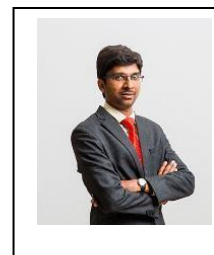


Name : R. Rajkumar
Designation : Assistant Professor
Department : Chemistry
Qualification : M.Sc., Ph.D.
Experience : Teaching: 7 Years 5 Month Research: 6.11 Years
Area of Specialization(s) : Synthetic Organic Chemistry
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Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph.D.	Chemistry	Bharathiar University, Coimbatore	2018
M.Sc.	Chemistry	Karpagam College of Arts and Science, Coimbatore.	2009
B.Sc.	Chemistry	Govt. Arts College, Coimbatore	2007

Additional Qualifications

Diploma / Vocational / Certification	Area of Specialization	Institution / University / Agency Name	Year
JRF	Basic Scientific Research (BSR)	UGC	April 2013 – Mar 2015
SRF	Basic Scientific Research (BSR)	UGC	April 2015 – Nov 2016

Grant Received

Event Title	Agency	Amount	Year
Ruthenium(II) Hydrazone complexes: Synthesis, Characterization and invitro biological studies	TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY DOTE Campus, Chennai – 600 025	7500	2023-24

Research Publications (Indexed)

International

1. D. Karthik Kumar, R. Rajkumar, S. P. Rajendran, **Robust synthesis of linear and angular furoquinolines using Rap–Stoermer reaction**, Chemistry of Heterocyclic Compounds, 52(5), 322–325, 2016 (Indexed in SCI).

National

1. M. Dinesh kumar, R. Ravikumar, R. Rajkumar, M. Mohanraj, **In-Vitro Assessment Of 4-Piperidone Phenyl Hydrazones As Antimicrobial Agents**, IAPQR Transactions, 50(1), 152-159, 2025 (Indexed in UGC CARE).
2. M. Dinesh kumar, K. Shanmugam, R. Rajkumar, M. Mohanraj, R. Ravikumar, **Structure, Spectroscopy and Electronic Properties of 1,2,3 triazole pyrazoline hybrid: DFT and Experimental Approach**, International Journal of Creative Research Thoughts, 12(5), c393-c405, 2024 (Indexed in UGC).
3. R. Rajkumar, R. Ravikumar, M. Dinesh kumar, Mallanaicker Myilsamy, **A Green Approach to the Synthesis of Fused Benzo[1,8]-naphthyridine derivatives by One-pot Three Component Reaction**, Research Journal of Chemistry and Environment, 27(7), 34-39, 2023 (Indexed in SCOPUS).
4. M. Mohanraj, A. Basker, R. Rajkumar, S. Shyamsivappan, R. Ravikumar, **A Review On Therapeutic Application Of Copper Complexes**, International Journal of Creative Research Thoughts, 12(5), f212-f221, 2024 (Indexed in UGC).
5. M. Mohanraj, B. Kajamaideen, R. Rajkumar, S. Shyamsivappan, R. Ravikumar, **A Review On Therapeutic Application Of Palladium Complexes**, International Journal of Creative Research Thoughts, 12(5), e624-e634, 2024 (Indexed in UGC).
6. Maruthachalam Mohanraj, Raju Ravikumar, Mallanaicker Myilsamy, Matheshwaran Dinesh kumar, Rayappan Rajkumar* **Synthesis, Spectral Characterization and Antioxidant Studies of Ruthenium(II) Hydrazone Complexes**, Indian Journal of Advances in Chemical Science, 10(4), 167-171, 2022 (Indexed in UGC).
7. M. Mohanraj, M. Dineshkumar, R. Rajkumar, R. Raju, **Essential Oil, Phytochemical Analysis And Biological Activity Of Plectranthus Wightii Benth**, International Journal of Creative Research Thoughts, 10(12), e26-e34, 2022 (Indexed in UGC).
8. M. Mohanraj, R. Pooja, R. Rajkumar, R. Raju, **A Review On Therapeutic Application Of Ruthenium Complexes**, International Journal of Creative Research Thoughts, 10(11), e900-e906, 2022 (Indexed in UGC).
9. R. Rajkumar, M. Mohanraj, R. Raju, **Important Roles of Cyclic Di-Keto Compounds To One Pot Syntheses of Nitrogen Heterocyclic Systems**, International Journal of Creative Research Thoughts, 10(7), b592-b604, 2022 (Indexed in UGC).
10. R. Rajkumar, M. Mohanraj, S. P. Rajendran, **An Expedient Method For One Pot Three-Component Synthesis Of Fused Benzo[1,8]Naphthyridine Derivatives**, Indian Journal Of Heterocyclic Chemistry, 29(1), 47-52, 2019 (Indexed in SCI).

11. R. Rajkumar, A. M. Magesh Selva Kumar, S. P. Rajendran, **Three-component One pot synthesis of functionalized benzo[1,8]naphthyridines catalyzed by bronsted bases in protic solvent media**, Indian Journal of Heterocyclic Chemistry, 26 (1), 43-50, 2016 (Indexed in SCI).
12. R. Rajkumar, K. Saravanamani, S. P. Rajendran, **Microwave assisted one pot synthesis of naphtho benzo[1,8]naphthyridine scaffolds**, Journal Of Chemical And Pharmaceutical Sciences, 10(1), 307-310, 2017 (Indexed in SCOPUS).

Other Publications: International / National Journals

1. R. Rajkumar, P. Dhivya, S. P. Rajendran, **One pot, Three-Component Synthesis of functionalized Benzo[1,8]naphthyridines under catalyst in aqueous media**, Journal of Chemical, Biological And Physical Sciences Sec. A, 6(3), 777-783, 2016 (Indexed in Google Scholar & Copernicus).
2. A. M. Magesh Selva Kumar, R. Rajkumar, S. P. Rajendran, **Efficient synthesis of fused benzo[b]Indazolo[6,7-*h*][1,6]naphthyridines**, Archive of Applied Science Research, 7(10), 60-64, 2015 (Indexed in Google Scholar & Copernicus).

Book Publications

1. **Introduction to Dairy Chemistry** M. Mohanraj, R. Rajkumar, R. Ravikumar Published by Dr.Thavamani D Palaniswami Publisher, Dr. N.G.P Arts and Science College, Coimbatore, 2023. ISBN-978-81-966306-8-3.
2. **Handbook of Analytical Chemistry** R. Rajkumar, R. Sowmiya Bharathi, R. Abitha, M. Mohanraj Published by Dr.Thavamani D Palaniswami Publisher, Dr. N.G.P Arts and Science College, Coimbatore, 2023. ISBN-978-81-966306-1-4.
3. **Introduction to Organic Chemistry**, R. Rajkumar, R. Ravikumar, S. Deepan Published by Dr.Thavamani D Palaniswami Publisher, Dr. N.G.P Arts and Science College, Coimbatore, 2022. ISBN-978-81-943062-9-0.
4. **Volumetric Analysis and Preparation; Lab Manual for UG students**, M. Mohanraj, R. Rajkumar, Published by Dr.Thavamani D Palaniswami Publisher, Dr. N.G.P Arts and Science College, Coimbatore, 2022. ISBN-978-81-960554-8-6.

Presentations in Conference

International

1. An efficient one-pot synthesis of quinoline derivatives in protic solvent media, International conference on Recent trends in Mathematical Chemistry and Material Science, Jairams Arts and Science College, Karur on 7th & 8th Feb 2025.
2. Linear Naphthyridine Scaffold Based one pot synthesis of 3-acetyl-1-H-banzo[b] [1,8]naphthyridin-2-ones, International conference on advanced materials for sustainable technologies, PSGR Krishnammal College For Women, Peelamedu, Coimbatore, 23 & 24th Jan 2025.
3. One pot three components synthesis of fused [1,8]naphthyridines and their biological evaluation, 2nd

International Conference on Multifunctional Materials and Radiation Measurements (ICMMRM-2024), Sri Sivasubramaniya Nadar College of Engineering (autonomous), Chennai, 14-15th Mar-2024.

4. A Convenient one pot synthesis of 1,8-naphthyridine analogs, International Conference on Recent Innovations In Chemical Sciences (ICRICS 23), Sona College of Arts and Science, Salem, 29th Sep-2023.

5. One pot, Three-Component Synthesis of 3-acetyl Benzo [1,8]naphthyridines under protic solvent media, International Virtual Conference on Future Prospects in Chemical Research, Seethalakshmi Ramaswami College, Tiruchirappalli, 21 to 22 Dec-2022.

6. One pot, Three-Component Synthesis of 3-acetyl-benzo[*b*][1,8]naphthyridin-2-ones under catalyst in aprotic media, International Virtual Conference on Future Prospects in Chemical Research, Seethalakshmi Ramaswami College, Tiruchirappalli, 21 to 22 Dec-2022.

7. Synthetic studies on angular pyrimido quinoline thions, International Conference on Chemistry-Frontiers & Challenges, PSGR Krishnammal College For Women, Peelamedu, Coimbatore, 5 to 7 Feb-2014.

8. An elegant synthesis of 2-thioxo-2,3-dihydro-1*H*-pyrimido[4,5-*b*] quinoline-4-ones, International Conference on Biologically Active Molecules (ICBAM 2012), Gandhigram Rural Institute –Deemed University, Gandhigram, 8 to 10 Mar-2012.

National

1. Efficient Synthesis of nitrogen heterocyclic compounds by multi-component condensations, One day national conference on Advances in Molecular Modelling and Nanocomposites in Chemistry, Department of Chemistry, Vellalar College for Women, Erode, 7th Jan 2025.

2. Traditional Methods of Food Preservation, National Seminar on Integration of Traditional Indian Knowledge System into Modern Higher Education: NEP Perspective (ICSSRIKS2024), Dr. N.G.P Arts and Science College, Coimbatore, 04 & 05th Jul – 2024.

3. Chemistry of Indian Spices and Their Health Benefits, National Seminar on Integration of Traditional Indian Knowledge System into Modern Higher Education: NEP Perspective (ICSSRIKS2024), Dr. N.G.P Arts and Science College, Coimbatore, 04 & 05th Jul – 2024.

4. Microwave assisted one pot synthesis of naphtho benzo[1,8] naphthyridine scaffolds, National Conference on Recent Trends in Medicinal, Materials, Environmental and Battery Research in Chemistry, Karpagam Academy of Higher Education, Echanari, Coimbatore, 12 to 13-Mar-2020.

5. One-pot multicomponent synthesis of substituted dibenzo[*b,g*][1,8]naphthyridin-1-one derivatives in aqueous medium, National Conference on Recent Trends in Chemical Science, Pachamuthu College of Arts & Science for Women, Dharmapuri, 19-Sep-2018.

6. Three component one pot synthesis of dibenzo[*b,g*][1,8]naphthyridin-1-one derivatives in aqueous medium, National Conference on Chemistry of Advanced Material and Biomedical Applications, Kumaraguru College of Technology, Coimbatore, 20 to 21-Apr-2018.

7. One pot multicomponent synthesis of substituted 3,3-dimethyl-3,4-dihydro-2h-

dibenzo[1,8]naphthyridin-1-one derivatives in aqueous medium, National Conference on Emerging Trends in Material, Medicinal and Environmental Chemistry, Karpagam Academy of Higher Education, Echanari, Coimbatore, 8 to 9-Mar-2018.

8. One pot, Three-Component Synthesis of functionalized Benzo [1,8]naphthyridines under catalyst in aqueous media, National Conference on Advances in Environmental, Synthetic And Medicinal Chemistry, Karpagam University, Coimbatore, 5 to 6-Apr-2016.

9. Synthetic studies on benzo fused [1,8]naphthyridines, National Conference on Recent Trends of Green and Medicinal Chemistry, Karpagam University, Coimbatore, 11-Mar-2015.

10. One pot Synthesis of functionalized Benzo[1,8] naphthyridines, National Seminar on Traditional And Mordern Medicine: Current Trends And Future Prospects, Nirmala College for women, Coimbatore, 25-Feb-2011.

Participation in Conference

1. International Webinar on Interdisciplinary Research on Societal Applications: Challenges and Opportunities (IRSA-2020) by Department of Chemistry, Bharathiar University, Coimbatore on 26 & 27 th June 2020.
2. Webinar on Startup Lifecycle and Patent Registration by ACE Innovation Cell, IPR Cell, ACE Institutions Innovation Council (IIC)- MHRD, India and Atharva College of Engineering, Mumbai, on 18 & 19th May 2020.
3. Webinar on Personal Effectiveness – Need of the Hour by Sakthi Institute of Information and Management Studies, Pollachi on 14th May 2020.
4. Webinr on India First Leadership Talk Broadcasted by MHRD's Innovation Cell, India, on 2nd May 2020.

Participation in Workshop

1. Workshop on NMR, IR spectroscopy held at Division of Physical Sciences (Chemistry), SSAM, Karunya Institute of Technology and Sciences, Coimbatore, 1st March 2024.
2. Workshop on Beneficial Applications of Radiation Technology and Indian Nuclear Energy Programme held at Dr. N.G.P Arts and Science College, Coimbatore, 31st Aug – 2023.
3. Workshop on Virtual lab held online at Amirta Virtual lab, Amirta Viswa Vidhyapeetham, Kollam, 22nd Aug – 2023.
4. Workshop on Awareness workshop – NIRF INDIA RANKINGS – 2021 for Higher Educational Institutions held online at Institute for Academic Excellence in Collaboration with Collegiate Education & Technical Education Department, Government of Telangana, 18, 19th Jan-2021.
5. Workshop on X-Ray Crystallography and its Applications held at Department of Chemistry, Bharathiar University, Coimbatore, 5 & 6-Mar- 2014.

6. Workshop on Spectroscopy held at Department of Chemistry, Bharathiar University, Coimbatore, 7-Mar-2012.
7. Workshop on Nano Science held at Department of Chemistry, Karpagam University, Eachanari, Coimbatore, 20-Feb-2009.
8. Workshop on Current Development in Chemistry held at Department of Chemistry, Government Arts College, Coimbatore, 7 & 8-Feb-2008.

Organizing Member

1. National Seminar on Integration of Traditional Indian Knowledge System into Modern Higher Education: NEP Perspective (ICSSRIKS2024) SPONSORED BY ICSSR, NEW DELHI, Internal Quality Assurance Cell, Dr. N.G.P Arts and Science College, Coimbatore, 4 & 5th July – 2024.
2. Organizing member in One day National Seminar on Novel Materials for Sustainable Energy Development and Radiation Measurements (NSERM-24) by Department of Physics, Chemistry, Medical Physics and Clinical Lab Technology, Dr. N.G.P Arts and Science College, Coimbatore, 29th Feb – 2024.
3. Co-ordinator in CHEM FIESTA'24 An Intercollegiate Chemistry Student's Meet by Department Of Chemistry, Dr. N.G.P Arts and Science College, Coimbatore, 27th Feb – 2024.
4. Organizing member in Inter Department Meet by Department Of Chemistry Dr. N.G.P Arts and Science College, Coimbatore, 13th Feb – 2024.
5. Organizing member in National Conference on Emerging Trends in Physical Sciences and Mathematics organized by Faculty of Basic and Applied Sciences, . Dr. N.G.P Arts and Science College, Coimbatore, 12th Apr – 2023.
6. Organizing member in National Conference on Recent Trends in Basic and Applied Sciences organized by Faculty of Basic and Applied Sciences, . Dr. N.G.P Arts and Science College, Coimbatore, 2 to 3 Mar – 2020.

Participation in Orientation Programme / Short Term Courses

7. IIC Online Sessions by Institutions Innovation Council (IIC) by MHRD's Innovation Cell, India, on 28 April to 22 May 2020.

Participation in Faculty Development Programme

1. Faculty Development Programme on Advancements in Material Science by KRP Institute of Engineering and Technology. Coimbatore on 21-24 January 2025.
2. Faculty Development Programme on Research Insights for Academic Excellence by KRP College of Arts Science and Research. Coimbatore on 3-9 August 2023.

3. Faculty Development Programme on Outcome Based Education by Center for Faculty Development by Dr.N.G.P Arts and Science College, Coimbatore on 17-21 June 2023.
4. Faculty Development Programme on Novel Materials for Next Generations by AICTE Training And Learning (ATAL) Academy and Nallamuthu Gounder Mahalingam College, Pollachi on 27 -30th July 2021.
5. Faculty Development Programme on Stress Management by Department of Chemistry, Nirmala College for Women, Coimbatore on 14 & 15th July 2021.
6. Faculty Development Programme on Research Methodology and Pedagogy for Tertiary Education by Internal Quality Assurance Cell & Center for Faculty Development by Dr.N.G.P Arts and Science College, Coimbatore on 15-21 June 2021.
7. Faculty Development Programme on Digital Teaching for Digital Learners by Department of Commerce & Management, Nilgiri College of Arts and Science, Ooty on 14th May 2020.
8. Faculty Development Programme on Environmental Science and Engineering held at Dr. N.G.P Institute of Technology, Kalapatti, Coimbatore, 20-Jul-2018.

Invited Speaker

1. Topic on Quantitative Analysis, Department of Biotechnology, Dr. R.V. Arts and Science College, Karamadai, Coimbatore 12th Feb 2024.
2. Topic on Titrimetric Methods of Analysis, Department of Biotechnology, Dr. R.V. Arts and Science College, Karamadai, Coimbatore 14th Feb 2024.