

CURRICULUM VITAE

Dr. SUNKARI JYOTHI

Professor

Department of Chemistry

Kakatiya University

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Personal Profile

Husband's Name : Sreedhar Rao Karra
Date of Birth : 24th Aug 1975
Sex : Female
Marital Status : Married

Education-Qualification

- Ph. D, Inorganic Chemistry 2002 - 2006
Awarded by Kakatiya University (October, 2006)
Research Supervisor: Prof. S. J. Swamy
Thesis title: "*Synthesis and Characterization of some Transition Metal Complexes with Novel Nitrogen Heterocycles*".
- M.Sc, Inorganic Chemistry with Distinction 1995 -1997
Osmania University, Hyderabad, India
- B. Sc, (BZC) with Distinction Kakatiya University, Warangal, 1992-1995
- As Summer Research Project Fellow with Prof. Guru Row, 2011 & 2012
Indian Institute of Science, Bangalore

As Research Supervisor (Ph.D.)

Total number of registered scholars: 07
Awarded: 02
Submitted: 01
Working: 04

Teaching Experience

- Lecturer at Kakatiya Mahila Degree College, Warangal from 1997 to 1998
- Lecturer at Christu Jyothi Institute of Technology & Science, Warangal. (Affiliated to JNTU) from 1998 to 1999
- Lecturer at Jesus Mary Joseph Degree College for Women, Warangal from 1999 to 2000

- Lecturer at Vaagdevi Degree & PG College, Warangal from 2000 to 2006
- Assistant Professor at Kakatiya University from 2007 to 2019.
- Associate Professor at Kakatiya University from 2019 to till date.

Fields of Specialization

- Coordination Chemistry, Supramolecular Chemistry, Catalysis.

Orientation/Refresher Courses attended

1. 21 days Orientation Course at Academic Staff College, Osmania University, Hyderabad from 20-04-2009 to 15-05-2009
2. 21 days Refresher Course at UGC- Human Resource Development Centre, University of Hyderabad, Hyderabad from 24-01-2011 to 15-02-2011
3. 21 days Refresher Course at Academic Staff College, Jawaharlal Nehru Technological University, Hyderabad from 10-07-2015 to 30-07-2015
4. 10 days GIAN Course at National Institute of Technology, Warangal from 23-05-2016 to 3-06-2016
5. 6 day Faculty Development Workshop on “ Instructional Strategies of Physical Methods in Chemical Analysis with Hands-on Experiments” established under the scheme of PMMMNMTT, MHRD, Govt of India at National Institute of Technology, Warangal from 2-03-2020 to 7-03-2020
6. 5 days Online Faculty Development Program on “Mentoring and Facilitation Skills for Institutional Mentors” by Department of Higher Education, Ministry of Human Resource Development, Govt. of India at Faculty Development Centre, Mahatma Gandhi National Council of Rural Education from 24-06-2020 to 28-06-2020

Patents

1. System and method for decomposing organic and food waste, K. Nagajyothi, M. Balaraju, K. Ramesh, **Sunkari Jyothi**, A. Umashankar Kumar, A. Vamshi Krishna Reddy, C. Gopinath, m. Anand, S. Sathya Murthy, K. S Sreenivasan, K. Babu, B. Sudharshan Reddy, S. M. Abdul mannan Hussain 201941006917A, Govt. of India C02F11/00 20 274-281(01-03-2019)
2. A system and method of emission and measuring from polluted gases in the environment, A. Umashankar, **S. Jyothi**, A. Vamshikrishna Reddy, B. Mallesham, G. Shankaraiah, P.P. Prasad 202041007032 A, Govt. of India (28-02-2020)

Publications

1. Synthesis and spectral investigations of manganese(II), cobalt(II), nickel(II), copper(II), and zinc (II) complexes of new polydentate ligands containing 1,8-naphthyridine moiety S.J. Swamy, E. Ram Reddy, D. Naga Raju, and **S. Jyothi**, *Molecules*, **2006**, **11**, **1000-1008**.
2. Synthesis and Structural Analysis of N4-donor ligands and their complexes with some bivalent transition metal ions. S. J. Swamy, **S. Jyothi**, P. Someshwar, K. Shashank, and G. Raghava Rao *Journal of Applicable Chemistry*, **2012**, **1(2):218-231**.
3. Synthesis, Characterization and Antimicrobial Activities of New N4-donor Ligands and their Co(II), Ni(II), Cu(II) and Zn(II) Complexes **S. Jyothi**, K. Shashank, G. Raghava Rao, Anjali Reddy, P. Someshwar and S. J. Swamy *Journal of Applicable Chemistry*, **2013**, **2 (2):150-163**.
4. N,N₂-(Propane-1,3-diyl)bis(2-aminobenzamide) S. J. Swamy, **S. Jyothi**, K. Shashank and G. Raghava Rao *Acta Cryst.*, **2013**, **E69**, **o673**
5. 2-Amino-4-methylpyrimidinium dihydrogen phosphate Sajesh P. and **S. Jyothi** *Acta Cryst.*, **2013**, **E69**, **o529**.
6. CeCl₃.7H₂O catalyzed Friedlander synthesis of 1, 8-Naphthyridines under solvent-free grinding conditions K. Mogilaiah, J. Kumara Swamy, **S. Jyothi**, and S. Kavitha *Indian J. Heterocyclic Chem.*, **Vol. 24**, **Jan-March 2013**, **305-308**
7. Microwave-induced eco-friendly solvent-free synthesis and biological activity of novel 10-[6-aryl-12-oxo-12H-[1,8] naphthyridino [2,1-b] quinoxalin-10-yl) methyl]-6-aryl-12H-[1,8] naphthyridino [2,1-b] quinoxalin-12-ones K. Mogilaiah, D. Praveena, **S. Jyothi** and A. Nageshwar Rao *Indian J. Heterocyclic Chem.*, **Vol. 24**, **Jan-March 2013**, **315-320**
8. Preparation and structural investigations of new hexadentate Schiff base ligands and their bivalent metal complexes, and, catalytic applications of the complexes in allylic and benzylic C–H bond activation **S Jyothi**, G Raghava Rao, K Shashank, K Sridhar, Anjali Reddy, P Someshwar & S. Jagannatha Swamy* *Indian Journal of Chemistry Vol. 53A*, **April-May 2014**, **535-544**.
9. Supramolecular interactions between a diamine-diamide ligand and anions, trigonal planar NO₃- and spherical Cl⁻: Multiple hydrogen bond cooperativity through water molecules **Jyothi Sunkari**, Shashank Kundha, Raghava Rao Gundapaneni, Anjali Reddy, Someshwar Pola, Sreedhar Kodumuru, Jagannatha Swamy Sreedasyam* *Indian Journal of Chemistry Vol. 54A*, **May 2015**, **596-606**
10. Green Synthesis Of 6- Aryl -9-(3-Pyridyl) [1,2,4] Triazolo [4,3-a] [1,8] Naphthyridines Using FeCl₃.6H₂O in the solid state and their Biological activity. K. Mogilaiah, D. Hari Prasad, K. Vidya, and **S. Jyothi** *Indian J. Heterocyclic Chem.*, **Vol. 25(1)**, **July 2015**, **47-54**.
11. Environmentally benign synthesis, antibacterial and anti-inflammatory activities of 3-aryl-1-{3-[2-(trifluoromethyl)phenyl][1,8]naphthyridin-2-yl}-1H-4-pyrazolecarbaldehydes K. Mogilaiah, A. Nageshwar Rao & **S. Jyothi** *Indian Journal of Chemistry Vol. 54B*, **2015**, **1355-1359**.
12. Synthesis and spectral investigation of Co(II), Ni(II), Cu(II), and Zn(II) complexes with novel N4 ligands. **Sunkari Jyothi***, Kodumuri Sreedhar, Devunuri Nagaraju, Sreedasyam J. Swamy *Canadian Chemical Transactions*, **2015**, **3(4): 368-380**.
13. New Pd(II) and Pt(II) Schiff base complexes for catalytic applications in C-H bond activation and oxygenation of hydrocarbons **S. Jyothi**, Anjali Reddy Pola Someshwar and Sreedasyam.J. Swamy* *Journal of Applicable Chemistry*, **2016**, **5 (5):1146-1162**.
14. Hypervalent iodine mediated solid-state synthesis and biological activity of some new 1-[(5-aryl-1,3,4-oxodiazole-2-yl)methyl]-3-(4-nitrophenyl)-1,2-dihydro[1,8]naphthyridin-2-ones K. Mogilaiah*, D. Hari Prasad, A.Nageswara Rao, **S. Jyothi** & H. Ramesh Babu. *Indian Journal of Chemistry* **2017**, **53B**, **656-662**.

15. Acetylation of Phenols, Alcohols and Amines Catalyzed by Mono Ammonium Salt of 12-Tungstophosphoric acid under Ambient Conditions Nampally Rajitha, Banothu Jeevanlal, **Sunkari Jyothi** and Bhongiri Yadagiri* *Journal of Applicable Chemistry*, 2019, 8 (1):146-153.
16. Synthesis, Analysis of H-bonding Interactions, Molecular Docking Studies and Biological Activity Investigations of Molecular Salt formed between the Drug Sulfathiazole and p-Toluenesulfonic acid **Sunkari Jyothi**,* Bhagavatham Radhika, Banothu Jeevanlal *Journal of Applicable Chemistry*, 2019, 8 (1):46-55.
17. Synthesis, characterization, and antibacterial activity of Cobalt(II), Nickel(II), Copper(II), Zn(II), and cadmium(II) complexes with a new hexadentate N_4O_2 ligand. **Sunkari Jyothi**,* E. Ram Reddy, B. Radhika and B. Jeevanlal *Journal of Applicable Chemistry*, 2019, 8 (3): 1066-1073.
18. Antimicrobial applications of Cadmium (II) complexes derived from substituted 1,8-Naphthyridines: Synthesis, Characterization and effect on Bacterial strains **Sunkari Jyothi*** and B. Radhika *Journal of Applicable Chemistry*, 2019, 8 (3): 1460-1465
19. Synthesis of Perovskite via Redox & Sol-Gel Techniques and their Photocatalytic Applications Jeevanlal Banothu, Suman Banothu and **Jyothi Sunkari*** *GIS SCIENCE JOURNAL* 2020, 7(10) *ISSN NO: 1869-9391*
20. A highly active dispersed copper oxide phase on calcined $Mg_{9.7}Al_{2.3}Ga_{2.3}O_{20}$ catalysts in glycerol hydrogenolysis Harisekhar Mitta^{a*}, Nagaraju Devunuri^b, **Jyothi Sunkari**^c, Suresh Mutyala^d, Putrakumar Balla^e, Vijayanand Perupogua, * *Catalysis Today*, 2021, 375, 204–215.
21. Fabrication of Nano Clay Intercalated Polymeric Microbeads for Controlled Release of Curcumin Dharmender Pallerla^a, Suman Banoth^b, **Sunkari Jyothi**^{a*} *International Journal of Applied Pharmaceutics*, 2021, 13(1), 206-215.
22. Synthesis, Characterization, and Photocatalytic studies of cation (Ag^{+2} and Sn^{+2}) doped $Na_{1.5}Zn_{0.75}Ti_{2.75}O_7$ **Sunkari Jyothi***, B. Jeevanlal, Dharmender Pallerla, B. Suman. *Rasayan Journal of Chemistry*, 2021, 14 (3), 206-215
23. Synthesis, Single crystal X-ray Diffraction, NLO and DFT studies of centrosymmetric 4-amino-3,5-dimethyl-1H-pyrazole citrate salt B. Radhika^a, J. Prashanth^b, Srinivas Basavoju^c, **S. Jyothi**^{a*}, B.Venkatram Reddy,^{b*} *Molecular Physics* 2021, 120(6), e2022797
24. Synthesis, Spectral Characterization on Bioactive Complexes Containing Schiff base Ligand **SUMAN BANOTH**¹, **SURYASRI ERUKALA**² and **SUNKARI JYOTHI**^{*} *Orient. J.Chem.* 2022, 38(4), 1011-1017
25. Development of polymeric microbeads-intercalated with montmorillonite nanoclay and silver nanoparticles for controlled release of levofloxacin, an antibacterial drug Pallerla Dharmender¹, Obireddy Sreekanth Reddy², Banoth Suman¹, and **Jyothi Sunkari**^{1*} *Res. J. Chem. Environ.* 2022, 26 (11), 119-129.

Papers communicated:

1. Schiff base metal complex synthesis, characterization, and antimicrobial Applications. V. Madhukar, **Sunkari Jyothi*** [communicated to *Indian Journal of Chemistry*]

Books/Chapters in Books:

1. Contributed a chapter, Inorganic chemistry for **Laboratory Manual for Chemistry Teachers** on “Revised Syllabi of UG Course” **S. Jyothi**
2. Published a book titled “**Undergraduate Chemistry Laboratory Manual**” S.D publishers ISBN: 978-940893-8-4. S. Jagannatha Swamy & **S. Jyothi**

- Contributed the chapter “ **Boranes & Carboranes**” for B.Sc.III Yr Chemistry (English & Telugu Media) Semester-V, Paper-V in the textbook published by **Telugu Academy**, Telangana State
- Contributed the chapter “**Inorganic Reaction Mechanisms**” B.Sc.III Yr Chemistry (English & Telugu Media) Semester-VI, Paper-VI in the textbook published by **Telugu Academy** Telangana State
- Contributed the chapter “**General Principles of Metallurgy and Production of Non-Ferrous Metals**” B.Sc.III Yr Chemistry (English & Telugu Media) Semester-V, Paper-VI in the textbook published by **Telugu Academy** Telangana State
- Published a book titled “**NSS Programme Officers Manual and Handbook**” Professional Books Publisher **S. Jyothi**
- Published a book titled “**Textbook of National Service Scheme**” Professional Books Publisher ISBN: 978-81-95099-06-1 **S. Jyothi**, A. Umashankar Kumar
- Published a book titled “**Environmental Management Studies**” Vrinda publishing house ISBN: 978-93-91365-37-0 A. Vamshikrishna reddy, **S. Jyothi**, A. Umashankar Kumar
- Published a book titled “**A textbook of chemistry**” Shree publishing house ISBN: 978-93-911117-93-II. Srivani, **S. Jyothi**, P. Prasad, S. Malla Reddy, P. Sudheer

Research Projects:

- Completed UGC-sponsored project entitled “Investigation of Transition Metal Complexes With Some Important Nitrogen Macrocycles” 2011
- Applied for DST-SERB-POWER project with the title “Improving the medicinal properties of 1,2,4-triazole and Bis- isatin drugs via Metal complexation: Investigations based on rational design, synthesis and structure-activity studies”

Presentations & Participations

- Poster Presented in “Current Issues & Challenges in Chemical Research (CICCR-2019)” organized by Telangana State Council of Higher Education (TSCHE) & Telangana Academy of Sciences (TAS) 18th& 19th March 2019.
- Poster Presented in “National Conference on Emerging Trends in Instrumental Methods of Chemical Analysis (ETIMCA-2019)” organized by the Department of Chemistry, National Institute of Technology (NIT) Warangal from 30th-31st January 2019.
- Poster Presented in “International Conference on Nanomedicine (ICON-2019)” organized by Madurai kamaraj University, Madurai. 25th & 26th February 2019.
- Poster Presented in “UGC sponsored two-day National seminar on Advances in chemical research (ACR-19)” organized by the Department of Chemistry Kakatiya University, Warangal, on 29 & 30th March 2019.
- Poster Presentation in International Conference on “Chemistry for sustainable Future” Dept. of Integrated Chemistry, Palamuru University, Nalgonda, India, August 7th-9th, 2018

6. Poster Presentation in International Conference on “Emerging trends in Spectroscopic Techniques and their Applications” Dept. of Chemistry, University College of women, Koti, Osmania University, Nalgonda, India, December 3rd-4th, 2018
7. Poster Presented at the 20th International conference on "Recent Advances in Physical sciences and future Challenges from July 14th - 16th 2017 at Osmania University, Hyderabad, Telangana, India
8. Poster Presented in the International Conference on "Trendsetting innovations in Chemical Sciences & Technology Nature Inspired Chemistry & Engineering (TSCST-NICE 2016)" from January 4th - 6th 2016 at Centre for Chemical Sciences & Technology, JNTUH, Hyderabad, Telangana, India.
9. Poster Presented at the International Conference on "Nano, Bio & Material sciences" from January 8th - 10th 2014 at the Department of Physics, Nizam College, OU, Hyderabad, Telangana, India.
10. Oral Presented in International symposium on “Nature Inspired Initiatives in Chemical Trends” organized by CSIR-IICT, Hyderabad. March 2nd - 5th 2014 and won the **Hindustan platinum award** for best oral presentation.
11. Oral Presented at the International Conference on “New Dimensions in chemistry & Chemical Technologies-Applications in Pharma Industry (under TEQUIP-II)” organized by JNTU, Hyderabad from June 23rd - 25th 2014.
12. Poster Presented in “Winter School - 2013 on Frontiers of Material Science organized by the International Center for Material Science, JNCASR - University of Cambridge, Sheikh Saqr Laboratory, Bengaluru from December 2nd - 6th 2013.
13. Poster Presented in A.P. SCIENCE CONGRESS-2013 from November 14th-16th, 2013 organized by the University of Hyderabad, Andhra Pradesh Akademi of Sciences.
14. Oral Presented at the National Conference on Frontiers of Chemical Research-2013 from 25th - 26th October 2013 at Dept. of Chemistry, JNTU, Hyderabad.
15. Poster presented in the “40th National Seminar on Crystallography” from 26th-28th November 2011. Organized by Dept. of Physics Osmania University, Hyderabad.

Awards & Affiliations

1. **National NSS award** from the Hon’ble President of India. The Department of Youth Affairs of the Ministry of Youth Affairs and Sports confers the National Service Scheme Award every year. **Awards are conferred to recognize and reward outstanding contributions toward voluntary community service** in the year 2022.
2. Certificate of acknowledgment from the Telangana state directorate of national green corps, and the government of Telangana for the tremendous contribution towards promoting swachhata activities organized as part of the **Swachhta action plan 2021** on 2nd October 2020
3. Received award as **Best district officer** at the District level from the District Collector on the eve of Republic Day Celebrations 2018, 2020
4. State-level **Best teacher** award for contribution to the teaching field from Bharath Talent

Association on 9th October 2018

5. **Mother Teresa award** for contribution to Social Service on 4th November 2018
6. **Gandhian youth leadership award** from State NSS cell, Higher Education Department, Government of Telangana. For displaying High Leadership Qualities on 2nd October 2018
7. **Youth worker award** from International National Youth Services Council Ministry of National Policies & Economic Affairs, Govt. of Sri Lanka for a contribution towards Youth Development on 5th December 2017
8. **Green warriors award** from Lee Shreyus Foundation, Hyderabad for conservation of nature and environment on 31st August 2017
9. **Prakruthi Rakshak award** from Lee Shreyus Foundation, Hyderabad for a contribution towards promoting Youth Green Empowerment Activities in rural districts of Telangana State
10. **Water conservator award** from State NSS cell, Higher Education Department, Government of
11. Received **Hindustan platinum award** for the best oral presentation at IICT in the year 2012.
12. Selected as **Summer Research Fellow** at the Indian Institute of Science, Bangalore for the years 2011 & 2012.
13. Received award as **Best NSS program officer** at the District level from the District Collector on the eve of Republic Day Celebrations 2012
14. Presented paper at winter school on “Frontiers in Materials Science” organized by International Centre for Materials Science (ICMS) at Jawaharlal Nehru Centre for Advanced Scientific Research(JNCASR) and International Centre for Materials Research (ICMR), University of California, Santa Barbara (UCSB) jointly
15. Telangana & NYKS Ministry of Youth affairs & sports Govt. of India at drhnxAsia’s Largest Youth Meet on Safe Water For Future

Membership with Professional and Scientific bodies:

- Associate Fellow - Telangana academy of sciences, Telangana
- Life member - Association of Chemistry Teachers
- Life member - Indian Crystallographic Association
- Member & Convenor of Board of Studies in Chemistry Kakatiya University.
- Member of Board of Studies in Chemistry Jayamukhi Institute of Technological Sciences(Autonomous)
- Member of Board of Studies in Chemistry Vaagdevi Institute of Technological Sciences(Autonomous)
- University nominee ASM Govt. Degree & PG College, Warangal

Administrative Positions

- Programme Officer, NSS, University Arts & Science College, Kakatiya University, Warangal. (2008-2012)
- Deputy Director for Science Courses, SDLCE, Kakatiya University. (2015-2017)
- Program Coordinator, National Service Scheme, Kakatiya University(2017-2022)

- Director, Yoga Center, Kakatiya University. (2018-
- ETI Coordinator, NSS, Kakatiya University. (2019-2023)
- Additional Controller of Examinations, Kakatiya University (2022-