

# Pankaj

## List of Publications by Year in descending order

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107  
papers

4,992  
citations

57752

44  
h-index

106340

65  
g-index

113  
all docs

113  
docs citations

113  
times ranked

1933  
citing authors

#	ARTICLE	IF	CITATIONS
1	Esterase is a powerful tool for the biodegradation of pyrethroid insecticides. <i>Chemosphere</i> , 2020, 244, 125507.	8.2	148
2	New insights into the degradation of synthetic pollutants in contaminated environments. <i>Chemosphere</i> , 2021, 268, 128827.	8.2	146
3	Insight Into Microbial Applications for the Biodegradation of Pyrethroid Insecticides. <i>Frontiers in Microbiology</i> , 2019, 10, 1778.	3.5	143
4	Recent Advanced Technologies for the Characterization of Xenobiotic-Degrading Microorganisms and Microbial Communities. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 632059.	4.1	140
5	Carbofuran toxicity and its microbial degradation in contaminated environments. <i>Chemosphere</i> , 2020, 259, 127419.	8.2	139
6	Presence of esterase and laccase in <i>Bacillus subtilis</i> facilitates biodegradation and detoxification of cypermethrin. <i>Scientific Reports</i> , 2018, 8, 12755.	3.3	124
7	New insights into the microbial degradation and catalytic mechanism of synthetic pyrethroids. <i>Environmental Research</i> , 2020, 182, 109138.	7.5	120
8	Paraquat Degradation From Contaminated Environments: Current Achievements and Perspectives. <i>Frontiers in Microbiology</i> , 2019, 10, 1754.	3.5	118
9	Biosurfactant is a powerful tool for the bioremediation of heavy metals from contaminated soils. <i>Journal of Hazardous Materials</i> , 2021, 418, 126253.	12.4	117
10	Insights Into the Microbial Degradation and Biochemical Mechanisms of Neonicotinoids. <i>Frontiers in Microbiology</i> , 2020, 11, 868.	3.5	117
11	Characterization of the role of esterases in the biodegradation of organophosphate, carbamate, and pyrethroid pesticides. <i>Journal of Hazardous Materials</i> , 2021, 411, 125026.	12.4	115
12	Microplastic contaminants in the aqueous environment, fate, toxicity consequences, and remediation strategies. <i>Environmental Research</i> , 2021, 200, 111762.	7.5	110
13	Biotransformation of perfluoroalkyl acid precursors from various environmental systems: advances and perspectives. <i>Environmental Pollution</i> , 2021, 272, 115908.	7.5	107
14	Biotechnological basis of microbial consortia for the removal of pesticides from the environment. <i>Critical Reviews in Biotechnology</i> , 2021, 41, 317-338.	9.0	107
15	An Overview of Strobilurin Fungicide Degradation: Current Status and Future Perspective. <i>Frontiers in Microbiology</i> , 2020, 11, 389.	3.5	106
16	Binding interaction of allethrin with esterase: Bioremediation potential and mechanism. <i>Bioresource Technology</i> , 2020, 315, 123845.	9.6	103
17	Binding interaction of glyphosate with glyphosate oxidoreductase and $\text{C}\hat{\text{e}}\text{P}$ lyase: Molecular docking and molecular dynamics simulation studies. <i>Journal of Hazardous Materials</i> , 2021, 409, 124927.	12.4	101
18	Enhanced Cypermethrin Degradation Kinetics and Metabolic Pathway in <i>Bacillus thuringiensis</i> Strain SG4. <i>Microorganisms</i> , 2020, 8, 223.	3.6	98

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19	Insights into the microbial degradation and catalytic mechanisms of chlorpyrifos. Environmental Research, 2021, 194, 110660.	7.5	95
20	Insights Into the Biodegradation of Lindane (1 <sup>3</sup> -Hexachlorocyclohexane) Using a Microbial System. Frontiers in Microbiology, 2020, 11, 522.	3.5	94
21	Mechanism of allethrin biodegradation by a newly isolated Sphingomonas trueperi strain CW3 from wastewater sludge. Bioresource Technology, 2020, 305, 123074.	9.6	94
22	Occurrence, potential ecological risks, and degradation of endocrine disrupter, nonylphenol, from the aqueous environment. Chemosphere, 2021, 275, 130013.	8.2	87
23	Novel pathway of cypermethrin biodegradation in a Bacillus sp. strain SG2 isolated from cypermethrin-contaminated agriculture field. 3 Biotech, 2016, 6, 45.	2.2	82
24	Insights into the microbial degradation and biochemical mechanisms of carbamates. Chemosphere, 2021, 279, 130500.	8.2	76
25	Environmental occurrence, toxicity concerns, and remediation of recalcitrant nitroaromatic compounds. Journal of Environmental Management, 2021, 291, 112685.	7.8	71
26	Characterization of a novel glyphosate-degrading bacterial species, Chryseobacterium sp. Y16C, and evaluation of its effects on microbial communities in glyphosate-contaminated soil. Journal of Hazardous Materials, 2022, 432, 128689.	12.4	69
27	New Insights into the Microbial Degradation of D-Cyphenothrin in Contaminated Water/Soil Environments. Microorganisms, 2020, 8, 473.	3.6	68
28	Biofilm-mediated bioremediation is a powerful tool for the removal of environmental pollutants. Chemosphere, 2022, 294, 133609.	8.2	68
29	Effect of nanozeolite and plant growth promoting rhizobacteria on maize. 3 Biotech, 2018, 8, 141.	2.2	64
30	Pesticide induced up-regulation of esterase and aldehyde dehydrogenase in indigenous <i>Bacillus</i> spp.. Bioremediation Journal, 2019, 23, 42-52.	2.0	63
31	Plasmid-mediated catabolism for the removal of xenobiotics from the environment. Journal of Hazardous Materials, 2021, 420, 126618.	12.4	62
32	Microbial Interventions in Bioremediation of Heavy Metal Contaminants in Agroecosystem. Frontiers in Microbiology, 2022, 13, .	3.5	62
33	Nanochitosan supports growth of Zea mays and also maintains soil health following growth. 3 Biotech, 2017, 7, 81.	2.2	60
34	Insights into the Toxicity and Degradation Mechanisms of Imidacloprid Via Physicochemical and Microbial Approaches. Toxics, 2020, 8, 65.	3.7	60
35	Bryophytes: Hoard of remedies, an ethno-medicinal review. Journal of Traditional and Complementary Medicine, 2017, 7, 94-98.	2.7	58
36	Nanobioremediation: A sustainable approach for the removal of toxic pollutants from the environment. Journal of Hazardous Materials, 2022, 427, 128033.	12.4	58

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37	Biodegradation of Allethrin by a Novel Fungus <i>Fusarium proliferatum</i> Strain CF2, Isolated from Contaminated Soils. <i>Microorganisms</i> , 2020, 8, 593.	3.6	57
38	Novel pathway of acephate degradation by the microbial consortium ZQ01 and its potential for environmental bioremediation. <i>Journal of Hazardous Materials</i> , 2022, 426, 127841.	12.4	55
39	Microalgae-based removal of pollutants from wastewaters: Occurrence, toxicity and circular economy. <i>Chemosphere</i> , 2022, 306, 135576.	8.2	55
40	Biotechnological tools to elucidate the mechanism of pesticide degradation in the environment. <i>Chemosphere</i> , 2022, 296, 133916.	8.2	54
41	Microbial glycoconjugates in organic pollutant bioremediation: recent advances and applications. <i>Microbial Cell Factories</i> , 2021, 20, 72.	4.0	52
42	Occurrence, toxicity impacts and mitigation of emerging micropollutants in the aquatic environments: Recent tendencies and perspectives. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107598.	6.7	52
43	Determination and quantification of asiaticoside in endophytic fungus from <i>Centella asiatica</i> (L.) Urban. <i>World Journal of Microbiology and Biotechnology</i> , 2018, 34, 111.	3.6	49
44	Degradation of Acephate and Its Intermediate Methamidophos: Mechanisms and Biochemical Pathways. <i>Frontiers in Microbiology</i> , 2020, 11, 2045.	3.5	46
45	Current Approaches to and Future Perspectives on Methomyl Degradation in Contaminated Soil/Water Environments. <i>Molecules</i> , 2020, 25, 738.	3.8	46
46	Indigenous bacterial consortium-mediated cypermethrin degradation in the presence of organic amendments and <i>Zea mays</i> plants. <i>Environmental Research</i> , 2022, 212, 113137.	7.5	41
47	Understanding Phytomicrobiome: A Potential Reservoir for Better Crop Management. <i>Sustainability</i> , 2020, 12, 5446.	3.2	40
48	Algae in wastewater treatment, mechanism, and application of biomass for production of value-added product. <i>Environmental Pollution</i> , 2022, 309, 119688.	7.5	39
49	Differential expression and characterization of cypermethrin-degrading potential proteins in <i>Bacillus thuringiensis</i> strain, SG4. <i>3 Biotech</i> , 2016, 6, 225.	2.2	38
50	Modelling of the methyl halide biodegradation in bacteria and its effect on environmental systems. <i>Pesticide Biochemistry and Physiology</i> , 2019, 158, 88-100.	3.6	37
51	Microbial technologies for heavy metal remediation: effect of process conditions and current practices. <i>Clean Technologies and Environmental Policy</i> , 2023, 25, 1485-1507.	4.1	37
52	Fipronil degradation kinetics and resource recovery potential of <i>Bacillus</i> sp. strain FA4 isolated from a contaminated agricultural field in Uttarakhand, India. <i>Chemosphere</i> , 2021, 276, 130156.	8.2	35
53	<i>Acinetobacter lactuca</i> Strain QL-1, a Novel Quorum Quenching Candidate Against Bacterial Pathogen <i>Xanthomonas campestris</i> pv. <i>campestris</i> . <i>Frontiers in Microbiology</i> , 2019, 10, 2867.	3.5	34
54	Novel mechanism and degradation kinetics of pesticides mixture using <i>Bacillus</i> sp. strain 3C in contaminated sites. <i>Pesticide Biochemistry and Physiology</i> , 2022, 181, 104996.	3.6	34

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55	Modeling and simulation of atrazine biodegradation in bacteria and its effect in other living systems. Journal of Biomolecular Structure and Dynamics, 2022, 40, 3285-3295.	3.5	33
56	Potential of a Quorum Quenching Bacteria Isolate Ochrobactrum intermedium D-2 Against Soft Rot Pathogen Pectobacterium carotovorum subsp. carotovorum. Frontiers in Microbiology, 2020, 11, 898.	3.5	33
57	Bioremediation of fipronil using Bacillus sp. FA3: Mechanism, kinetics and resource recovery potential from contaminated environments. Journal of Water Process Engineering, 2021, 39, 101712.	5.6	32
58	Genetic improvement in Pleurotus (oyster mushroom): a review. 3 Biotech, 2019, 9, 322.	2.2	30
59	Cupriavidus sp. HN-2, a Novel Quorum Quenching Bacterial Isolate, is a Potent Biocontrol Agent Against Xanthomonas campestris pv. campestris. Microorganisms, 2020, 8, 45.	3.6	28
60	Kinetics and New Mechanism of Azoxystrobin Biodegradation by an Ochrobactrum anthropi Strain SH14. Microorganisms, 2020, 8, 625.	3.6	27
61	Major metabolites after degradation of xenobiotics and enzymes involved in these pathways. , 2019, , 205-215.		26
62	Reduction of hexavalent chromium by Microbacterium paraoxydans isolated from tannery wastewater and characterization of its reduced products. Journal of Water Process Engineering, 2021, 39, 101748.	5.6	26
63	A Quorum Quenching Bacterial Isolate Contains Multiple Substrate-Inducible Genes Conferring Degradation of Diffusible Signal Factor. Applied and Environmental Microbiology, 2020, 86, .	3.1	25
64	Assessment of Soil Health Indicators Under the Influence of Nanocompounds and Bacillus spp. in Field Condition. Frontiers in Environmental Science, 2022, 9, .	3.3	24
65	Bioinformatic Tools to Study the Soil Microorganisms: An In Silico Approach for Sustainable Agriculture. , 2018, , 169-182.		22
66	Mitigation of environmentally hazardous pollutants by magnetically responsive composite materials. Chemosphere, 2021, 276, 130241.	8.2	22
67	Systems biology analysis of pyrethroid biodegradation in bacteria and its effect on the cellular environment of pests and humans. Journal of Environmental Chemical Engineering, 2021, 9, 106582.	6.7	22
68	Mechanism and application of Sesbania root-nodulating bacteria: an alternative for chemical fertilizers and sustainable development. Archives of Microbiology, 2021, 203, 1259-1270.	2.2	21
69	Current insights into the microbial degradation for butachlor: strains, metabolic pathways, and molecular mechanisms. Applied Microbiology and Biotechnology, 2021, 105, 4369-4381.	3.6	21
70	Environmental Occurrence, Toxicity Concerns, and Degradation of Diazinon Using a Microbial System. Frontiers in Microbiology, 2021, 12, 717286.	3.5	20
71	Microbial adaptation and impact into the pesticide's degradation. Archives of Microbiology, 2022, 204, 288.	2.2	20
72	Impact of Agri-Usable Nanocompounds on Soil Microbial Activity: An Indicator of Soil Health. Clean - Soil, Air, Water, 2017, 45, 1600458.	1.1	19

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73	Tetracycline bioremediation using the novel <i>Serratia marcescens</i> strain WW1 isolated from a wastewater treatment plant. <i>Chemosphere</i> , 2022, 298, 134344.	8.2	19
74	Quorum Quenching in a Novel <i>Acinetobacter</i> sp. XN-10 Bacterial Strain against <i>Pectobacterium carotovorum</i> subsp. <i>carotovorum</i> . <i>Microorganisms</i> , 2020, 8, 1100.	3.6	18
75	Microbial Degradation of Aldrin and Dieldrin: Mechanisms and Biochemical Pathways. <i>Frontiers in Microbiology</i> , 2022, 13, 713375.	3.5	18
76	Emerging Technologies for Degradation of Dichlorvos: A Review. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 5789.	2.6	17
77	Emerging Strategies for the Bioremediation of the Phenylurea Herbicide Diuron. <i>Frontiers in Microbiology</i> , 2021, 12, 686509.	3.5	16
78	Insilico Tools to Study the Bioremediation in Microorganisms. <i>Advances in Environmental Engineering and Green Technologies Book Series</i> , 2018, , 389-395.	0.4	15
79	Novel Mechanism and Kinetics of Tetramethrin Degradation Using an Indigenous <i>Gordonia cholesterolivorans</i> A16. <i>International Journal of Molecular Sciences</i> , 2021, 22, 9242.	4.1	14
80	Concepts and Application of Plant-Microbe Interaction in Remediation of Heavy Metals. <i>Rhizosphere Biology</i> , 2021, , 55-77.	0.6	14
81	Himalayan Microbiomes for Agro-environmental Sustainability: Current Perspectives and Future Challenges. <i>Microbial Ecology</i> , 2022, 84, 643-675.	2.8	14
82	Whole-Genome Sequencing Analysis of Quorum Quenching Bacterial Strain <i>Acinetobacter lactucae</i> QL-1 Identifies the FadY Enzyme for Degradation of the Diffusible Signal Factor. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6729.	4.1	13
83	Characterization of a Novel Quorum-Quenching Bacterial Strain, <i>Burkholderia anthina</i> HN-8, and Its Biocontrol Potential against Black Rot Disease Caused by <i>Xanthomonas campestris</i> pv. <i>campestris</i> . <i>Microorganisms</i> , 2020, 8, 1485.	3.6	11
84	Bioremediation of Industrial Waste Using Microbial Metabolic Diversity. <i>Advances in Environmental Engineering and Green Technologies Book Series</i> , 2018, , 1-27.	0.4	10
85	Mechanisms and kinetics for the degradation of paclobutrazol and biocontrol action of a novel <i>Pseudomonas putida</i> strain T7. <i>Pesticide Biochemistry and Physiology</i> , 2021, 175, 104846.	3.6	9
86	System biology analysis of endosulfan biodegradation in bacteria and its effect in other living systems: modeling and simulation studies. <i>Journal of Biomolecular Structure and Dynamics</i> , 2022, 40, 13171-13183.	3.5	9
87	Insights into applications and strategies for discovery of microbial bioactive metabolites. <i>Microbiological Research</i> , 2022, 261, 127053.	5.3	9
88	System biology, simulation, and network analysis of enzymes in waste removal from the environment. , 2019, , 347-358.		8
89	Crop Improvement Through Microbial Technology: A Step Toward Sustainable Agriculture. , 2018, , 245-253.		7
90	Recent Trends to Study the Functional Analysis of Mycorrhizosphere. , 2019, , 181-190.		7

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91	Integrating photobioreactor with conventional activated sludge treatment for nitrogen removal from sidestream digestate: Current challenges and opportunities. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106171.	6.7	7
92	Rhizospheric Microbes and Their Mechanism. , 2021, , 79-93.		6
93	Insights into the catalytic mechanism of ligninolytic peroxidase and laccase in lignin degradation. <i>Bioremediation Journal</i> , 2022, 26, 281-291.	2.0	6
94	Application of Nanocompounds for Sustainable Agriculture System. <i>Advances in Environmental Engineering and Green Technologies Book Series</i> , 2018, , 194-211.	0.4	5
95	Biochemical conversion of lignocellulosic waste into renewable energy. , 2021, , 147-171.		4
96	Bacterial structure and dynamics in mango ( <i>Mangifera indica</i> ) orchards after long term organic and conventional treatments under subtropical ecosystem. <i>Scientific Reports</i> , 2021, 11, 20554.	3.3	4
97	Degradation mechanism and kinetics of carbendazim using <i>Achromobacter</i> sp. strain GB61. <i>Bioremediation Journal</i> , 2022, 26, 150-161.	2.0	2
98	Recent Advancements and Mechanism of Microbial Enzymes in Sustainable Agriculture. , 2021, , 247-259.		2
99	Sari System: A Traditional Cropping Pattern of the Uttarakhand Himalaya. <i>Rhizosphere Biology</i> , 2020, , 37-53.	0.6	2
100	Silver nanoparticles in natural ecosystems: Fate, transport, and toxicity. , 2022, , 649-668.		2
101	Soil Genesis, Survey and Classification. , 2019, , 139-150.		1
102	Phytoremediation: A Synergistic Interaction between Plants and Microbes for Removal of Petroleum Hydrocarbons. , 0, , .		1
103	Rhizosphere Manipulations for Sustainable Plant Growth Promotion. , 2021, , 61-77.		1
104	Biodegradation and biodeterioration at the nanoscale: an introduction. , 2022, , 1-7.		1
105	Nanomaterials for bioremediation of air pollution. , 2022, , 243-261.		1
106	DNA microarray analysis of <i>Leishmania</i> parasite: strengths and limitations. , 2021, , 85-101.		0
107	Bioremediation of Industrial Waste Using Microbial Metabolic Diversity. , 2022, , 584-610.		0