

# RaviRanjan Kumar

## List of Publications by Year in descending order

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74  
papers

2,826  
citations

186265  
28  
h-index

189892  
50  
g-index

75  
all docs

75  
docs citations

75  
times ranked

3479  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lignocellulosic biorefinery as a model for sustainable development of biofuels and value added products. <i>Bioresource Technology</i> , 2018, 247, 1144-1154.	9.6	346
2	Performance evaluation of microalgae for concomitant wastewater bioremediation, CO <sub>2</sub> biofixation and lipid biosynthesis for biodiesel application. <i>Algal Research</i> , 2016, 16, 216-223.	4.6	183
3	Zero-waste algal biorefinery for bioenergy and biochar: A green leap towards achieving energy and environmental sustainability. <i>Science of the Total Environment</i> , 2019, 650, 2467-2482.	8.0	157
4	Response Surface Optimization of the Critical Media Components for the Production of Surfactin. <i>Journal of Chemical Technology and Biotechnology</i> , 1997, 68, 263-270.	3.2	141
5	A biorefinery for valorization of industrial waste-water and flue gas by microalgae for waste mitigation, carbon-dioxide sequestration and algal biomass production. <i>Science of the Total Environment</i> , 2019, 688, 129-135.	8.0	120
6	Marine lipopeptide Iturin A inhibits Akt mediated GSK3 $\beta$ and FoxO3a signaling and triggers apoptosis in breast cancer. <i>Scientific Reports</i> , 2015, 5, 10316.	3.3	96
7	Performance evaluation of a green process for microalgal CO <sub>2</sub> sequestration in closed photobioreactor using flue gas generated in-situ. <i>Bioresource Technology</i> , 2015, 191, 399-406.	9.6	89
8	Artificial intelligence driven process optimization for cleaner production of biomass with co-valorization of wastewater and flue gas in an algal biorefinery. <i>Journal of Cleaner Production</i> , 2018, 201, 1092-1100.	9.3	81
9	Marine Bacterium Derived Lipopeptides: Characterization and Cytotoxic Activity Against Cancer Cell Lines. <i>International Journal of Peptide Research and Therapeutics</i> , 2010, 16, 215-222.	1.9	70
10	Biosurfactant-biopolymer driven microbial enhanced oil recovery (MEOR) and its optimization by an ANN-GA hybrid technique. <i>Journal of Biotechnology</i> , 2017, 256, 46-56.	3.8	64
11	Surfactin: Biosynthesis, Genetics and Potential Applications. <i>Advances in Experimental Medicine and Biology</i> , 2010, 672, 316-323.	1.6	61
12	Strategic valorization of de-oiled microalgal biomass waste as biofertilizer for sustainable and improved agriculture of rice ( <i>Oryza sativa</i> L.) crop. <i>Science of the Total Environment</i> , 2019, 682, 475-484.	8.0	61
13	Process integration for microalgal lutein and biodiesel production with concomitant flue gas CO <sub>2</sub> sequestration: a biorefinery model for healthcare, energy and environment. <i>RSC Advances</i> , 2015, 5, 73381-73394.	3.6	58
14	Antimicrobial activity and biodegradation behavior of poly(butylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 Td (adipateâ€¦)co</i>â€¦	2.8	57
15	An advanced hybrid medium optimization strategy for the enhanced productivity of lutein in <i>Chlorella minutissima</i> . <i>Algal Research</i> , 2015, 7, 24-32.	4.6	56
16	Sustainable valorization of flue gas CO <sub>2</sub> and wastewater for the production of microalgal biomass as a biofuel feedstock in closed and open reactor systems. <i>RSC Advances</i> , 2016, 6, 91111-91120.	3.6	50
17	Performance evaluation of an outdoor algal biorefinery for sustainable production of biomass, lipid and lutein valorizing flue-gas carbon dioxide and wastewater cocktail. <i>Bioresource Technology</i> , 2019, 283, 198-206.	9.6	50
18	Microbial amphiphiles: a class of promising new-generation anticancer agents. <i>Drug Discovery Today</i> , 2015, 20, 136-146.	6.4	47

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19	Downstream processing of microalgal feedstock for lipid and carbohydrate in a biorefinery concept: a holistic approach for biofuel applications. RSC Advances, 2016, 6, 29486-29496.	3.6	45
20	Bacterial Fucose-Rich Polysaccharide Stabilizes MAPK-Mediated Nrf2/Keap1 Signaling by Directly Scavenging Reactive Oxygen Species during Hydrogen Peroxide-Induced Apoptosis of Human Lung Fibroblast Cells. PLoS ONE, 2014, 9, e113663.	2.5	39
21	An Antimicrobial Metabolite from Bacillus sp.: Significant Activity Against Pathogenic Bacteria Including Multidrug-Resistant Clinical Strains. Frontiers in Microbiology, 2015, 6, 1335.	3.5	37
22	Integrated in situ transesterification for improved biodiesel production from oleaginous yeast: a value proposition for possible industrial implication. RSC Advances, 2016, 6, 70364-70373.	3.6	37
23	Nanocomposite films based on cellulose acetate/polyethylene glycol/modified montmorillonite as nontoxic active packaging material. RSC Advances, 2016, 6, 92569-92578.	3.6	36
24	Biofunctionalized nanomaterials for in situ clean-up of hydrocarbon contamination: A quantum jump in global bioremediation research. Journal of Environmental Management, 2020, 256, 109913.	7.8	35
25	Rationally leveraging mixotrophic growth of microalgae in different photobioreactor configurations for reducing the carbon footprint of an algal biorefinery: a techno-economic perspective. RSC Advances, 2016, 6, 72897-72904.	3.6	34
26	Smart and Reusable Biopolymer Nanocomposite for Simultaneous Microalgal Biomass Harvesting and Disruption: Integrated Downstream Processing for a Sustainable Biorefinery. ACS Sustainable Chemistry and Engineering, 2017, 5, 852-861.	6.7	34
27	Environmental impact analysis of oleaginous yeast based biodiesel and bio-crude production by life cycle assessment. Journal of Cleaner Production, 2020, 271, 122349.	9.3	34
28	A sustainable perspective of microalgal biorefinery for co-production and recovery of high-value carotenoid and biofuel with CO <sub>2</sub> valorization. Biofuels, Bioproducts and Biorefining, 2020, 14, 879-897.	3.7	32
29	Time-dependent dosing of Fe <sup>2+</sup> for improved lipopeptide production by marine <i>Bacillus megaterium</i> . Journal of Chemical Technology and Biotechnology, 2012, 87, 1661-1669.	3.2	31
30	Therapeutic implication of Iturin A™ for targeting MD-2/TLR4 complex to overcome angiogenesis and invasion. Cellular Signalling, 2017, 35, 24-36.	3.6	30
31	Resensitization of Akt Induced Docetaxel Resistance in Breast Cancer by Iturin A™ a Lipopeptide Molecule from Marine Bacteria Bacillus megaterium. Scientific Reports, 2017, 7, 17324.	3.3	30
32	Performance evaluation of a yeast biorefinery as a sustainable model for co-production of biomass, bioemulsifier, lipid, biodiesel and animal-feed components using inexpensive raw materials. Sustainable Energy and Fuels, 2017, 1, 923-931.	4.9	28
33	Consolidated bioprocessing of wastewater cocktail in an algal biorefinery for enhanced biomass, lipid and lutein production coupled with efficient CO <sub>2</sub> capture: An advanced optimization approach. Journal of Environmental Management, 2019, 252, 109696.	7.8	28
34	Performance evaluation of an ANN-aided experimental modeling and optimization procedure for enhanced synthesis of marine biosurfactant in a stirred tank reactor. Journal of Chemical Technology and Biotechnology, 2013, 88, 794-799.	3.2	27
35	Decellularized bone matrix/oleoyl chitosan derived supramolecular injectable hydrogel promotes efficient bone integration. Materials Science and Engineering C, 2021, 119, 111604.	7.3	27
36	Enhanced biodegradation of total petroleum hydrocarbons by implementing a novel two-step bioaugmentation strategy using indigenous bacterial consortium. Journal of Environmental Management, 2021, 292, 112746.	7.8	27

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37	Low fucose containing bacterial polysaccharide facilitate mitochondria-dependent ROS-induced apoptosis of human lung epithelial carcinoma via controlled regulation of MAPKs-mediated Nrf2/Keap1 homeostasis signaling. <i>Molecular Carcinogenesis</i> , 2015, 54, 1636-1655.	2.7	25
38	Process optimization involving critical evaluation of oxygen transfer, oxygen uptake and nitrogen limitation for enhanced biomass and lipid production by oleaginous yeast for biofuel application. <i>Bioprocess and Biosystems Engineering</i> , 2018, 41, 1103-1113.	3.4	23
39	Green integrated process for mitigation of municipal and industrial liquid and solid waste mixes for enhanced microalgal biomass and lipid synthesis for biodiesel. <i>RSC Advances</i> , 2015, 5, 70929-70938.	3.6	22
40	N-Acetyl-d-glucosamine Production by a Chitinase of Marine Fungal Origin: a Case Study of Potential Industrial Significance for Valorization of Waste Chitins. <i>Applied Biochemistry and Biotechnology</i> , 2019, 187, 407-423.	2.9	22
41	Adsorptive removal of metformin on specially designed algae-lignocellulosic biochar mix and techno-economic feasibility assessment. <i>Environmental Pollution</i> , 2022, 292, 118256.	7.5	22
42	Development of a novel integrated continuous reactor system for biocatalytic production of biodiesel. <i>Bioresource Technology</i> , 2013, 147, 395-400.	9.6	20
43	Pre-clinical risk assessment and therapeutic potential of antitumor lipopeptide Iturin A™ in an in vivo and in vitro model. <i>RSC Advances</i> , 2016, 6, 71612-71623.	3.6	20
44	Production, partial purification and characterization of a proteoglycan bioemulsifier from an oleaginous yeast. <i>Bioprocess and Biosystems Engineering</i> , 2020, 43, 1747-1759.	3.4	17
45	Strategic implementation of integrated bioaugmentation and biostimulation for efficient mitigation of petroleum hydrocarbon pollutants from terrestrial and aquatic environment. <i>Marine Pollution Bulletin</i> , 2022, 177, 113492.	5.0	16
46	Bacillus lipopeptides: powerful capping and dispersing agents of silver nanoparticles. <i>Applied Nanoscience (Switzerland)</i> , 2018, 8, 1809-1821.	3.1	15
47	Development and Scale-up of an Efficient and Green Process for HPLC Purification of Antimicrobial Homologues of Commercially Important Microbial Lipopeptides. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 6638-6646.	6.7	14
48	Multi-fold enhancement in sustainable production of biomass, lipids and biodiesel from oleaginous yeast: an artificial neural network-genetic algorithm approach. <i>Sustainable Energy and Fuels</i> , 2020, 4, 6075-6084.	4.9	14
49	Matrix Assisted Laser Desorption Ionization-Time of Flight Mass Spectral Analysis of Marine Lipopeptides with Potential Therapeutic Implications. <i>International Journal of Peptide Research and Therapeutics</i> , 2010, 16, 79-85.	1.9	13
50	Converting Polymer Trash into Treasure: An Approach to Prepare MoS <sub>2</sub> Nanosheets Decorated PVDF Sponge for Oil/Water Separation and Antibacterial Applications. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 20141-20154.	3.7	13
51	Recent Inventions and Trends in Algal Biofuels Research. <i>Recent Patents on Biotechnology</i> , 2016, 10, 30-42.	0.8	12
52	Modelling of oxygen-evolving-complex ionization dynamics for energy-efficient production of microalgal biomass, pigment and lipid with carbon capture: an engineering vision for a biorefinery. <i>RSC Advances</i> , 2016, 6, 51941-51956.	3.6	12
53	Effect of nanoclay on physical, mechanical, and microbial degradation of jute-reinforced, soy milk-based nano-biocomposites. <i>Polymer Engineering and Science</i> , 2014, 54, 345-354.	3.1	11
54	ENZYMATIC PROCESSING OF CHITINACEOUS WASTES FOR N-ACETYL-D-GLUCOSAMINE PRODUCTION: AN EXAMPLE OF GREEN AND EFFICIENT ENVIRONMENTAL MANAGEMENT. <i>Environmental Engineering and Management Journal</i> , 2012, 11, 1849-1855.	0.6	11

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55	Physical and mechanical characterization of jute reinforced soy composites. <i>Journal of Reinforced Plastics and Composites</i> , 2013, 32, 1380-1390.	3.1	10
56	Treatment of petroleum refinery sludge by petroleum degrading bacterium <i>Stenotrophomonas pavanii</i> IRB19 as an efficient novel technology. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2021, 56, 1-13.	1.7	10
57	Influence of Copper on the Microstructural, Mechanical, and Biological Properties of Commercially Pure Zn-Based Alloys for a Potential Biodegradable Implant. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 1443-1463.	5.2	10
58	Molecular Characterization and In Vitro Analyses of a Sporogenous Bacterium with Potential Probiotic Properties. <i>Probiotics and Antimicrobial Proteins</i> , 2010, 2, 152-161.	3.9	9
59	Development and Characterization of Nanoclay-Modified Soy Resin-Based Jute Composite as an Eco-friendly/Green Product. <i>Polymer-Plastics Technology and Engineering</i> , 2013, 52, 833-840.	1.9	9
60	Performance evaluation of batch and unsteady state fed-batch reactor operations for the production of a marine microbial surfactant. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 719-726.	3.2	9
61	Optimal and strategic delivery of CO <sub>2</sub> for <i>Chlorella minutissima</i> -mediated valorization of domestic wastewater with concomitant production of biomass and biofuel. <i>Sustainable Energy and Fuels</i> , 2020, 4, 6321-6329.	4.9	9
62	Development and characterization of plasticized starch-based biocomposites with soy pulp as reinforcement filler. <i>Journal of Applied Polymer Science</i> , 2013, 127, 4681-4687.	2.6	8
63	Biodegradation of chemically modified lignocellulosic sisal fibers: study of the mechanism for enzymatic degradation of cellulose. <i>E-Polymers</i> , 2015, 15, 185-194.	3.0	8
64	Bacterial abundance and diversity in <i>Microchloropsis salina</i> (formerly <i>Nannochloropsis salina</i> ) cultures in response to the presence of ammonium, nitrate and glycerol. <i>Journal of Applied Phycology</i> , 2020, 32, 839-850.	2.8	8
65	Process design for augmentation and spectrofluorometric quantification of neutral lipid by judicious doping of pathway intermediate in the culture of marine <i>Chlorella variabilis</i> for biodiesel application. <i>Bioresource Technology</i> , 2015, 198, 781-788.	9.6	7
66	Electrodeposited functionally graded coating inhibits Gram-positive and Gram-negative bacteria by a lipid peroxidation mediated membrane damage mechanism. <i>Materials Science and Engineering C</i> , 2019, 102, 623-633.	7.3	7
67	Supercritical CO <sub>2</sub> Transesterification of Triolein to Methyl-Oleate in a Batch Reactor: Experimental and Simulation Results. <i>Processes</i> , 2019, 7, 16.	2.8	7
68	Environment-friendly Fully Biodegradable Jute-Poly(vinyl Alcohol) Modified Soy Composite Development as Plastic Substitute. <i>Journal of Natural Fibers</i> , 2022, 19, 905-914.	3.1	7
69	Modeling and Analysis of Micellar and Microbubble Dynamics To Derive New Insights in Molecular Interactions Impacting the Packing Behavior of a Green Surfactant for Potential Engineering Implications. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 4046-4055.	6.7	6
70	Effect of photodegradation of lignocellulosic fibers transesterified with vegetable oil. <i>Fibers and Polymers</i> , 2014, 15, 2345-2354.	2.1	5
71	Quorum sensing inhibitory activity of the metabolome from endophytic <i>Kwoniella</i> sp. PY016: characterization and hybrid model-based optimization. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 7389-7406.	3.6	5
72	Accelerated weathering analysis of jute reinforced cashewnut shell liquid modified soy based green composite. <i>SPE Polymers</i> , 2020, 1, 81-89.	3.3	5

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73	Green surfactant of marine origin exerting a cytotoxic effect on cancer cell lines. RSC Advances, 2015, 5, 53086-53094.	3.6	4
74	Study on life cycle of a sporogenous probiotic bacterium in mammalian gastrointestinal tract with image processing analysis. , 2016, , .		0