

# Brindhadevi Kathirvel

## List of Publications by Year in descending order

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Version: 2024-02-01

102  
papers

3,724  
citations

117625

34  
h-index

149698

56  
g-index

102  
all docs

102  
docs citations

102  
times ranked

3020  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Biosynthesis of TiO <sub>2</sub> nanoparticles by <i>Acalypha indica</i> ; photocatalytic degradation of methylene blue. <i>Applied Nanoscience</i> (Switzerland), 2023, 13, 383-390.   | 3.1 | 10        |
| 2  | Prediction of emission characteristics of a diesel engine using experimental and artificial neural networks. <i>Applied Nanoscience</i> (Switzerland), 2023, 13, 433-442.   | 3.1 | 17        |
| 3  | Study of antimicrobial properties of Piper betel coated nanozirconium on cotton gauze. <i>Applied Nanoscience</i> (Switzerland), 2023, 13, 3301-3307.   | 3.1 | 4         |
| 4  | Wound dressings coated with silver nanoparticles and essential oil of Labdanum. <i>Applied Nanoscience</i> (Switzerland), 2023, 13, 1345-1354.  | 3.1 | 4         |
| 5  | Green and ecofriendly synthesis of cobalt oxide nanoparticles using <i>Phoenix dactylifera</i> L: antimicrobial and photocatalytic activity. <i>Applied Nanoscience</i> (Switzerland), 2023, 13, 1367-1375.   | 3.1 | 22        |
| 6  | Synthesis of silver nanoparticles from wild and tissue cultured <i>Ceropegia juncea</i> plants and its antibacterial, anti-angiogenesis and cytotoxic activities. <i>Applied Nanoscience</i> (Switzerland), 2023, 13, 1619-1633.  | 3.1 | 3         |
| 7  | Green synthesis of titanium dioxide nanoparticles using <i>Laurus nobilis</i> (bay leaf): antioxidant and antimicrobial activities. <i>Applied Nanoscience</i> (Switzerland), 2023, 13, 1477-1484.  | 3.1 | 12        |
| 8  | Antioxidant, anti-inflammatory and anti-proliferative activities of green and yellow zucchini (Courgette). <i>Applied Nanoscience</i> (Switzerland), 2023, 13, 2251-2260.   | 3.1 | 6         |
| 9  | Synthesis, characterization and photocatalytic activity of potassium Titanate nanocatalyst. <i>Applied Nanoscience</i> (Switzerland), 2023, 13, 2223-2232.  | 3.1 | 2         |
| 10 | Enzymatic lipase-based methyl esterified <i>Citrullus colocynthis</i> L. biodiesel for improved combustion, performance and emission characteristics. <i>Fuel</i> , 2022, 307, 121899.  | 6.4 | 7         |
| 11 | Enhancement of the combustion, performance and emission characteristics of spirulina microalgae biodiesel blends using nanoparticles. <i>Fuel</i> , 2022, 308, 121822.  | 6.4 | 39        |
| 12 | Blending and emission characteristics of biogasoline produced using CaO/SBA-15 catalyst by cracking used cooking oil. <i>Fuel</i> , 2022, 307, 121861.  | 6.4 | 14        |
| 13 | Assessment of hydrogen and nanoparticles blended biodiesel on the diesel engine performance and emission characteristics. <i>Fuel</i> , 2022, 307, 121780.  | 6.4 | 38        |
| 14 | PM emissions - assessment of combustion energy transfer with <i>Schizochytrium</i> sp. algal biodiesel and blends in IC engine. <i>Science of the Total Environment</i> , 2022, 802, 149750.  | 8.0 | 15        |
| 15 | Bio-based algal ( <i>Chlorella vulgaris</i> ) refinery on de-oiled algae biomass cake: A study on biopolymer and biodiesel production. <i>Science of the Total Environment</i> , 2022, 816, 151579.   | 8.0 | 18        |
| 16 | Combined effect of CO <sub>2</sub> concentration and low-cost urea repletion/starvation in <i>Chlorella vulgaris</i> for ameliorating growth metrics, total and non-polar lipid accumulation and fatty acid composition. <i>Science of the Total Environment</i> , 2022, 808, 151969. | 8.0 | 15        |
| 17 | Comparison of cracking activity of the core-shell composite MCM-41/HY & MCM-48/HY catalysts in the synthesis of organic liquid fuel from Mahua oil. <i>Environmental Research</i> , 2022, 205, 112474.  | 7.5 | 6         |
| 18 | An assessment of agricultural waste cellulosic biofuel for improved combustion and emission characteristics. <i>Science of the Total Environment</i> , 2022, 813, 152418.   | 8.0 | 16        |

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|----|--|-----|-----------|
| 19 | Role of soluble nano-catalyst and blends for improved combustion performance and reduced greenhouse gas emissions in internal combustion engines. <i>Fuel</i> , 2022, 312, 122826.   | 6.4 | 9         |
| 20 | Experimental analysis of C.I. engine using pyrolyzed plastic oil blended with alumina nano additive. <i>Fuel</i> , 2022, 312, 122929.  | 6.4 | 11        |
| 21 | Comparative study of pyrolysis and hydrothermal liquefaction of microalgal species: Analysis of product yields with reaction temperature. <i>Fuel</i> , 2022, 311, 121932.   | 6.4 | 29        |
| 22 | Fabrication, characterization, anti-inflammatory, and anti-diabetic activity of silver nanoparticles synthesized from <i>Azadirachta indica</i> kernel aqueous extract. <i>Environmental Research</i> , 2022, 208, 112684. | 7.5 | 32        |
| 23 | Microwave assisted biodiesel production from chicken feather meal oil using Bio-Nano Calcium oxide derived from chicken egg shell. <i>Environmental Research</i> , 2022, 205, 112509.                                      | 7.5 | 14        |
| 24 | Synthesis of mesoporous SiO <sub>2</sub> nanoparticles and toxicity assessment in early life stages of zebrafish. <i>Microporous and Mesoporous Materials</i> , 2022, 330, 111573.   | 4.4 | 6         |
| 25 | Effects of nanofluids on the photovoltaic thermal system for hydrogen production via electrolysis process. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 37183-37191.  | 7.1 | 21        |
| 26 | Vibration, acoustic and emission characteristics of the <i>Chlorella vulgaris</i> microalgae oil in compression ignition engine to mitigate environmental pollution. <i>Chemosphere</i> , 2022, 293, 133475.               | 8.2 | 17        |
| 27 | Fungi fabrication, characterization, and anticancer activity of silver nanoparticles using metals resistant <i>Aspergillus niger</i> . <i>Environmental Research</i> , 2022, 208, 112721.                                  | 7.5 | 13        |
| 28 | Silver nanoparticles (AgNPs) fabricating potential of aqueous shoot extract of <i>Aristolochia bracteolata</i> and assessed their antioxidant efficiency. <i>Environmental Research</i> , 2022, 208, 112683.               | 7.5 | 5         |
| 29 | A novel synthesis, analysis and evaluation of <i>Musa coccinea</i> based zero valent iron nanoparticles for antimicrobial and antioxidant. <i>Environmental Research</i> , 2022, 209, 112770.                              | 7.5 | 14        |
| 30 | Green synthesis of Zirconium nanoparticles using <i>Punica granatum</i> (pomegranate) peel extract and their antimicrobial and antioxidant potency. <i>Environmental Research</i> , 2022, 209, 112771.                     | 7.5 | 41        |
| 31 | Performance and emissions of <i>Chlorella vulgaris</i> with ruthenium oxide in CI engines. <i>Fuel</i> , 2022, 314, 122764.  | 6.4 | 3         |
| 32 | Rubikâ€™s cube shaped organic template free hydrothermal synthesis and characterization of zeolite NaA for CO <sub>2</sub> adsorption. <i>Fuel</i> , 2022, 317, 123492.  | 6.4 | 6         |
| 33 | In vitro efficacy of green synthesized ZnO nanoparticles against biofilm and virulence of <i>Serratia marcescens</i> . <i>Progress in Organic Coatings</i> , 2022, 166, 106781.  | 3.9 | 4         |
| 34 | A review on graphene / graphene oxide supported electrodes for microbial fuel cell applications: Challenges and prospects. <i>Chemosphere</i> , 2022, 296, 133983.   | 8.2 | 23        |
| 35 | Performance, combustion and emission characteristics of the CI engine fueled with <i>Botryococcus braunii</i> microalgae with addition of TiO <sub>2</sub> nanoparticle. <i>Fuel</i> , 2022, 317, 121898.                  | 6.4 | 28        |
| 36 | Comparative assessment of waste cooking, chicken waste and waste tire biodiesel blends on performance and emission characteristics. <i>Fuel</i> , 2022, 320, 123859.   | 6.4 | 24        |

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|----|--|-----|-----------|
| 37 | Small scale photobioreactor, outdoor open pond cultivation of <i>Chlorella</i> sp. and harvesting at log and stationary growth phase towards lipids and methyl ester production. <i>Fuel</i> , 2022, 319, 123813.  | 6.4 | 10        |
| 38 | Central composite design for the optimization of CaO and Fe <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> facilitated transesterification of <i>Scenedesmus</i> sp. oil for fatty acid methyl ester production. <i>Fuel</i> , 2022, 321, 124096.          | 6.4 | 10        |
| 39 | A study on biofuel produced from cracking of low density poly ethylenes using TiO <sub>2</sub> /AISBA-15 nanocatalysts. <i>Fuel</i> , 2022, 323, 124299.   | 6.4 | 5         |
| 40 | In vivo detection of triacylglycerols through Nile red staining and quantification of fatty acids in hyper lipid producer <i>Nannochloropsis</i> sp. cultured under adequate nitrogen and deficient nitrogen condition. <i>Fuel</i> , 2022, 322, 124179. | 6.4 | 9         |
| 41 | Prediction of the fuel spray characteristics in the combustion chamber with methane and TiO <sub>2</sub> nanoparticles via numerical modelling. <i>Fuel</i> , 2022, 326, 124820.   | 6.4 | 9         |
| 42 | Experimental investigation and numerical analysis of energy efficiency building using phase changing material coupled with reflective coating. <i>International Journal of Energy Research</i> , 2021, 45, 17279-17290.                                  | 4.5 | 7         |
| 43 | A review on biochar production techniques and biochar based catalyst for biofuel production from algae. <i>Fuel</i> , 2021, 287, 119411.   | 6.4 | 132       |
| 44 | Effect of reaction temperature on the conversion of algal biomass to bio-oil and biochar through pyrolysis and hydrothermal liquefaction. <i>Fuel</i> , 2021, 285, 119106.   | 6.4 | 111       |
| 45 | Experimental analysis to reduce CO <sub>2</sub> and other emissions of CRDI CI engine using low viscous biofuels. <i>Fuel</i> , 2021, 283, 118829.   | 6.4 | 33        |
| 46 | Biohydrogen production using horizontal and vertical continuous stirred tank reactor- a numerical optimization. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 11305-11312.   | 7.1 | 57        |
| 47 | Impact of abiotic factors on biodiesel production by microalgae. <i>Fuel</i> , 2021, 284, 118962.  | 6.4 | 45        |
| 48 | Mechanism and challenges behind algae as a wastewater treatment choice for bioenergy production and beyond. <i>Fuel</i> , 2021, 285, 119093.   | 6.4 | 69        |
| 49 | Activation strategies for biochar to use as an efficient catalyst in various applications. <i>Fuel</i> , 2021, 285, 119205.  | 6.4 | 97        |
| 50 | Ultrasound-assisted synthesis of mixed calcium magnesium oxide (CaMgO <sub>2</sub> ) nanoflakes for photocatalytic degradation of methylene blue. <i>Journal of Colloid and Interface Science</i> , 2021, 584, 770-778.                                  | 9.4 | 48        |
| 51 | <i>Chaetomium globosum</i> extract mediated gold nanoparticle synthesis and potent anti-inflammatory activity. <i>Analytical Biochemistry</i> , 2021, 612, 113970.   | 2.4 | 22        |
| 52 | A realistic scenario on microalgae based biodiesel production: Third generation biofuel. <i>Fuel</i> , 2021, 284, 118965.  | 6.4 | 97        |
| 53 | Performance and emission evaluation of dual fuel CI engine using preheated biogas-air mixture. <i>Science of the Total Environment</i> , 2021, 754, 142389.  | 8.0 | 30        |
| 54 | Recent developments and strategies in genome engineering and integrated fermentation approaches for biobutanol production from microalgae. <i>Fuel</i> , 2021, 285, 119052.  | 6.4 | 49        |

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|----|---|------|-----------|
| 55 | Impact of cultivation conditions on the biomass and lipid in microalgae with an emphasis on biodiesel. Fuel, 2021, 284, 119058.   | 6.4  | 98        |
| 56 | Characterization of polyurethane coating on high performance concrete reinforced with chemically treated Ananas erectifolius fiber. Progress in Organic Coatings, 2021, 150, 105977.                            | 3.9  | 21        |
| 57 | A review on the pyrolysis of algal biomass for biochar and bio-oil – Bottlenecks and scope. Fuel, 2021, 283, 119190.  | 6.4  | 178       |
| 58 | Synthesis, biological and environmental applications of hydroxyapatite and its composites with organic and inorganic coatings. Progress in Organic Coatings, 2021, 151, 106056.                                 | 3.9  | 43        |
| 59 | Biohythane production from organic waste: Recent advancements, technical bottlenecks and prospects. International Journal of Hydrogen Energy, 2021, 46, 11201-11216.  | 7.1  | 22        |
| 60 | Performance, noise and emission characteristics of DI engine using canola and Moringa oleifera biodiesel blends using soluble multiwalled carbon nanotubes. Fuel, 2021, 289, 119829.                            | 6.4  | 37        |
| 61 | Influence of dynamic position, fluid intake, hydration, and energy expenditure on sustainable mobility transport. Applied Acoustics, 2021, 175, 107809.   | 3.3  | 11        |
| 62 | Impact on degradation of antibiotics from poultry litter using Autothermal Thermophilic Aerobic Digestion (ATAD). Saudi Journal of Biological Sciences, 2021, 28, 988-992.                                      | 3.8  | 6         |
| 63 | Upgrading of bio-oil from thermochemical conversion of various biomass – Mechanism, challenges and opportunities. Fuel, 2021, 287, 119329.  | 6.4  | 66        |
| 64 | Examining the uniformity of the superhydrophobic coating on steel substrates using Kelvin probe force microscope. Progress in Organic Coatings, 2021, 150, 105973.  | 3.9  | 4         |
| 65 | GA-SVR: a novel hybrid data-driven model to simulate vertical load capacity of driven piles. Engineering With Computers, 2021, 37, 823-831.   | 6.1  | 44        |
| 66 | A study on biofuel produced by catalytic cracking of mustard and castor oil using porous Hf <sup>2</sup> and AlMCM-41 catalysts. Science of the Total Environment, 2021, 757, 143781.                           | 8.0  | 9         |
| 67 | A state of the art review on the cultivation of algae for energy and other valuable products: Application, challenges, and opportunities. Renewable and Sustainable Energy Reviews, 2021, 138, 110649.          | 16.4 | 105       |
| 68 | Pretreatment of second and third generation feedstock for enhanced biohythane production: Challenges, recent trends and perspectives. International Journal of Hydrogen Energy, 2021, 46, 11252-11268.          | 7.1  | 37        |
| 69 | Lipid content, biomass density, fatty acid as selection markers for evaluating the suitability of four fast growing cyanobacterial strains for biodiesel production. Bioresource Technology, 2021, 325, 124654. | 9.6  | 45        |
| 70 | Insights on biological hydrogen production routes and potential microorganisms for high hydrogen yield. Fuel, 2021, 291, 120136.  | 6.4  | 105       |
| 71 | A detailed scrutinize on panorama of catalysts in biodiesel synthesis. Science of the Total Environment, 2021, 777, 145683.   | 8.0  | 31        |
| 72 | Experimental assessment of performance, combustion and emission characteristics of diesel engine fuelled by combined non-edible blends with nanoparticles. Fuel, 2021, 295, 120590.                             | 6.4  | 37        |

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|----|--|------|-----------|
| 73 | Synergistic supplementation of organic carbon substrates for upgrading neutral lipids and fatty acids contents in microalga. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105482.   | 6.7  | 26        |
| 74 | Synthesis of titanium/niobium oxide nanocomposite on top open bamboo like titanium dioxide nanotube for the catalytic degradation of organic pollutants. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105400.                   | 6.7  | 7         |
| 75 | Electronic waste generation, recycling and resource recovery: Technological perspectives and trends. <i>Journal of Hazardous Materials</i> , 2021, 416, 125664.  | 12.4 | 120       |
| 76 | Assessment of hexavalent chromium (VI) biosorption competence of indigenous <i>Aspergillus tubingensis</i> AF3 isolated from bauxite mine tailing. <i>Chemosphere</i> , 2021, 282, 131055.   | 8.2  | 30        |
| 77 | Organic and inorganic nanomaterial coatings for the prevention of microbial growth and infections on biotic and abiotic surfaces. <i>Surface and Coatings Technology</i> , 2021, 425, 127739.  | 4.8  | 22        |
| 78 | Photocatalytic degradation of congo red dye using nickel-titanium dioxide nanoflakes synthesized by <i>Mukia madrasapatna</i> leaf extract. <i>Environmental Research</i> , 2021, 202, 111647.   | 7.5  | 42        |
| 79 | Egg shell catalyst and chicken waste biodiesel blends for improved performance, combustion and emission characteristics. <i>Fuel</i> , 2021, 306, 121633.  | 6.4  | 24        |
| 80 | Clean approach for chromium removal in aqueous environments and role of nanomaterials in bioremediation: Present research and future perspective. <i>Chemosphere</i> , 2021, 284, 131368.  | 8.2  | 37        |
| 81 | Numerical modelling of the premixed compression ignition engine for superior combustion and emission characteristics. <i>Fuel</i> , 2021, 306, 121540.   | 6.4  | 10        |
| 82 | Performance, combustion and emission analysis of castor oil biodiesel blends enriched with nanoadditives and hydrogen fuel using CI engine. <i>Fuel</i> , 2021, 306, 121541.   | 6.4  | 41        |
| 83 | ORELM: A Novel Machine Learning Approach for Prediction of Flyrock in Mine Blasting. <i>Natural Resources Research</i> , 2020, 29, 641-654.  | 4.7  | 63        |
| 84 | Core/shell nanoparticles: Synthesis, investigation of antimicrobial potential and photocatalytic degradation of Rhodamine B. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2020, 202, 111729.                                     | 3.8  | 33        |
| 85 | Green synthesis of cobalt-oxide nanoparticle using jumbo Muscadine ( <i>Vitis rotundifolia</i> ): Characterization and photo-catalytic activity of acid Blue-74. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2020, 211, 112011. | 3.8  | 132       |
| 86 | Role of thermal barrier coating and porous medium combustor for a diesel engine: An experimental study. <i>Fuel</i> , 2020, 280, 118597.   | 6.4  | 7         |
| 87 | Zinc oxide nanoparticles (ZnONPs) -induced antioxidants and photocatalytic degradation activity from hybrid grape pulp extract (HGPE). <i>Biocatalysis and Agricultural Biotechnology</i> , 2020, 28, 101730.                                      | 3.1  | 46        |
| 88 | A review on prospective production of biofuel from microalgae. <i>Biotechnology Reports (Amsterdam)</i> , 2020, 24, 100444.  | 4.4  | 134       |
| 89 | Facile synthesis and characterization of hydroxyapatite from fish bones: Photocatalytic degradation of industrial dyes (crystal violet and Congo red). <i>Progress in Organic Coatings</i> , 2020, 148, 105890.                                    | 3.9  | 57        |
| 90 | Experimental insight into co-combustion characteristics of oxygenated biofuels in modified DICl engine. <i>Fuel</i> , 2020, 278, 118303.   | 6.4  | 15        |

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|-----|---|-----|-----------|
| 91  | Fabrication of naringenin functionalized-Ag/RGO nanocomposites for potential bactericidal effects. Journal of Materials Research and Technology, 2020, 9, 7013-7019.  | 5.8 | 27        |
| 92  | COVID-19 and frequent use of hand sanitizers; human health and environmental hazards by exposure pathways. Science of the Total Environment, 2020, 742, 140561.   | 8.0 | 175       |
| 93  | Natural organic and inorganic hydroxyapatite biopolymer composite for biomedical applications. Progress in Organic Coatings, 2020, 147, 105858.   | 3.9 | 58        |
| 94  | Biogenic synthesis of gold nanoparticles using Commiphora wightii and their cytotoxic effects on breast cancer cell line (MCF-7). Process Biochemistry, 2020, 92, 269-276.  | 3.7 | 55        |
| 95  | Optimizing the sterilization methods for initiation of the five different clones of the Eucalyptus hybrid species. Biocatalysis and Agricultural Biotechnology, 2019, 22, 101361.                                   | 3.1 | 9         |
| 96  | Minicutting - A powerful tool for the clonal propagation of the selected species of the Eucalyptus hybrid clones based on their pulpwood studies. Biocatalysis and Agricultural Biotechnology, 2019, 22, 101357.    | 3.1 | 4         |
| 97  | Efficacy of crude extracts of Clitoria ternatea for antibacterial activity against gram negative bacterium (Proteus mirabilis). Biocatalysis and Agricultural Biotechnology, 2019, 21, 101328.                      | 3.1 | 13        |
| 98  | Comparative analysis of various types of multipliers for effective low power. Microelectronic Engineering, 2019, 214, 28-37.  | 2.4 | 16        |
| 99  | A survey: comparative study on internet of things and cloud of things. International Journal of Cloud Computing, 2019, 8, 237.  | 0.3 | 0         |
| 100 | Optimised handoff mechanism using RFID tags for a communication-based train control system. International Journal of Cloud Computing, 2019, 8, 227.   | 0.3 | 0         |
| 101 | Inorganic nanoparticles: A potential cancer therapy for human welfare. International Journal of Pharmaceutics, 2018, 539, 104-111.  | 5.2 | 226       |
| 102 | Bacteriological assessment of drinking water from hand-pump-fitted borehole sources in Kola Tembien, Central Tigray, northern Ethiopia. Journal of Water Supply: Research and Technology - AQUA, 2018, 67, 790-799. | 1.4 | 8         |