

# Vinod Kumar

## List of Publications by Year in descending order

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85  
papers

3,829  
citations

109321

35  
h-index

144013

57  
g-index

86  
all docs

86  
docs citations

86  
times ranked

3416  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bioconversion of volatile fatty acids into lipids by the oleaginous yeast <i>Yarrowia lipolytica</i> . <i>Bioresource Technology</i> , 2012, 114, 443-449.	9.6	267
2	Recent advances in biological production of 3-hydroxypropionic acid. <i>Biotechnology Advances</i> , 2013, 31, 945-961.	11.7	241
3	Rare Earth Doped Zinc Oxide Nanophosphor Powder: A Future Material for Solid State Lighting and Solar Cells. <i>ACS Photonics</i> , 2017, 4, 2613-2637.	6.6	219
4	Biowaste-to-bioplastic (polyhydroxyalkanoates): Conversion technologies, strategies, challenges, and perspective. <i>Bioresource Technology</i> , 2021, 326, 124733.	9.6	134
5	Bioactive Compounds of Edible Fruits with Their Anti-Aging Properties: A Comprehensive Review to Prolong Human Life. <i>Antioxidants</i> , 2020, 9, 1123.	5.1	106
6	Structural, optical and photoluminescence properties of Eu 3+ doped ZnO nanoparticles. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2017, 182, 42-49.	3.9	105
7	Progress in pectin based hydrogels for water purification: Trends and challenges. <i>Journal of Environmental Management</i> , 2019, 238, 210-223.	7.8	105
8	Recent developments in microbial oils production: a possible alternative to vegetable oils for biodiesel without competition with human food?. <i>Brazilian Archives of Biology and Technology</i> , 2012, 55, 29-46.	0.5	84
9	Potential and limitations of <i>Klebsiella pneumoniae</i> as a microbial cell factory utilizing glycerol as the carbon source. <i>Biotechnology Advances</i> , 2018, 36, 150-167.	11.7	84
10	Production of 3-hydroxypropionic acid from glycerol by recombinant <i>Klebsiella pneumoniae</i> $\Delta$ glaT $\Delta$ glaP which can produce vitamin B <sub>12</sub> naturally. <i>Biotechnology and Bioengineering</i> , 2013, 110, 511-524.	3.3	81
11	Effect of <i>puuC</i> overexpression and nitrate addition on glycerol metabolism and anaerobic 3-hydroxypropionic acid production in recombinant <i>Klebsiella pneumoniae</i> $\Delta$ glpK $\Delta$ dhaT. <i>Metabolic Engineering</i> , 2013, 15, 10-24.	7.0	79
12	Fruit Extract Mediated Green Synthesis of Metallic Nanoparticles: A New Avenue in Pomology Applications. <i>International Journal of Molecular Sciences</i> , 2020, 21, 8458.	4.1	72
13	Recent advances in biochar engineering for soil contaminated with complex chemical mixtures: Remediation strategies and future perspectives. <i>Science of the Total Environment</i> , 2021, 767, 144351.	8.0	72
14	Bioconversion of pentose sugars to value added chemicals and fuels: Recent trends, challenges and possibilities. <i>Bioresource Technology</i> , 2018, 269, 443-451.	9.6	70
15	Sugarcane bagasse based biorefineries in India: potential and challenges. <i>Sustainable Energy and Fuels</i> , 2021, 5, 52-78.	4.9	62
16	Prospects on bio-based 2,3-butanediol and acetoin production: Recent progress and advances. <i>Biotechnology Advances</i> , 2022, 54, 107783.	11.7	61
17	Acetate as a potential feedstock for the production of value-added chemicals: Metabolism and applications. <i>Biotechnology Advances</i> , 2021, 49, 107736.	11.7	59
18	Aldehyde dehydrogenase activity is important to the production of 3-hydroxypropionic acid from glycerol by recombinant <i>Klebsiella pneumoniae</i> . <i>Process Biochemistry</i> , 2012, 47, 1135-1143.	3.7	58

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19	Role of silver doping on the defects related photoluminescence and antibacterial behaviour of zinc oxide nanoparticles. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 159, 191-199.	5.0	58
20	Improved upstream processing for detoxification and recovery of xylitol produced from corncob. <i>Bioresource Technology</i> , 2019, 291, 121931.	9.6	56
21	Co-production of 3-hydroxypropionic acid and 1,3-propanediol from glycerol using resting cells of recombinant <i>Klebsiella pneumoniae</i> J2B strain overexpressing aldehyde dehydrogenase. <i>Applied Microbiology and Biotechnology</i> , 2012, 96, 373-383.	3.6	53
22	Simultaneous production of 3-hydroxypropionic acid and 1,3-propanediol from glycerol using resting cells of the lactate dehydrogenase-deficient recombinant <i>Klebsiella pneumoniae</i> overexpressing an aldehyde dehydrogenase. <i>Bioresource Technology</i> , 2013, 135, 555-563.	9.6	51
23	Phosphor Polymer Nanocomposite: ZnO:Tb <sup>3+</sup> Embedded Polystyrene Nanocomposite Thin Films for Solid-State Lighting Applications. <i>ACS Applied Nano Materials</i> , 2018, 1, 977-988.	5.0	51
24	Transparent conducting ZnO-CdO mixed oxide thin films grown by the sol-gel method. <i>Journal of Colloid and Interface Science</i> , 2017, 487, 378-387.	9.4	50
25	Culture filtrate of root endophytic fungus <i>Piriformospora indica</i> promotes the growth and lignan production of <i>Linum album</i> hairy root cultures. <i>Process Biochemistry</i> , 2012, 47, 901-907.	3.7	49
26	Valorisation of xylose to renewable fuels and chemicals, an essential step in augmenting the commercial viability of lignocellulosic biorefineries. <i>Sustainable Energy and Fuels</i> , 2021, 6, 29-65.	4.9	49
27	Progress in microalgal mediated bioremediation systems for the removal of antibiotics and pharmaceuticals from wastewater. <i>Science of the Total Environment</i> , 2022, 825, 153895.	8.0	49
28	Plant Prebiotics and Their Role in the Amelioration of Diseases. <i>Biomolecules</i> , 2021, 11, 440.	4.0	47
29	Effect of competition between petroleum-degrading bacteria and indigenous compost microorganisms on the efficiency of petroleum sludge bioremediation: Field application of mineral-based culture in the composting process. <i>Journal of Environmental Management</i> , 2020, 258, 110013.	7.8	46
30	Recycling bread waste into chemical building blocks using a circular biorefining approach. <i>Sustainable Energy and Fuels</i> , 2021, 5, 4842-4849.	4.9	45
31	Eu <sup>3+</sup> doped down shifting TiO <sub>2</sub> layer for efficient dye-sensitized solar cells. <i>Journal of Colloid and Interface Science</i> , 2016, 484, 24-32.	9.4	44
32	Bioproduction of succinic acid from xylose by engineered <i>Yarrowia lipolytica</i> without pH control. <i>Biotechnology for Biofuels</i> , 2020, 13, 113.	6.2	43
33	Engineering of <i>Saccharomyces cerevisiae</i> as a consolidated bioprocessing host to produce cellulosic ethanol: Recent advancements and current challenges. <i>Biotechnology Advances</i> , 2022, 56, 107925.	11.7	43
34	Production of 1,3-propanediol from glycerol using the newly isolated <i>Klebsiella pneumoniae</i> J2B. <i>Bioresource Technology</i> , 2014, 159, 223-231.	9.6	42
35	Biovalorisation of crude glycerol and xylose into xylitol by oleaginous yeast <i>Yarrowia lipolytica</i> . <i>Microbial Cell Factories</i> , 2020, 19, 121.	4.0	38
36	Lignocellulose in future biorefineries: Strategies for cost-effective production of biomaterials and bioenergy. <i>Bioresource Technology</i> , 2022, 344, 126241.	9.6	37

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37	High level xylitol production by <i>Pichia fermentans</i> using non-detoxified xylose-rich sugarcane bagasse and olive pits hydrolysates. <i>Bioresource Technology</i> , 2021, 342, 126005.	9.6	36
38	Life cycle analysis of fermentative production of succinic acid from bread waste. <i>Waste Management</i> , 2021, 126, 861-871.	7.4	35
39	Enhanced xylitol production using non-detoxified xylose rich pre-hydrolysate from sugarcane bagasse by newly isolated <i>Pichia fermentans</i> . <i>Biotechnology for Biofuels</i> , 2020, 13, 209.	6.2	35
40	Enhanced 2,3-Butanediol production by mutant <i>Enterobacter ludwigii</i> using Brewersâ€™ spent grain hydrolysate: Process optimization for a pragmatic biorefinery loom. <i>Chemical Engineering Journal</i> , 2022, 427, 130851.	12.7	34
41	Recent trends and developments on integrated biochemical conversion process for valorization of dairy waste to value added bioproducts: A review. <i>Bioresource Technology</i> , 2022, 344, 126193.	9.6	34
42	Isolation and characterization of the new <i>Klebsiella pneumoniae</i> J2B strain showing improved growth characteristics with reduced lipopolysaccharide formation. <i>Biotechnology and Bioprocess Engineering</i> , 2011, 16, 1134-1143.	2.6	33
43	Effect on the Properties of Edible Starch-Based Films by the Incorporation of Additives: A Review. <i>Polymers</i> , 2022, 14, 1987.	4.5	33
44	Up-conversion luminescence in Yb <sup>3+</sup> -Er <sup>3+</sup> /Tm <sup>3+</sup> co-doped Al <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> nano-composites. <i>Journal of Colloid and Interface Science</i> , 2017, 496, 87-99.	9.4	32
45	Effects of mutation of 2,3-butanediol formation pathway on glycerol metabolism and 1,3-propanediol production by <i>Klebsiella pneumoniae</i> J2B. <i>Bioresource Technology</i> , 2016, 214, 432-440.	9.6	31
46	Understanding of Colistin Usage in Food Animals and Available Detection Techniques: A Review. <i>Animals</i> , 2020, 10, 1892.	2.3	29
47	Fermentative production of 2,3-Butanediol using bread waste â€œ A green approach for sustainable management of food waste. <i>Bioresource Technology</i> , 2022, 358, 127381.	9.6	28
48	Comprehensive review on biotechnological production of hyaluronic acid: status, innovation, market and applications. <i>Bioengineered</i> , 2022, 13, 9645-9661.	3.2	27
49	Recent advances in itaconic acid production from microbial cell factories. <i>Biocatalysis and Agricultural Biotechnology</i> , 2021, 36, 102130.	3.1	26
50	Process optimisation for production and recovery of succinic acid using xylose-rich hydrolysates by <i>Actinobacillus succinogenes</i> . <i>Bioresource Technology</i> , 2022, 344, 126224.	9.6	26
51	Xylitol: Bioproduction and Applications-A Review. <i>Frontiers in Sustainability</i> , 2022, 3, .	2.6	26
52	Process optimization for recycling of bread waste into bioethanol and biomethane: A circular economy approach. <i>Energy Conversion and Management</i> , 2022, 266, 115784.	9.2	26
53	Recent advances in microbial biosynthesis of C <sub>3</sub> â€œ C <sub>5</sub> diols: Genetics and process engineering approaches. <i>Bioresource Technology</i> , 2021, 322, 124527.	9.6	25
54	Current state of the art biotechnological strategies for conversion of watermelon wastes residues to biopolymers production: A review. <i>Chemosphere</i> , 2022, 290, 133310.	8.2	25

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55	Recycling of food waste into chemical building blocks. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2018, 13, 118-122.	5.9	24
56	Expeditious production of concentrated glucose-rich hydrolysate from sugarcane bagasse and its fermentation to lactic acid with high productivity. <i>Food and Bioproducts Processing</i> , 2020, 124, 72-81.	3.6	24
57	Bioremediation of petroleum hydrocarbons by vermicomposting process bioaugmented with indigenous bacterial consortium isolated from petroleum oily sludge. <i>Ecotoxicology and Environmental Safety</i> , 2020, 198, 110645.	6.0	24
58	An overview of cotton and polyester, and their blended waste textile valorisation to value-added products: A circular economy approach – research trends, opportunities and challenges. <i>Critical Reviews in Environmental Science and Technology</i> , 2022, 52, 3921-3942.	12.8	24
59	Microbial itaconic acid production from starchy food waste by newly isolated thermotolerant <i>Aspergillus terreus</i> strain. <i>Bioresource Technology</i> , 2021, 337, 125426.	9.6	24
60	High yield recovery of 2,3-butanediol from fermented broth accumulated on xylose rich sugarcane bagasse hydrolysate using aqueous two-phase extraction system. <i>Bioresource Technology</i> , 2021, 337, 125463.	9.6	24
61	Economic and Environmental Assessment of Succinic Acid Production from Sugarcane Bagasse. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 12738-12746.	6.7	23
62	Molecular biology interventions for activity improvement and production of industrial enzymes. <i>Bioresource Technology</i> , 2021, 324, 124596.	9.6	22
63	Unlocking the potential of insect and ruminant host symbionts for recycling of lignocellulosic carbon with a biorefinery approach: a review. <i>Microbial Cell Factories</i> , 2021, 20, 107.	4.0	22
64	Augmented hydrolysis of acid pretreated sugarcane bagasse by PEG 6000 addition: a case study of Cellic CTec2 with recycling and reuse. <i>Bioprocess and Biosystems Engineering</i> , 2020, 43, 473-482.	3.4	17
65	Integrated Fermentative Production and Downstream Processing of 2,3-Butanediol from Sugarcane Bagasse-Derived Xylose by Mutant Strain of <i>Enterobacter ludwigii</i> . <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 10381-10391.	6.7	17
66	Salting-out assisted solvent extraction of L (+) lactic acid obtained after fermentation of sugarcane bagasse hydrolysate. <i>Separation and Purification Technology</i> , 2021, 269, 118788.	7.9	17
67	High-Level fermentative production of Lactic acid from bread waste under Non-sterile conditions with a circular biorefining approach and zero waste discharge. <i>Fuel</i> , 2022, 313, 122976.	6.4	17
68	Role of deposition time on the properties of ZnO:Tb <sup>3+</sup> thin films prepared by pulsed laser deposition. <i>Journal of Colloid and Interface Science</i> , 2016, 474, 129-136.	9.4	16
69	Detection of Bacterial Pathogens and Antibiotic Residues in Chicken Meat: A Review. <i>Foods</i> , 2020, 9, 1504.	4.3	15
70	Cost reduction approaches for fermentable sugar production from sugarcane bagasse and its impact on techno-economics and the environment. <i>Cellulose</i> , 2021, 28, 6305-6322.	4.9	15
71	Emerging trends in high-solids enzymatic saccharification of lignocellulosic feedstocks for developing an efficient and industrially deployable sugar platform. <i>Critical Reviews in Biotechnology</i> , 2022, 42, 873-891.	9.0	15
72	Technological advancements in valorization of second generation (2G) feedstocks for bio-based succinic acid production. <i>Bioresource Technology</i> , 2022, 360, 127513.	9.6	15

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73	Myco-biorefinery approaches for food waste valorization: Present status and future prospects. <i>Bioresource Technology</i> , 2022, 360, 127592.	9.6	14
74	Valorization of renewable resources to functional oligosaccharides: Recent trends and future prospective. <i>Bioresource Technology</i> , 2022, 346, 126590.	9.6	13
75	Techno-Economic Analysis for the Production of 2,3-Butanediol from Brewersâ€™ Spent Grain Using Pinch Technology. <i>Industrial &amp; Engineering Chemistry Research</i> , 2022, 61, 2195-2205.	3.7	13
76	<i>Piriformospora indica</i> based elicitation for overproduction of phenolic compounds by hairy root cultures of <i>Ficus carica</i> . <i>Journal of Biotechnology</i> , 2021, 327, 43-53.	3.8	11
77	Bioprocessing of fermentable sugars derived from water hyacinth into microbial lipids and single cell proteins by oleaginous yeast <i>Rhodospiridium toruloides</i> NCIM 3547. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 15435-15449.	4.6	11
78	Isolation of a novel <i>Pseudomonas</i> species SP2 producing vitamin B12 under aerobic condition. <i>Biotechnology and Bioprocess Engineering</i> , 2013, 18, 43-51.	2.6	10
79	Biological production and recovery of 2,3-butanediol using arabinose from sugar beet pulp by <i>Enterobacter ludwigii</i> . <i>Renewable Energy</i> , 2022, 191, 394-404.	8.9	10
80	Sugarcane bagasse valorization to xylitol: Techno-economic and life cycle assessment. <i>Biofuels, Bioproducts and Biorefining</i> , 2022, 16, 1214-1226.	3.7	9
81	Bioengineered bioreactors: a review on enhancing biomethane and biohydrogen production by CFD modeling. <i>Bioengineered</i> , 2021, 12, 6418-6433.	3.2	8
82	Polyhydroxyalkanoates synthesis using acidogenic fermentative effluents. <i>International Journal of Biological Macromolecules</i> , 2021, 193, 2079-2092.	7.5	8
83	Enhanced red emission of Eu <sup>3+</sup> in ZnO-TiO <sub>2</sub> :Dy <sup>3+</sup> , Eu <sup>3+</sup> nanocomposites by UV downconversion process. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2019, 37, 022901.	1.2	6
84	Comparative Highly Efficient Production of Î²-glucan by <i>Lasioidiplodia theobromae</i> CCT 3966 and Its Multiscale Characterization. <i>Fermentation</i> , 2021, 7, 108.	3.0	4
85	Solid state anaerobic digestion of water poor feedstock for methane yield: an overview of process characteristics and challenges. <i>Waste Disposal &amp; Sustainable Energy</i> , 2021, 3, 227-245.	2.5	2