro-2-phenyl-4 <i>H</i> -pyran-3-carbonitrile	911400	18-11-2012
2	3-Hydroxy-16-(1-naphthylmethylene)androstan-17-one	907216	23-10-2012
1	(16 <i>R</i> ,5' <i>R</i> ,7' <i>R</i> ,7a' <i>R</i> )-Spiro[5'.2'']acenaphthylene-1''-one-spiro[16.6']-7'-(2-methoxyphenyl)-tetrahydro-1 <i>H</i> -pyrrolo[1,2- <i>c</i> ][1,3]thiazolo- <i>trans</i> -androsterone	907215	23-10-2012

## PAPERS PRESENTED IN NATIONAL/INTERNATIONAL CONFERENCE / SEMINAR

### INTERNATIONAL HELD IN INDIA

21. An Efficient Synthesis and Antioxidant Activity of Novel Pyrano[2,3-*f*]quinazolines, **P. Stalin, R. Ranjith Kumar**, S. Murugesan, International Conference on Consortium of Universal Research Erudition – iCURE-2023, Madurai Kamaraj University, Madurai, 3–6 Feb 2023.
20. Synthesis of benzothiazole/pyrimidine fused 1,3-cyclohexanediones in aqueous medium at ambient temperature, K. Abirami Sundari, **R. Ranjith Kumar**, S. Murugesan, International Conference on Consortium of Universal Research Erudition – iCURE-2023, Madurai Kamaraj University, Madurai, 3–6 Feb 2023.
19. 3-Amino-biaryl-2,4-dicarbonitrile tethered phenothiazines: fluorescence turn-off chemosensors for the detection of picric acid and 4-nitrophenol, S. S. Roja, **R. Ranjith Kumar**, International Virtual Conference on Frontiers in Chemical Research - ICFCR 21 Bishop Heber College (Autonomous), Tiruchirappalli, 3-4 Feb 2021.
18. A convenient approach for the construction of spiro-linked pyrrolo[1,2-*c*]thiazole-oxindole/indeno[1,2-*b*]quinoxaline-tropane hybrids via [3+2] cycloaddition, S. Raja Rubina, **R. Ranjith Kumar**, S. Murugesan, International Virtual Conference on Frontiers in Chemical Research - ICFCR 21 Bishop Heber College (Autonomous), Tiruchirappalli, 3-4 Feb 2021.
17. One-pot Three-Component 1,3-Dipolar Cycloaddition Mediated Synthesis of Dispiro Indazole-Pyrrolo[1,2-*c*]thiazole/Pyrrolidine-Oxindole Hybrids, S. Raja Rubina, S. Murugesan, **R. Ranjith Kumar**, International Conference on Frontiers in Chemical and Material Sciences (ICFCMS-2020), Gandhigram Rural Institute, Gandhigram, Dindigul, 24-25 Feb, 2020.
16. One Pot Domino Synthesis of furan tethered pyridine-3-Carbonitriles: A Dual Responsive ‘Turn off’ Fluorescent Chemosensor for the Detection of Fe<sup>3+</sup> and Picric acid, A. Shylaja, **R. Ranjith Kumar**, International Conference on Research Initiatives in Chemistry for Sustainable Chemistry RICS-2019, Gandhigram Rural Institute, Dindigul, Tamil Nadu, 18-19 March, 2019.
15. One-pot multi-component 1,3-cycloaddition strategy: synthesis of novel spiro indenoquinoxaline-pyrrolidine/pyrrolothiazole-indole hybrids, M. Muthu, **R. Ranjith Kumar**, International Conference on Advancements and Challenges on Chemical Sciences, Pachaiyappa College, Chennai, 3 Feb 2018.
14. A facile synthesis of thiazole-indole hybrid heterocycles through a one-pot four-component domino protocol, B. Mariammal, M. Muthu, **R. Ranjith Kumar**, International Conference on Functional Materials, Thiagarajar College, Madurai, 7-8 Sep 2017.
13. A facile one- component four-component domino protocol for the synthesis of novel cycloocta/cyclododeca-pyridine-3-carbonitrile-indole hybrids, M. Muthu, **R. Ranjith Kumar**, International Conference on Frontier Areas in Chemical Technologies (FACTs)-2017, Alagappa University, Karaikudi on 6-8 July, 2017.
12. Discovery of novel pyrazole[3,4-*h*]quinolone-3-carbonitriles as efficient ‘turn-off’ fluorescence sensors for Fe<sup>3+</sup> ions, A. Shylaja, **R. Ranjith Kumar**, International Conference on Frontier Areas in Chemical Technologies-2017, Alagappa University, Karaikudi on 6-8 July, 2017.
11. One pot synthesis of 2-amino-4-arylpiperidine-3-carbonitrile tethered phenothiazines, S.S. Roja, **R. Ranjith Kumar**, International Conference on Frontier Areas in Chemical Technologies (FACTs)-2017, Alagappa University, Karaikudi on 6-8 July, 2017.

10. A facile synthesis of thiazolo-pyridine hybrid heterocycles through one- pot four-component domino protocol, B. Mariammal, M. Muthu, **R. Ranjith Kumar**, International Conference on Frontier Areas in Chemical Technologies-2017, Alagappa University, Karaikudi on 6-8 July, 2017.
9. Vibrational Analysis of 5'-methyl-6b,7,9,11a-tetrahydrospiro[chromeno[3',4':3,4]pyrrolo[1,2]thiazole-1,3'-indoline]-2',6(6aH)-dione, S. Pangajavalli, **R. Ranjith Kumar**, S. Ramaswamy, International Conference on Recent Trends in Engineering Science, Humanities and Management, Sri S Ramasamy Naidu Memorial College, Sattur, 2-3, Feb 2017.
8. A facile three-component tandem protocol for the synthesis of novel dihydro 1*H*-pyrazolo[3,4-*b*]pyridines, M. Muthu, **R. Ranjith Kumar**, International conference on Chemical and Environmental Research, Jamal Mohamed College, Tiruchirapalli, 7 January 2017.
7. A facile entry to novel spiro tethered pyrazolo[3,4-*b*]quinoline–pyrrolidine/pyrrolothiazole/indolizine–indenoquinoxaline hybrids, R. V. Sumesh, **R. Ranjith Kumar**, International Conference on Recent Advances in Materials and Chemical Sciences, Gandhigram Rural Institute, Dindigul, Tamil Nadu, 14–15, December 2015.
6. Synthesis and NMR studies of novel dispiro indeno[1,2-*b*]quinoxaline–benzo[*b*] [1,4]thiazine–pyrrolidine/pyrrolo[1,2-*c*]thiazole/pyrrolizine hybrid heterocycles, K. Malathi, M. Muthu, **R. Ranjith Kumar**, International Conference on Recent Advances in Materials and Chemical Sciences, Gandhigram Rural Institute, Dindigul, Tamil Nadu, 14–15, December 2015.
5. Synthesis of novel oxindole thiophene hybrids tethered with pyrrolidine, pyrrolothiazole or indolizine rings, M. Anusha Rani, M. Muthu, **R. Ranjith Kumar**, 2<sup>nd</sup> International Symposium on Emerging Trends in Chemical and Pharmaceutical Sciences and Pharma Chem Expo-2014, IICT, Hyderabad, October 15-17, 2014.
4. Antimycobacterial activity: One-pot three-component domino “on water” protocol for the synthesis of functionalized benzo[*a*]cyclooctenes, S. Maharani and **R. Ranjith Kumar**, International Conference Multidisciplinary Frontiers of Medicinal Chemistry: Synthesis, Molecular Biology & Technology, Sastra University, 18, 19 January 2013.
3. Synthesis of novel 16-spiro steroids: Spiro[5'.3'']oxindole-spiro[6'.16]spiro-7'-(aryl) tetrahydro-1*H*-pyrrolo[1,2-*c*][1,3]thiazolo-estrones, V. Jeyachandran, S. Vivek Kumar, **R. Ranjith Kumar**, International conference on multidisciplinary frontiers of medicinal chemistry: Synthesis, Molecular Biology & Technology, Sastra University, Thanjavur, January 18-19, 2013.
2. Discovery of spiro-piperidin-4-ones as antimycobacterial agents, **R. Ranjith Kumar**, S. Perumal, D. Sriram, P. Yogeewari, International Conference on the Interface of Chemistry–Biology in Biomedical Research (12th ISCBC-2008), Birla Institute of Technology and Science, Pilani, Rajasthan, India, February 2008
1. An investigation of the 1,3-dipolar cycloaddition of  $\alpha$ ,*N*-diarylnitrones over 3,5-bis-(arylidene)-1-methylpiperidin-4-ones: Synthesis of highly substituted novel spiro-isoxazolidines, **R. Ranjith Kumar**, S. Perumal, Joint International Conference on Building Bridges, Forging Bonds for 21st Century Organic Chemistry and Chemical Biology (ACS-CSIR), National Chemical Laboratory, Pune, India, January 2006

## NATIONAL

25. Microwave Assisted Synthesis of Epiminocyclohepta-Pyrazolo-Pyridines, National Conference on Frontiers in Chemical Sciences, Department of Chemistry, Central University of Tamil Nadu, Thiruvarur, S. Raja Rubina, S. Murugesan, **R. Ranjith Kumar**, 29-30 March 2021

24. One Pot Domino Protocol for the Synthesis of Novel Pyrazolo Phenanthroline heterocycles, National Conference on Frontiers in Chemical Sciences, Department of Chemistry, Central University of Tamil Nadu, Thiruvarur, B. Mariammal, **R. Ranjith Kumar**, 29-30 March 2021
23. Synthesis of 3-amino-4'-biaryl-2,4-dicarbonitrile-phenothiazine hybrids for the detection of  $\text{Cu}^{2+}$  and  $\text{Fe}^{3+}$  ions, National Conference on Frontiers in Chemical Sciences, Department of Chemistry, Central Univ. of Tamil Nadu, Thiruvarur, S.S. Roja, **R. Ranjith Kumar**, 29-30 March 2021
22. Phenothiazine Tethered Spiro Pyrrolidine-Oxindole Hybrids: A Highly Selective On-Off Switchable Fluorogenic Chemosensor for Detecting Fe (III) and Hg (II) Ion, A. Shylaja, **R. Ranjith Kumar**, 21<sup>st</sup> CRSI National Symposium in Chemistry, ICT, Hyderabad on 14-16 July 2017.
21. Combinatorial synthesis of spiro-linked quinolinone-pyrrolidine/pyrrolo[1,2-*c*]thiazole-oxindole/acenaphthalene hybrid heterocycles, R. V. Sumesh, A. Shylaja, **R. Ranjith Kumar**, Three-day CRSI National Seminar on Emerging Trends in Chemistry, Madurai Kamaraj University, Madurai, 18-20, February 2016.
20. Design, synthesis and anti-mycobacterial activity of novel hybrid thiazolidine-2,4-diones, S. Ponnuchamy, **R. Ranjith Kumar**, M. A. Ali, 10<sup>th</sup> Mid-Year Chemical Research Society of India (CRSI) Symposium in Chemistry, NIT, Trichy, July 23-25, 2015.
19. Domino Knoevenagel Condensation/Aza-ene Addition/N-Cyclization Route to Functionalized Imidazo[1,2-*a*]pyridines and Pyrido[1,2-*a*]pyrimidines, S. Sivakumar, **R. Ranjith Kumar**, National Symposium on Transcending Frontiers in Organic Chemistry - National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram, October 09-11, 2014.
18. Synthesis and AChE inhibition studies of novel dispirooxindolo-pyrrolizine-thiazolidine-2,4-dione hybrids, S. Ponnuchamy, **R. Ranjith Kumar**, National Symposium on Transcending Frontiers in Organic Chemistry - National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram, October 09-11, 2014.
17. A facile atom economic synthesis of novel chromenopyridines, R. V. Sumesh, A. Malathi, **R. Ranjith Kumar** - 16<sup>th</sup> CRSI National Symposium in Chemistry (NSC-16) 8<sup>th</sup> CRSI-RSC Joint Symposium in Chemistry, IIT Mumbai, 6-9 February 2014.
16. An expedient domino [3+2] cycloaddition/intramolecular annulation reaction for the synthesis of novel hexacyclic fused systems, A. Malathi, **R. Ranjith Kumar**, 16<sup>th</sup> CRSI National Symposium in Chemistry (NSC-16) 8<sup>th</sup> CRSI-RSC Joint Symposium in Chemistry, IIT Mumbai, 6-9 February 2014.
15. 1,3-Dipolar cycloaddition: Synthesis and NMR studies of novel dispiro tetralone derivatives, V. Jeyachandran, N. Muniraj, **R. Ranjith Kumar**, National Seminar on Current Trends in Organic Synthesis, Madurai Kamaraj University, Madurai, 19 June 2013.
14. An easy access to novel dispiro thiazolo[3,2-*a*]pyridines via 1,3-dipolar cycloaddition, M. Anusha Rani, **R. Ranjith Kumar**, National Seminar on Current Trends in Organic Synthesis, Madurai Kamaraj University, Madurai, 19 June 2013.
13. An atom economic facile three-component domino synthesis of highly functionalized pyridine-3-carbonitriles and benzo[*a*]cyclooctene-1,3-dicarbonitriles S. Maharani, **R. Ranjith Kumar**, National Seminar on Current Trends in Organic Synthesis, Madurai Kamaraj University, Madurai, 19 June 2013.

12. A facile stereospecific synthesis of novel 16-spiro *trans*-androsterone hybrid heterocycles through 1,3-dipolar cycloaddition, S. Kanchithalaivan, **R. Ranjith Kumar**, National Seminar on Current Trends in Organic Synthesis, Madurai Kamaraj University, Madurai, 19 June 2013.
11. A Facile Synthesis of Novel dispiro acenaphthylene-oxindolo-pyrrolothiazolidine hybrid heterocycles via 1,3-dipolar cycloaddition, A.Malathi, G.Kalaiyarasan, **R.Ranjith Kumar** National Seminar on current Trends in Organic Synthesis, Madurai Kamaraj University, Madurai, June 19 2013.
10. Discovery of novel dispiro oxindolo-pyrrazoline-1,5-thiazolidine-2,4-dione hybrid heterocycles as AChE inhibitors, S. Ponnuchamy, **R. Ranjith Kumar**, National Seminar on Current Trends in Organic Synthesis, Madurai Kamaraj University, Madurai, 19 June 2013.
9. Synthesis of novel 16-spiro steroids: spiro-7'-(aryl)tetrahydro-1*H*-pyrrolo[1,2-*c*][1,3] thiazolo *trans*-androsterone hybrid heterocycles, S Kanchithalaivan, **R. Ranjith Kumar**, 15<sup>th</sup> CRSI National Symposium in Chemistry, Banaras Hindu University, Varanasi, February 1-3, 2013.
8. One-pot domino synthesis of highly substituted novel 4*H*-3-pyrancarbitriles, S. Sivakumar, **R. Ranjith Kumar**, 15<sup>th</sup> CRSI National Symposium in Chemistry (NSC-15) Feb 1-3, 2013 & 7<sup>th</sup> CRSI-RSC Symposium in Chemistry Jan 31, 2013 Banaras Hindu University, Varanasi.
7. A facile domino protocol for the regioselective synthesis of novel 5-amino-2,7-diaryl-2,3-dihydrobenzo[*b*]thiophenes, V. Jeyachandran, **R. Ranjith Kumar**, S. Perumal "UGC sponsored National Seminar on Recent Trends in Chemistry" HKRH College, Uthamapalayam, March 2012
6. Atom economic synthesis of novel di-spiro piperidin-4-ones, S. Kanchithalaivan, **R. Ranjith Kumar**, S. Perumal "UGC sponsored National Seminar on Recent Trends in Chemistry" Hajee Karutha Rowther Howdia College, Uthamapalayam, March 2012
5. A one-pot four component domino protocol for the synthesis of 2,6-di(indolyl)-4-arylpyridines in ionic liquid, V. Jeyachandran, K. Balamurugan, **R. Ranjith Kumar**, S. Perumal "National Conference on Recent Trends in Green Synthesis", Alagappa University, Karaikudi, August 2011.
4. An atom economic synthesis of novel spiro-pyridino-pyrrolo[1,2-*c*]thiazoles *via* 1,3-dipolar cycloaddition of azomethine ylide to arylidene-*N*-methyl-4-piperidones, S. Sivakumar, **R. Ranjith Kumar**, S. Perumal, "National Conference on Recent Trends in Green Synthesis", Alagappa University, Karaikudi, August 2011.
3. 1,3-Dipolar cycloaddition of nitrile oxide over 3,5-bis(arylidene)-1-methylpiperidin-4-ones: synthesis of novel spiro-dioxazoles and isoxazolines, **R. Ranjith Kumar**, S. Perumal, National Seminar on Frontiers in Chemistry, CUSAT, Cochin, Kerala, India, March 2006
2. Stereoselective synthesis and NMR study of novel 2,6-diaryl-3,5-bis(arylsulfanyl)tetrahydro-4(1*H*)-pyridinones, **R. Ranjith Kumar**, S. Perumal, National Seminar on Emerging Trends and New Vistas in Chemistry, University of Calicut, Kerala, India, Nov 2005 – *Selected as best oral presentation*
1. A microwave assisted synthesis of novel 2-methyl-11-aryl-4-[(*E*)-arylmethylidene]-1,2,3,4,11,11a-hexahydropyrido[3,4-*c*][1,5]benzothiazepines, **R. Ranjith Kumar**, S. Perumal, National Level Conference on Recent Trends in Chemistry of Biologically Interesting Compounds, VHNSN College, Virudhunagar, Tamil Nadu, India, July 2005



## **PARTICIPATION IN SEMINAR/WORKSHOP**

**3.** National Workshop on One- and Two- Dimensional NMR Spectroscopy: Theory and Applications, School of Chemistry, Madurai Kamaraj University, Madurai, India, February 2007 Handled practical sessions and demonstrated high resolution NMR spectrometer for the participants of the workshop

**2.** National Workshop on NMR Spectroscopy-Theory and Applications, School of Chemistry, Madurai Kamaraj University, Madurai, India, March 2008, Handled practical sessions and demonstrated high resolution NMR spectrometer for the participants of the workshop

**1.** National Workshop on Green Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai, India, July 2005, demonstrated green chemistry experiments for the participants of the workshop.

### Ph.D. GUIDANCE

Awarded: Guide-11; Co-Guide-1; Submitted: Guide-1; Co-Guide-1; Working: NA

S No	Name of the Research Scholar	Reg. No. & Date	Fellowship Details	Title of the thesis; Status; Submission Date; Viva-voce exam Date
<b>Submitted</b>				
14	Ms. S. Raja Rubina	F10112 06-10-2018	Full time <i>Co-Guide</i>	Synthesis, characterization and applications of novel hybrid heterocycles, <b>Submitted; 23-12-2022</b>
13	Mrs. S. S. Roja	F9755 31-08-2016	Full time, INSPIRE JRF/SRF	Synthesis, characterization and biological evaluation of novel hybrid heterocycles; <b>Submitted; 25-11-2022</b>
<b>Awarded</b>				
12	Dr. M.B. Harisha	P4102 28-09-2015	Part time Non-stipend <i>Co-Guide</i>	Synthetic Protocols for Novel Organic Compounds <b>Awarded; 22-05-2019; 22-01-2020</b>
11	Dr. (Mrs) B. Mariammal	P8897 30-04-2010	Part-time	Synthesis of Novel Biologically Important Heterocycles and their Derivatives <b>Awarded; 31-12-2020; 20-01-2022</b>
10	Dr. (Mrs) A. Shylaja	F9717 18-05-2016	Full time, INSPIRE JRF/SRF	Synthesis of novel heterocycles employing green protocols <b>Awarded; 08-11-2019; 09-09-2020</b>
9	Dr. M. Muthu	F9724 18-05-2016	Full time Non-stipend	Studies on the synthesis of spiro and fused hybrid heterocycles <b>Awarded; 10-06-2019; 22-01-2020</b>
8	Dr. R. V. Sumesh	F9170 05-10-2013	Full time UGC-Project Fellow	Synthesis and Biological Properties of Novel Organic Compounds <b>Awarded; 17-08-2016; 29-06-2017</b>
7	Dr. S. Ponnuchamy	P9536 03-10-2011	Part time Non-stipend	Synthesis and Characterization of Novel Hybrid 1,3-Thiazolidine-2,4-diones Comprising Active Pharmacophores; <b>Awarded; 01-04-2016; 07-07-2017</b>
6	Dr. (Mrs) M. Anusha Rani	F8866 03-04-2012	Full time UGC-BSR Meritorious	Synthesis, and Studies of Novel Heterocycles <b>Awarded; 18-03-2016; 24-02-2017</b>
5	Dr. (Mrs) S. Maharani	F8868 03-04-2012	Full time UGC-BSR Meritorious	Synthesis, Structural Elucidation and Biological Screening of Heterocycles <b>Awarded; 18-12-2015; 03-10-2016</b>
4	Dr. (Mrs) K. Malathi	F8869 03-04-2012	Full time Non-stipend	Synthesis of Novel Dispiro Hybrid Heterocycles Through 1,3-Dipolar Cycloaddition of Azomethine Ylides <b>Awarded; 30-12-2015; 02-09-2016</b>
3	Dr. V. Jeyachandran	F8676 01-06-2011	Full time UGC-BSR Meritorious	Synthesis and Characterization of Novel Heterocycles <b>Awarded; 03-02-2014; 09-10-2015</b>
2	Dr. S. Sivakumar	F8677 01-06-2011	Full time UGC-BSR Meritorious	Studies on the Synthesis of Novel Biologically Important Heterocycles <b>Awarded; 07-10-2014; 07-09-2015</b>
1	Dr. S. Kanchithalaivan	F8729 26-08-2011	Full time UGC- JRF/SRF	Studies on the Synthesis of Novel Heterocycles of Biological Importance <b>Awarded; 26-08-2014; 03-07-2015</b>

**M.Phil. Research Project Guidance:      Awarded-13      Currently Working-NA**

S No	Name of the Student	Title of the dissertation	Batch
13	Ms. K. Danisha Maria	One-pot Four-component Domino Synthesis of Pyrazolo[3,4- <i>h</i> ]quinoline-3-carbonitriles	2021-2022
12	Ms. R. Poongodi	One pot green synthesis of 2-amino-diaryl-6,7- dihydro-5 <i>H</i> -pyrazolo [3,4- <i>h</i> ]quinolone-3-carbonitriles	2016-2017
11	Ms. M. Jethkin	Synthesis of novel (7'-aryl-1',6',7',7 <i>a</i> '-tetrahydro-3' <i>H</i> -spiro[indeno [1,2- <i>b</i> ]quinoxaline-11-5'-pyrrolo[1,2- <i>c</i> ]thiazol]-6'-yl)(thiophen-2-yl) methanone via 1,3-dipolar cycloaddition	2016-2017
10	Mrs. B. Subbulakshmi	Synthesis and characterization of dispiro furanyl-indeno[1,2- <i>b</i> ]quinoxaline-pyrrolidine hybrid heterocycles	2015-2016, MKU Eve Coll, Periyakulam
9	Mrs. A. Arockia Angel Jenifer	Synthesis and structural elucidation of spiro tethered oxindole-pyrrolidine-thiazolo[3,2- <i>a</i> ]pyridine hybrids	2015-2016, MKU Eve Coll, Periyakulam
8	Ms. K. Santhiya Esther	A facile four-component domino reaction for the synthesis of novel cyclododeca[ <i>b</i> ]pyridines	2015-2016
7	Mr. P. Vairachamy	Synthesis and characterization of novel dispiro-oxindolo-pyrazolo[3,4- <i>b</i> ]quinolines	2014-2015
6	Mr. M. Muthu	Synthesis of novel pyrazolo[4,3- <i>e</i> ]thieno[3,2- <i>b</i> ]pyridines: presence of atropisomerism	2013-2014
5	Mr. K. Kalaiselvan	Synthesis and characterization of novel dispiro benzo[ <i>b</i> ][1,4]thiazine-2,3'-pyrrolidines	2013-2014
4	Ms. K. Jeyanthi	A facile one-pot four-component domino protocol for the synthesis of highly functionalized cycloocta[ <i>b</i> ]pyridine-3-carbonitriles	2012-2013
3	Mr. G. Kalaiarasan	Synthesis and NMR studies of novel dispiro pyrrolothiazole-oxindoles	2012-2013
2	Mr. S. Vivek Kumar	Synthesis and structural elucidation of novel dispiro-pyrrolo[1',2'- <i>c</i> ] [1',2']thiazolo estrones	2011-2012
1	Ms. S. Maharani	Solvent-free, microwave assisted tandem three component reactions of cyclic ketones, ninhydrin and sarcosine	2010-2011

**M.Sc. Project Guidance: Awarded-27; Summer Project/Internship: 12; Currently Working-12**

S No	Name of the Student	Dissertation Title	Batch
39	Mr. Muhammed Shinas EM	Synthesis and Characterization of dispiro-oxindole-pyrrolidine-4-( <i>tert</i> -butyl)cyclohexan-1-one hybrids	2018-2023
38	Ms. S. Anjali Devi	One-pot Three-component Synthesis of Fused Pyran Quinazoline Derivatives	2020-2022
37	Ms. K. S. Indhu Leka	One-pot Three-component Domino Synthesis of Novel Spiro oxindole-isoxazolo-pyrano-quinolines	2020-2022
36	Ms. K. Sathya Priya	Synthesis and Solvatochromic Studies of 3,4-Dihydrobenzo[4,5]imidazo[2,1- <i>b</i> ]quinazolin-1(2 <i>H</i> )-one	2020-2022
35	Mr. M. Vijay	Synthesis of E-6-(4-chlorobenzylidene)-11-(4-chlorophenyl)-12-methyl-3,4,6,7,8,9,10,11-octahydro-7,10-epiminocyclohepta[ <i>b</i> ]chromen-1(2 <i>H</i> )-one	2019-2021
34	Mr. R. Karthik	Synthesis and solvatochromic studies of 8,9-dihydro-pyrimido[4,5- <i>b</i> ]quinoline-2,4,6(1 <i>H</i> ,3 <i>H</i> ,7 <i>H</i> )-trione	2019-2021
33	Mr. S. Harikaran	Synthesis and solvatochromic studies of 8,8-dimethyl-8,9-dihydropyrimido[4,5- <i>b</i> ]quinoline-2,4,6(1 <i>H</i> ,3 <i>H</i> ,7 <i>H</i> )-trione	2019-2021
32	Mr. S. Vivek	One-pot pseudo four-component synthesis of 3-amino-4'-biaryl-2,4-dicarbonitrile-phenothiazine hybrids	2018-2020
31	Mr. P. Stalin	Microwave Assisted Synthesis of Epiminocyclohepta[ <i>b</i> ]pyrazolo[3,4- <i>e</i> ]pyridine Hybrids	2018-2020
30	Ms. S. Muthu Selvi	Synthesis of spiro-linked dimethylfuranpyrrolo[1,2- <i>c</i> ]thiazolo-oxindole hybrids	2018-2020

29	Ms. K. Arthy	Three component dipolar cycloaddition strategy for the synthesis of regioisomeric dispiro-acridine-pyrrolidine-indoline hybrid	2018-2020
28	Mr. R. Zubair Rahman	Synthesis and characterization of spiro-indenoquinoxaline-pyrrolo[1,2- <i>c</i> ]thiazole-carbonitrile-indole hybrids	2017-2019
27	Ms. M. Mageswari	Green Synthesis and Characterization of Pyrido[2,3- <i>f</i> ]quinazoline-3-carbonitriles	2017-2019
26	Ms. N. Indumathi	Three component dipolar cycloaddition strategy for the synthesis of dispirooxindolyl[acridine-2,3'-pyrrolidine]-1-ones	2017-2019
25	Ms. J. Antolin Jesila	1,3-Dipolar cycloaddition mediated synthesis of phenothiazine tethered spiro acenaphthylene-pyrrolo[1,2- <i>c</i> ]thiazole hybrids	2016-2018
24	Ms. S. Raja Rubina	Microwave Assisted One-pot Four-component Domino Synthesis of 2-Amino-4-aryl-6-(2,5-dimethylfuran-3-yl)-pyridine-3-carbonitriles	2016-2018
23	Mr. K. Sujith	Synthesis and picric acid sensor studies of thiazole linked push-pull biphenyls	2015-2017
22	Mr. R. Nehru	A one pot sequential double 1,3-dipolar cycloaddition for the synthesis of triazole tethered piperidone-spirooxindole hybrids	2015-2017
21	Ms. M. Jethkin	A facile three-component tandem protocol for the synthesis of novel dihydro-1 <i>H</i> -pyrazolo[3,4- <i>b</i> ]pyridines	2014-2016
20	Ms. K. Aparna	Synthesis and characterization of novel dispiro-oxindolo-tetrahydroindazolones	2014-2016
19	Mr. N. Anbu	Multi-component domino protocol for the synthesis of novel benzo[ <i>a</i> ]cyclooctene-1,3,3-tricarbonitriles	2013-2015
18	Mr. R. Kumaresan	Synthesis and NMR studies of novel dispiro indeno[1,2- <i>b</i> ]quinoxalinebenzo[ <i>b</i> ][1,4]thiazinepyrrolidine/pyrrolizine hybrid heterocycles	2013-2015
17	Ms. S. Mariya Densly	Four-component domino strategy for the synthesis of novel cyclopenta[ <i>b</i> ] pyridine-3-carbonitriles: existence of axial chirality	2012-2014
16	Mr. N. Muniraj	Synthesis and NMR studies of novel dispiro tetralone derivatives	2011-2013
15	Mr. G. Ravikumar	An atom economic stereoselective synthesis of novel dispiro heterocycles	2010-2012
14	Mr. S. Harish Babu	Stereoselective synthesis and NMR study of novel 2,6-diaryl-3,5-bis(arylsulfanyl) tetrahydro-4(1 <i>H</i> )-pyridinones	2009-2011
13	Ms. S. Kavitha	An atom economic one-pot three component domino protocol for the synthesis of fused pyridine carbonitriles	2009-2011
12	Ms. M. Sakthi Priya	Synthesis of indole tethered spiro pyrrolidine indenoquinoxaline hybrid heterocycles (Combined Project Work)	2016-2018 (Summer project)
11	Ms.N.SharmilaBanu		
10	Ms. M. Sivasangari	Synthesis and characterization of thiophene tethered spiro-indenoquinoxaline hybrids via 1,3-dipolar cycloaddition	2016-2018 (Summer project)
9	Ms. M. H. Fathimithujohara	One pot four component domino synthesis of novel cyclododeca[ <i>b</i> ]pyridines	2016-2018 (Summer project)
8	Ms. A. Nivetha Lakshmi	Synthesis and characterization of E-5-(2-arylidene)-9-(aryl)-2,3,4,5,6,7,8,9-octahydro-1 <i>H</i> -xanthen-1-ones	2016-2018 (Summer project)
7	Ms. G. Vennila	Synthesis and characterization of phenothiazine tethered spiro oxindole hybrids via 1,3-dipolar cycloaddition	2016-2018 (Summer project)
6	Ms. M.R. Bhamuni	Synthesis and characterization of phenothiazine derived 2-amino-4-arylpyridine-3-carbonitrile	2016-2018 (Summer project)
5	Ms. A. Chandra Poorani	Training on basic organic chemistry laboratory experiments	2015-2017 (Summer project)
4	Ms. P. Pavithra		
3	Ms. N. Shamli		

2	Ms. V. Pramila	Synthesis and characterization of 2,3-diarylthiazolidin-4-ones	2015-2017 (Summer project)
1	Ms. K. Surya	One-pot pseudo five-component domino reactions for the synthesis of novel thieno[3,4- <i>b</i> ]pyridines	2013-2015 (Summer project)

#### DETAILS OF LECTURES DELIVERED AS RESOURCE PERSON

S No	Date	Institute/Organizer	Name of the Conference/Seminar
52	21-06-2023 24-06-2023	Department of Chemistry, Central University of Tamil Nadu	Hands-on training on Sophisticated Instrumentation Techniques (DST-STUTI & NIT Warangal) Title: NMR Spectroscopy (two lectures)
51	25-05-2023 26-05-2023	Department of Chemistry, Mangalore University, Mangaluru, Karnataka	Invited Lecture Title: Retrosynthetic Analysis (two lectures)
50	09-02-2023 13-02-2023	Department of Chemistry, Central University of Tamil Nadu	Hands-on training on Sophisticated Instrumentation Techniques (DST-STUTI & NIT Warangal) Title: NMR Spectroscopy (two lectures)
49	13-10-2022	UGC-HRDC, Bharathiar University, Coimbatore	Online Refresher Course Title: Structural Elucidation with One- and Two- Dimensional NMR Spectroscopy
48	26-07-2022 27-07-2022	Department of Chemistry, Mangalore University, Mangaluru, Karnataka	National Level Workshop on "Skill Based Techniques (SBT-2022)" Title: Solving Problems with NMR Spectroscopy
47	15-07-2022	Department of Chemistry, Vivekananda College, Madurai	Summer Training Programme on "Chromatographic Techniques and Spectrophotometer Analysis" Title 1: NMR Spectroscopy: Principles and Concepts Title 2: NMR Spectroscopy: Interpretation of Spectra
46	18-05-2022 06-05-2022	Madurai Kamaraj University, Madurai	In-Service Teacher Training Program, Organized by Tamil Nadu State Council for Higher Education Title: Institutional Accreditations and Rankings
45	22-03-2022	Department of Chemistry, Madurai College, Madurai	Resource Person in the State Level Seminar on "Frontiers in Chemistry" Title: Solving Problems with One- and Two- Dimensional NMR Spectroscopy
44	11-03-2022 14-03-2022	Department of Chemistry, Lady Doak College, Madurai	Resource Person for the IIT-JAM/CUCET/GATE/ CSIR/ SET Coaching Programme Title: NMR Spectroscopy
43	28-02-2022	Department of Chemistry, VHNSN College, Virudhunagar	One Day Seminar on Frontiers in NMR and Biomaterial Science Title: Solving Problems with One- and Two- Dimensional NMR Spectroscopy
42	19-11-2021	UGC-HRDC, Bharathiar University, Coimbatore	Online Refresher Course Title: Principles and Applications of NMR Spectroscopy
41	23-04-2021	Department of Chemistry, Ayya Nadar Janaki Ammal College, Sivakasi	Chemistry Association Webinar Title: Structural Characterization using NMR Spectroscopy
40	31-03-2021	Department of Chemistry Nanjil Catholic College of Arts and Science, Kanyakumari	Webinar Title: Interpretation of One- and Two- Dimensional NMR Spectra
39	07-01-2021	Department of Chemistry, Bharathiar University, Coimbatore	DST-PURSE Sponsored Webinar on Recent Trends in Chemistry Title: Multi-component Domino Reactions Triggered by Knoevenagel Condensation
38	22-12-2020	UGC-HRDC, Bharathiar University, Coimbatore	Webinar; Title: Principles and Applications of NMR Spectroscopy
37	06-10-2020	Central University of Tamil	Webinar

		Nadu, Thiruvarur	Title: Applications of NMR Spectroscopy
36	03-08-2020	Jamal Mohammed College, Tiruchirapalli	National Level Faculty Development Programme on Materials Characterization Techniques under DBT Star College Scheme Title: Structural characterization using one- and two- dimensional NMR spectroscopy
35	21-07-2020	The Madura College, Madurai	Webinar, Title: Structural Characterization using NMR Spectroscopy
34	17-06-2020	Cardamom Planters Association, Bodinayakanur	Webinar Title: NMR Spectroscopy – Structure Determination
33	10-06-2020	Hajee Karutha Rowther Howdia College, Uthamapalayam	Webinar Title: Solving Problems with NMR Spectroscopy
32	24-11-2019	Government Arts College, Ooty	DST-INSPIRE, Internship Science Camp Title: Retrosynthetic Analysis: The art of Organic Synthesis
31	01-11-2019	Department of Chemistry, Govt. Victoria College, Palakkad, Kerala	Two Day seminar on “Molecules to Supramolecules: A Synthetic Perspective” Title: Multi-component Domino Reactions Triggered by Knoevenagel Condensation
30	11-10-2019	Department of Chemistry, Karpagam University, Coimbatore	10 <sup>th</sup> National Workshop on “Interpretation of Spectral Data and Identification of Phytoconstituents” Title: NMR Spectroscopy (2 Lectures)
29	03-10-2019	Department of Chemistry, VIT University, Vellore	One Day Faculty Development Programme on 'Analysis and advances in organic synthesis; Title: Retrosynthesis
28	15-02-2019	Postgraduate and Research Department of Chemistry, Mar Athanasius College, Kothamangalam, Kerala	Two-day UGC sponsored Diamond Jubilee National Seminar on Retrosynthetic Analysis and Organic Spectroscopy Title: NMR Spectroscopy
27	12-02-2019	Department of Chemistry, VPMM Arts and Science College for Women, Krishnankovil,	National Conference on Recent Trends in Chemistry Title: Retrosynthetic Analysis: The Art of Synthesis
26	21-01-2019	Department of Chemistry, VVV College, Virudhunagar	Invited lecture Title: Basics of NMR spectroscopy
25	14-11-2018	Department of Chemistry, Govt. College, Kattappana, Kerala	National Seminar on Recent Trends in Chemistry Title: Solving Problems with NMR Spectroscopy
24	28-09-2018	Department of Chemistry, Maharaja's College, Ernakulam, Kerala	National Seminar in Chemistry "RAISE 2018" Titles: 1. Retrosynthesis 2. 2D NMR Spectroscopy
23	05-08-2017	Department of Chemistry, VPMM Arts and Science College for Women, Krishnankovil,	Inauguration of Chemistry Association: Chem Festiva-17 Title: NMR spectroscopy
22	07-05-2017	The Srinivasa Ramanujan Institute of Basic Sciences, Kottayam, Kerala MG University, Kottayam Kerala State Council for Science Technology and Environment	Colloquium on Spectroscopy: Theory and Applications Title: NMR spectroscopy
21	22-03-2017	PG & Research Department of Chemistry, SVN College, Nagamalai, Madurai	State Level Seminar on “Modern Trends in Chemistry-2017” Title: Structural Elucidation by One- and Two- Dimensional NMR Spectroscopy
20	17-03-2017	Department of Chemistry, Kongunadu Arts and Science College, Coimbatore	National Level Seminar on “Advanced Developments in Spectroscopic Techniques and its Applications” Title: NMR spectroscopy
19	04-03-2017	School of Advances Sciences, VIT University, Vellore	Special Lecture Title: Structural Elucidation by One- and Two- Dimensional NMR Spectroscopy

18	18-02-2017	Department of Chemistry, VHNSN College, Virudhunagar	Guest-Lecture Title: Basic Concepts of Retrosynthetic Analysis
17	22-12-2016	TM Jacob Memorial Govt. College, Koothattukulam, Ernakulam, Kerala	National Seminar on "Advanced Concepts in Chemistry" (Two lectures) Title I: Stereochemical Aspects in Organic Chemistry Title II: Retrosynthetic Analysis
16	02-02-2016	Fatima College, Madurai	Invited lecture in the Chemistry Association Function Title: Basic Concepts of Retrosynthesis
15	17-12-2015	VVV College for Women, Virudhunagar	Invited lecture in Chemistry Association Title: Basics of NMR Spectroscopy
14	27-11-2015	Government Arts and Science College, Kozhikode, Kerala	Two Day National Seminar on "Recent Advances in Chemistry" Title: Significance of Chirality: The Need for Asymmetric Synthesis
13	31-10-2015	Hajee Karutha Rowther Howdia College, Uthamapalayam	Invited lecture Topic: Retrosynthetic Analysis
12	28-09-2015	Mother Theresa University, Kodaikanal,	National Seminar on "Managing Risks of Hazardous Chemicals at Work" Title: Managing Risks of Hazardous Chemicals at Work
11	19-09-2015	T. K. Madhava Memorial College, Nangiarkulangara, Kerala	UGC Sponsored National Seminar on "Spectroscopic Techniques-Present Scenario" Title: One- and Two- Dimensional NMR Spectroscopy in the Elucidation of Heterocycles
10	12-03-2015	Kandaswamy Kandar's College, Namakkal, Tamil Nadu	DST sponsored National Seminar on "Advanced Nanomaterials for Functional Applications" Title: Domino Reactions Triggered by Knoevenagel Condensation: Synthesis of Drug-like Materials
9	13-02-2015	Sree Narayana College, Punalur, Kerala	UGC sponsored National seminar on "Chemical applications of spectroscopic techniques" Title: Structural Elucidation by One- and Two-Dimensional NMR Spectroscopy
8	05-02-2015	APC Mahalakshmi College for Women, Thoothukudi	UGC sponsored National seminar on "Current Trends in Chemistry" Title: Structural Elucidation by One- and Two-Dimensional NMR Spectroscopy
7	20-07-2014	The Srinivasa Ramanujan Institute of Basic Sciences, Kottayam, Kerala MG University, Kottayam Kerala State Council for Science Technology and Environment	Colloquium on "Recent Trends in Organic and Bioorganic Chemistry" Title: Multi-component Domino Reactions Triggered by Knoevenagel Condensation
6	27-12-2014	Academic Staff College, Madurai Kamaraj University, Madurai	Refresher Course in Chemistry Title: NMR Spectroscopy: Structural Elucidation of Organic Molecules
5	25-11-2013	Academic Staff College, Madurai Kamaraj University, Madurai	Delivered a lecture Refresher Course in Chemistry
4	25-07-2011	Academic Staff College, Madurai Kamaraj University, Madurai	Refresher Course in Chemistry Title: NMR Spectroscopy: Structural Elucidation of Organic Molecules
3	26-08-2011	Fatima College, Madurai	UGC sponsored National Seminar on "Recent Advances in the Applications of Spectroscopy" Chaired a session to evaluate oral paper presentation
2	01-05-2011	Fatima College, Madurai	Chemistry Association Function, Valedictory Address Title: Green Chemistry
1	11-11-2010	Academic Staff College, Madurai Kamaraj University, Madurai	Delivered a lecture Refresher Course in Chemistry