

Dr. E. K. Girija
Assistant Professor
Department of Physics
Periyar University

Publication:

1. M. Gowri ., B. Jayashree ., J. Jeyakanthan ., E.K. Girija ., Sertraline as a promising antifungal agent: inhibition of growth and biofilm of *Candida auris* with special focus on the mechanism of action in vitro, *Journal of Applied Microbiology*, Volume 128, Pages 426-437, 2020.
2. Chitra M., Mangamma.G, uthayarani.k, Neelakandeswari.N, Girija .E.K., Band gap engineering in ZnO based nanocomposites. , *Physica E: Low-Dimensional Systems and Nanostructures*, Volume 119, Year 2020
3. Sangeetha, K.;Ashok, M.;Girija, E. K.Development of multifunctional cobalt ferrite/hydroxyapatite nanocomposites by microwave assisted wet precipitation method: A promising platform for synergistic chemo-hyperthermia therapy, *Ceramics International*, Volume 45, Pages 12860-12869,2019.
4. S. Karthi, R.Govindan, A. Gangadharan, G. C. Dannangoda, K. S. Martirosyan, D. K. Sardar, S.Chidangil, E. K. GirijaLuminomagnetic Nd³⁺ doped fluorapatite coated Fe₃O₄ nanostructures for biomedical applications., *Journal of the American Ceramic Society*, Volume 102, Pages 2558-2568,2019.
5. R Govindan, F.L.Gu, S.Karthi, E.K.Girija, Effect of phosphate glass reinforcement on the mechanical and biological properties of freeze-dried gelatin composite scaffolds for bone tissue engineering applications, *Materials Today Communications*, 2019
6. D. Muthu, M. Gowri, G.Suresh Kumar, G. Suresh Kumar, V.S.Kattimani, E.K.Girija Repurposing of antidepressant drug sertraline for antimicrobial activity against *Staphylococcus aureus*: a potential approach for the treatment of osteomyelitis., *New Journal of Chemistry*, Volume 43, Pages 5315-5324, 2019.
7. D.Karthickraja, S. Karthi, G.A.Kumar, D.K.Sardar, G.C.Dannangoda, K.S.Martirosyan, E.K.Girija., Fabrication of core-shell CoFe₂O₄@HAp nanoparticles: A novel magnetic platform for biomedical applications, *New Journal of Chemistry*, Volume 43, Pages 13584-13593, 2019.
8. Sangeetha, K.;Ashok, M.;Girija, E. K.;Vidhya, G.;Vasugi, G. ,Strontium and ciprofloxacin modified hydroxyapatites as functional grafts for bone prostheses, *Ceramics International*, Volume 44, Pages 13782-13789,2018.
9. J. Duraimurugan, G. Suresh Kumar, M. Venkatesh, P. Maadeswaran., E. K. Girija , Morphology and size controlled synthesis of zinc oxide nanostructures and their optical

- properties, *Journal of Materials Science: Materials in Electronics*, Volume 29, Pages 9339-9346, 2018.
10. S.Nirmala Sri Devi, E.K.Girija., A comparative study on the effect of L-tartaric acid and sodium bicarbonate on the growth and characterization of KDP single crystals, *Optik*, Volume 164, Pages 498-509, 2018.
 11. G. SureshKumar, G. Karunakaran, E. K. Girija, EvgenyKolesnikov, Nguyen VanMinh, Mikhail V.Gorshenkov, DenisKuznetsov, Size and morphology-controlled synthesis of mesoporous hydroxyapatite nanocrystals by microwave-assisted hydrothermal method., *Ceramics International*, Volume 44, Pages 11257-11264, 2018.
 12. Govindan Suresh Kumar, Devaraj Muthu, Gopalu Karunakaran, Sekar Karthi, , E.K.Girija Denis Kuznetsov, Curcuma longa tuber extract mediated synthesis of hydroxyapatite nanorods using biowaste as a calcium source for the treatment of bone infections, *Journal of Sol-Gel Science and Technology*, Volume 86, Pages 610-616, 2018
 13. S.Karthi, G.A.Kumar, D.K.Sardar, C.Santhosh, E.K.Girija., Synthesis and characterization of Nd³⁺: Yb³⁺ co-doped near infrared sensitive fluorapatite nanoparticles as a bioimaging probe., *Optical Materials*, Volume 77, Pages 39-47 , 2018.
 14. K.Sangeetha., E.K.Girija., Tailor made alginate hydrogel for local infection prophylaxis in orthopaedic applications., *Materials Science and Engineering C*, Volume 78, Pages 1046-1053, 2017.
 15. S.Karthi, G.A.Kumar, D.K.Sardar, G.C.Dannangoda, K.S.Martirosyan, E.K.Girija, Fluorapatite coated iron oxide nanostructure for biomedical applications., *Materials Chemistry and Physics*, Volume 193, Pages 356-363, 2017.
 16. G. S. Kumar, S. Rajendran, S. Karthi, R.Govindan, E.K.Girija, G. Karunakaran, D. Kuznetsov., Green synthesis and antibacterial activity of hydroxyapatite nanorods for orthopedic applications., *MRS Communications*, Volume 7, Pages 183-188, 2017.
 17. R. Ramkumar., G. Balasubramani., R.K.Raja., M.Raja., R. Govindan., E.K.Girija., P.Perumal., Lantana camara Linn root extract-mediated gold nanoparticles and their in vitro antioxidant and cytotoxic potentials., *Artificial Cells, Nanomedicine and Biotechnology*, Volume 45, Pages 748-757, 2017.
 18. G.Suresh Kumar, E. K.Girija, M.Venkatesh, G.Karunakaran, E. Kolesnikov, D.Kuznetsov, One step method to synthesize flower-like hydroxyapatite architecture using mussel shell bio-waste as a calcium source., *Ceramics International*, Volume 43, Pages 3457-3461, 2017.

19. G. Vasugi, A.Thamizhavel, E.K. Girija, Surface modification of hydroxyapatite by yttrium ion substitution for adsorption of reactive red dye., *Journal of Materials and Environmental Science*, Volume 8, Pages 714-723, 2017.
20. T.Ruthradevi, J.Akbar, G.Suresh Kumar, A.Thamizhavel, G.A.Kumar, R.K.Vatsa, G.C.Dannangoda, K.S.Martirosyan, E.K.Girija., Investigations on nickel ferrite embedded calcium phosphate nanoparticles for biomedical applications., *Journal of Alloys and Compounds*, Volume 695, Pages 3211-3219, 2017.
21. G.Suresh Kumar, J.Akbar, R.Govindan, E.K.Girija, M.Kanagaraj, A novel rhombohedron-like nickel ferrite nanostructure: Microwave combustion synthesis, structural characterization and magnetic properties., *Journal of Science: Advanced Materials and Devices*, Volume 1, Pages 282-285, 2016
22. Sangeetha, K.; Girija, E. K., Effect of alginate on hydroxyapatite/gelatin nanocomposites for orthopaedic applications., *Journal of Bionanoscience*, Volume 10, Pages 257-266, 2016.
23. Karthi, S.; Kumar, G. Suresh; Thamizhavel, A.; Girija, E. K., Biocompatible luminomagnetic hydroxyapatite nanoparticles for dual model bioimaging., *Journal of Bionanoscience*, Volume 10, Pages 267-274, 2016.
24. M. Chitra, K. Uthayarani, N. Rajasekaran, N. Neelakandeswari, E. K. Girija, D. Pathinettam Padiyan., Flake like V₂O₅ nanoparticles for ethanol sensing at room temperature., *AIP Conference Proceedings*, Volume 1731, 2016.
25. Kumar, G. Suresh; Sivakumar, T.; Karthi, S.; Govindan, R.; Girija, E. K., Fish scale derived nanocrystalline hydroxyapatite: A potential candidate for orthopedic applications., *Journal of Bionanoscience*, Volume 10, Pages 140-144, 2016
26. S. Nirmala SriDevi, R. ArunKumar, E.K.Girija., Investigations on the effect of transition metals on the growth and characterization of sodium acid phthalate single crystals., *Optik*, Volume 127, Pages 2419-2423, 2016.
27. Vasugi, G.; Kumar, G. Suresh; Thamizhavel, A.; Girija, E. K., Removal of reactive textile dyes using carbonate substituted nanocrystalline hydroxyapatite., *Journal of Bionanoscience*, Volume 10, Pages 38-46, 2016.
28. Chitra, M; Uthayarani, K; Rajasekaran, N; Neelakandeswari, N; Girija, E K; Dharmaraj, N Synthesis and Characterization of zinc-tin-vanadium oxide nanocomposites for oxygen sensing applications., *Sensor Letters*, Volume 14, Pages 164-170, 2016
29. M. Chitra, K. Uthayarani, N. Rajasekaran, N. Neelakandeswari., E. K. Girija., D. Pathinettam Padiyan., Effect of surfactant on the morphology of ZnO/Al:ZnO nanostructures and their

ethanol sensing applications at room temperature., Surface Review and Letters, Volume 23, 2016

30. S.Nirmala Sridevi., R. Arun Kumar., E.K. Girija., Growth and characterization of amino acids doped sodium acid phthalate single crystals., Materials Research Innovations, Volume 20, Pages 293-299, 2016
31. S.Karthi ., G. Suresh Kumar., E.K. Girija., Luminomagnetic hydroxyapatite nanoparticles for biomedical applications., Journal of Chemical and Pharmaceutical Sciences, Volume 9, Pages 169-171, 2016,
32. S.Karthi, G. SureshKumar, G.A.Kumar, D.K.Sardar, C.Santhosh, E.K.Girija., Microwave assisted synthesis and characterizations of near infrared emitting Yb/Er doped fluorapatite nanoparticles., Journal of Alloys and Compounds, Volume 689, Pages 525-532, 2016
33. M. Chitra, K. Uthayarani, N. Rajasekaran, N. Neelakandeswari, E. K. Girija, D. Pathinettam Padiyan, G. Mangamma, Enhanced ethanol gas sensing performance of zinc-tin-vanadium oxide nanocomposites at room temperature., RSC Advances, Volume 6, Pages 111526-111538, 2016
34. G. Vasugi, E. K. Girija., Investigations on textile dye adsorption onto hydroxyapatite-alginate nanocomposite prepared by a modified method., Cellulose Chemistry and Technology, Volume 49, Pages 87-91, 2015
35. K. Sangeetha, Y. Yokogawa, E.K. Girija A facile strategy to elute amoxicillin in a controlled way from hydroxyapatite-gelatin composite., Advanced Materials Letters, Volume 6, Pages 1031-1036, 2015,
36. K. Sangeetha, G.Vasugi., E.K.Girija., Removal of lead ions from aqueous solution by novel hydroxyapatite/alginate/gelatin composites., International Journal of ChemTech Research, Volume 8, Pages 117-125, 2015
37. R. Govindan, G. Suresh Kumar, E. K. Girija., Polymer coated phosphate glass/hydroxyapatite composite scaffolds for bone tissue engineering applications., RSC Advances, Volume 5, Pages 60188-60198, 2015,
38. G. Suresh Kumar, L. Sathish, R. Govindan, E. K. Girija, Utilization of snail shells to synthesise hydroxyapatite nanorods for orthopedic applications., RSC Advances, Volume 5, Pages 39544-39548, 2015,

39. G.Vasugi, E.K.Girija, Luminescent and biocompatible rare earth doped nanostructured hydroxyapatite for M. Chitra, K. Uthayarani, N. Rajasekaran, N. Neelakandeswari, E. K. Girija, D. Pathinettam Padiyan, Rice Husk Templated Mesoporous ZnO Nanostructures for Ethanol Sensing at Room Temperature., Chinese Physics Letters, Volume 32, 2015
40. R. Govindan., E. K. Girija., Parameters optimization for the fabrication of phosphate glass/hydroxyapatite nanocomposite scaffold., AIP Conference Proceedings, Volume 1665, 2015
41. J.Jayaprakash, N.Srinivasan, P.Chandrasekaran, E.K.Girija., Synthesis and characterization of cluster of grapes like pure and Zinc-doped CuO nanoparticles by sol-gel method., Spectrochimica Acta - Part A:Molecular and Biomolecular Spectroscopy, Volume 136, Pages 1803-1806 , 2015