Sarvajeet S. Gill

List of Publications by Year
in descending order

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Version: 2024-02-01

107 papers	15,566 citations	101543 36 h-index	79698 73 g-index
254 all docs	254 docs citations	254 times ranked	15198 citing authors

#	Article	IF	Citations
1	Reactive oxygen species and antioxidant machinery in abiotic stress tolerance in crop plants. Plant Physiology and Biochemistry, 2010, 48, 909-930.	5.8	8,238
2	Polyamines and abiotic stress tolerance in plants. Plant Signaling and Behavior, 2010, 5, 26-33.	2.4	606
3	Glutathione and glutathione reductase: A boon in disguise for plant abiotic stress defense operations. Plant Physiology and Biochemistry, 2013, 70, 204-212.	5.8	404
4	Unraveling the role of fungal symbionts in plant abiotic stress tolerance. Plant Signaling and Behavior, 2011, 6, 175-191.	2.4	343
5	Cadmium stress tolerance in crop plants. Plant Signaling and Behavior, 2011, 6, 215-222.	2.4	311
6	Cadmium at high dose perturbs growth, photosynthesis and nitrogen metabolism while at low dose it up regulates sulfur assimilation and antioxidant machinery in garden cress (Lepidium sativum L.). Plant Science, 2012, 182, 112-120.	3.6	293
7	Piriformospora indica: Potential and Significance in Plant Stress Tolerance. Frontiers in Microbiology, 2016, 7, 332.	3.5	272
8	Lipids and proteinsâ€"major targets of oxidative modifications in abiotic stressed plants. Environmental Science and Pollution Research, 2015, 22, 4099-4121.	5.3	252
9	Catalase and ascorbate peroxidaseâ€"representative H2O2-detoxifying heme enzymes in plants. Environmental Science and Pollution Research, 2016, 23, 19002-19029.	5.3	248
10	Superoxide dismutaseâ€"mentor of abiotic stress tolerance in crop plants. Environmental Science and Pollution Research, 2015, 22, 10375-10394.	5.3	247
11	Importance of nitric oxide in cadmium stress tolerance in crop plants. Plant Physiology and Biochemistry, 2013, 63, 254-261.	5.8	228
12	Activities of Antioxidative Enzymes, Sulphur Assimilation, Photosynthetic Activity and Growth of Wheat (<i>Triticum aestivum</i>) Cultivars Differing in Yield Potential Under Cadmium Stress. Journal of Agronomy and Crop Science, 2007, 193, 435-444.	3.5	192
13	Jacks of metal/metalloid chelation trade in plantsÃ¢â,¬â€an overview. Frontiers in Plant Science, 2015, 6, 192.	3.6	148
14	ATP-sulfurylase, sulfur-compounds, and plant stress tolerance. Frontiers in Plant Science, 2015, 6, 210.	3.6	145
15	Silver nanoparticles in soilâ€"plant systems. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	144
16	Reactive Oxygen Species Generation-Scavenging and Signaling during Plant-Arbuscular Mycorrhizal and Piriformospora indica Interaction under Stress Condition. Frontiers in Plant Science, 2016, 7, 1574.	3.6	133
17	Differential cadmium stress tolerance in five Indian mustard (<i>Brassica juncea</i>L.) cultivars. Plant Signaling and Behavior, 2011, 6, 293-300.	2.4	124
18	Metal/metalloid stress tolerance in plants: role of ascorbate, its redox couple, and associated enzymes. Protoplasma, 2014, 251, 1265-1283.	2.1	121

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19	Phytoremediation of contaminated waters: An eco-friendly technology based on aquatic macrophytes application. Egyptian Journal of Aquatic Research, 2020, 46, 371-376.	2.2	117
20	Hydrogen Peroxide Pretreatment Mitigates Cadmium-Induced Oxidative Stress in Brassica napus L.: An Intrinsic Study on Antioxidant Defense and Glyoxalase Systems. Frontiers in Plant Science, 2017, 8, 115.	3.6	114
21	DNA Damage and Repair in Plants under Ultraviolet and Ionizing Radiations. Scientific World Journal, The, 2015, 2015, 1-11.	2.1	102
22	A critical review on fungi mediated plant responses with special emphasis to Piriformospora indica on improved production and protection of crops. Plant Physiology and Biochemistry, 2013, 70, 403-410.	5.8	94
23	A DESD-box helicase functions in salinity stress tolerance by improving photosynthesis and antioxidant machinery in rice (Oryza sativa L. cv. PB1). Plant Molecular Biology, 2013, 82, 1-22.	3.9	79
24	Integration of Abscisic Acid Signaling with Other Signaling Pathways in Plant Stress Responses and Development. Plants, 2019, 8, 592.	3.5	79
25	Photosynthetic Traits and Activities of Antioxidant Enzymes in Blackgram (Vigna mungo L. Hepper) Under Cadmium Stress. American Journal of Plant Physiology, 2007, 3, 25-32.	0.2	79
26	The application of ethephon (an ethylene releaser) increases growth, photosynthesis and nitrogen accumulation in mustard (<i>Brassica juncea</i> L.) under high nitrogen levels. Plant Biology, 2008, 10, 534-538.	3.8	78
27	Eutrophication: causes, consequences and control. , 2011, , .		78
28	A single subunit MCM6 from pea promotes salinity stress tolerance without affecting yield. Plant Molecular Biology, 2011, 76, 19-34.	3.9	75
29	RNA Interference: A Novel Source of Resistance to Combat Plant Parasitic Nematodes. Frontiers in Plant Science, 2017, 8, 834.	3.6	68
30	Pea p68, a DEAD-Box Helicase, Provides Salinity Stress Tolerance in Transgenic Tobacco by Reducing Oxidative Stress and Improving Photosynthesis Machinery. PLoS ONE, 2014, 9, e98287.	2.5	65
31	Salt Marsh Halophyte Services to Metalâ€“Metalloid Remediation: Assessment of the Processes and Underlying Mechanisms. Critical Reviews in Environmental Science and Technology, 2014, 44, 2038-2106.	12.8	58
32	Jasmonic acid and methyl jasmonate modulate growth, photosynthetic activity and expression of photosystem II subunit genes in Brassica oleracea L. Scientific Reports, 2020, 10, 9322.	3.3	57
33	Synergistic Exposure of Rice Seeds to Different Doses of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"><mml:mrow><mml:mi mathvariant="bold-italic">Î³</mml:mi></mml:mrow></mml:math>-Ray and Salinity Stress Resulted in Increased Antioxidant Enzyme Activities and Gene-Specific Modulation of TC-NER Pathway. BioMed Research International, 2014, 2014, 1-15.	1.9	55
34	Physiological Role of Nitric Oxide in Plants Grown Under Adverse Environmental Conditions. , 2013, , 269-322.		54
35	Genome-wide analysis of glutathione reductase (GR) genes from rice and Arabidopsis. Plant Signaling and Behavior, 2013, 8, e23021.	2.4	54
36	Modulatory role of jasmonic acid on photosynthetic pigments, antioxidants and stress markers of Glycine maxÂL. under nickel stress. Physiology and Molecular Biology of Plants, 2015, 21, 559-565.	3.1	54

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37	Improving Growth and Productivity of Oleiferous Brassicas under Changing Environment: Significance of Nitrogen and Sulphur Nutrition, and Underlying Mechanisms. Scientific World Journal, The, 2012, 2012, 1-12.	2.1	53
38	Arbuscular Mycorrhizal Fungi in Conferring Tolerance to Biotic Stresses in Plants. Journal of Plant Growth Regulation, 2022, 41, 1429-1444.	5.1	51
39	Eutrophication: Causes, Consequences and Control. , 2014, , .		42
40	Pea DNA helicase 45 promotes salinity stress tolerance in IR64 rice with improved yield. Plant Signaling and Behavior, 2012, 7, 1042-1046.	2.4	40
41	Abscisic acid signaling and crosstalk with phytohormones in regulation of environmental stress responses. Environmental and Experimental Botany, 2022, 199, 104885.	4.2	40
42	Genome wide identification and characterization of abiotic stress responsive lncRNAs in Capsicum annuum. Plant Physiology and Biochemistry, 2021, 162, 221-236.	5.8	39
43	microRNAs as promising tools for improving stress tolerance in rice. Plant Signaling and Behavior, 2012, 7, 1296-1301.	2.4	36
44	Genome-wide analysis and transcriptional expression pattern-assessment of superoxide dismutase (SOD) in rice and Arabidopsis under abiotic stresses. Plant Gene, 2019, 17, 100165.	2.3	34
45	OsACA6, a P-type 2B Ca2+ ATPase functions in cadmium stress tolerance in tobacco by reducing the oxidative stress load. Planta, 2014, 240, 809-824.	3.2	33
46	Gel-Based Purification and Biochemical Study of Laccase Isozymes from Ganoderma sp. and Its Role in Enhanced Cotton Callogenesis. Frontiers in Microbiology, 2017, 8, 674.	3.5	33
47	In vitro regeneration and plant establishment of Tylophora indica (Burm. F.) Merrill: Petiole callus culture. In Vitro Cellular and Developmental Biology - Plant, 2005, 41, 511-515.	2.1	29
48	Plant-microbe interactions for the sustainable agriculture and food security. Plant Gene, 2021, 28, 100325.	2.3	29
49	Role of small RNAs in abiotic stress responses in plants. Plant Gene, 2017, 11, 180-189.	2.3	28
50	Balancing reactive oxygen species generation by rebooting gut microbiota. Journal of Applied Microbiology, 2022, 132, 4112-4129.	3.1	26
51	Plant Responses to Abiotic Stresses: Shedding Light on Salt, Drought, Cold and Heavy Metal Stress. , 2011, , 39-64.		25
52	Emerging Importance of Helicases in Plant Stress Tolerance: Characterization of Oryza sativa Repair Helicase XPB2 Promoter and Its Functional Validation in Tobacco under Multiple Stresses. Frontiers in Plant Science, 2015, 6, 1094.	3.6	22
53	Cadmium effects on carbonic anhydrase, photosynthesis, dry mass and antioxidative enzymes in wheat (<i>Triticum aestivum</i>) under low and sufficient zinc. Journal of Plant Interactions, 2008, 3, 31-37.	2.1	21
54	Eutrophication: Threat to Aquatic Ecosystems. , 2010, , 143-170.		20

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55	Piriformospora Indica a Powerful Tool for Crop Improvement. Proceedings of the Indian National Science Academy, 2014, 80, 317.	1.4	20
56	Genetic engineering of crops: a ray of hope for enhanced food security. Plant Signaling and Behavior, 2014, 9, e28545.	2.4	19
57	Targeting the Redox Regulatory Mechanisms for Abiotic Stress Tolerance in Crops. , 2018, , 151-220.		19
58	The microbial symbionts: Potential for crop improvement in changing environments. , 2020, , 233-240.		19
59	Impact of salinity-tolerant MCM6 transgenic tobacco on soil enzymatic activities and the functional diversity of rhizosphere microbial communities. Research in Microbiology, 2012, 163, 511-517.	2.1	16
60	Phytoremediation. , 2015, , .		16
61	Nanobiotechnology: Scope and Potential for Crop Improvement. , 2013, , 245-269.		15
62	Identification and functional analysis of drought responsive lncRNAs in tea plant. Plant Gene, 2021, 27, 100311.	2.3	15
63	Plant Acclimation to Environmental Stress. , 2013, , .		13
64	Molecular consequences of cadmium toxicity and its regulatory networks in plants. Plant Gene, 2021, 28, 100342.	2.3	13
65	Unraveling the importance of EF-hand-mediated calcium signaling in plants. South African Journal of Botany, 2022, 148, 615-633.	2.5	13
66	Crop Improvement Under Adverse Conditions. , 2013, , .		12
67	Understanding the role of miRNAs for improvement of tea quality and stress tolerance. Journal of Biotechnology, 2021, 328, 34-46.	3.8	12
68	Simultaneous Expression of PDH45 with EPSPS Gene Improves Salinity and Herbicide Tolerance in Transgenic Tobacco Plants. Frontiers in Plant Science, 2017, 8, 364.	3.6	10
69	Editorial: Recent Insights Into the Double Role of Hydrogen Peroxide in Plants. Frontiers in Plant Science, 2022, 13, 843274.	3.6	10
70	Genome-Wide Collation of the Plasmodium falciparum WDR Protein Superfamily Reveals Malarial Parasite-Specific Features. PLoS ONE, 2015, 10, e0128507.	2.5	9
71	Phytoremediation. , 2015, , .		9
72	Host Delivered RNAi of Two Cuticle Collagen Genes, Mi-col-1 and Lemmi-5 Hampers Structure and Fecundity in Meloidogyne incognita. Frontiers in Plant Science, 2017, 8, 2266.	3.6	8

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73	Regulatory Role of Mineral Nutrients in Nurturing of Medicinal Legumes Under Salt Stress. , 2017, , 309-334.		7
74	Metal Hyperaccumulation and Tolerance in Alyssum, Arabidopsis and Thlaspi: An Overview. Environmental Pollution, 2012, , 99-137.	0.4	7
75	Isolation, cloning, and characterization of a cuticle collagen gene, Mi-col-5, in Meloidogyne incognita. 3 Biotech, 2017, 7, 64.	2.2	6
76	Down-regulation of arginine decarboxylase gene-expression results in reactive oxygen species accumulation in Arabidopsis. Biochemical and Biophysical Research Communications, 2018, 506, 1071-1077.	2.1	6
77	Comprehensive genomic insight deciphers significance of EF-hand gene family in foxtail millet [Setaria italica (L.) P. Beauv.]. South African Journal of Botany, 2022, 148, 652-665.	2.5	6
78	Aquatic Plant Diversity in Eutrophic Ecosystems. , 2010, , 247-263.		5
79	Reactive oxygen species (ROS) management in engineered plants for abiotic stress tolerance. , 2020, , 241-262.		5
80	Translational and post-translational regulation of polyamine metabolic enzymes in plants. Journal of Biotechnology, 2022, 344, 1-10.	3.8	5
81	Effects of timing of defoliation on nitrogen assimilation and associated changes in ethylene biosynthesis in mustard (Brassica juncea). Biologia (Poland), 2008, 63, 207-210.	1.5	4
82	Mechanism of Cadmium Toxicity and Tolerance in Crop Plants. , 2013, , 361-385.		4
83	Abiotic Stress Tolerance and Sustainable Agriculture: A Functional Genomics Perspective. , 2015, , 439-472.		4
84	Role of Plant Helicases in Imparting Salinity Stress Tolerance to Plants. , 2019, , 39-52.		4
85	Phytoremediation of Eutrophic Waters. , 2015, , 41-50.		3
86	Marker-Free Rice (Oryza sativa L. cv. IR 64) Overexpressing PDH45 Gene Confers Salinity Tolerance by Maintaining Photosynthesis and Antioxidant Machinery. Antioxidants, 2022, 11, 770.	5.1	3
87	Climate Change and Abiotic Stress Management in India. , 2013, , 57-78.		2
88	Plant Stress and Biotechnology. BioMed Research International, 2013, 2013, 1-2.	1.9	2
89	Genome wide collation of zinc finger family in P. falciparum. International Journal of Infectious Diseases, 2016, 45, 360-361.	3.3	2
90	Oxidative Stress Biomarkers and Antioxidant Defense in Plants Exposed to Metallic Nanoparticles. , 2019, , 427-439.		2

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91	Comparative genomic analysis reveals evolutionary and structural attributes of MCM gene family in Arabidopsis thaliana and Oryza sativa. Journal of Biotechnology, 2021, 327, 117-132.	3.8	2
92	Editorial: The Brassicaceaeâ€"Agri-Horticultural and Environmental Perspectives. Frontiers in Plant Science, 2018, 9, 1141.	3.6	1
93	The multifaceted histone chaperone RbAp46/48 in Plasmodium falciparum: structural insights, production, and characterization. Parasitology Research, 2020, 119, 1753-1765.	1.6	1
94	Unraveling CAF-1 family in Plasmodium falciparum: comparative genome-wide identification and phylogenetic analysis among eukaryotes, expression profiling and proteinâ€"protein interaction studies. 3 Biotech, 2020, 10, 143.	2.2	1
95			1
96	Protective Role of Indoleamines (Serotonin and Melatonin) During Abiotic Stress in Plants. , 2018, , 221-228.		1
97	Cyclophilin: A Versatile Chaperone of Biological System. Biochemistry & Molecular Biology Journal, 2015, 01, .	0.3	0
98	In-silico analysis of Chromatin Assembly Factor 1 (CAF-1) family and production of PF3D7_0110700 protein in human malaria parasite Plasmodium falciparum. International Journal of Infectious Diseases, 2016, 45, 362-363.	3.3	0
99	Molecular cloning and production of type III Hsp40 protein co-chaperone PfZRF1 of human malaria parasite Plasmodium falciparum. International Journal of Infectious Diseases, 2016, 45, 355.	3.3	0
100	Intellectual Property Management and Rights, Climate Change, and Food Security. , 2016, , 89-106.		0
101	Comparative genome-wide analysis, expression profiling and interaction networks of different Zn finger families in Plasmodium falciparum provide new insights. International Journal of Infectious Diseases, 2018, 73, 94.	3.3	0
102	Plant-Microbe Interaction and Genome Sequencing: An Evolutionary Insight. , 2018, , 427-449.		0
103	Photosynthetic Traits and Activities of Antioxidant Enzymes in Blackgram (Vigna mungo L. Hepper) Under Cadmium Stress. American Journal of Plant Physiology, 2009, 5, 31-38.	0.2	0
104	Non-biological Approaches for Enhancing the Cleanup of Environmental Pollutants: An Introduction. , 2017, , 1-4.		0
105	Current Understanding of the Role of Jasmonic Acid during Photoinhibition in Plants. , 2018, , 311-327.		0
106	Unraveling the multifaceted histone chaperone RbAp46/48 in Plasmodium falciparum. International Journal of Infectious Diseases, 2020, 101, 423.	3.3	0
107	Deciphering the chromatin modifier SET domain family in human malarial parasite Plasmodium falciparum. International Journal of Infectious Diseases, 2020, 101, 431.	3.3	0