



Hindusthan College of Arts & Science

(Autonomous)

DBT STAR College Scheme



List of Research Publications in SCI/ SCIE / UGC CARE/ OTHER Journals

1. Bharathi, D., Rajalakshmi, G. and Komathi, S., 2019. Optimization and production of lipase enzyme from bacterial strains isolated from petrol spilled soil. *Journal of King Saud University-Science*, 31(4), pp.898-901.
2. Prabu, K., Rajasekaran, A., Bharathi, D. and Ramalakshmi, S., 2019. Anti-oxidant activity, phytochemical screening and HPLC profile of rare endemic *Cordia diffusa*. *Journal of King Saud University-Science*, 31(4), pp.724-727.
3. Bharathi, D., Ranjithkumar, R., Vasantharaj, S., Chandarshekar, B. and Bhuvaneshwari, V., 2019. Synthesis and characterization of chitosan/iron oxide nanocomposite for biomedical applications. *International journal of biological macromolecules*, 132, pp.880-887.
4. Venkatachalam, R., Kalimuthu, K., Chinnadurai, V., Saravanan, M., Radhakrishnan, R., Shanmuganathan, R. and Pugazhendhi, A., 2020. Various solvent effects on phytochemical constituent profiles, analysis of antioxidant and antidiabetic activities of *Hopea parviflora*. *Process Biochemistry*, 89, pp.227-232.
5. Saravanan, M., Senthilkumar, P., Chinnadurai, V., Sakthivel, K.M., Rajeshkumar, R. and Pugazhendhi, A., 2020. Antiangiogenic, anti-inflammatory and their antioxidant activities of *Turnerasubulata Sm.* (Turneraceae). *Process Biochemistry*, 89, pp.71-80.
6. Sathiyavimal, S., Vasantharaj, S., Kaliannan, T. and Pugazhendhi, A., 2020. Eco-biocompatibility of chitosan coated biosynthesized copper oxide nanocomposite for enhanced industrial (Azo) dye removal from aqueous solution and antibacterial properties. *Carbohydrate polymers*, 241, p.116243.
7. Sathiyavimal, S., Vasantharaj, S., Shanmugavel, M., Manikandan, E., Nguyen-Tri, P., Brindhadevi, K. and Pugazhendhi, A., 2020. Facile synthesis and characterization of hydroxyapatite from fish bones: Photocatalytic degradation of industrial dyes (crystal violet and Congo red). *Progress in Organic Coatings*, 148, p.105890.
8. Sathiyavimal, S., Vasantharaj, S., LewisOscar, F., Selvaraj, R., Brindhadevi, K. and Pugazhendhi, A., 2020. Natural organic and inorganic-hydroxyapatite biopolymer composite for biomedical applications. *Progress in Organic Coatings*, 147, p.105858.
9. Venkatachalam, R., Kalimuthu, K., Chinnadurai, V., Saravanan, M., Radhakrishnan, R., Shanmuganathan, R. and Pugazhendhi, A., 2020. Various solvent effects on phytochemical constituent profiles, analysis of antioxidant and antidiabetic activities of *Hopea parviflora*. *Process Biochemistry*, 89, pp.227-232.
10. Kumaresan, M., Venkatachalam, M., Saroja, M. and Gowthaman, P., 2020. Significant enhancement in the hydrogen-sensing performance of polypyrrole/titanium oxide (PPy/TiO₂) hybrid sensors by a chemical oxidation polymerization approach. *Journal of Materials Science: Materials in Electronics*, 31, pp.8183-8193.
11. Sathiyavimal, S., Vasantharaj, S., Veeramani, V., Saravanan, M., Rajalakshmi, G., Kaliannan, T., Al-Misned, F.A. and Pugazhendhi, A., 2021. Green chemistry route of biosynthesized copper oxide nanoparticles using *Psidium guajava* leaf extract and their antibacterial activity and effective removal of industrial dyes. *Journal of Environmental Chemical Engineering*, 9(2), p.105033.
12. Nandana, C.N., Christeena, M. and Bharathi, D., 2021. Synthesis and characterization of chitosan/silver nanocomposite using rutin for antibacterial, antioxidant and photocatalytic applications. *Journal of Cluster Science*, pp.1-11.
13. Seerangaraj, V., Sathiyavimal, S., Shankar, S.N., Nandagopal, J.G.T., Balashanmugam, P., Al-Misned, F.A., Shanmugavel, M., Senthilkumar, P. and Pugazhendhi, A., 2021. Cytotoxic effects of silver nanoparticles on *Ruellia tuberosa*: Photocatalytic degradation properties

- against crystal violet and coomassie brilliant blue. *Journal of Environmental Chemical Engineering*, 9(2), p.105088.
14. Suriyakalaa, U., Ramachandran, R., Doualathunnisa, J.A., Aseervatham, S.B., Sankarganesh, D., Kamalakkannan, S., Kadalmani, B., Angayarkanni, J., Akbarsha, M.A. and Achiraman, S., 2021. Upregulation of Cyp19a1 and PPAR- γ in ovarian steroidogenic pathway by *Ficus religiosa*: A potential cure for polycystic ovary syndrome. *Journal of Ethnopharmacology*, 267, p.113540.
 15. Vasantharaj S., Sathiyavimal S., Senthilkumar P., LewisOscar F., Pugazhendhi A.,2019. Biosynthesis of iron oxide nanoparticles using leaf extract of *Ruelliatuberosa*: Antimicrobial properties and their applications in photocatalytic degradation. *Journal of Photochemistry and Photobiology B: Biology*. 19274-82
 16. Vasantharaj S., Sathiyavimal S., Saravanan M., Senthilkumar P., Gnanasekaran K., Shanmugavel M., Manikandan E., Pugazhendhi A.,2019. Synthesis of ecofriendly copper oxide nanoparticles for fabrication over textile fabrics: Characterization of antibacterial activity and dye degradation potential. *Journal of Photochemistry and Photobiology B: Biology*. 191143-149
 17. Sathiyavimal S., Vasantharaj S., Bharathi D., Saravanan M., Manikandan E., Kumar S.S., Pugazhendhi A.,2018. Biogenesis of copper oxide nanoparticles (CuONPs) using *Sidaacuta* and their incorporation over cotton fabrics to prevent the pathogenicity of Gram negative and Gram positive bacteria. *Journal of Photochemistry and Photobiology B: Biology*. 188126-134
 18. Bharathi D., Vasantharaj S., Bhuvaneshwari V.,2018. Green synthesis of silver nanoparticles using *Cordia dichotoma* fruit extract and its enhanced antibacterial, anti-biofilm and photo catalytic activity. *Materials Research Express*. 55-
 19. Sathiyavimal S., Vasantharaj S., Kaliannan T., Pugazhendhi A.,2020. Eco-biocompatibility of chitosan coated biosynthesized copper oxide nanocomposite for enhanced industrial (Azo) dye removal from aqueous solution and antibacterial properties. *Carbohydrate Polymers*. 241-
 20. Nithya N., Bhoopathi G., Magesh G., Kumar C.D.N.,2018. Neodymium doped TiO₂ nanoparticles by sol-gel method for antibacterial and photocatalytic activity. *Materials Science in Semiconductor Processing*. 8370-82
 21. Sathiyavimal S., Vasantharaj S., Shanmugavel M., Manikandan E., Nguyen-Tri P., Brindhadevi K., Pugazhendhi A.,2020. Facile synthesis and characterization of hydroxyapatite from fish bones: Photocatalytic degradation of industrial dyes (crystal violet and Congo red). *Progress in Organic Coatings*. 148-
 22. Sathiyavimal S., Vasantharaj S., LewisOscar F., Pugazhendhi A., Subashkumar R.,2019. Biosynthesis and characterization of hydroxyapatite and its composite (hydroxyapatite-gelatin-chitosan-fibrin-bone ash) for bone tissue engineering applications. *International Journal of Biological Macromolecules*. 129844-852
 23. Bharathi D., Ranjithkumar R., Vasantharaj S., Chandarshekar B., Bhuvaneshwari V.,2019. Synthesis and characterization of chitosan/iron oxide nanocomposite for biomedical applications. *International Journal of Biological Macromolecules*. 132880-887
 24. Vasantharaj S., Sripriya N., Shanmugavel M., Manikandan E., Gnanamani A., Senthilkumar P.,2018. Surface active gold nanoparticles biosynthesis by new approach for bionanocatalytic activity. *Journal of Photochemistry and Photobiology B: Biology*. 179119-125
 25. Indira K., Shanmugam S., Hari A., Vasantharaj S., Sathiyavimal S., Brindhadevi K., El Askary A., Elfasakhany A., Pugazhendhi A.,2021. Photocatalytic degradation of congo red dye using nickel-titanium dioxide nanoflakes synthesized by *Mukiamadrasapatna* leaf extract. *Environmental Research*. 202-
 26. Madhan G., Begam A.A., Varsha L.V., Ranjithkumar R., Bharathi D.,2021. Facile synthesis and characterization of chitosan/zinc oxide nanocomposite for enhanced antibacterial and photocatalytic activity. *International Journal of Biological Macromolecules*. 190259-269
 27. Balaprakash V., Gowrisankar P., Sudha S., Rajkumar R.,2018. Aluminum doped ZnO transparent conducting thin films prepared by sol-gel dip coating technique for solar cells and optoelectronic applications. *Materials Technology*. 336414-420

28. Bharathi D., Thiruvengadam Nandagopal J.G., Rajamani R., Pandit S., Kumar D., Pant B., Pandey S., Kumar Gupta P., 2022. Enhanced photocatalytic activity of St-ZnO nanorods for methylene blue dye degradation. *Materials Letters*. 311-
29. Kalaipoonguzhali V., SenthilKannan K., Thirumoorthi C., Chinnadurai M., Jayanalina T., 2020. Comparison of adsorption energy, ionization potential and electron affinity of CuS-ACT and CuS-Nit nanostructures monowire for nano device fabrication by computational approach. *Materials Today: Proceedings*. 332759-2760
30. Saravanan M., Senthilkumar P., Kalimuthu K., Chinnadurai V., Vasantharaj S., Pugazhendhi A., 2018. Phytochemical and pharmacological profiling of *Turnerasubulata Sm.*, a vital medicinal herb. *Industrial Crops and Products*. 124822-833
31. Venkatachalam R., Kalimuthu K., Chinnadurai V., Saravanan M., Radhakrishnan R., Shanmuganathan R., Pugazhendhi A., 2020. Various solvent effects on phytochemical constituent profiles, analysis of antioxidant and antidiabetic activities of *Hopeaparviflora*. *Process Biochemistry*. 89227-232
32. Umesh M., Mani V.M., Thazeem B., Preethi K., 2018. Statistical Optimization of Process Parameters for Bioplastic (PHA) Production by *Bacillus subtilis* NCDC0671 Using Orange Peel-Based Medium. *Iranian Journal of Science and Technology, Transaction A: Science*. 4241947-1955
33. Kumaresan M., Venkatachalam M., Saroja M., Gowthaman P., 2021. TiO₂ nanofibers decorated with monodispersed WO₃ heterostructure sensors for high gas sensing performance towards H₂ gas. *Inorganic Chemistry Communications*. 129-
34. Suriyakalaa U., Ramachandran R., Doulathunnisa J.A., Aseervatham S.B., Sankarganesh D., Kamalakkannan S., Kadalmani B., Angayarkanni J., Akbarsha M.A., Achiraman S., 2021. Upregulation of Cyp19a1 and PPAR- γ in ovarian steroidogenic pathway by *Ficus religiosa*: A potential cure for polycystic ovary syndrome. *Journal of Ethnopharmacology*. 267-
35. Narayanan M., Gopi A., Natarajan D., Kandasamy S., Saravanan M., El Askary A., Elfasakhany A., Pugazhendhi A., 2021. Hepato and nephroprotective activity of methanol extract of *Hygrophila spinosa* and its antibacterial potential against multidrug resistant *Pandoraesputorum*. *Environmental Research*. 201-
36. Thangavel K., Roshini T., Balaprakash V., Gowrisankar P., Sudha S., Mohan M., 2019. Structural, morphological and antibacterial properties of ZnO nanofibers fabricated by electrospinning technique. *Materials Today: Proceedings*. 332160-2166
37. Bharathi D., AlSalhi M.S., Devanesan S., Nandagopal J.G.T., Kim W., Ranjithkumar R., 2022. Photocatalytic degradation of Rhodamine B using green-synthesized ZnO nanoparticles from *Sechiumedule polysaccharides*. *Applied Nanoscience (Switzerland)*. 1282477-2487
38. Bharathi D., Nandagopal J.G.T., Ranjithkumar R., Gupta P.K., Djearmane S., 2022. Microbial approaches for sustainable remediation of dye-contaminated wastewater: a review. *Archives of Microbiology*. 2043-
39. Kumaresan M., Venkatachalam M., Saroja M., Gowthaman P., 2020. Significant enhancement in the hydrogen-sensing performance of polypyrrole/titanium oxide (PPy/TiO₂) hybrid sensors by a chemical oxidation polymerization approach. *Journal of Materials Science: Materials in Electronics*. 31118183-8193
40. Mallika D., Baleanu D., Suganya S., Mallika Arjunan M., 2019. Existence results for fractional neutral integro-differential systems with nonlocal condition through resolvent operators. *Analele Stiintifice ale Universitatii Ovidius Constanta, Seria Matematica*. 271107-124
41. Sathiyavimal S., F Durán-Lara E., Vasantharaj S., Saravanan M., Sabour A., Alshiekheid M., Lan Chi N.T., Brindhadevi K., Pugazhendhi A., 2022. Green synthesis of copper oxide nanoparticles using *Abutilon indicum* leaves extract and their evaluation of antibacterial, anticancer in human A549 lung and MDA-MB-231 breast cancer cells. *Food and Chemical Toxicology*. 168-
42. Balaprakash V., Mohan M., Gowrisankar P., Thangavel K., Sudha S., 2019. Structural, morphological and optical properties of nano structured cobalt doped ZnO thin films. *Materials Today: Proceedings*. 332251-2254

43. Sathiyavimal S., Vasantharaj S., Kaliannan T., Chinnathambi A., Ali Alharbi S., Krishnan R., Brindhadevi K., Lan Chi N.T., Pugazhendhi A.,2022. Synthesis of HAp/CS-SA composite for effective removal of highly toxic dyes in aqueous solution. *Food and Chemical Toxicology*. 168-
44. Seenuvasan M., Malar C.G., Growther L.,2021. Production of a biopolymer film from biological wastes and its statistical analysis. *Bioresource Technology Reports*. 13-
45. Suriyakalaa U., Ananth D.A., Ramachandran R., Sankarganesh D., Angayarkanni J., Tietel Z., Achiraman S.,2022. Analysis of phytochemical composition of a leaf extract of sacred fig (*Ficus religiosa* L.) by UPLC-QqQ-MS and assessment of its hepatocurative potential in mouse model. *South African Journal of Botany*. 151198-207
46. Raj Kumar R., Gowrisankar P., Balaprakash V., Sudha S., Manimaran E.I.,2018. Structural and magnetoresistive properties of electrodeposited thin films for magnetic sensors applications. *Journal of Materials Science: Materials in Electronics*. 291311591-11597
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48. Djearmane S., Xiu L.-J., Wong L.-S., Rajamani R., Bharathi D., Kayarohanam S., De Cruz A.E., Tey L.-H., Janakiraman A.K., Aminuzzaman M., Selvaraj S.,2022. Antifungal Properties of Zinc Oxide Nanoparticles on *Candida albicans*. *Coatings*. 1212-
49. Sakthivel R., Geetha A., Anandh B.A., Mohankumar S., Dineshkumar J.,2022. Thin films of graphene decorated with NiS₂ hybrid sensor for detection of NO₂ gas. *Journal of Materials Science: Materials in Electronics*. 333023404-23417
50. Rathakrishnan D., Gopalan A.K.,2022. Screening for anti-neoplastic enzymes producing halophilic bacterial extract and their antioxidant activity due to carotenoid synthesis. *Bioresource Technology Reports*. 19-
51. Sahu G.K., Behera S., Senthil V., Badapanda T.,2022. Investigation of Dielectric, Ferroelectric and Conduction Behavior of Dy³⁺Substituted SrBi₂Ta₂O₉Bismuth Layer Structured Ceramics. *ECS Journal of Solid State Science and Technology*. 118-
52. Balasubramanian P., Anil A.J.,2021. Epidemiological study of skin disorders in Andaman and Nicobar Islands. *Indian Journal of Dermatology*. 665454-458
53. Bharathi, D., Ranjithkumar, R., Vasantharaj, S., Chandarshekar, B. and Bhuvaneshwari, V., 2019. Synthesis and characterization of chitosan/iron oxide nanocomposite for biomedical applications. *International journal of biological macromolecules*, 132, pp.880-887.
54. Venkatachalam, R., Kalimuthu, K., Chinnadurai, V., Saravanan, M., Radhakrishnan, R., Shanmuganathan, R. and Pugazhendhi, A., 2020. Various solvent effects on phytochemical constituent profiles, analysis of antioxidant and antidiabetic activities of *Hopea parviflora*. *Process Biochemistry*, 89, pp.227-232.
55. Sathiyavimal, S., Vasantharaj, S., Kaliannan, T. and Pugazhendhi, A., 2020. Eco-biocompatibility of chitosan coated biosynthesized copper oxide nanocomposite for enhanced industrial (Azo) dye removal from aqueous solution and antibacterial properties. *Carbohydrate polymers*, 241, p.116243.
56. Sathiyavimal, S., Vasantharaj, S., Shanmugavel, M., Manikandan, E., Nguyen-Tri, P., Brindhadevi, K. and Pugazhendhi, A., 2020. Facile synthesis and characterization of hydroxyapatite from fish bones: Photocatalytic degradation of industrial dyes (crystal violet and Congo red). *Progress in Organic Coatings*, 148, p.105890.
57. Venkatachalam, R., Kalimuthu, K., Chinnadurai, V., Saravanan, M., Radhakrishnan, R., Shanmuganathan, R. and Pugazhendhi, A., 2020. Various solvent effects on phytochemical constituent profiles, analysis of antioxidant and antidiabetic activities of *Hopea parviflora*. *Process Biochemistry*, 89, pp.227-232.
58. Sathiyavimal, S., Vasantharaj, S., Veeramani, V., Saravanan, M., Rajalakshmi, G., Kaliannan, T., Al-Misned, F.A. and Pugazhendhi, A., 2021. Green chemistry route of biosynthesized copper oxide nanoparticles using *Psidium guajava* leaf extract and their antibacterial activity and effective removal of industrial dyes. *Journal of Environmental Chemical Engineering*, 9(2), p.105033.

59. Seerangaraj, V., Sathiyavimal, S., Shankar, S.N., Nandagopal, J.G.T., Balashanmugam, P., Al-Misned, F.A., Shanmugavel, M., Senthilkumar, P. and Pugazhendhi, A., 2021. Cytotoxic effects of silver nanoparticles on *Ruelliatuberosa*: Photocatalytic degradation properties against crystal violet and coomassie brilliant blue. *Journal of Environmental Chemical Engineering*, 9(2), p.105088.
60. Suriyakalaa, U., Ramachandran, R., Doulathunnisa, J.A., Aseervatham, S.B., Sankarganesh, D., Kamalakkannan, S., Kadalmani, B., Angayarkanni, J., Akbarsha, M.A. and Achiraman, S., 2021. Upregulation of Cyp19a1 and PPAR- γ in ovarian steroidogenic pathway by *Ficus religiosa*: A potential cure for polycystic ovary syndrome. *Journal of Ethnopharmacology*, 267, p.113540.
61. Thiruvencataswamy Saranya, **Krishnamoorthy Kavithaa**, Manickam Paulpandi, Sennimalai Ramya, SureshbabuHaryshWinster, Geetha Mani, Sangeetha Dhayalan, VellingiriBalachandar and Arul Narayanasamy, 2023. The creation of selenium nanoparticles decorated with troxerutin and their ability to adapt to the tumour microenvironment have therapeutic implications for triple-negative breast cancer. *National Journal of chemistry*. 47, p. 4565-4576.
62. Tharani Jayakumar, Geetha Mani, Sangeetha Dhayalan, Ramya Sennimalai, **Kavithaa Krishnamoorthy**, ChandramohanGovindasamy, Khalid, S., Al-Numair, Mohammed, A., Alsaif, YongPilCheon, 2023. Characterization, Antimicrobial and Anticancer Properties of Palladium Nanoparticles Biosynthesized Routed Through *Bacillus sp.* *Journal of Cluster Science*. <https://doi.org/10.1007/s10876-023-02435-6>

UGC care Listed Publications

1. Subitha, R., and **SenthilKumar, P.**, 2022. In-vitro Antioxidant and Antibacterial Activity of Green Synthesized Silver Nanoparticles using *Martyniaannua* L. Leaves Extract. *Research Journal of Agricultural Sciences*, 13 (4), p. 987–994.
2. Ashok Kumar, S., **Karthiga, P., Rajalakshmi, G.**, Gopikrishnan, V., Radhakrishnan, M., Abirami, Manigundan, K., and Soyong, K., 2023. Exploration of earthwormcast associated actinobacteria for plant growth promoting properties. *International Journal of Agricultural Technology*. 19(1), p.1-8.
3. **Selvapriya, M.** 2023. Efficient CNN Models for Improved Social Emotion Classification. *DogoRangsang Research Journal* 13 (3) p. 78-82.
4. **Saradha, R.** 2022. Evaluation Metrics for High Quality Clustering Algorithms for Streaming Data. *Journal of Emerging Technologies and Innovative Research (JETIR)*. 9 (11), p.331-339.

Other Journals

Subitha, R., **Senthil Kumar, P.**, and Gobinath, K., 2022. In vivo wound healing potential of chitosan gel based silver nanoparticles synthesized from *Martyniaannua*. *Research Journal of Biotechnology*, 17 (9), p. 119-133.

Saundharya, P., Jerrine Joseph, **Rajalakshmi, G.**, and Mary Shamy., 2022. Formulation of Wound Healing Transdermal Patch from Tubers Extract of *Momordica Cymbalaria* and its In-vitro Evaluation. *Haya: The Saudi Journal of Life Sciences*, 7(7), p. 224-233.

Nithya, D., and Harini, M., 2022. Solving Fuzzy Transportation Problem Using Hungarian Method. *International Journal of Advances in Engineering and Management (IJAEM)*. 4 (6), p. 685-690.

Renuga Devi, S., and Amy Gladys Veronica, S., Time Table Scheduling in Bipartite Graph Graph Using Latex. 10 (11), p. 917-924.

Rajarajeswari, M., Monika, S., 2022. Secure Outsourcing of Non-Linear Optimization Includ Computing. *International Journal of Novel Research and Development*. 7 (12), p. 903-911.