

Avinash Mishra

List of Publications by Year in descending order

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103
papers

5,126
citations

57631

44
h-index

98622

67
g-index

111
all docs

111
docs citations

111
times ranked

5211
citing authors

#	ARTICLE	IF	CITATIONS
1	Isolation and characterization of extracellular polymeric substances from micro-algae <i>Dunaliella salina</i> under salt stress. <i>Bioresource Technology</i> , 2009, 100, 3382-3386.	4.8	264
2	Halophytes: Potential Resources for Salt Stress Tolerance Genes and Promoters. <i>Frontiers in Plant Science</i> , 2017, 8, 829.	1.7	214
3	Nutraceutical Potential of Seaweed Polysaccharides: Structure, Bioactivity, Safety, and Toxicity. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2019, 18, 817-831.	5.9	190
4	Characterization of extracellular polymeric substances produced by micro-algae <i>Dunaliella salina</i> . <i>Carbohydrate Polymers</i> , 2011, 83, 852-857.	5.1	166
5	Expression of SbGSTU (tau class glutathione S-transferase) gene isolated from <i>Salicornia brachiata</i> in tobacco for salt tolerance. <i>Molecular Biology Reports</i> , 2011, 38, 4823-4832.	1.0	154
6	Isolation and characterization of exopolysaccharides from seaweed associated bacteria <i>Bacillus licheniformis</i> . <i>Carbohydrate Polymers</i> , 2011, 84, 1019-1026.	5.1	154
7	Characterisation and anti-biofilm activity of extracellular polymeric substances from <i>Oceanobacillus iheyensis</i> . <i>Carbohydrate Polymers</i> , 2014, 101, 29-35.	5.1	148
8	Over-expression of the Peroxisomal Ascorbate Peroxidase (SbAPX) Gene Cloned from Halophyte <i>Salicornia brachiata</i> Confers Salt and Drought Stress Tolerance in Transgenic Tobacco. <i>Marine Biotechnology</i> , 2014, 16, 321-332.	1.1	99
9	Microbial population index and community structure in saline-alkaline soil using gene targeted metagenomics. <i>Microbiological Research</i> , 2013, 168, 165-173.	2.5	98
10	Cloning and transcript analysis of type 2 metallothionein gene (SbMT-2) from extreme halophyte <i>Salicornia brachiata</i> and its heterologous expression in <i>E. coli</i> . <i>Gene</i> , 2012, 499, 280-287.	1.0	93
11	The SbMT-2 Gene from a Halophyte Confers Abiotic Stress Tolerance and Modulates ROS Scavenging in Transgenic Tobacco. <i>PLoS ONE</i> , 2014, 9, e111379.	1.1	93
12	Developing Transgenic <i>Jatropha</i> Using the SbNHX1 Gene from an Extreme Halophyte for Cultivation in Saline Wasteland. <i>PLoS ONE</i> , 2013, 8, e71136.	1.1	90
13	Metabolites Unravel Nutraceutical Potential of Edible Seaweeds: An Emerging Source of Functional Food. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2018, 17, 1613-1624.	5.9	90
14	Isolation and physico-chemical characterisation of extracellular polymeric substances produced by the marine bacterium <i>Vibrio parahaemolyticus</i> . <i>Biofouling</i> , 2011, 27, 309-317.	0.8	89
15	Anti-quorum Sensing and Anti-biofilm Activity of <i>Delftia tsuruhatensis</i> Extract by Attenuating the Quorum Sensing-Controlled Virulence Factor Production in <i>Pseudomonas aeruginosa</i> . <i>Frontiers in Cellular and Infection Microbiology</i> , 2017, 7, 337.	1.8	89
16	Non-targeted metabolomics and scavenging activity of reactive oxygen species reveal the potential of <i>Salicornia brachiata</i> as a functional food. <i>Journal of Functional Foods</i> , 2015, 13, 21-31.	1.6	88
17	Extracellular polymeric substances from two biofilm forming <i>Vibrio</i> species: Characterization and applications. <i>Carbohydrate Polymers</i> , 2013, 94, 882-888.	5.1	87
18	Overexpression of a Cytosolic Abiotic Stress Responsive Universal Stress Protein (SbUSP) Mitigates Salt and Osmotic Stress in Transgenic Tobacco Plants. <i>Frontiers in Plant Science</i> , 2016, 7, 518.	1.7	87

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19	Introgression of the SbASR-1 Gene Cloned from a Halophyte <i>Salicornia brachiata</i> Enhances Salinity and Drought Endurance in Transgenic Groundnut (<i>Arachis hypogaea</i>) and Acts as a Transcription Factor. <i>PLoS ONE</i> , 2015, 10, e0131567.	1.1	86
20	Antibacterial Activities of Crude Extract of <i>Aloe barbadensis</i> to Clinically Isolated Bacterial Pathogens. <i>Applied Biochemistry and Biotechnology</i> , 2010, 160, 1356-1361.	1.4	84
21	Ectopic over-expression of peroxisomal ascorbate peroxidase (SbpAPX) gene confers salt stress tolerance in transgenic peanut (<i>Arachis hypogaea</i>). <i>Gene</i> , 2014, 547, 119-125.	1.0	82
22	Physiological characterization and stress-induced metabolic responses of <i>Dunaliella salina</i> isolated from salt pan. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2008, 35, 1093-1101.	1.4	81
23	Isolation and structural characterization of biosurfactant produced by an alkaliphilic bacterium <i>Cronobacter sakazakii</i> isolated from oil contaminated wastewater. <i>Carbohydrate Polymers</i> , 2012, 87, 2320-2326.	5.1	76
24	Application of targeted metagenomics to explore abundance and diversity of CO ₂ -fixing bacterial community using <i>cbbL</i> gene from the rhizosphere of <i>Arachis hypogaea</i> . <i>Gene</i> , 2012, 506, 18-24.	1.0	72
25	Functional Characterization of the Tau Class Glutathione-S-Transferases Gene (SbGSTU) Promoter of <i>Salicornia brachiata</i> under Salinity and Osmotic Stress. <i>PLoS ONE</i> , 2016, 11, e0148494.	1.1	70
26	Physicochemical, scavenging and anti-proliferative analyses of polysaccharides extracted from psyllium (<i>Plantago ovata</i> Forssk) husk and seeds. <i>International Journal of Biological Macromolecules</i> , 2019, 133, 190-201.	3.6	68
27	Physicochemical characterization of biosurfactant and its potential to remove oil from soil and cotton cloth. <i>Carbohydrate Polymers</i> , 2012, 89, 1110-1116.	5.1	67
28	Physicochemical characterization, antioxidant and anti-proliferative activities of a polysaccharide extracted from psyllium (<i>P. ovata</i>) leaves. <i>International Journal of Biological Macromolecules</i> , 2018, 118, 976-987.	3.6	65
29	Ectopic expression of SbNHX1 gene in transgenic castor (<i>Ricinus communis</i> L.) enhances salt stress by modulating physiological process. <i>Plant Cell, Tissue and Organ Culture</i> , 2015, 122, 477-490.	1.2	64
30	Physio-Biochemical Composition and Untargeted Metabolomics of Cumin (<i>Cuminum cyminum</i> L.) Make It Promising Functional Food and Help in Mitigating Salinity Stress. <i>PLoS ONE</i> , 2015, 10, e0144469.	1.1	64
31	Metabolite profiling, antioxidant, scavenging and anti-proliferative activities of selected tropical green seaweeds reveal the nutraceutical potential of <i>Caulerpa</i> spp.. <i>Algal Research</i> , 2018, 36, 96-105.	2.4	63
32	Effect of unconventional carbon sources on biosurfactant production and its application in bioremediation. <i>International Journal of Biological Macromolecules</i> , 2013, 62, 52-58.	3.6	62
33	Nutrients, microbial community structure and functional gene abundance of rhizosphere and bulk soils of halophytes. <i>Applied Soil Ecology</i> , 2015, 91, 16-26.	2.1	62
34	Halotolerant PGPR <i>Stenotrophomonas maltophilia</i> BJ01 Induces Salt Tolerance by Modulating Physiology and Biochemical Activities of <i>Arachis hypogaea</i> . <i>Frontiers in Microbiology</i> , 2020, 11, 568289.	1.5	62
35	Production and structural characterization of biosurfactant produced by an alkaliphilic bacterium, <i>Klebsiella</i> sp.: Evaluation of different carbon sources. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 108, 199-204.	2.5	61
36	Heterologous expression of an uncharacterized universal stress protein gene (SbUSP) from the extreme halophyte, <i>Salicornia brachiata</i> , which confers salt and osmotic tolerance to <i>E. coli</i> . <i>Gene</i> , 2014, 536, 163-170.	1.0	61

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37	Edible Seaweeds: A Potential Novel Source of Bioactive Metabolites and Nutraceuticals With Human Health Benefits. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	58
38	Efficient genetic transformation of <i>Jatropha curcas</i> L. by microprojectile bombardment using embryo axes. <i>Industrial Crops and Products</i> , 2011, 33, 67-77.	2.5	56
39	The Transcriptional Regulatory Mechanism of the Peroxisomal Ascorbate Peroxidase (pAPX) Gene Cloned from an Extreme Halophyte, <i>Salicornia brachiata</i> . <i>Plant and Cell Physiology</i> , 2014, 55, 201-217.	1.5	54
40	In planta Transformed Cumin (<i>Cuminum cyminum</i> L.) Plants, Overexpressing the SbNHX1 Gene Showed Enhanced Salt Endurance. <i>PLoS ONE</i> , 2016, 11, e0159349.	1.1	53
41	The abundance of functional genes, <i>cbbL</i> , <i>nifH</i> , <i>amoA</i> and <i>apsA</i> , and bacterial community structure of intertidal soil from Arabian Sea. <i>Microbiological Research</i> , 2015, 175, 57-66.	2.5	50
42	Plant growth promoting rhizobacterium <i>Stenotrophomonas maltophilia</i> BJ01 augments endurance against N ₂ starvation by modulating physiology and biochemical activities of <i>Arachis hypogea</i> . <i>PLoS ONE</i> , 2019, 14, e0222405.	1.1	49
43	Non-targeted Metabolite Profiling and Scavenging Activity Unveil the Nutraceutical Potential of <i>Psyllium</i> (<i>Plantago ovata</i> Forsk). <i>Frontiers in Plant Science</i> , 2016, 7, 431.	1.7	48
44	Antibacterial and Antioxidant Activities of Novel Actinobacteria Strain Isolated from Gulf of Khambhat, Gujarat. <i>Frontiers in Microbiology</i> , 2017, 8, 2420.	1.5	48
45	A novel transcription factor-like gene <i>SbSDR1</i> acts as a molecular switch and confers salt and osmotic endurance to transgenic tobacco. <i>Scientific Reports</i> , 2016, 6, 31686.	1.6	47
46	Microbial Exopolysaccharides. , 2013, , 179-192.		44
47	Phenolic, flavonoid, and amino acid compositions reveal that selected tropical seaweeds have the potential to be functional food ingredients. <i>Journal of Food Processing and Preservation</i> , 2019, 43, e14266.	0.9	44
48	Oligosaccharide mass profiling of nutritionally important <i>Salicornia brachiata</i> , an extreme halophyte. <i>Carbohydrate Polymers</i> , 2013, 92, 1942-1945.	5.1	42
49	Proteome Profiling of Seed Storage Proteins Reveals the Nutritional Potential of <i>Salicornia brachiata</i> Roxb., an Extreme Halophyte. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 4320-4326.	2.4	41
50	Plant aquaporins alleviate drought tolerance in plants by modulating cellular biochemistry, root architecture, and photosynthesis. <i>Physiologia Plantarum</i> , 2021, 172, 1030-1044.	2.6	41
51	Differential distribution and abundance of diazotrophic bacterial communities across different soil niches using a gene-targeted clone library approach. <i>FEMS Microbiology Letters</i> , 2014, 360, 117-125.	0.7	40
52	Overexpression of a Plasma Membrane-Localized SbSRP-Like Protein Enhances Salinity and Osmotic Stress Tolerance in Transgenic Tobacco. <i>Frontiers in Plant Science</i> , 2017, 8, 582.	1.7	39
53	Microprojectile bombardment mediated genetic transformation of embryo axes and plant regeneration in cumin (<i>Cuminum cyminum</i> L.). <i>Plant Cell, Tissue and Organ Culture</i> , 2010, 103, 1-6.	1.2	38
54	NaCl plays a key role for in vitro micropropagation of <i>Salicornia brachiata</i> , an extreme halophyte. <i>Industrial Crops and Products</i> , 2012, 35, 313-316.	2.5	37

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55	Cloning and functional characterization of the Na ⁺ /H ⁺ antiporter (NHX1) gene promoter from an extreme halophyte <i>Salicornia brachiata</i> . <i>Gene</i> , 2019, 683, 233-242.	1.0	34
56	An Efficient Method for <i>Agrobacterium</i> -Mediated Genetic Transformation and Plant Regeneration in Cumin (<i>Cuminum cyminum</i> L.). <i>Applied Biochemistry and Biotechnology</i> , 2013, 171, 1-9.	1.4	33
57	Lipid content and fatty acid profile of selected halophytic plants reveal a promising source of renewable energy. <i>Biomass and Bioenergy</i> , 2019, 124, 25-32.	2.9	32
58	Anti-proliferative and ROS-inhibitory activities reveal the anticancer potential of <i>Caulerpa</i> species. <i>Molecular Biology Reports</i> , 2020, 47, 7403-7411.	1.0	32
59	Purification and characterization of cellulase from a marine <i>Bacillus</i> sp. H1666: A potential agent for single step saccharification of seaweed biomass. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2013, 93, 51-56.	1.8	31
60	3-Benzyl-Hexahydro-Pyrrolo[1,2-a]Pyrazine-1,4-Dione Extracted From <i>Exiguobacterium indicum</i> Showed Anti-biofilm Activity Against <i>Pseudomonas aeruginosa</i> by Attenuating Quorum Sensing. <i>Frontiers in Microbiology</i> , 2019, 10, 1269.	1.5	28
61	Differential Physio-Biochemical and Metabolic Responses of Peanut (<i>Arachis hypogaea</i> L.) under Multiple Abiotic Stress Conditions. <i>International Journal of Molecular Sciences</i> , 2022, 23, 660.	1.8	26
62	Ectopic expression of C4 photosynthetic pathway genes improves carbon assimilation and alleviate stress tolerance for future climate change. <i>Physiology and Molecular Biology of Plants</i> , 2020, 26, 195-209.	1.4	25
63	Unravelling the Carbon and Sulphur Metabolism in Coastal Soil Ecosystems Using Comparative Cultivation-Independent Genome-Level Characterisation of Microbial Communities. <i>PLoS ONE</i> , 2014, 9, e107025.	1.1	25
64	Bacterial community structure and functional diversity in subsurface seawater from the western coastal ecosystem of the Arabian Sea, India. <i>Gene</i> , 2019, 701, 55-64.	1.0	24
65	The Pyruvate-Phosphate Dikinase (C4-SmPPDK) Gene From <i>Suaeda monoica</i> Enhances Photosynthesis, Carbon Assimilation, and Abiotic Stress Tolerance in a C3 Plant Under Elevated CO ₂ Conditions. <i>Frontiers in Plant Science</i> , 2020, 11, 345.	1.7	23
66	Elevated CO ₂ leads to carbon sequestration by modulating C4 photosynthesis pathway enzyme (PPDK) in <i>Suaeda monoica</i> and <i>S. fruticosa</i> . <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2018, 178, 310-315.	1.7	22
67	Bacterial extracellular polymeric substances and their effect on settlement of zoospore of <i>Ulva fasciata</i> . <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 103, 223-230.	2.5	21
68	An Efficient Method of <i>Agrobacterium</i> -Mediated Genetic Transformation and Regeneration in Local Indian Cultivar of Groundnut (<i>Arachis hypogaea</i>) Using Grafting. <i>Applied Biochemistry and Biotechnology</i> , 2015, 175, 436-453.	1.4	21
69	Insights from a Pan India Sero-Epidemiological survey (Phenome-India Cohort) for SARS-CoV2. <i>ELife</i> , 2021, 10, .	2.8	21
70	Metabolic profiling and scavenging activities of developing circumscissile fruit of psyllium (<i>Plantago</i>)	1.6	20
71	Introgression of a novel cold and drought regulatory protein encoding CORA-like gene, <i>SbCDR</i> , induced osmotic tolerance in transgenic tobacco. <i>Physiologia Plantarum</i> , 2021, 172, 1170-1188.	2.6	20
72	Overexpression of differentially expressed AhCytb6 gene during plant-microbe interaction improves tolerance to N ₂ deficit and salt stress in transgenic tobacco. <i>Scientific Reports</i> , 2021, 11, 13435.	1.6	19

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73	Antioxidant response of the microalga <i>Dunaliella salina</i> under salt stress. <i>Botanica Marina</i> , 2011, 54, .	0.6	18
74	Metabolomics of Seaweeds. , 2018, , 37-52.		17
75	Metabolite profiling identified pipercolic acid as an important component of peanut seed resistance against <i>Aspergillus flavus</i> infection. <i>Journal of Hazardous Materials</i> , 2021, 404, 124155.	6.5	17
76	Differential Accumulation of Metabolites in Suaeda Species Provides New Insights into Abiotic Stress Tolerance in C4-Halophytic Species in Elevated CO2 Conditions. <i>Agronomy</i> , 2021, 11, 131.	1.3	17
77	Analysis of functional traits in female gametophytic and tetrasporophytic life phases of industrially important red alga <i>Gracilaria dura</i> (Rhodophyta: Gracilariaceae). <i>Journal of Applied Phycology</i> , 2020, 32, 1961-1969.	1.5	15
78	Untargeted Metabolomics of Halophytes. , 2016, , 307-325.		14
79	Introgression of halophytic salt stress-responsive genes for developing stress tolerance in crop plants.. , 2019, , 275-286.		13
80	Antioxidant, Scavenging, Reducing, and Anti-Proliferative Activities of Selected Tropical Brown Seaweeds Confirm the Nutraceutical Potential of <i>Spatoglossum asperum</i> . <i>Foods</i> , 2021, 10, 2482.	1.9	13
81	MOLECULAR PHYLOGENY OF <i>GRACILARIA</i> SPECIES INFERRED FROM MOLECULAR MARKERS BELONGING TO THREE DIFFERENT GENOMES ¹ . <i>Journal of Phycology</i> , 2010, 46, 1322-1328.	1.0	12
82	Interaction of the novel bacterium <i>Brachybacterium saurashtrense</i> JG06 with <i>Arachis hypogaea</i> leads to changes in physio-biochemical activity of plants to cope with nitrogen starvation conditions. <i>Plant Physiology and Biochemistry</i> , 2021, 166, 974-984.	2.8	11
83	Temporal and spatial expression analysis of gamma kafirin promoter from Sorghum (<i>Sorghum bicolor</i>) Tj ETQq1 1 0,784314 rgBT /Overlock 10	1.0	10
84	Halotolerant Rhizobacteria: A Promising Probiotic for Saline Soil-Based Agriculture. , 2019, , 53-73.		10
85	A type 2 metallothionein (SbMT-2) gene cloned from <i>Salicornia brachiata</i> confers enhanced Zn stress-tolerance in transgenic tobacco by transporting Zn ²⁺ and maintaining photosynthesis efficacy. <i>Environmental and Experimental Botany</i> , 2021, 191, 104626.	2.0	10
86	Isolation and temporal endospermal expression of Î³-kafirin gene of grain sorghum (<i>Sorghum bicolor</i> L.) Tj ETQq0 0 0 rgBT /Overlock 10 808-815.	1.8	9
87	Introgression of SbERD4 Gene Encodes an Early-Responsive Dehydration-Stress Protein That Confers Tolerance against Different Types of Abiotic Stresses in Transgenic Tobacco. <i>Cells</i> , 2022, 11, 62.	1.8	9
88	Plant promoter driven heterologous expression of HMW glutenin gene(s) subunit in <i>E.Âcoli</i> . <i>Molecular Biology Reports</i> , 2008, 35, 153-162.	1.0	8
89	Green-synthesized, pH-stable and biocompatible carbon nanosensor for Fe ³⁺ : An experimental and computational study. <i>Heliyon</i> , 2022, 8, e09259.	1.4	8
90	Biochemical and Anti-proliferative activities of seven abundant tropical red seaweeds confirm nutraceutical potential of <i>Grateloupia indica</i> . <i>Arabian Journal of Chemistry</i> , 2022, 15, 103868.	2.3	8

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91	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
92	Cloning differentially expressed salt induced cDNAs from <i>Dunaliella salina</i> under super saturated salt stress using subtractive hybridization. <i>Botanica Marina</i> , 2011, 54, .	0.6	5
93	Genome Editing: Advances and Prospects. , 2019, , 147-174.		5
94	Exploring Human Bacterial Diversity Toward Prevention of Infectious Disease and Health Promotion. , 2019, , 519-533.		4
95	DES-N-doped oxygenated carbon dot colloidal solutions for light harvesting and bio-imaging applications. <i>Materials Advances</i> , 2020, 1, 3476-3482.	2.6	4
96	Role of sodium proton antiporters in cellular homeostasis of plants under abiotic stress conditions. , 2021, , 273-290.		4
97	Engineering Stress Tolerance in Peanut (<i>Arachis hypogaea</i> L.). , 2016, , 305-311.		3
98	Phylogenetic Relationship to Study the Ploidy Status and Resistance to Karnal Bunt in Indian Wheat Cultivars Using RAPD Technique. <i>Biotechnology</i> , 2008, 7, 430-438.	0.5	3
99	Genetic Assessment of Traits and Genetic Relationship in Blackgram (<i>Vigna mungo</i>) Revealed by Isoenzymes. <i>Biochemical Genetics</i> , 2009, 47, 471-485.	0.8	2
100	Development of instant paneer type product from groundnut using microwave dehydration. <i>Food Science and Nutrition</i> , 2022, 10, 1520-1526.	1.5	2
101	Heterologous Expression of Legumin Gene in <i>E. coli</i> Isolated from cDNA Clones of Immature Seeds of Pigeonpea (<i>Cajanus cajan</i> L.). <i>Applied Biochemistry and Biotechnology</i> , 2009, 157, 377-394.	1.4	1
102	De novo transcriptome analysis of industrially important agarophyte <i>Gracilaria dura</i> (Rhodophyta: Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Algal Research, 2022, 65, 102712.	2.4	1
103	Gene-Targeted Metagenomics for the Study of Biogeochemical Cycling from Coastal-Saline Ecosystems. , 2016, , 197-217.		0