

Rajeev Kumar Sukumaran

List of Publications by Year in descending order

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114
papers

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71004

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83
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127
all docs

127
docs citations

127
times ranked

8829
citing authors

#	ARTICLE	IF	CITATIONS
1	Bioethanol production from rice straw: An overview. <i>Bioresource Technology</i> , 2010, 101, 4767-4774.	4.8	742
2	Advancement and comparative profiles in the production technologies using solid-state and submerged fermentation for microbial cellulases. <i>Enzyme and Microbial Technology</i> , 2010, 46, 541-549.	1.6	474
3	Role and significance of beta-glucosidases in the hydrolysis of cellulose for bioethanol production. <i>Bioresource Technology</i> , 2013, 127, 500-507.	4.8	459
4	Cellulase production using biomass feed stock and its application in lignocellulose saccharification for bio-ethanol production. <i>Renewable Energy</i> , 2009, 34, 421-424.	4.3	411
5	Short duration microwave assisted pretreatment enhances the enzymatic saccharification and fermentable sugar yield from sugarcane bagasse. <i>Renewable Energy</i> , 2012, 37, 109-116.	4.3	318
6	Lignocellulosic ethanol in India: Prospects, challenges and feedstock availability. <i>Bioresource Technology</i> , 2010, 101, 4826-4833.	4.8	220
7	Bioflocculation: An alternative strategy for harvesting of microalgae – An overview. <i>Bioresource Technology</i> , 2017, 242, 227-235.	4.8	214
8	Response surface methodology for the optimization of alpha amylase production by <i>Bacillus amyloliquefaciens</i> . <i>Bioresource Technology</i> , 2008, 99, 4597-4602.	4.8	211
9	Dilute acid pretreatment and enzymatic saccharification of sugarcane tops for bioethanol production. <i>Bioresource Technology</i> , 2011, 102, 10915-10921.	4.8	176
10	Strategies for design of improved biocatalysts for industrial applications. <i>Bioresource Technology</i> , 2017, 245, 1304-1313.	4.8	175
11	Crude oil biodegradation aided by biosurfactants from <i>Pseudozyma</i> sp. NII 08165 or its culture broth. <i>Bioresource Technology</i> , 2015, 191, 133-139.	4.8	151
12	Harvesting of microalgal biomass: Efficient method for flocculation through pH modulation. <i>Bioresource Technology</i> , 2016, 213, 216-221.	4.8	131
13	Bio-ethanol from water hyacinth biomass: An evaluation of enzymatic saccharification strategy. <i>Bioresource Technology</i> , 2010, 101, 925-930.	4.8	119
14	Biobutanol production from rice straw by a non acetone producing <i>Clostridium sporogenes</i> BE01. <i>Bioresource Technology</i> , 2013, 145, 182-187.	4.8	115
15	Improved Cellulase Production by <i>Trichoderma reesei</i> RUT C30 under SSF Through Process Optimization. <i>Applied Biochemistry and Biotechnology</i> , 2007, 142, 60-70.	1.4	114
16	Physicochemical characterization of alkali pretreated sugarcane tops and optimization of enzymatic saccharification using response surface methodology. <i>Renewable Energy</i> , 2014, 62, 362-368.	4.3	109
17	Cellulase Production Under Solid-State Fermentation by <i>Trichoderma reesei</i> RUT C30: Statistical Optimization of Process Parameters. <i>Applied Biochemistry and Biotechnology</i> , 2008, 151, 122-131.	1.4	108
18	Effect of dilute acid pretreatment of wild rice grass (<i>Zizania latifolia</i>) from Loktak Lake for enzymatic hydrolysis. <i>Bioresource Technology</i> , 2018, 253, 252-255.	4.8	105

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19	Cultivation of microalgae in dairy effluent for oil production and removal of organic pollution load. <i>Bioresource Technology</i> , 2014, 165, 295-301.	4.8	103
20	Metagenome Analysis: a Powerful Tool for Enzyme Bioprospecting. <i>Applied Biochemistry and Biotechnology</i> , 2017, 183, 636-651.	1.4	96
21	Optimization of laccase production from a novel strain "Streptomyces psammoticus using response surface methodology. <i>Microbiological Research</i> , 2009, 164, 105-113.	2.5	92
22	Formic Acid as a Potential Pretreatment Agent for the Conversion of Sugarcane Bagasse to Bioethanol. <i>Applied Biochemistry and Biotechnology</i> , 2010, 162, 2313-2323.	1.4	90
23	Cellulase production through solid-state tray fermentation, and its use for bioethanol from sorghum stover. <i>Bioresource Technology</i> , 2017, 242, 265-271.	4.8	90
24	Utilization of rice straw for laccase production by <i>Streptomyces psammoticus</i> in solid-state fermentation. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2007, 34, 665-674.	1.4	89
25	A novel surfactant-assisted ultrasound pretreatment of sugarcane tops for improved enzymatic release of sugars. <i>Bioresource Technology</i> , 2013, 135, 67-72.	4.8	88
26	High temperature pretreatment and hydrolysis of cotton stalk for producing sugars for bioethanol production. <i>Fuel</i> , 2012, 92, 340-345.	3.4	86
27	An evaluation of dilute acid and ammonia fiber explosion pretreatment for cellulosic ethanol production. <i>Bioresource Technology</i> , 2016, 199, 13-20.	4.8	86
28	Lipase from marine <i>Aspergillus awamori</i> BTMFW032: Production, partial purification and application in oil effluent treatment. <i>New Biotechnology</i> , 2011, 28, 627-638.	2.4	84
29	Rapid degradation of the organophosphate pesticide "Chlorpyrifos by a novel strain of <i>Pseudomonas nitroreducens</i> AR-3. <i>Bioresource Technology</i> , 2019, 292, 122025.	4.8	83
30	Studies on structural and physical characteristics of a novel exopolysaccharide from <i>Pseudozyma</i> sp. NII 08165. <i>International Journal of Biological Macromolecules</i> , 2013, 59, 84-89.	3.6	80
31	Prediction of sugar yields during hydrolysis of lignocellulosic biomass using artificial neural network modeling. <i>Bioresource Technology</i> , 2015, 188, 128-135.	4.8	78
32	Organosolvent pretreatment and enzymatic hydrolysis of rice straw for the production of bioethanol. <i>World Journal of Microbiology and Biotechnology</i> , 2012, 28, 473-483.	1.7	77
33	Bioethanol production from dilute acid pretreated Indian bamboo variety (<i>Dendrocalamus</i> sp.) by separate hydrolysis and fermentation. <i>Industrial Crops and Products</i> , 2014, 52, 169-176.	2.5	77
34	Sustainable and eco-friendly strategies for shrimp shell valorization. <i>Environmental Pollution</i> , 2020, 267, 115656.	3.7	70
35	Evaluation of fungal culture filtrate containing chitinase as a biocontrol agent against <i>Helicoverpa armigera</i> . <i>Journal of Applied Microbiology</i> , 2007, 103, 1845-1852.	1.4	69
36	Highly glucose tolerant Î²-glucosidase from <i>Aspergillus unguis</i> : NII 08123 for enhanced hydrolysis of biomass. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2013, 40, 967-975.	1.4	62

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37	Studies on biosurfactants from <i>Pseudozyma</i> sp. NII 08165 and their potential application as laundry detergent additives. <i>Biochemical Engineering Journal</i> , 2013, 78, 85-92.	1.8	62
38	Bioethanol production from bamboo (<i>Dendrocalamus</i> sp.) process waste. <i>Biomass and Bioenergy</i> , 2013, 59, 142-150.	2.9	61
39	Statistical optimization of simultaneous saccharification and l(+)-lactic acid fermentation from cassava bagasse using mixed culture of lactobacilli by response surface methodology. <i>Biochemical Engineering Journal</i> , 2007, 36, 262-267.	1.8	60
40	Energy requirement for alkali assisted microwave and high pressure reactor pretreatments of cotton plant residue and its hydrolysis for fermentable sugar production for biofuel application. <i>Bioresource Technology</i> , 2012, 112, 300-307.	4.8	55
41	Valorization of lignocellulosic residues from the olive oil industry by production of lignin, glucose and functional sugars. <i>Bioresource Technology</i> , 2019, 292, 121936.	4.8	53
42	Properties of a major β -glucosidase-BGL1 from <i>Aspergillus niger</i> NII-08121 expressed differentially in response to carbon sources. <i>Process Biochemistry</i> , 2011, 46, 1521-1524.	1.8	52
43	Addressing challenges in production of cellulases for biomass hydrolysis: Targeted interventions into the genetics of cellulase producing fungi. <i>Bioresource Technology</i> , 2021, 329, 124746.	4.8	51
44	Thermal assisted alkaline pretreatment of rice husk for enhanced biomass deconstruction and enzymatic saccharification: Physico-chemical and structural characterization. <i>Bioresource Technology</i> , 2018, 263, 199-206.	4.8	48
45	Recent developments in l-glutaminase production and applications – An overview. <i>Bioresource Technology</i> , 2017, 245, 1766-1774.	4.8	46
46	Hydrolysis of biomass using a reusable solid carbon acid catalyst and fermentation of the catalytic hydrolysate to ethanol. <i>Bioresource Technology</i> , 2015, 188, 99-102.	4.8	45
47	Production of a highly glucose tolerant β -glucosidase by <i>Paecilomyces variotii</i> MG3: optimization of fermentation conditions using Plackett-Burman and Box-Behnken experimental designs. <i>World Journal of Microbiology and Biotechnology</i> , 2010, 26, 1385-1391.	1.7	37
48	Lignocellulosic Biorefinery Wastes, or Resources?. , 2018, , 267-297.		36
49	Cultivation of the fresh water microalga <i>Chlorococcum</i> sp. RAP13 in sea water for producing oil suitable for biodiesel. <i>Journal of Applied Phycology</i> , 2015, 27, 141-147.	1.5	34
50	Rice straw hydrolysate to fuel and volatile fatty acid conversion by <i>Clostridium sporogenes</i> BE01: bio-electrochemical analysis of the electron transport mediators involved. <i>Green Chemistry</i> , 2015, 17, 3047-3058.	4.6	32
51	Synthetic Biology and Metabolic Engineering Approaches and Its Impact on Non-Conventional Yeast and Biofuel Production. <i>Frontiers in Energy Research</i> , 2017, 5, .	1.2	32
52	Development of a combined pretreatment and hydrolysis strategy of rice straw for the production of bioethanol and biopolymer. <i>Bioresource Technology</i> , 2016, 215, 110-116.	4.8	31
53	A biorefinery-based approach for the production of ethanol from enzymatically hydrolysed cotton stalks. <i>Bioresource Technology</i> , 2017, 242, 178-183.	4.8	30
54	Esterases immobilized on aminosilane modified magnetic nanoparticles as a catalyst for biotransformation reactions. <i>Bioresource Technology</i> , 2014, 167, 547-550.	4.8	29

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55	Isolation and characterization of a novel α -amylase from a metagenomic library of Western Ghats of Kerala, India. <i>Biologia (Poland)</i> , 2011, 66, 939-944.	0.8	28
56	White Biotechnology in Cosmetics. , 2015, , 607-652.		27
57	Expression system for heterologous protein expression in the filamentous fungus <i>Aspergillus unguis</i> . <i>Bioresource Technology</i> , 2017, 245, 1334-1342.	4.8	27
58	Surfactant-Assisted Acid Pretreatment of Sugarcane Tops for Bioethanol Production. <i>Applied Biochemistry and Biotechnology</i> , 2012, 167, 1513-1526.	1.4	26
59	Detoxification of acidic biorefinery waste liquor for production of high value amino acid. <i>Bioresource Technology</i> , 2016, 213, 270-275.	4.8	25
60	Material balance studies for the conversion of sorghum stover to bioethanol. <i>Biomass and Bioenergy</i> , 2016, 85, 48-52.	2.9	24
61	Potential of <i>Brachiaria mutica</i> (Para grass) for bioethanol production from Loktak Lake. <i>Bioresource Technology</i> , 2017, 242, 133-138.	4.8	24
62	Value-addition of water hyacinth and para grass through pyrolysis and hydrothermal liquefaction. <i>Carbon Resources Conversion</i> , 2019, 2, 233-241.	3.2	23
63	Evaluation of Amberlyst15 for hydrolysis of alkali pretreated rice straw and fermentation to ethanol. <i>Biochemical Engineering Journal</i> , 2015, 102, 49-53.	1.8	22
64	Mild alkaline pretreatment can achieve high hydrolytic and fermentation efficiencies for rice straw conversion to bioethanol. <i>Preparative Biochemistry and Biotechnology</i> , 2020, 50, 814-819.	1.0	22
65	Production of low-calorie structured lipids from spent coffee grounds or olive pomace crude oils catalyzed by immobilized lipase in magnetic nanoparticles. <i>Bioresource Technology</i> , 2020, 307, 123223.	4.8	22
66	Production optimization and properties of beta glucosidases from a marine fungus <i>Aspergillus</i> -SA 58. <i>New Biotechnology</i> , 2010, 27, 347-351.	2.4	21
67	Comparative evaluation of laccase mediated oxidized and unoxidized lignin of sugarcane bagasse for the synthesis of lignin-based formaldehyde resin. <i>Industrial Crops and Products</i> , 2020, 150, 112385.	2.5	21
68	Insights from a Pan India Sero-Epidemiological survey (Phenome-India Cohort) for SARS-CoV2. <i>ELife</i> , 2021, 10, .	2.8	21
69	White Biotechnology in Biosurfactants. , 2015, , 499-521.		20
70	Thermophilic Chitinases: Structural, Functional and Engineering Attributes for Industrial Applications. <i>Applied Biochemistry and Biotechnology</i> , 2021, 193, 142-164.	1.4	19
71	Production of polyhydroxyalkanoates from propylene oxide saponification wastewater residual sludge using volatile fatty acids and bacterial community succession. <i>Bioresource Technology</i> , 2021, 329, 124912.	4.8	19
72	Evaluation of β -galactosidase biosynthesis by <i>Streptomyces griseoalbus</i> in solid-state fermentation using response surface methodology. <i>Letters in Applied Microbiology</i> , 2008, 46, 338-343.	1.0	18

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73	Green remediation of the potential hazardous shellfish wastes generated from the processing industries and their bioprospecting. <i>Environmental Technology and Innovation</i> , 2021, 24, 101979.	3.0	18
74	Promoter and signal sequence from filamentous fungus can drive recombinant protein production in the yeast <i>Kluyveromyces lactis</i> . <i>Bioresource Technology</i> , 2014, 165, 302-308.	4.8	17
75	Simultaneous Saccharification and Fermentation of Pretreated <i>Eucalyptus grandis</i> Under High Solids Loading. <i>Industrial Biotechnology</i> , 2017, 13, 131-140.	0.5	17
76	Esterase Active in Polar Organic Solvents from the Yeast <i>Pseudozyma</i> sp. NII 08165. <i>Enzyme Research</i> , 2014, 2014, 1-10.	1.8	16
77	Bioremediation by Microalgae: Current and Emerging Trends for Effluents Treatments for Value Addition of Waste Streams. <i>Energy, Environment, and Sustainability</i> , 2018, , 355-375.	0.6	16
78	Evaluation of Freshwater Microalgal Isolates for Growth and Oil Production in Seawater Medium. <i>Waste and Biomass Valorization</i> , 2020, 11, 223-230.	1.8	15
79	Co-hydrothermal liquefaction of phumdi and paragrass an aquatic biomass: Characterization of bio-oil, aqueous fraction and solid residue. <i>Journal of the Energy Institute</i> , 2022, 102, 247-255.	2.7	15
80	Co-pyrolysis of phumdi and para grass biomass from Loktak Lake. <i>Bioresource Technology</i> , 2019, 285, 121308.	4.8	14
81	<i>Penicillium janthinellum</i> NCIM1366 shows improved biomass hydrolysis and a larger number of CAZymes with higher induction levels over <i>Trichoderma reesei</i> RUT-C30. <i>Biotechnology for Biofuels</i> , 2020, 13, 196.	6.2	14
82	Butanol Fuel from Biomass. , 2011, , 571-586.		13
83	Molecular cloning and homology modelling of a subtilisin-like serine protease from the marine fungus <i>Engyodontium album</i> BTMFS10. <i>World Journal of Microbiology and Biotechnology</i> , 2010, 26, 1269-1279.	1.7	12
84	Lipase of <i>Pseudomonas guariconesis</i> as an additive in laundry detergents and transesterification biocatalysts. <i>Journal of Basic Microbiology</i> , 2020, 60, 112-125.	1.8	12
85	Secreted expression of an active human interferon-beta (HuIFN β) in <i>Kluyveromyces lactis</i> . <i>Engineering in Life Sciences</i> , 2016, 16, 379-385.	2.0	11
86	Tandem integration of aerobic fungal cellulase production, lignocellulose substrate saccharification and anaerobic ethanol fermentation by a modified gas lift bioreactor. <i>Bioresource Technology</i> , 2020, 302, 122902.	4.8	11
87	Optimization of Enzymatic Clarification of Sapodilla Juice: A Statistical Perspective. <i>Applied Biochemistry and Biotechnology</i> , 2008, 151, 353-363.	1.4	10
88	Characterization of a glucose tolerant β -glucosidase from <i>Aspergillus unguis</i> with high potential as a blend-in for biomass hydrolyzing enzyme cocktails. <i>Biotechnology Letters</i> , 2019, 41, 1201-1211.	1.1	10
89	Signal peptides from filamentous fungi efficiently mediate the secretion of recombinant proteins in <i>Kluyveromyces lactis</i> . <i>Biochemical Engineering Journal</i> , 2015, 102, 31-37.	1.8	9
90	Evaluation of a wet processing strategy for mixed phumdi biomass conversion to bioethanol. <i>Bioresource Technology</i> , 2019, 289, 121633.	4.8	9

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91	Chlorpyrifos induced proteome remodelling of <i>Pseudomonas nitroreducens</i> AR-3 potentially aid efficient degradation of the pesticide. <i>Environmental Technology and Innovation</i> , 2021, 21, 101307.	3.0	8
92	A machine learning-based approach to determine infection status in recipients of BBV152 (Covaxin) whole-virion inactivated SARS-CoV-2 vaccine for serological surveys. <i>Computers in Biology and Medicine</i> , 2022, 146, 105419.	3.9	8
93	Enzyme Technology in Food Processing: Recent Developments and Future Prospects. , 2021, , 191-215.		7
94	Integrated bioprocess for structured lipids, emulsifiers and biodiesel production using crude acidic olive pomace oils. <i>Bioresource Technology</i> , 2022, 346, 126646.	4.8	7
95	Biobutanol Production: Microbes, Feedstock, and Strategies. , 2019, , 355-377.		6
96	Growth and butanol production by <i>Clostridium sporogenes</i> BE01 in rice straw hydrolysate: kinetics of inhibition by organic acids and the strategies for their removal. <i>Biomass Conversion and Biorefinery</i> , 2014, 4, 277-283.	2.9	5
97	First- and Second-Generation Ethanol in India: A Comprehensive Overview on Feedstock Availability, Composition, and Potential Conversion Yields. , 2017, , 223-246.		5
98	Ethanol production by a filamentous fungal strain <i>Byssoschlamys fulva</i> AM130 under alternating aerobic and oxygen-limited conditions. <i>Systems Microbiology and Biomanufacturing</i> , 2021, 1, 111-121.	1.5	4
99	Sono-Assisted Alkali and Dilute Acid Pretreatment of <i>Phragmites karka</i> (Tall Reed Grass) to Enhance Enzymatic Digestibility for Bioethanol Conversion. <i>Frontiers in Energy Research</i> , 2021, 8, .	1.2	4
100	Cellulase Hyper-Producing Fungus <i>Penicillium janthinellum</i> NCIM 1366 Elaborates a Wider Array of Proteins Involved in Transport and Secretion, Potentially Enabling a Diverse Substrate Range. <i>Bioenergy Research</i> , 0, , 1.	2.2	4
101	Production of endoglucanase from <i>Trichoderma reesei</i> RUT C30 and its application in deinking of printed office waste paper. <i>Biologia (Poland)</i> , 2016, 71, 265-271.	0.8	3
102	Draft genome of the glucose tolerant β -glucosidase producing rare <i>Aspergillus unguis</i> reveals complete cellulolytic machinery with multiple beta-glucosidase genes. <i>Fungal Genetics and Biology</i> , 2021, 151, 103551.	0.9	3
103	Biological treatment of prawn shell wastes for valorization and waste management. <i>Bioresource Technology Reports</i> , 2021, 15, 100788.	1.5	3
104	Repurposing proteases: An in-silico analysis of the binding potential of extracellular fungal proteases with selected viral proteins. <i>Bioresource Technology Reports</i> , 2021, 15, 100756.	1.5	2
105	A highly efficient stratagem for protoplast isolation and genetic transformation in filamentous fungus <i>Colletotrichum falcatum</i> . <i>Folia Microbiologica</i> , 2022, , .	1.1	2
106	Comparative Evaluation of Lignin Derived from Different Sugarcane Bagasse Pretreatments in the Synthesis of Wood Adhesive. <i>Bioenergy Research</i> , 0, , 1.	2.2	2
107	Sequential mild acid and alkali pretreatment of rice straw to improve enzymatic saccharification for bioethanol production. <i>Preparative Biochemistry and Biotechnology</i> , 2023, 53, 231-238.	1.0	2
108	Enzymes for Bioenergy. , 2017, , 3-43.		1

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109	Enzyme Technologies: Current and Emerging Technologies for Development of Novel Enzyme Catalysts. , 2015, , 39-66.		1
110	Preface. Bioresource Technology, 2015, 188, 1.	4.8	0
111	International Conference on Current Trends in Biotechnology & post ICCB-2016 conference on Strategies for Environmental Protection and Management (ICSEPM-2016). Bioresource Technology, 2017, 242, 1.	4.8	0
112	Preface new horizons in biotechnology â€“ NHBT 2019. Bioresource Technology, 2020, 313, 123774.	4.8	0
113	Pretreatment of Douglas Fir Wood Biomass for Improving Saccharification Efficiencies. Journal of ASTM International, 2010, 7, 1-8.	0.2	0
114	Nutrient Removal From Spent Effluent of Sorghum Biomass Pretreatment by Novel Chlorella Strain: Dual Potential for Spent Effluent Treatment and in Biofuel Application. Current Environmental Engineering, 2018, 5, 185-201.	0.6	0