# Rajeev Kumar Sukumaran

List of Publications by Year
in descending order



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|---|---|---|---|
| 114 papers | 7,380 citations | 61984 43 h-index | 56724 83 g-index |
| 127 all docs | 127 docs citations | 127 times ranked | 7976 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Bioethanol production from rice straw: An overview. Bioresource Technology, 2010, 101, 4767-4774. | 9.6 | 742 |
| 2 | Advancement and comparative profiles in the production technologies using solid-state and submerged fermentation for microbial cellulases. Enzyme and Microbial Technology, 2010, 46, 541-549. | 3.2 | 474 |
| 3 | Role and significance of beta-glucosidases in the hydrolysis of cellulose for bioethanol production. Bioresource Technology, 2013, 127, 500-507. | 9.6 | 459 |
| 4 | Cellulase production using biomass feed stock and its application in lignocellulose saccharification for bio-ethanol production. Renewable Energy, 2009, 34, 421-424. | 8.9 | 411 |
| 5 | Short duration microwave assisted pretreatment enhances the enzymatic saccharification and fermentable sugar yield from sugarcane bagasse. Renewable Energy, 2012, 37, 109-116. | 8.9 | 318 |
| 6 | Lignocellulosic ethanol in India: Prospects, challenges and feedstock availability. Bioresource Technology, 2010, 101, 4826-4833. | 9.6 | 220 |
| 7 | Bioflocculation: An alternative strategy for harvesting of microalgae â€“ An overview. Bioresource Technology, 2017, 242, 227-235. | 9.6 | 214 |
| 8 | Response surface methodology for the optimization of alpha amylase production by Bacillus amyloliquefaciens. Bioresource Technology, 2008, 99, 4597-4602. | 9.6 | 211 |
| 9 | Dilute acid pretreatment and enzymatic saccharification of sugarcane tops for bioethanol production. Bioresource Technology, 2011, 102, 10915-10921. | 9.6 | 176 |
| 10 | Strategies for design of improved biocatalysts for industrial applications. Bioresource Technology, 2017, 245, 1304-1313. | 9.6 | 175 |
| 11 | Crude oil biodegradation aided by biosurfactants from Pseudozyma sp. NII 08165 or its culture broth. Bioresource Technology, 2015, 191, 133-139. | 9.6 | 151 |
| 12 | Harvesting of microalgal biomass: Efficient method for flocculation through pH modulation. Bioresource Technology, 2016, 213, 216-221. | 9.6 | 131 |
| 13 | Bio-ethanol from water hyacinth biomass: An evaluation of enzymatic saccharification strategy. Bioresource Technology, 2010, 101, 925-930. | 9.6 | 119 |
| 14 | Biobutanol production from rice straw by a non acetone producing Clostridium sporogenes BE01. Bioresource Technology, 2013, 145, 182-187. | 9.6 | 115 |
| 15 | Improved Cellulase Production by Trichoderma reesei RUT C30 under SSF Through Process Optimization. Applied Biochemistry and Biotechnology, 2007, 142, 60-70. | 2.9 | 114 |
| 16 | Physicochemical characterization of alkali pretreated sugarcane tops and optimization of enzymatic saccharification using response surface methodology. Renewable Energy, 2014, 62, 362-368. | 8.9 | 109 |
| 17 | Cellulase Production Under Solid-State Fermentation by Trichoderma reesei RUT C30: Statistical Optimization of Process Parameters. Applied Biochemistry and Biotechnology, 2008, 151, 122-131. | 2.9 | 108 |
| 18 | Effect of dilute acid pretreatment of wild rice grass (Zizania latifolia) from Loktak Lake for enzymatic hydrolysis. Bioresource Technology, 2018, 253, 252-255. | 9.6 | 105 |

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|---|---|---|---|
| 19 | Cultivation of microalgae in dairy effluent for oil production and removal of organic pollution load. Bioresource Technology, 2014, 165, 295-301. | 9.6 | 103 |
| 20 | Metagenome Analysis: a Powerful Tool for Enzyme Bioprospecting. Applied Biochemistry and Biotechnology, 2017, 183, 636-651. | 2.9 | 96 |
| 21 | Optimization of laccase production from a novel strainâ€"Streptomyces psammoticus using response surface methodology. Microbiological Research, 2009, 164, 105-113. | 5.3 | 92 |
| 22 | Formic Acid as a Potential Pretreatment Agent for the Conversion of Sugarcane Bagasse to Bioethanol. Applied Biochemistry and Biotechnology, 2010, 162, 2313-2323. | 2.9 | 90 |
| 23 | Cellulase production through solid-state tray fermentation, and its use for bioethanol from sorghum stover. Bioresource Technology, 2017, 242, 265-271. | 9.6 | 90 |
| 24 | Utilization of rice straw for laccase production by Streptomyces psammoticus in solid-state fermentation. Journal of Industrial Microbiology and Biotechnology, 2007, 34, 665-674. | 3.0 | 89 |
| 25 | A novel surfactant-assisted ultrasound pretreatment of sugarcane tops for improved enzymatic release of sugars. Bioresource Technology, 2013, 135, 67-72. | 9.6 | 88 |
| 26 | High temperature pretreatment and hydrolysis of cotton stalk for producing sugars for bioethanol production. Fuel, 2012, 92, 340-345. | 6.4 | 86 |
| 27 | An evaluation of dilute acid and ammonia fiber explosion pretreatment for cellulosic ethanol production. Bioresource Technology, 2016, 199, 13-20. | 9.6 | 86 |
| 28 | Lipase from marine Aspergillus awamori BTMFW032: Production, partial purification and application in oil effluent treatment. New Biotechnology, 2011, 28, 627-638. | 4.4 | 84 |
| 29 | Rapid degradation of the organophosphate pesticide â€“ Chlorpyrifos by a novel strain of Pseudomonas nitroreducens AR-3. Bioresource Technology, 2019, 292, 122025. | 9.6 | 83 |
| 30 | Studies on structural and physical characteristics of a novel exopolysaccharide from Pseudozyma sp. NII 08165. International Journal of Biological Macromolecules, 2013, 59, 84-89. | 7.5 | 80 |
| 31 | Prediction of sugar yields during hydrolysis of lignocellulosic biomass using artificial neural network modeling. Bioresource Technology, 2015, 188, 128-135. | 9.6 | 78 |
| 32 | Organosolvent pretreatment and enzymatic hydrolysis of rice straw for the production of bioethanol. World Journal of Microbiology and Biotechnology, 2012, 28, 473-483. | 3.6 | 77 |
| 33 | Bioethanol production from dilute acid pretreated Indian bamboo variety (Dendrocalamus sp.) by separate hydrolysis and fermentation. Industrial Crops and Products, 2014, 52, 169-176. | 5.2 | 77 |
| 34 | Sustainable and eco-friendly strategies for shrimp shell valorization. Environmental Pollution, 2020, 267, 115656. | 7.5 | 70 |
| 35 | Evaluation of fungal culture filtrate containing chitinase as a biocontrol agent against Helicoverpa armigera. Journal of Applied Microbiology, 2007, 103, 1845-1852. | 3.1 | 69 |
| 36 | Highly glucose tolerant Î²-glucosidase from Aspergillus unguis: NII 08123 for enhanced hydrolysis of biomass. Journal of Industrial Microbiology and Biotechnology, 2013, 40, 967-975. | 3.0 | 62 |

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|---|---|---|---|
| 37 | Studies on biosurfactants from Pseudozyma sp. NII 08165 and their potential application as laundry detergent additives. Biochemical Engineering Journal, 2013, 78, 85-92. | 3.6 | 62 |
| 38 | Bioethanol production from bamboo (Dendrocalamus sp.) process waste. Biomass and Bioenergy, 2013, 59, 142-150. | 5.7 | 61 |
| 39 | Statistical optimization of simultaneous saccharification and l(+)-lactic acid fermentation from cassava bagasse using mixed culture of lactobacilli by response surface methodology. Biochemical Engineering Journal, 2007, 36, 262-267. | 3.6 | 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. Bioresource Technology, 2012, 112, 300-307. | 9.6 | 55 |
| 41 | Valorization of lignocellulosic residues from the olive oil industry by production of lignin, glucose and functional sugars. Bioresource Technology, 2019, 292, 121936. | 9.6 | 53 |
| 42 | Properties of a major Î²-glucosidase-BGL1 from Aspergillus niger NII-08121 expressed differentially in response to carbon sources. Process Biochemistry, 2011, 46, 1521-1524. | 3.7 | 52 |
| 43 | Addressing challenges in production of cellulases for biomass hydrolysis: Targeted interventions into the genetics of cellulase producing fungi. Bioresource Technology, 2021, 329, 124746. | 9.6 | 51 |
| 44 | Thermal assisted alkaline pretreatment of rice husk for enhanced biomass deconstruction and enzymatic saccharification: Physico-chemical and structural characterization. Bioresource Technology, 2018, 263, 199-206. | 9.6 | 48 |
| 45 | Recent developments in l-glutaminase production and applications â€“ An overview. Bioresource Technology, 2017, 245, 1766-1774. | 9.6 | 46 |
| 46 | Hydrolysis of biomass using a reusable solid carbon acid catalyst and fermentation of the catalytic hydrolysate to ethanol. Bioresource Technology, 2015, 188, 99-102. | 9.6 | 45 |
| 47 | Production of a highly glucose tolerant Î²-glucosidase by Paecilomyces variotii MG3: optimization of fermentation conditions using Plackettâ€“Burman and Boxâ€“Behnken experimental designs. World Journal of Microbiology and Biotechnology, 2010, 26, 1385-1391. | 3.6 | 37 |
| 48 | Lignocellulosic Biorefinery Wastes, or Resources?. , 2018, , 267-297. | | 36 |
| 49 | Cultivation of the fresh water microalga Chlorococcum sp. RAP13 in sea water for producing oil suitable for biodiesel. Journal of Applied Phycology, 2015, 27, 141-147. | 2.8 | 34 |
| 50 | Rice straw hydrolysate to fuel and volatile fatty acid conversion by Clostridium sporogenes BE01: bio-electrochemical analysis of the electron transport mediators involved. Green Chemistry, 2015, 17, 3047-3058. | 9.0 | 32 |
| 51 | Synthetic Biology and Metabolic Engineering Approaches and Its Impact on Non-Conventional Yeast and Biofuel Production. Frontiers in Energy Research, 2017, 5, . | 2.3 | 32 |
| 52 | Development of a combined pretreatment and hydrolysis strategy of rice straw for the production of bioethanol and biopolymer. Bioresource Technology, 2016, 215, 110-116. | 9.6 | 31 |
| 53 | A biorefinery-based approach for the production of ethanol from enzymatically hydrolysed cotton stalks. Bioresource Technology, 2017, 242, 178-183. | 9.6 | 30 |
| 54 | Esterases immobilized on aminosilane modified magnetic nanoparticles as a catalyst for biotransformation reactions. Bioresource Technology, 2014, 167, 547-550. | 9.6 | 29 |

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| 55 | Isolation and characterization of a novel Î±-amylase from a metagenomic library of Western Ghats of Kerala, India. Biologia (Poland), 2011, 66, 939-944. | 1.5 | 28 |
| 56 | White Biotechnology in Cosmetics. , 2015, , 607-652. | | 27 |
| 57 | Expression system for heterologous protein expression in the filamentous fungus Aspergillus unguis. Bioresource Technology, 2017, 245, 1334-1342. | 9.6 | 27 |
| 58 | Surfactant-Assisted Acid Pretreatment of Sugarcane Tops for Bioethanol Production. Applied Biochemistry and Biotechnology, 2012, 167, 1513-1526. | 2.9 | 26 |
| 59 | Detoxification of acidic biorefinery waste liquor for production of high value amino acid. Bioresource Technology, 2016, 213, 270-275. | 9.6 | 25 |
| 60 | Material balance studies for the conversion of sorghum stover to bioethanol. Biomass and Bioenergy, 2016, 85, 48-52. | 5.7 | 24 |
| 61 | Potential of Brachiaria mutica (Para grass) for bioethanol production from Loktak Lake. Bioresource Technology, 2017, 242, 133-138. | 9.6 | 24 |
| 62 | Value-addition of water hyacinth and para grass through pyrolysis and hydrothermal liquefaction. Carbon Resources Conversion, 2019, 2, 233-241. | 5.9 | 23 |
| 63 | Evaluation of Amberlyst15 for hydrolysis of alkali pretreated rice straw and fermentation to ethanol. Biochemical Engineering Journal, 2015, 102, 49-53. | 3.6 | 22 |
| 64 | Mild alkaline pretreatment can achieve high hydrolytic and fermentation efficiencies for rice straw conversion to bioethanol. Preparative Biochemistry and Biotechnology, 2020, 50, 814-819. | 1.9 | 22 |
| 65 | Production of low-calorie structured lipids from spent coffee grounds or olive pomace crude oils catalyzed by immobilized lipase in magnetic nanoparticles. Bioresource Technology, 2020, 307, 123223. | 9.6 | 22 |
| 66 | Production optimization and properties of beta glucosidases from a marine fungus Aspergillus-SA 58. New Biotechnology, 2010, 27, 347-351. | 4.4 | 21 |
| 67 | Comparative evaluation of laccase mediated oxidized and unoxidized lignin of sugarcane bagasse for the synthesis of lignin-based formaldehyde resin. Industrial Crops and Products, 2020, 150, 112385. | 5.2 | 21 |
| 68 | Insights from a Pan India Sero-Epidemiological survey (Phenome-India Cohort) for SARS-CoV2. ELife, 2021, 10, . | 6.0 | 21 |
| 69 | White Biotechnology in Biosurfactants. , 2015, , 499-521. | | 20 |
| 70 | Thermophilic Chitinases: Structural, Functional and Engineering Attributes for Industrial Applications. Applied Biochemistry and Biotechnology, 2021, 193, 142-164. | 2.9 | 19 |
| 71 | Production of polyhydroxyalkanoates from propylene oxide saponification wastewater residual sludge using volatile fatty acids and bacterial community succession. Bioresource Technology, 2021, 329, 124912. | 9.6 | 19 |
| 72 | Evaluation of Î±-galactosidase biosynthesis by Streptomyces griseoloalbus in solid-state fermentation using response surface methodology. Letters in Applied Microbiology, 2008, 46, 338-343. | 2.2 | 18 |

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| 73 | Green remediation of the potential hazardous shellfish wastes generated from the processing industries and their bioprospecting. Environmental Technology and Innovation, 2021, 24, 101979. | 6.1 | 18 |
| 74 | Promoter and signal sequence from filamentous fungus can drive recombinant protein production in the yeast Kluyveromyces lactis. Bioresource Technology, 2014, 165, 302-308. | 9.6 | 17 |
| 75 | Simultaneous Saccharification and Fermentation of Pretreated Eucalyptus grandis Under High Solids Loading. Industrial Biotechnology, 2017, 13, 131-140. | 0.8 | 17 |
| 76 | Esterase Active in Polar Organic Solvents from the YeastPseudozymasp. NII 08165. Enzyme Research, 2014, 2014, 1-10. | 1.8 | 16 |
| 77 | Bioremediation by Microalgae: Current and Emerging Trends for Effluents Treatments for Value Addition of Waste Streams. Energy, Environment, and Sustainability, 2018, , 355-375. | 1.0 | 16 |
| 78 | Evaluation of Freshwater Microalgal Isolates for Growth and Oil Production in Seawater Medium. Waste and Biomass Valorization, 2020, 11, 223-230. | 3.4 | 15 |
| 79 | Co-hydrothermal liquefaction of phumdi and paragrass an aquatic biomass: Characterization of bio-oil, aqueous fraction and solid residue. Journal of the Energy Institute, 2022, 102, 247-255. | 5.3 | 15 |
| 80 | Co-pyrolysis of phumdi and para grass biomass from Loktak Lake. Bioresource Technology, 2019, 285, 121308. | 9.6 | 14 |
| 81 | Penicillium janthinellum NCIM1366 shows improved biomass hydrolysis and a larger number of CAZymes with higher induction levels over Trichoderma reesei RUT-C30. Biotechnology for Biofuels, 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, Engyodontium album BTMFS10. World Journal of Microbiology and Biotechnology, 2010, 26, 1269-1279. | 3.6 | 12 |
| 84 | Lipase of Pseudomonas guariconesis as an additive in laundry detergents and transesterification biocatalysts. Journal of Basic Microbiology, 2020, 60, 112-125. | 3.3 | 12 |
| 85 | Secreted expression of an active human interferon-beta (HuIFNÎ²) inKluyveromyces lactis. Engineering in Life Sciences, 2016, 16, 379-385. | 3.6 | 11 |
| 86 | Tandem integration of aerobic fungal cellulase production, lignocellulose substrate saccharification and anaerobic ethanol fermentation by a modified gas lift bioreactor. Bioresource Technology, 2020, 302, 122902. | 9.6 | 11 |
| 87 | Optimization of Enzymatic Clarification of Sapodilla Juice: A Statistical Perspective. Applied Biochemistry and Biotechnology, 2008, 151, 353-363. | 2.9 | 10 |
| 88 | Characterization of a glucose tolerant Î²-glucosidase from Aspergillus unguis with high potential as a blend-in for biomass hydrolyzing enzyme cocktails. Biotechnology Letters, 2019, 41, 1201-1211. | 2.2 | 10 |
| 89 | Signal peptides from filamentous fungi efficiently mediate the secretion of recombinant proteins in Kluyveromyces lactis. Biochemical Engineering Journal, 2015, 102, 31-37. | 3.6 | 9 |
| 90 | Evaluation of a wet processing strategy for mixed phumdi biomass conversion to bioethanol. Bioresource Technology, 2019, 289, 121633. | 9.6 | 9 |

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| 91 | Chlorpyrifos induced proteome remodelling of Pseudomonas nitroreducens AR-3 potentially aid efficient degradation of the pesticide. Environmental Technology and Innovation, 2021, 21, 101307. | 6.1 | 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. Computers in Biology and Medicine, 2022, 146, 105419. | 7.0 | 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. Bioresource Technology, 2022, 346, 126646. | 9.6 | 7 |
| 95 | Biobutanol Production: Microbes, Feedstock, and Strategies. , 2019, , 355-377. | | 6 |
| 96 | Growth and butanol production by Clostridium sporogenes BE01 in rice straw hydrolysate: kinetics of inhibition by organic acids and the strategies for their removal. Biomass Conversion and Biorefinery, 2014, 4, 277-283. | 4.6 | 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 Byssochlamys fulva AM130 under alternating aerobic and oxygen-limited conditions. Systems Microbiology and Biomanufacturing, 2021, 1, 111-121. | 2.9 | 4 |
| 99 | Sono-Assisted Alkali and Dilute Acid Pretreatment of Phragmites karka (Tall Reed Grass) to Enhance Enzymatic Digestibility for Bioethanol Conversion. Frontiers in Energy Research, 2021, 8, . | 2.3 | 4 |
| 100 | Cellulase Hyper-Producing Fungus Penicillium janthinellum NCIM 1366 Elaborates a Wider Array of Proteins Involved inÂTransport and Secretion, Potentially Enabling a DiverseÂSubstrate Range. Bioenergy Research, 0, , 1. | 3.9 | 4 |
| 101 | Production of endoglucanase from Trichoderma reesei RUT C30 and its application in deinking of printed office waste paper. Biologia (Poland), 2016, 71, 265-271. | 1.5 | 3 |
| 102 | Draft genome of the glucose tolerant Î²-glucosidase producing rare Aspergillus unguis reveals complete cellulolytic machinery with multiple beta-glucosidase genes. Fungal Genetics and Biology, 2021, 151, 103551. | 2.1 | 3 |
| 103 | Biological treatment of prawn shell wastes for valorization and waste management. Bioresource Technology Reports, 2021, 15, 100788. | 2.7 | 3 |
| 104 | Repurposing proteases: An in-silico analysis of the binding potential of extracellular fungal proteases with selected viral proteins. Bioresource Technology Reports, 2021, 15, 100756. | 2.7 | 2 |
| 105 | A highly efficient stratagem for protoplast isolation and genetic transformation in filamentous fungus Colletotrichum falcatum. Folia Microbiologica, 2022, , . | 2.3 | 2 |
| 106 | Comparative Evaluation of Lignin Derived from Different Sugarcane Bagasse Pretreatments in the Synthesis of Wood Adhesive. Bioenergy Research, 0, , 1. | 3.9 | 2 |
| 107 | Sequential mild acid and alkali pretreatment of rice straw to improve enzymatic saccharification for bioethanol production. Preparative Biochemistry and Biotechnology, 2023, 53, 231-238. | 1.9 | 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. | 9.6 | 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. | 9.6 | 0 |
| 112 | Preface new horizons in biotechnology â€“ NHBT 2019. Bioresource Technology, 2020, 313, 123774. | 9.6 | 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 |