

Rajesh Kumar Sani

List of Publications by Year in descending order

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126
papers

4,892
citations

94381

37
h-index

110317

64
g-index

173
all docs

173
docs citations

173
times ranked

5463
citing authors

#	ARTICLE	IF	CITATIONS
1	Improved lignocellulose conversion to biofuels with thermophilic bacteria and thermostable enzymes. <i>Bioresource Technology</i> , 2013, 128, 751-759.	4.8	291
2	Biodegradation of triphenylmethane dyes. <i>Enzyme and Microbial Technology</i> , 1998, 22, 185-191.	1.6	284
3	Characterization of thermostable cellulases produced by <i>Bacillus</i> and <i>Geobacillus</i> strains. <i>Bioresource Technology</i> , 2010, 101, 8798-8806.	4.8	229
4	Decolorization of triphenylmethane dyes and textile and dye-stuff effluent by <i>Kurthia</i> sp.. <i>Enzyme and Microbial Technology</i> , 1999, 24, 433-437.	1.6	211
5	Thermostable alkaline protease from <i>Bacillus brevis</i> and its characterization as a laundry detergent additive. <i>Process Biochemistry</i> , 1999, 35, 213-219.	1.8	179
6	Copper-Induced Inhibition of Growth of <i>Desulfovibrio desulfuricans</i> G20: Assessment of Its Toxicity and Correlation with Those of Zinc and Lead. <i>Applied and Environmental Microbiology</i> , 2001, 67, 4765-4772.	1.4	170
7	Molecular Techniques to Assess Microbial Community Structure, Function, and Dynamics in the Environment. , 2011, , 29-57.		151
8	Reduction of uranium(VI) under sulfate-reducing conditions in the presence of Fe(III)-(hydr)oxides. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 2639-2648.	1.6	122
9	Isolation and characterization of cellulose-degrading bacteria from the deep subsurface of the Homestake gold mine, Lead, South Dakota, USA. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2009, 36, 585-598.	1.4	117
10	Extremophilic exopolysaccharides: A review and new perspectives on engineering strategies and applications. <i>Carbohydrate Polymers</i> , 2019, 205, 8-26.	5.1	106
11	Uranium Immobilization by Sulfate-Reducing Biofilms. <i>Environmental Science & Technology</i> , 2004, 38, 2067-2074.	4.6	105
12	Microbial Diversity in Uranium Mining-Impacted Soils as Revealed by High-Density 16S Microarray and Clone Library. <i>Microbial Ecology</i> , 2010, 59, 94-108.	1.4	102
13	Dissimilatory reduction of Cr(VI), Fe(III), and U(VI) by <i>Cellulomonas</i> isolates. <i>Applied Microbiology and Biotechnology</i> , 2002, 60, 192-199.	1.7	95
14	Reoxidation of Reduced Uranium with Iron(III) (Hydr)Oxides under Sulfate-Reducing Conditions. <i>Environmental Science & Technology</i> , 2005, 39, 2059-2066.	4.6	95
15	Multiple mechanisms of uranium immobilization by <i>Cellulomonas</i> sp. strain ES6. <i>Biotechnology and Bioengineering</i> , 2011, 108, 264-276.	1.7	88
16	Extremophiles for microbial-electrochemistry applications: A critical review. <i>Bioresource Technology</i> , 2018, 255, 318-330.	4.8	79
17	Toxic Effects of Chromium(VI) on Anaerobic and Aerobic Growth of <i>Shewanella oneidensis</i> MR-1. <i>Biotechnology Progress</i> , 2008, 20, 87-95.	1.3	75
18	Highly Thermostable Xylanase Production from A Thermophilic <i>Geobacillus</i> sp. Strain WSUCF1 Utilizing Lignocellulosic Biomass. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015, 3, 84.	2.0	73

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19	Reduction of Cr(VI) under Acidic Conditions by the Facultative Fe(III)-Reducing Bacterium <i>Acidiphilium cryptum</i> . <i>Environmental Science & Technology</i> , 2007, 41, 146-152.	4.6	72
20	Hexagonal Boron Nitride: The Thinnest Insulating Barrier to Microbial Corrosion. <i>ACS Nano</i> , 2018, 12, 2242-2252.	7.3	71
21	Microbial and Mineralogical Characterizations of Soils Collected from the Deep Biosphere of the Former Homestake Gold Mine, South Dakota. <i>Microbial Ecology</i> , 2010, 60, 539-550.	1.4	70
22	Lignocellulosic feedstock: A review of a sustainable platform for cleaner production of nature's plastics. <i>Journal of Cleaner Production</i> , 2020, 270, 122521.	4.6	65
23	Biomethanation of agricultural residues: Potential, limitations and possible solutions. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 135, 110217.	8.2	61
24	Assessment of lead toxicity to <i>Desulfovibrio desulfuricans</i> G20: influence of components of lactate C medium. <i>Journal of Environmental Management</i> , 2001, 5, 269-276.	1.7	59
25	Novel thermostable endo-xylanase cloned and expressed from bacterium <i>Geobacillus</i> sp. WSUCF1. <i>Bioresource Technology</i> , 2014, 165, 314-318.	4.8	59
26	Molecular analysis of prokaryotic diversity in the deep subsurface of the former Homestake gold mine, South Dakota, USA. <i>Journal of Microbiology</i> , 2009, 47, 371-384.	1.3	56
27	Comparison of static and shake culture in the decolorization of textile dyes and dye effluents by <i>Phanerochaete chrysosporium</i> . <i>Folia Microbiologica</i> , 1998, 43, 85-88.	1.1	55
28	Isolation and characterization of Cr(VI) reducing <i>Cellulomonas</i> spp. from subsurface soils: Implications for long-term chromate reduction. <i>Bioresource Technology</i> , 2007, 98, 612-622.	4.8	51
29	Characterization of a glucose-tolerant β -glucosidase from <i>Anoxybacillus</i> sp. DT3-1. <i>Biotechnology for Biofuels</i> , 2016, 9, 174.	6.2	51
30	Bioprocessing of agricultural residues to ethanol utilizing a cellulolytic extremophile. <i>Extremophiles</i> , 2011, 15, 611-618.	0.9	50
31	Thermostable Xylanase Production by <i>Geobacillus</i> sp. Strain DUSELR13, and Its Application in Ethanol Production with Lignocellulosic Biomass. <i>Microorganisms</i> , 2018, 6, 93.	1.6	49
32	Investigation of Microbial Populations in the Extremely Metal-Contaminated Coeur d'Alene River Sediments. <i>Microbial Ecology</i> , 2011, 62, 1-13.	1.4	47
33	Enhanced hydrolysis of lignocellulosic biomass with doping of a highly thermostable recombinant laccase. <i>International Journal of Biological Macromolecules</i> , 2019, 137, 232-237.	3.6	47
34	Thermophilic Anaerobic Digestion: Enhanced and Sustainable Methane Production from Co-Digestion of Food and Lignocellulosic Wastes. <i>Energies</i> , 2018, 11, 2058.	1.6	44
35	Highly thermostable GH39 β -xylosidase from a <i>Geobacillus</i> sp. strain WSUCF1. <i>BMC Biotechnology</i> , 2014, 14, 963.	1.7	43
36	Biogenic uraninite precipitation and its reoxidation by iron(III) (hydr)oxides: A reaction modeling approach. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 4426-4440.	1.6	41

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37	Biogeochemical reactiveâ€“diffusive transport of heavy metals in Lake Coeur dâ€™Alene sediments. Applied Geochemistry, 2007, 22, 2569-2594.	1.4	39
38	Influence of pH and Inorganic Phosphate on Toxicity of Zinc to <i>Arthrobacter</i> sp. Isolated from Heavy-Metal-Contaminated Sediments. Environmental Science & Technology, 2010, 44, 7302-7308.	4.6	39
39	A novel biosensor for zinc detection based on microbial fuel cell system. Biosensors and Bioelectronics, 2020, 147, 111763.	5.3	38
40	Thermophiles for biohydrogen production in microbial electrolytic cells. Bioresource Technology, 2019, 277, 171-178.	4.8	37
41	Gene Sets and Mechanisms of Sulfate-Reducing Bacteria Biofilm Formation and Quorum Sensing With Impact on Corrosion. Frontiers in Microbiology, 2021, 12, 754140.	1.5	37
42	Single pot bioconversion of prairie cordgrass into biohydrogen by thermophiles. Bioresource Technology, 2018, 266, 232-241.	4.8	34
43	Influence of heavy metals on microbial growth kinetics including lag time: Mathematical modeling and experimental verification. Environmental Toxicology and Chemistry, 2009, 28, 2020-2029.	2.2	33
44	Toxicity of lead in aqueous medium to <i>Desulfovibrio desulfuricans</i> G20. Environmental Toxicology and Chemistry, 2003, 22, 252-260.	2.2	32
45	TOXIC EFFECTS OF URANIUM ON DESULFOVIBRIO DESULFURICANS G20. Environmental Toxicology and Chemistry, 2006, 25, 1231.	2.2	32
46	Reoxidation of Biogenic Reduced Uranium: A Challenge Toward Bioremediation. Critical Reviews in Environmental Science and Technology, 2014, 44, 391-415.	6.6	32
47	Single pot biovalorization of food waste to ethanol by <i>Geobacillus</i> and <i>Thermoanaerobacter</i> spp.. Renewable Energy, 2020, 155, 1032-1041.	4.3	32
48	Biohydrogen production from space crewâ€™s waste simulants using thermophilic consolidated bioprocessing. Bioresource Technology, 2018, 255, 349-353.	4.8	31
49	Simultaneous hydrolysis and fermentation of unprocessed food waste into ethanol using thermophilic anaerobic bacteria. Bioresource Technology, 2017, 244, 733-740.	4.8	30
50	Characterization of a novel Lytic Polysaccharide Monooxygenase from <i>Malbranchea cinnamomea</i> exhibiting dual catalytic behavior. Carbohydrate Research, 2019, 478, 46-53.	1.1	29
51	Extremophilic Exopolysaccharides: Biotechnologies and Wastewater Remediation. Frontiers in Microbiology, 2021, 12, 721365.	1.5	29
52	Producing methane, methanol and electricity from organic waste of fermentation reaction using novel microbes. Bioresource Technology, 2018, 258, 270-278.	4.8	28
53	Xylose transport in yeast for lignocellulosic ethanol production: Current status. Journal of Bioscience and Bioengineering, 2018, 125, 259-267.	1.1	27
54	Comparison of uranium(VI) removal by <i>Shewanella oneidensis</i> MR-1 in flow and batch reactors. Water Research, 2008, 42, 2993-3002.	5.3	25

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55	Influence of Chelating Agents on Biogenic Uraninite Reoxidation by Fe(III) (Hydr)oxides. Environmental Science & Technology, 2013, 47, 364-371.	4.6	25
56	Draft Genome Sequence of Lignocellulose-Degrading Thermophilic Bacterium <i>Geobacillus</i> sp. Strain WSUCF1. Genome Announcements, 2013, 1, .	0.8	25
57	Exopolysaccharide and biopolymer-derived films as tools for transdermal drug delivery. Journal of Controlled Release, 2021, 329, 971-987.	4.8	25
58	Molecular Studies on the Microbial Diversity Associated with Mining-Impacted Coeur d'Alene River Sediments. Microbial Ecology, 2009, 58, 129-139.	1.4	24
59	Genome analysis of a thermophilic exopolysaccharide-producing bacterium - <i>Geobacillus</i> sp. WSUCF1. Scientific Reports, 2019, 9, 1608.	1.6	24
60	Heavy Metal-Mineral Associations in Coeur d'Alene River Sediments: A Synchrotron-Based Analysis. Water, Air, and Soil Pollution, 2009, 201, 195-208.	1.1	23
61	Characterization of L-asparaginase from <i>Bacillus</i> sp. isolated from an intertidal marine alga (<i>Sargassum</i> sp.). Letters in Applied Microbiology, 1995, 21, 380-383.	1.0	22
62	Rewiring the microbe-electrode interfaces with biologically reduced graphene oxide for improved bioelectrocatalysis. Bioresource Technology, 2018, 256, 195-200.	4.8	22
63	Sustainable Production of Biogas in Large Bioreactor under Psychrophilic and Mesophilic Conditions. Journal of Environmental Engineering, ASCE, 2020, 146, .	0.7	22
64	Purification and characterization of a novel β -galactosidase from <i>Bacillus</i> sp MTCC 3088. Journal of Industrial Microbiology and Biotechnology, 2000, 24, 58-63.	1.4	21
65	Two new exopolysaccharides from a thermophilic bacterium <i>Geobacillus</i> sp. WSUCF1: Characterization and bioactivities. New Biotechnology, 2021, 61, 29-39.	2.4	19
66	Heterologous expression, purification and biochemical characterization of a new endo-1,4- β -xylanase from Rhodothermaceae bacterium RA. Protein Expression and Purification, 2019, 164, 105464.	0.6	18
67	Improved bioethanol production from corn stover: Role of enzymes, inducers and simultaneous product recovery. Applied Energy, 2017, 208, 1420-1429.	5.1	17
68	Vitamin-C-enabled reduced graphene oxide chemistry for tuning biofilm phenotypes of methylotrophs on nickel electrodes in microbial fuel cells. Bioresource Technology, 2020, 300, 122642.	4.8	17
69	Complete genome sequence of Rhodothermaceae bacterium RA with cellulolytic and xylanolytic activities. 3 Biotech, 2018, 8, 376.	1.1	14
70	Editorial: Recent Advances in Bioremediation/Biodegradation by Extreme Microorganisms. Frontiers in Microbiology, 2019, 10, 1851.	1.5	14
71	Short term atmospheric pressure cold plasma treatment: A novel strategy for enhancing the substrate utilization in a thermophile, <i>Geobacillus</i> sp. strain WSUCF1. Bioresource Technology, 2019, 278, 477-480.	4.8	14
72	Electricity from methane by <i>Methylococcus capsulatus</i> (Bath) and <i>Methylosinus trichosporium</i> OB3b. Bioresource Technology, 2021, 321, 124398.	4.8	14

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73	Characterization and some reaction-engineering aspects of thermostable extracellular β -galactosidase from a new <i>Bacillus</i> species. <i>Folia Microbiologica</i> , 1999, 44, 367-371.	1.1	13
74	Bioleaching of metals from waste printed circuit boards using bacterial isolates native to abandoned gold mine. <i>BioMetals</i> , 2021, 34, 1043-1058.	1.8	13
75	Extremophilic Enzymatic Processing of Lignocellulosic Feedstocks to Bioenergy. , 2017, , .		12
76	Bioelectrochemical approach for enhancing lignocellulose degradation and biofilm formation in <i>Geobacillus</i> strain WSUCF1. <i>Bioresource Technology</i> , 2020, 295, 122271.	4.8	12
77	Adaptive Enrichment of a Thermophilic Bacterial Isolate for Enhanced Enzymatic Activity. <i>Microorganisms</i> , 2020, 8, 871.	1.6	11
78	Enhanced biohydrogen production with low graphene oxide content using thermophilic bioreactors. <i>Bioresource Technology</i> , 2022, 346, 126574.	4.8	11
79	The toxicity of lead to <i>Desulfovibrio desulfuricans</i> G20 in the presence of goethite and quartz. <i>Journal of Basic Microbiology</i> , 2010, 50, 160-170.	1.8	10
80	Engineering rheology of electrolytes using agar for improving the performance of bioelectrochemical systems. <i>Bioresource Technology</i> , 2018, 263, 242-249.	4.8	10
81	Lignocellulosic Ethanol: Feedstocks and Bioprocessing. , 2019, , 165-185.		10
82	Environmental Remediation of Antineoplastic Drugs: Present Status, Challenges, and Future Directions. <i>Processes</i> , 2020, 8, 747.	1.3	10
83	Biochar from pyrolyzed Tibetan Yak dung as a novel additive in ensiling sweet sorghum: An alternate to the hazardous use of Yak dung as a fuel in the home. <i>Journal of Hazardous Materials</i> , 2021, 403, 123647.	6.5	10
84	Bioprospecting of Thermostable Cellulolytic Enzymes through Modeling and Virtual Screening Method. <i>Canadian Journal of Biotechnology</i> , 2017, 1, 19-25.	0.3	10
85	Presence of glucose, xylose, and glycerol fermenting bacteria in the deep biosphere of the former Homestake gold mine, South Dakota. <i>Frontiers in Microbiology</i> , 2013, 4, 18.	1.5	9
86	Transcriptomics and Functional Analysis of Copper Stress Response in the Sulfate-Reducing Bacterium <i>Desulfovibrio alaskensis</i> G20. <i>International Journal of Molecular Sciences</i> , 2022, 23, 1396.	1.8	9
87	Phylogenetic evidence of noteworthy microflora from the subsurface of the former Homestake gold mine, Lead, South Dakota. <i>Environmental Technology (United Kingdom)</i> , 2010, 31, 979-991.	1.2	8
88	Impact of different environmental conditions on the aggregation of biogenic U(IV) nanoparticles synthesized by <i>Desulfovibrio alaskensis</i> G20. <i>BioMetals</i> , 2016, 29, 965-980.	1.8	8
89	Electricity from lignocellulosic substrates by thermophilic <i>Geobacillus</i> species. <i>Scientific Reports</i> , 2020, 10, 17047.	1.6	8
90	Anaerobic wastewater treatment and reuse enabled by thermophilic bioprocessing integrated with a bioelectrochemical/ultrafiltration module. <i>Bioresource Technology</i> , 2021, 321, 124406.	4.8	8

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91	Metagenomics and Culture Dependent Insights into the Distribution of Firmicutes across Two Different Sample Types Located in the Black Hills Region of South Dakota, USA. <i>Microorganisms</i> , 2021, 9, 113.	1.6	8
92	Pervasiveness of UVC254-resistant <i>Geobacillus</i> strains in extreme environments. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 1869-1887.	1.7	7
93	Biofilm Engineering for Improving the Performance of Microbial Electrochemical Technologies. , 2019, , 315-338.		6
94	Enhancement of Methane Catalysis Rates in <i>Methylosinus trichosporium</i> OB3b. <i>Biomolecules</i> , 2022, 12, 560.	1.8	6
95	Editorial: Genetics, Genomics and “Omics of Thermophiles. <i>Frontiers in Microbiology</i> , 2017, 8, 560.	1.5	5
96	Taxonomical Diversity of Extremophiles in the Deep Biosphere. , 2019, , 631-656.		5
97	Synthesis of Biopolymers from a <i>Geobacillus</i> sp. WSUCF1 Using Unprocessed Corn Stover. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9483-9496.	3.2	5
98	Acetate Production from Cafeteria Wastes and Corn Stover Using a Thermophilic Anaerobic Consortium: A Prelude Study for the Use of Acetate for the Production of Value-Added Products. <i>Microorganisms</i> , 2020, 8, 353.	1.6	5
99	Thermophilic Biohydrogen Production: Challenges at the Industrial Scale. , 2015, , 3-35.		5
100	Toxicity of lead in aqueous medium to <i>Desulfovibrio desulfuricans</i> G20. <i>Environmental Toxicology and Chemistry</i> , 2003, 22, 252-60.	2.2	5
101	Biohydrogen Production from Lignocellulosic Feedstocks Using Extremophiles. , 2018, , 79-96.		4
102	“MINES” method for genomic DNA extraction from deep biosphere biofilms. <i>Journal of Microbiological Methods</i> , 2019, 167, 105730.	0.7	4
103	Spectroscopy, microscopy, and other techniques for characterization of bacterial nanocellulose and comparison with plant-derived nanocellulose. , 2021, , 419-454.		4
104	An Overview on Extremophilic Chitinases. , 2017, , 225-247.		4
105	TOXICITY OF LEAD IN AQUEOUS MEDIUM TO <i>DESULFOVIBRIO DESULFURICANS</i> G20. <i>Environmental Toxicology and Chemistry</i> , 2003, 22, 252.	2.2	4
106	Draft Genome Sequences of Thermophiles Isolated from Yates Shaft, a Deep-Subsurface Environment. <i>Genome Announcements</i> , 2017, 5, .	0.8	3
107	Rewiring Extremophilic Electrocatalytic Processes for Production of Biofuels and Value-Added Compounds from Lignocellulosic Biomass. , 2018, , 229-245.		3
108	Bioprospecting of Extremophiles for Biotechnology Applications. , 2018, , 1-23.		3

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109	Introduction to Extremozymes. , 2017, , 1-4.		3
110	Integrated Consolidated Bioprocessing for Conversion of Lignocellulosic Feedstock to Biofuels and Value-Added Bioproducts. , 2018, , 247-273.		2
111	Extremophile Biology for Microbial Electrochemistry Applications. , 2019, , 353-374.		2
112	Bioelectrosynthesis technology for enhancing methane production using a thermophilic methanogenic consortium. Bioresource Technology, 2020, 314, 123892.	4.8	2
113	Global Transcriptomic Responses of Roseithermus sacchariphilus Strain RA in Media Supplemented with Beechwood Xylan. Microorganisms, 2020, 8, 976.	1.6	2
114	Exopolysaccharides in Drug Delivery Systems. Springer Series on Polymer and Composite Materials, 2021, , 143-199.	0.5	2
115	Fundamentals of Enzymatic Processes. , 2017, , 5-29.		2
116	Surface Modification Approaches for Methane Oxidation in Bioelectrochemical Systems. , 2020, , 343-374.		2
117	Computational Nanotechnology: A Tool for Screening Therapeutic Nanomaterials Against Alzheimerâ€™s Disease. Neuromethods, 2018, , 613-635.	0.2	1
118	Biobutanol Production Using Recombinant Microorganisms. , 2018, , 47-62.		1
119	Direct Cellulase Gene Amplification From Hot Spring Using the Guidance of 16S rRNA Amplicon Metagenomics. , 2018, , 309-325.		1
120	Microbial polymers produced from methane: Overview of recent progress and new perspectives. , 2021, , 117-142.		1
121	Multi-Omics Approaches for Extremophilic Microbial, Genetic, and Metabolic Diversity. , 2021, , 311-329.		1
122	Editorial: Genetics, Genomics and -omics of Thermophiles, Volume II. Frontiers in Microbiology, 2022, 13, 879450.	1.5	1
123	Progress in Consolidated Bioprocessing of Lignocellulosic Biomass for Biofuels and Biochemicals. Clean Energy Production Technologies, 2022, , 35-54.	0.3	1
124	Extremozymes and their applications. , 2022, , 1-39.		1
125	Methane Monooxygenases. , 2019, , 187-206.		0
126	Thermophilic Geobacillus WSUCF1 Secretome for Saccharification of Ammonia Fiber Expansion and Extractive Ammonia Pretreated Corn Stover. Frontiers in Microbiology, 2022, 13, .	1.5	0