Fanrong Zeng

List of Publications by Year
in descending order

90 papers	7,312 citations	109321 35 h-index	56724 83 g-index
90 all docs	90 docs citations	90 times ranked	8536 citing authors

#	Article	IF	Citations
1	GFDL's CM2 Global Coupled Climate Models. Part I: Formulation and Simulation Characteristics. Journal of Climate, 2006, 19, 643-674.	3.2	1,431
2	The influence of pH and organic matter content in paddy soil on heavy metal availability and their uptake by rice plants. Environmental Pollution, 2011, 159, 84-91.	7.5	970
3	The Dynamical Core, Physical Parameterizations, and Basic Simulation Characteristics of the Atmospheric Component AM3 of the GFDL Global Coupled Model CM3. Journal of Climate, 2011, 24, 3484-3519.	3.2	887
4	Simulated Climate and Climate Change in the GFDL CM2.5 High-Resolution Coupled Climate Model. Journal of Climate, 2012, 25, 2755-2781.	3.2	454
5	Probing the Fast and Slow Components of Global Warming by Returning Abruptly to Preindustrial Forcing. Journal of Climate, 2010, 23, 2418-2427.	3.2	383
6	Genotypic and environmental variation in chromium, cadmium and lead concentrations in rice. Environmental Pollution, 2008, 153, 309-314.	7.5	154
7	Changes of organic acid exudation and rhizosphere pH in rice plants under chromium stress. Environmental Pollution, 2008, 155, 284-289.	7.5	131
8	Kinetics of xylem loading, membrane potential maintenance, and sensitivity of <scp><scp>K⁺</scp></scp>â€permeable channels to reactive oxygen species: physiological traits that differentiate salinity tolerance between pea and barley. Plant, Cell and Environment, 2014, 37, 589-600.	5.7	107
9	A Predictable AMO-Like Pattern in the GFDL Fully Coupled Ensemble Initialization and Decadal Forecasting System. Journal of Climate, 2013, 26, 650-661.	3.2	97
10	Differential Activity of Plasma and Vacuolar Membrane Transporters Contributes to Genotypic Differences in Salinity Tolerance in a Halophyte Species, Chenopodium quinoa. International Journal of Molecular Sciences, 2013, 14, 9267-9285.	4.1	96
11	SPEAR: The Next Generation GFDL Modeling System for Seasonal to Multidecadal Prediction and Projection. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001895.	3.8	94
12	Melatonin improves rice salinity stress tolerance by <scp>NADPH</scp> oxidaseâ€dependent control of the plasma membrane K⁺ transporters and K⁺ homeostasis. Plant, Cell and Environment, 2020, 43, 2591-2605.	5.7	93
13	Barley responses to combined waterlogging and salinity stress: separating effects of oxygen deprivation and elemental toxicity. Frontiers in Plant Science, 2013, 4, 313.	3.6	90
14	Subcellular distribution and chemical forms of chromium in rice plants suffering from different levels of chromium toxicity. Journal of Plant Nutrition and Soil Science, 2011, 174, 249-256.	1.9	89
15	The ecotoxicological and interactive effects of chromium and aluminum on growth, oxidative damage and antioxidant enzymes on two barley genotypes differing in Al tolerance. Environmental and Experimental Botany, 2011, 70, 185-191.	4.2	84
16	Genotypic and environmental variation in cadmium, chromium, lead and copper in rice and approaches for reducing the accumulation. Science of the Total Environment, 2014, 496, 275-281.	8.0	81
17	Glutathione-Mediated Alleviation of Chromium Toxicity in Rice Plants. Biological Trace Element Research, 2012, 148, 255-263.	3.5	79
18	Multicentennial variability of the Atlantic meridional overturning circulation and its climatic influence in a 4000 year simulation of the GFDL CM2.1 climate model. Geophysical Research Letters, 2012, 39, .	4.0	75

#	ARTICLE	IF	CITATIONS
19	Alleviation of Chromium Toxicity by Silicon Addition in Rice Plants. Agricultural Sciences in China, 2011, 10, 1188-1196.	0.6	70
20	Alleviation of chromium toxicity in rice seedlings by applying exogenous glutathione. Journal of Plant Physiology, 2013, 170, 772-779.	3.5	67
21	Tissue-Specific Regulation of Na+ and K+ Transporters Explains Genotypic Differences in Salinity Stress Tolerance in Rice. Frontiers in Plant Science, 2019, 10, 1361.	3.6	67
22	Simulated impact of altered Southern Hemisphere winds on the Atlantic Meridional Overturning Circulation. Geophysical Research Letters, 2008, 35, .	4.0	65
23	The pathway of transmembrane cadmium influx via calcium-permeable channels and its spatial characteristics along rice root. Journal of Experimental Botany, 2018, 69, 5279-5291.	4.8	65
24	Physiological and proteomic alterations in rice (Oryza sativa L.) seedlings under hexavalent chromium stress. Planta, 2014, 240, 291-308.	3.2	59
25	Identification of QTLs for yield and yield components of barley under different growth conditions. Journal of Zhejiang University: Science B, 2010, 11, 169-176.	2.8	58
26	Multiyear Predictions of North Atlantic Hurricane Frequency: Promise and Limitations. Journal of Climate, 2013, 26, 5337-5357.	3.2	57
27	Metabolite Profiling of Barley Grains Subjected to Water Stress: To Explain the Genotypic Difference in Drought-Induced Impacts on Malting Quality. Frontiers in Plant Science, 2017, 8, 1547.	3.6	57
28	The effect of chromium and aluminum on growth, root morphology, photosynthetic parameters and transpiration of the two barley cultivars. Biologia Plantarum, 2011, 55, 291-296.	1.9	54
29	HvAKT2 and HvHAK1 confer drought tolerance in barley through enhanced leaf mesophyll H⁺ homoeostasis. Plant Biotechnology Journal, 2020, 18, 1683-1696.	8.3	54
30	Linking oxidative and salinity stress tolerance in barley: can root antioxidant enzyme activity be used as a measure of stress tolerance?. Plant and Soil, 2013, 365, 141-155.	3.7	53
31	Screening of Worldwide Barley Collection for Drought Tolerance: The Assessment of Various Physiological Measures as the Selection Criteria. Frontiers in Plant Science, 2020, 11, 1159.	3.6	53
32	Linking oxygen availability with membrane potential maintenance and <scp><scp>K</scp>⁺</scp> retention of barley roots: implications for waterlogging stress tolerance. Plant, Cell and Environment, 2014, 37, 2325-2338.	5.7	45
33	K+ Uptake, H+-ATPase pumping activity and Ca2+ efflux mechanism are involved in drought tolerance of barley. Environmental and Experimental Botany, 2016, 129, 57-66.	4.2	43
34	Zinc alleviates cadmium toxicity by modulating photosynthesis, ROS homeostasis, and cation flux kinetics in rice. Environmental Pollution, 2020, 265, 114979.	7.5	43
35	Identification of QTL Related to ROS Formation under Hypoxia and Their Association with Waterlogging and Salt Tolerance in Barley. International Journal of Molecular Sciences, 2019, 20, 699.	4.1	42
36	The interaction of salinity and chromium in the influence of barley growth and oxidative stress. Plant, Soil and Environment, 2011, 57, 153-159.	2.2	38

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37	Brassinolide alleviates the drought-induced adverse effects in barley by modulation of enzymatic antioxidants and ultrastructure. Plant Growth Regulation, 2017, 82, 447-455.	3.4	35
38	Revealing mechanisms of salinity tissue tolerance in succulent halophytes: <scp>A</scp> case study for <scp><i>Carpobrotus rossi</i></scp>. Plant, Cell and Environment, 2018, 41, 2654-2667.	5.7	33
39	Calcium Plays a Double-Edged Role in Modulating Cadmium Uptake and Translocation in Rice. International Journal of Molecular Sciences, 2020, 21, 8058.	4.1	32
40	GENOTYPIC DIFFERENCES IN NUTRIENT UPTAKE AND ACCUMULATION IN RICE UNDER CHROMIUM STRESS. Journal of Plant Nutrition, 2010, 33, 518-528.	1.9	31
41	Constraining Transient Climate Sensitivity Using Coupled Climate Model Simulations of Volcanic Eruptions. Journal of Climate, 2014, 27, 7781-7795.	3.2	30
42	The ability to regulate voltage-gated K+-permeable channels in the mature root epidermis is essential for waterlogging tolerance in barley. Journal of Experimental Botany, 2018, 69, 667-680.	4.8	30
43	Identification of the gene network modules highly associated with the synthesis of phenolics compounds in barley by transcriptome and metabolome analysis. Food Chemistry, 2020, 323, 126862.	8.2	30
44	Cell-Based Phenotyping Reveals QTL for Membrane Potential Maintenance Associated with Hypoxia and Salinity Stress Tolerance in Barley. Frontiers in Plant Science, 2017, 8, 1941.	3.6	29
45	The Ability to Regulate Transmembrane Potassium Transport in Root Is Critical for Drought Tolerance in Barley. International Journal of Molecular Sciences, 2019, 20, 4111.	4.1	29
46	Leaf epidermis transcriptome reveals drought-Induced hormonal signaling for stomatal regulation in wild barley. Plant Growth Regulation, 2019, 87, 39-54.	3.4	29
47	Metalloid hazards: From plant molecular evolution to mitigation strategies. Journal of Hazardous Materials, 2021, 409, 124495.	12.4	29
48	Exogenous calcium oxide nanoparticles alleviate cadmium toxicity by reducing Cd uptake and enhancing antioxidative capacity in barley seedlings. Journal of Hazardous Materials, 2022, 438, 129498.	12.4	29
49	Malate secretion from the root system is an important reason for higher resistance of <i>Miscanthus sacchariflorus</i> to cadmium. Physiologia Plantarum, 2017, 159, 340-353.	5.2	28
50	Molecular Evolution of Calcium Signaling and Transport in Plant Adaptation to Abiotic Stress. International Journal of Molecular Sciences, 2021, 22, 12308.	4.1	28
51	Effects of chromium stress on the subcellular distribution and chemical form of Ca, Mg, Fe, and Zn in two rice genotypes. Journal of Plant Nutrition and Soil Science, 2010, 173, 135-148.	1.9	27
52	Molecular evolution and functional modification of plant miRNAs with CRISPR. Trends in Plant Science, 2022, 27, 890-907.	8.8	27
53	Calcium Oxide Nanoparticles Have the Role of Alleviating Arsenic Toxicity of Barley. Frontiers in Plant Science, 2022, 13, 843795.	3.6	27
54	EFFECT OF SALINITY AND HEXAVALENT CHROMIUM STRESSES ON UPTAKE AND ACCUMULATION OF MINERAL ELEMENTS IN BARLEY GENOTYPES DIFFERING IN SALT TOLERANCE. Journal of Plant Nutrition, 2012, 35, 827-839.	1.9	24

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55	Plant ionic relation and whole-plant physiological responses to waterlogging, salinity and their combination in barley. Functional Plant Biology, 2017, 44, 941.	2.1	24
56	Identification and characterization of HAK/KUP/KT potassium transporter gene family in barley and their expression under abiotic stress. BMC Genomics, 2021, 22, 317.	2.8	24
57	Comparing Kinetics of Xylem Ion Loading and Its Regulation in Halophytes and Glycophytes. Plant and Cell Physiology, 2020, 61, 403-415.	3.1	22
58	Combined Citric Acid and Glutathione Augments Lead (Pb) Stress Tolerance and Phytoremediation of Castorbean through Antioxidant Machinery and Pb Uptake. Sustainability, 2021, 13, 4073.	3.2	20
59	WMO Global Annual to Decadal Climate Update: A Prediction for 2021â€“25. Bulletin of the American Meteorological Society, 2022, 103, E1117-E1129.	3.3	20
60	Genotypic difference in response of peroxidase and superoxide dismutase isozymes and activities to salt stress in barley. Acta Physiologiae Plantarum, 2009, 31, 1103-1109.	2.1	19
61	Interactive effects of aluminum and chromium stresses on the uptake of nutrients and the metals in barley. Soil Science and Plant Nutrition, 2011, 57, 68-79.	1.9	17
62	Molecular Interaction and Evolution of Jasmonate Signaling With Transport and Detoxification of Heavy Metals and Metalloids in Plants. Frontiers in Plant Science, 2021, 12, 665842.	3.6	17
63	Toward understanding the dust deposition in Antarctica during the Last Glacial Maximum: Sensitivity studies on plausible causes. Journal of Geophysical Research, 2010, 115, .	3.3	15
64	Expression of a nematode symbiotic bacterium-derived protease inhibitor protein in tobacco enhanced tolerance against Myzus persicae. Plant Cell Reports, 2012, 31, 1981-1989.	5.6	15
65	Influence of Metal-Resistant Staphylococcus aureus Strain K1 on the Alleviation of Chromium Stress in Wheat. Agronomy, 2020, 10, 1354.	3.0	15
66	Molecular Evolution of Plant 14-3-3 Proteins and Function of Hv14-3-3A in Stomatal Regulation and Drought Tolerance. Plant and Cell Physiology, 2023, 63, 1857-1872.	3.1	15
67	On the Development of GFDL's Decadal Prediction System: Initialization Approaches and Retrospective Forecast Assessment. Journal of Advances in Modeling Earth Systems, 2021, 13, .	3.8	14
68	The differences in physiological responses, ultrastructure changes, and Na+ subcellular distribution under salt stress among the barley genotypes differing in salt tolerance. Acta Physiologiae Plantarum, 2014, 36, 2397-2407.	2.1	13
69	The genotypic difference in the effect of water stress after anthesis on the malt quality parameters in barley. Journal of Cereal Science, 2015, 65, 209-214.	3.7	13
70	Physiological characterizations of three barley genotypes in response to low potassium stress. Acta Physiologiae Plantarum, 2017, 39, 1.	2.1	12
71	Molecular response and evolution of plant anion transport systems to abiotic stress. Plant Molecular Biology, 2022, 110, 397-412.	3.9	12
72	Identification of Cr-tolerant lines in a rice (Oryza sativa) DH population. Euphytica, 2010, 174, 199-207.	1.2	11

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73	Impact of climate warming on upper layer of the Bering Sea. Climate Dynamics, 2013, 40, 327-340.	3.8	11
74	Molecular Regulation and Evolution of Cytokinin Signaling in Plant Abiotic Stresses. Plant and Cell Physiology, 2023, 63, 1787-1805.	3.1	10
75	PEG-simulated drought stress and spike in vitro culture are used to study the impact of water stress on barley malt quality. Plant Growth Regulation, 2017, 81, 243-252.	3.4	8
76	Are Multiseasonal Forecasts of Atmospheric Rivers Possible?. Geophysical Research Letters, 2021, 48, e2021GL094000.	4.0	8
77	Seasonal-to-Decadal Variability and Prediction of the Kuroshio Extension in the GFDL Coupled Ensemble Reanalysis and Forecasting System. Journal of Climate, 2022, 35, 3515-3535.	3.2	8
78	Genetic analysis of genotypeÂÃ—Âiron nutrition interaction on coleoptile elongation rate in rice (Oryza) Tj ETQq0 0 0 rgBT /Overlock 10	1.2	7
79	Genotypic difference in the influence of aluminum and low pH on ion flux, rhizospheric pH and ATPase activity between Tibetan wild and cultivated barley. Environmental and Experimental Botany, 2018, 156, 16-24.	4.2	7
80	QTL mapping for chromium-induced growth and zinc, and chromium distribution in seedlings of a rice DH population. Euphytica, 2011, 181, 429.	1.2	6
81	Mechanisms of Regional Arctic Sea Ice Predictability in Two Dynamical Seasonal Forecast Systems. Journal of Climate, 2022, 35, 4207-4231.	3.2	6
82	Skillful Seasonal Prediction of North American Summertime Heat Extremes. Journal of Climate, 2022, 35, 4331-4345.	3.2	6
83	Highly Conserved Evolution of Aquaporin PIPs and TIPs Confers Their Crucial Contribution to Flowering Process in Plants. Frontiers in Plant Science, 2021, 12, 761713.	3.6	5
84	When Will Humanity Notice Its Influence on Atmospheric Rivers?. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	5
85	Proteomic analysis of nitrogen stress-responsive proteins in two rice cultivars differing in N utilization efficiency. Journal of Integrated OMICS, 2011, 1, .	0.5	4
86	Assessment of summer rainfall forecast skill in the Intra-Americas in GFDL high and low-resolution models. Climate Dynamics, 2019, 52, 1965-1982.	3.8	4
87	Characterization of Growth and Light Utilization for Rice Genotypes with Different Tiller Angles. Agricultural Sciences in China, 2011, 10, 1701-1709.	0.6	3
88	Roles of Meridional Overturning in Subpolar Southern Ocean SST Trends: Insights from Ensemble Simulations. Journal of Climate, 2022, 35, 1577-1596.	3.2	3
89	Comparative Study on the Physio-Biochemical Responses of Spring and Winter Barley Genotypes under Vernalized and Greenhouse Conditions. Agronomy, 2022, 12, 339.	3.0	1
90	Editorial: Natural Variations and Genetic Constraints on Plant Nutrition. Frontiers in Genetics, 0, 13, .	2.3	0