



Name: Dr. K. Ramaiah
Designation: Assistant Professor
Department: Humanities & Sciences
Mail Id: ramaiah_k@vnrvjiet.in
Experience (in years): Teaching: 5, Research: 5

1. Educational/Technical Qualifications

S.No.	Level(UG/ PG/Ph.D.)	YearofPassing	Specialization
1.	Ph.D.	2019	MPC (Maths, Physics, Chemistry)
2.	M.Sc.	2012	Inorganic Chemistry
4.	B.Sc.	2009	M.P.Cs.

2. Teaching and Learning:

2.1 Teaching Interests:

- Engineering Chemistry,
- Inorganic Chemistry,
- Coordination Chemistry,
- Reaction Mechanism
- Organic Chemistry
- Physical Chemistry

2.2 Novel Teaching & Learning Techniques adopted:

- POGIL
- WIT-WIL
- Synthetic method
- Problem solving method.

2.3 Involvement in curriculum updating/Design:

3. Co-curricular and Extra-Curricular Activities

3.1. Interests and Hobbies:

- Reading Books.
- Playing Cricket
- Shuttle Badminton.
- Table Tennis

3.2. CCA/ECA Organized:

3.3. CCA/ECA participated:

3.4. Counseling and Mentoring Activity:

3.5. Committees involved in:

4. Conference/Workshop/Seminar/ Guest Lectures:

4.1 Conducted:

4.2 Attended:

- [1] Presented a Paper in Three-Day International Conference on “**Conventional and Digital Methods in Chemical Education**”, organized by Department of Chemistry, NIT-Warangal, during 29-31st of July, 2021.
- [2] Attended a one week faculty development program conducted on “**Recent Trends on Smart Materials and their Applications**” organized by Department of physics Vardhaman Engineering, Hyderabad, during 7th to 11th February 2022.
- [3] Presented a Paper in International Conference on “**Advanced Functional Materials (ICFAM-2017)**” in RGUKT, Basar, during 18-20th December 2017. (**Oral presentation**).
- [4] Presented a Paper in International Conference on “**Advanced Functional Materials and Devices (ICFAM-2019)**” organized by Department of Physics, NIT-Warangal, during 26-28th February 2019. (**Poster presentation**).
- [5] International Conference on “**Applications of Mass Spectrometry**” CSIR-Indian

- Institute of Technology, Hyderabad, on 20th November 2014. (Participated).
- [6] **“7th IEEE International Conference on Technology for Education (T4E)”** organized by NIT-Warangal, during 10-12th December 2015. (Participated).
- [7] Presented a Paper in International Workshop and Symposium on **“Green Chemistry & Technology (IWSGCT-18)”** at P.G. Department of Chemistry, Government Dungar College, Bikaner from 15-17th October 2018. **(Oral presentation).**
- [8] 10-day GIAN Course on **“Advanced Materials for Sustainable Energy and Storage”** (Course code: 151036B03), organized by the Department of Chemistry and the Center for Automation and Instrumentation (CAI), National Institute of Technology, Warangal, during 23rd May – 3rd June 2016. (Participated).
- [9] Presented a Paper in National Conference on **“Emerging trends in Instrumental Methods of Chemical Analysis (ETIMCA)”** held on 30-31st January 2019, Organized by Department of Chemistry, NITW. **(Poster presentation).**
- [10] Presented a Paper in Two Day National Seminar on **“Advances in Chemical Research (ACR-19)”** organized by the Department of Chemistry, Kakatiya University, Warangal during 29-30th March 2019. **(Poster presentation).**
- [11] National Conference on **“X-ray Diffraction and Recent Advances in Crystallography (XDRAC)”** organized by the Department of Physics, School of Sciences, Periyar University, Salem, Tamil Nadu, during 27-28th February 2015. (Participated).
- [12] Presented a Paper in National Conference on **“Drug Discovery and Development in Chemistry-Applications in Pharma Industry-(DDDC-2015)”** at Department of Chemistry, Sri Venkateswara University-Tirupati, during 14-15th September 2015. **(Oral presentation).**
- [13] Presented a Paper in National Conference on **“Recent Developments in Chemical Sciences and Allied Technologies”** organized by the Department of Chemistry, NIT Warangal, from 29-30th of June 2017. **(Poster presentation).**
- [14] TEQIP Workshop on **“Thermal Analysis of Materials using DSC, DTA & TG Dilatometer (TAM-II)”** organized by IIT Hyderabad, during August 12-14th, 2015. (Participated).
- [15] Workshop on **“Waste Water Treatment Technologies”** organized by the Department of Chemical Engineering, NIT Warangal on 24th July 2016. (Participated).

- [16] Industry Institute Interaction Workshop on “**Materials, Corrosion & Integrity**” organized by Department of Metallurgical and Materials Engineering, NITW during 29-30th January 2016. (Participated).
- [17] Presented a Paper in UGC sponsored the Two Day National Seminar on “**Recent Trends and Challenges in Chemical Sciences (RTCCS)**” organized by Kakatiya University, Warangal, during 24-25th March 2017. (**Poster presentation**).
- [18] Presented a Paper in “**Research Conclave**” organized by NIT-Warangal, during 18-19th March 2017. (**oral presentation**) (**Best paper award**).
- [19] Presented a Paper in National Conference on “**Frontiers in Chemical Sciences and Technologies (FCST)**” organized by Dept. of Chemistry, NIT-Warangal, during 28-29th January 2016. (**Poster presentation**).
- [20] One-Week Faculty Development Workshop on “**Teaching and learning Nano-Science and Technology-Through Hands-on Experience**” organized by NIT-Warangal, under the scheme of PMMMNMTT, MHRD, Govt. of India, during 23-27th June 2017. (Participated).
- [21] Presented a Paper in “**Telangana State Science Congress (TSSC-2018)**” organized by the Telangana Academy of Sciences in Association with the NIT Warangal, during 22-24th December 2018. (**Poster presentation**).

5. Academic Contribution and Research & Consultancy:

5.1. Invited Lectures:

5.2. Articles/Chapters published in Books:

1. Ramaiah K, Madhavi V, Tanuja Safala B, EGFR and HER2 Target-Based Molecular Docking Analysis-Computational Study of Metal Complexes, *Communication Software and Networks*, 2022, 493, 191-202. (Springer book).

5.3 Books published as single author or as editor:

5.4 Projects Guided:

- i. UG:
- ii. PG:

5.5 Research Interests: Coordination Chemistry

5.6 Ph.D students:

Papers published in review Journals:

- [1] **Ramaiah K**, Geetha Swarupa P, Prashanth J, Naveen T, Laxma Reddy K, Structural elucidation, Theoretical investigation, Biological screening and Molecular docking studies of metal(II) complexes of NN donor ligand derived from 4-(2-aminopyridin-3-methylene)aminobenzoic acid, *BioMetals*, **2021**, *34*, 529-556. **(Impact Factor: 3.378)**. (SCI).
- [2] **Ramaiah K**, Srishailam K, Laxma Reddy K, Venkatram Reddy B, Ramana Rao G, Synthesis, crystal and molecular structure, and characterization of 2-(2-aminopyridin-3-yl)methylene)-N-ethylhydrazinecarbothioamide using spectroscopic (¹H and ¹³C NMR, FT-IR, FT-Raman, UV-Vis) and DFT methods and evaluation of its anticancer activity, *Journal of Molecular Structure*, **2019**, *1184*, 405-417. **(Impact Factor: 3.841)**. (SCI).
- [3] Ramaiah K, Ramachary M, Ramu G, Laxma Reddy K, Synthesis, characterization, biological screening and molecular docking studies of 2-aminonicotinaldehyde and its metal complexes, *Research on Chemical Intermediates*, **2018**, *44*, 27-53. **(Impact Factor: 3.134)**. (SCI).
- [4] **Ramaiah K**, Shravan Kumar K, Laxma Reddy K, Zinc-catalyzed multicomponent reactions: Facile synthesis of fully substituted pyridines, *Synthetic Communications*, **2018**, *48*, 1777-1785. **(Impact Factor: 1.937)**. (Scopus).
- [5] **Ramaiah K**, Prashanth J, Haribabu J, Sreekanth KE, Venkaram Reddy B, Karvembu R, Laxma Reddy K, Vibrational spectroscopic (FTIR, FT-Raman), anti-inflammatory, docking and molecular characteristic studies of Ni(II) complex of 2-aminonicotinaldehyde using theoretical and experimental methods, *Journal of Molecular Structure*, **2019**, *1175*, 769-781. **(Impact Factor: 3.841)**. (SCI).
- [6] **Ramaiah K**, Bharat NV, Shravan Kumar K, Laxma Reddy K, Zn(ANA)₂Cl₂ complex as efficient catalyst for the synthesis of dihydropyrano [2,3-*c*] pyrazoles in aqueous medium via one-pot multicomponent reaction: A green approach, *Synthetic Communications*, **2018**, *48*, 2642-2651. **(Impact Factor: 1.937)**. (Scopus).
- [7] **Ramaiah K**, Hari babu J, Prashanth J, Ramasamy R, Venkatram Reddy B, Laxma Reddy K, Synthesis, structural, biological evaluation, molecular docking and DFT

- studies of Co(II), Ni(II), Cu(II), Zn(II), Cd(II) and Hg(II) complexes bearing heterocyclic thiosemicarbazone ligand, *Applied Organometallic Chemistry*, **2018**, 32, e4415. **(Impact Factor: 4.072)**. (SCI).
- [8] **Ramaiah K**, Ramesh G, Bhart NV, Laxma Reddy K, NaF catalyzed efficient one-pot synthesis of dihydropyrano [2,3-*c*] pyrazoles under ultrasonic irradiation via MCR approach, *Synthetic communications*, **2018**, 48, 1994-2001. **(Impact Factor: 1.937)**. (Scopus).
- [9] **Ramaiah K**, Munikumari G, Bhart NV, Laxma Reddy K, Chandrasekhar KB, Ramachandraiah C, Palladium(II) complexes of 5-substituted isatin thiosemicarbazones: Synthesis, spectroscopic characterization, biological evaluation and *in silico* docking studies, *Synthetic Communications*, **2019**, 49, 146-158. [Equal Contribution]. **(Impact Factor: 1.937)**. (Scopus).
- [10] **Ramaiah K**, Prashanth J, Laxma Reddy K, Investigations of structures, FT-IR, FT-Raman, In-vivo anti-inflammatory, molecular docking and molecular characteristics of 2-amino-3-pyridine carboxaldehyde and its Cu(II) complex using experimental and theoretical approach, *Polycyclic Aromatic Compounds*, **2021**, 42, 226-248. **(Impact Factor: 2.195)**. (SCI).
- [11] **Ramaiah K**, Madhavi V, Tanuja Safala B, EGFR and HER2 Target-Based Molecular Docking Analysis-Computational Study of Metal Complexes, *Communication Software and Networks*, **2022**, 493, 191-202. (Springer book).
- [12] **Ramaiah K**, Eswar Srikanth K, Jagadeeswara Rao D, Prabhakara Rao K, Laxman Naik J, Veeraiah A, Prashanth J, Experimental and theoretical analyses on structural (monomer and dimeric form), spectroscopic and electronic properties of an organic semiconductor 2,6-dimethoxyanthracene, *Indian Journal of Physics*, **2020**, 94, 1153-1167. **(Impact Factor: 1.778)**. (Scopus).
- [13] **Ramaiah K**, Ramachary M*, Ramu G, Munirathinam N, Durgaiyah G, Narsmiha Reddy Y, Laxma Reddy K, Zn(II), Cd(II) and Hg(II) metal complexes of 2-aminonicotinaldehyde: Synthesis, crystal structure, biological evaluation and molecular docking study, *Inorganica Chemica Acta*, **2018**, 469, 66-75. **(Impact Factor: 3.118)**. (SCI).
- [14] **Ramaiah K**, Sreekanth KE, Prashanth J, A Combined Experimental (FT-IR) and

Computational Studies of 9-Chloroanthracene, *Asian Journal of Chemistry*, **2019**, *31*, 1332-1342. (Scopus).

- [15] **Ramaiah K**, Prabhakara Rao K, Naresh Reddy G, Prashanth J, Zinc(II) complex: Spectroscopic, physicochemical calculations, anti-inflammatory and in silico molecular docking studies, *Journal of Molecular Structure*, **2022**, *1263*, 133070. (Impact Factor: 3.841). (SCI).
- [16] N. Kavitha, M. Alivelu, **Ramaiah K**, Computational Quantum Chemical Study, Insilco ADMET, and Molecular Docking Study of 2-Mercapto Benzimidazole, *Polycyclic Aromatic Compounds*, **2022**, *42*, 5534-5549. (Impact Factor: 2.195). (SCI).
- [17] Rohini G, **Ramaiah K**, Prashanth J, Bhuvanesh NSP, Sreekenth A, Unusual coordination mode of aroyl/acyl thiourea ligands and their π -arene ruthenium(II) piano-stool complexes: Synthesis, molecular geometry, theoretical studies and biological applications, *Applied Organometallic Chemistry*, **2019**, *33*, e4899. (Impact Factor: 4.072). (SCI).
- [18] Yadhukrishanan V O, Murali Sankar M, Dheepika R, **Ramaiah K**, Bhuvanesh NSP, Nagarajan, S, Structurally different domains embedded half-sandwich arene Ru(II) complex: DNA/HSA binding and cytotoxic studies, *Journal of Coordination Chemistry*, **2020**, *73*, 1591-1604. (Impact Factor: 1.869). (SCI).
- [19] Sanjeeva T, Soumya P, Naveen A, **Ramaiah K**, Sateesh V, Hariprasad K, An efficient Pd(II)-(2-aminonicotinaldehyde) Complex as Complementary Catalyst for the Suzuki-Miyaura Coupling in Water, *Tetrahedron Letters*, **2019**, *60*, 2046-2048. (Impact Factor: 2.032). (SCI).
- [20] K. Srishailam, **K. Ramaiah**, K. Laxma Reddy, B. Venkatram Reddy, G. Ramana Rao, Synthesis and evaluation of molecular structure from torsional scans, study of molecular characteristics using spectroscopic and DFT methods of some thiosemicarbazones, and investigation of their anticancer activity, *Chemical Papers*, **2021**, *75*, 3635-3647. (Impact Factor: 2.416). (SCI).
- [21] Rohini G, **Ramaiah K**, Aneesrahman KN, Aryasenan MC, Bhuvanesh NSP, Laxma Reddy K, Sreekanth, A, Biological evaluation, DNA/protein-binding aptitude of novel dibenzosuberene appended palladium(II)-thiourea complexes, *Applied*

Organometallic Chemistry, 2018, 32, e4567. (Impact Factor: 4.072). (SCI).

- [22] Aneesrahman KN, **Ramaiah K**, Rohini G, Stefy GP, Bhuvanesh NSP, Sreekanth A, Synthesis and characterisations of copper(II) complexes of 5-methoxy isatin thiosemicarbazones: Effect of *N*-terminal substitution on DNA/protein binding and biological activities, *Inorganica Chimica Acta*, 2019, 492, 131-141. (Impact Factor: 3.118). (SCI).
- [23] Rohini G, Haribabu J, Aneesrahman K.N, **Ramaiah K**, Bhuvanesh N S P, Karvembu R, Sreekanth A, Half-sandwich Ru(II)(η^6 -*p*-cymene) complexes bearing *N*-dibenzosuberonyl appended thiourea for catalytic transfer hydrogenation and *in vitro* anticancer activity, *Polyhedron*, 2019, 152, 147-154. (Impact Factor: 2.975). (SCI)
- [24] Rohini G, **Ramaiah K**, Sreekanth A, Naphthalene dianhydride based selective detection targetable fluorescent probe for monitoring exogenous Iron in living cells, *Tetrahedron Letters*, 2018, 59, 3858-3862. (Impact Factor: 2.032). (SCI).
- [25] Babji P, Ramesh T, Vijender Reddy K, **Ramaiah K**, Nageswara Rao P, Gobi KV, Identification and characterisation of Rucaparib degradation products and their comparison with known impurities, *Chromatographia*, 2019, 82, 591-604. (Impact Factor: 2.213). (SCI).
- [26] Musthafa M, **Ramaiah K**, Ganguly R, Sreekanth A, Novel dibenzosuberene aroyl selenoureas: Synthesis, crystal structure, DFT, molecular docking and biological studies, *Phosphorous, Sulfur, and Silicon and the Related Elements*, 2020, 195, 331-338. (Impact Factor: 1.052). (Scopus).
- [27] Prashanth J, **Ramaiah K**, Venkaram Reddy B, Barrier potentials, molecular structure, force field calculations and quantum chemical studies of some bipyridine dicarboxylic acids using the experimental and theoretical using (DFT, IVP) approach, *Molecular Simulation*, 2019, 45, 1353-1383. (Impact Factor: 2.346). (SCI)
- [28] Srividya S, Haribabu J, Naveen Kumar K, **Ramaiah K**, Nithya B, Bhuvanesh NSP, Karvembu R, Synthesis and anticancer activity of [RuCl₂(η^6 -arene)(aroyl thiourea)] complexes-high activity against the human neuroblastoma (IMR-32) cancer cell line, *ACS Omega*, 2019, 4, 6245-6256. (Impact Factor: 4.132). (SCI).
- [29] M. Lavanya, J. Haribabu, **K. Ramaiah**, C. Suresh Yadav, R. Karvembu, A. Varada Reddy, M. Jagadeesh, 2'-Thiophenecarboxaldehyde derived

thiosemicarbazone metal complexes of copper(II), palladium(II) and zinc(II) ions: Synthesis, spectroscopic characterization, anticancer activity and DNA binding studies, **Inorganica Chimica Acta**, **2021**, *524*, 120440. (Impact Factor: 3.118). (SCI).

[30] Musthafa M, **Ramaiah K**, Rakesh G, Perumal P, Sreekanth A, Synthesis, characterization, in silico and in vitro biological activity studies of Ru(II) (η^6 -*p*-cymene) complexes with novel *N*-dibenzosuberene substituted aroyl selenourea exhibiting Se type coordination, **Research on Chemical Intermediates**, **2020**, *46*, 3853-3877. (Impact Factor: 3.134). (SCI).

[31] Musthafa M, **Ramaiah K**, Rakesh G, Chandrasekar KB, Shin A, Sreekanth A, Synthesis, characterization, theoretical, molecular docking and in vitro biological activity studies of Ru(II) (η^6 -*p*-cymene) complexes with novel aniline substituted aroyl selenoureas, **Journal of Biomolecular Structure and Dynamics**, **2021**, *39*, 4346-4361. (Impact Factor: 5.235). (SCI).

[32] Srishailam K, **Ramaiah K**, Laxma Reddy K, Venkatram Reddy B, Ramana Rao G, DFT simulation of barrier heights, infrared and Raman spectra, and investigation of vibrational characteristics of 2-(2-aminopyridin-3-yl)methylene)hydrazinecarbothioamide and its *N*-methyl variant, **Molecular Simulation**, **2022**, *48*, 1315-1329. (Impact Factor: 2.346). (SCI).

Attended Faculty development programs:

Organized Faculty Development Programs:

Attended Refresher Course/Short Term Courses:

- [1] 10-day GIAN Course on “Advanced Materials for Sustainable Energy and Storage” (Course code: 151036B03), organized by the Department of Chemistry and the Center for Automation and Instrumentation (CAI), National Institute of Technology, Warangal, during 23rd May – 3rd June 2016. (Participated).

Sponsored research Projects: Nil

S.No	Title	Agency	Period	Grant amount	Ongoing/ Completed

Consultancy Projects: Nil

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing/ Completed

1. Awards/Honors received:

- **Second Prize** in **RESEARCH CONCLAVE' 17** for best Oral presentation at National Institute of Technology Warangal during **18-19th March 2017**.
- Qualified in CSIR-UGC jointly conducted Exam (**CSIR-UGC NET**) **2013**, all India **28th** rank.
- State **10th** rank in entrance examination; Bachelor of Education (B.Ed.) **2014** conducted by Andhra University.
- Qualified SET Exam in 2023 conducted by Osmania University

2. Editorial Board Member:

6. Motto: 1. Every successful person has a painful story, and every painful story has a successful ending.