

List of Publications

1. Synthesis, structural, photocatalytic and anti-cancer activity of Zn doped Ni nano chromites by citrate gel auto combustion method, [P. Sailaja Kumari](#), G. Vijaya Charan*, D. Ravi Kumar, Inorganic Chemistry Communications 139 (2022) 109393
<https://doi.org/10.1016/j.inoche.2022.109393>
2. Structural, photocatalytic, and anticancer activity Ni-substituted Cu nano chromites synthesized by citrate gel auto-combustion method, [P. Sailaja Kumari](#), D. Ravi Kumar, G. Vijaya Charan*, Someswar Rao Sagurthi, *Chemical Papers*
<https://doi.org/10.1007/s11696-023-02798-0>
3. Structural biological electrical and catalytic activity of Mg doped Ni nano chromites synthesized through citrate gel method, [P. Sailaja Kumari](#), D. Ravi Kumar, G. Vijaya Charan*, Journal of Sol-Gel Science and Technology <https://doi.org/10.1007/s10971-024-06605-4>
4. Optimizing Structural, Optical, Photocatalytic Properties of Cadmium Substituted Al Nano Chromites Synthesized at Low Temperature, CH. Srikanth, [P. Sailaja Kumari](#), R. Venkatesh Nayak and G. Vijaya Charan*, Asian Journal of Chemistry. vol. 37, No. 3 (2025), 729-736 <https://doi.org/10.14233/ajchem.2025.33195>
5. A Facile Synthesis of Cd Substituted Al Nano Chromites by Citrate Gel Method: A Comprehensive Study on Structural, Optical, Catalytic, Microbial and Anticancer Activities, Ch. Srikanth, [P. Sailaja Kumari](#), R. Venkatesh Nayak, G. Vijaya Charan*, Indian Journal of Advances in Chemical Science, ISSN NO: 2320-0898 (p); 2320-0928 (e) [DOI: 10.22607/IJACS.2025.130100220](https://doi.org/10.22607/IJACS.2025.130100220).
6. Influence of Erbium on Structural Characterization, Photocatalytic, Biological Activity and Electrical Properties of Nickel Spinel Nano Chromites Synthesized by Citrate Gel Method, [P. Sailaja Kumari](#), D. Ravi Kumar, G. Vijaya Charan*, Chemistry Select doi.org/10.1002/slct.2025006002025.
7. Ce⁺³ doped AlCr₂O₄ Nano Chromites: Synthesis, Structural, Optical, Photocatalytic, Antimicrobial and Anticancer Studies, Ch. Srikanth, [P. Sailaja Kumari](#), D. Ravi Kumar, Dasari Ayodhya, G. Vijaya Charan*, Results in Surfaces and Interfaces 20 (2025) 100599, <https://doi.org/10.1016/j.rsufi.2025.100599>
8. AI Driven Approach in Material Science Exploring the future of Nano Chromites, T. Ashok Goud, [P. Sailaja Kumari](#), G. Vijaya Charan*, Madhya Bharathi Journal (Accepted for Publication), 2025.

Conferences/Seminars presented and Attended

1. A Two-Day National Seminar On "Current Issues And 2019 Challenges in Chemical Research, University Arts and Science college. Kakatiya University. Warangal, (CICCR- 2019) 18th and 19th March 2019, Presented Poster on A Novel, Eco- Friendly Methods for The Synthesis of Silver Nano Particles. A Greener Approach
2. International Conference on Material Science for Social Advancement. MSSA- 2020, OU, Hyderabad, presented paper on Fabrication of SnO₂ material science for using prosopis Juli flora pod extract, characterization by physiochemical techniques and study on its photodegradation of dyes
3. Two Day International Level Web Conference on 2020 New Pathways in Chemistry, N.G. Acharya And D.K. Marathe College of Arts, Science and Commerce, Mumbai, Presented Paper on Structural morphological and optical properties of "Ni_{1-x}Zn_xCr₂O₄ spinel nano chromites: a special focus on photodegradation study.
4. Two-Day International Seminar on Current Trends and Futuristic Challenges in Chemical Sciences, 29th And 30th July 2022, Department of Chemistry, University College of Science, Osmania University, Hyderabad, Telangana. Presented Paper on Nano Chromites by Citrate Gel Auto Combustion Method.
5. A National Conference on Sustainability, Research and Innovations in Chemical Sciences, RICS-2024, 28th And 29th November 2024, Department of Chemistry, JNTUH UCETH, Hyderabad, Presented Paper on Synthesis and Structural Characterization of Co-Zn Chromites and Its Photocatalytic Activity.
6. Two-Day National Seminar on Exploring the Role of Artificial Intelligence in Transforming Higher Education, Dr. B. R. Ambedkar College, Hyderabad, 21st And 22nd March 2025, Presented Paper on Structural, Biological and Photocatalytic Activity of Mg Doped Ni Nano Chromites.
7. International Conference on Multifunctional Materials for Societal Applications, ICMMSA-2025, 26th To 28th March, 2025, Department of Physics, Osmania University, Hyderabad, Telangana, Presented Paper on A Novel, Low Temperature Method of Synthesis and Structural Investigation of Sm Substituted Copper and Silver Nano Chromites.
8. Participated in the International Webinar on "Heterogeneous Catalysis: Rudiments & Industrial Relevance" organized by the Department of Chemistry, University College of Science, Osmania University, Hyderabad, Telangana, India on 13th July 2020.