

# Fanrong Zeng

## List of Publications by Year in descending order

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90  
papers

7,312  
citations

109311

35  
h-index

56717

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. <i>Journal of Climate</i> , 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. <i>Environmental Pollution</i> , 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. <i>Journal of Climate</i> , 2011, 24, 3484-3519.	3.2	887
4	Simulated Climate and Climate Change in the GFDL CM2.5 High-Resolution Coupled Climate Model. <i>Journal of Climate</i> , 2012, 25, 2755-2781.	3.2	454
5	Probing the Fast and Slow Components of Global Warming by Returning Abruptly to Preindustrial Forcing. <i>Journal of Climate</i> , 2010, 23, 2418-2427.	3.2	383
6	Genotypic and environmental variation in chromium, cadmium and lead concentrations in rice. <i>Environmental Pollution</i> , 2008, 153, 309-314.	7.5	154
7	Changes of organic acid exudation and rhizosphere pH in rice plants under chromium stress. <i>Environmental Pollution</i> , 2008, 155, 284-289.	7.5	131
8	Kinetics of xylem loading, membrane potential maintenance, and sensitivity of $K^{+}$ -permeable channels to reactive oxygen species: physiological traits that differentiate salinity tolerance between pea and barley. <i>Plant, Cell and Environment</i> , 2014, 37, 589-600.	5.7	107
9	A Predictable AMO-Like Pattern in the GFDL Fully Coupled Ensemble Initialization and Decadal Forecasting System. <i>Journal of Climate</i> , 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, <i>Chenopodium quinoa</i> . <i>International Journal of Molecular Sciences</i> , 2013, 14, 9267-9285.	4.1	96
11	SPEAR: The Next Generation GFDL Modeling System for Seasonal to Multidecadal Prediction and Projection. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001895.	3.8	94
12	Melatonin improves rice salinity stress tolerance by $NADPH$ -dependent control of the plasma membrane $K^{+}$ transporters and $K^{+}$ homeostasis. <i>Plant, Cell and Environment</i> , 2020, 43, 2591-2605.	5.7	93
13	Barley responses to combined waterlogging and salinity stress: separating effects of oxygen deprivation and elemental toxicity. <i>Frontiers in Plant Science</i> , 2013, 4, 313.	3.6	90
14	Subcellular distribution and chemical forms of chromium in rice plants suffering from different levels of chromium toxicity. <i>Journal of Plant Nutrition and Soil Science</i> , 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. <i>Environmental and Experimental Botany</i> , 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. <i>Science of the Total Environment</i> , 2014, 496, 275-281.	8.0	81
17	Glutathione-Mediated Alleviation of Chromium Toxicity in Rice Plants. <i>Biological Trace Element Research</i> , 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. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	75

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19	Alleviation of Chromium Toxicity by Silicon Addition in Rice Plants. <i>Agricultural Sciences in China</i> , 2011, 10, 1188-1196.	0.6	70
20	Alleviation of chromium toxicity in rice seedlings by applying exogenous glutathione. <i>Journal of Plant Physiology</i> , 2013, 170, 772-779.	3.5	67
21	Tissue-Specific Regulation of Na <sup>+</sup> and K <sup>+</sup> Transporters Explains Genotypic Differences in Salinity Stress Tolerance in Rice. <i>Frontiers in Plant Science</i> , 2019, 10, 1361.	3.6	67
22	Simulated impact of altered Southern Hemisphere winds on the Atlantic Meridional Overturning Circulation. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	65
23	The pathway of transmembrane cadmium influx via calcium-permeable channels and its spatial characteristics along rice root. <i>Journal of Experimental Botany</i> , 2018, 69, 5279-5291.	4.8	65
24	Physiological and proteomic alterations in rice ( <i>Oryza sativa</i> L.) seedlings under hexavalent chromium stress. <i>Planta</i> , 2014, 240, 291-308.	3.2	59
25	Identification of QTLs for yield and yield components of barley under different growth conditions. <i>Journal of Zhejiang University: Science B</i> , 2010, 11, 169-176.	2.8	58
26	Multiyear Predictions of North Atlantic Hurricane Frequency: Promise and Limitations. <i>Journal of Climate</i> , 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. <i>Frontiers in Plant Science</i> , 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. <i>Biologia Plantarum</i> , 2011, 55, 291-296.	1.9	54
29	HvAKT2 and HvHAK1 confer drought tolerance in barley through enhanced leaf mesophyll H <sup>+</sup> homeostasis. <i>Plant Biotechnology Journal</i> , 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?. <i>Plant and Soil</i> , 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. <i>Frontiers in Plant Science</i> , 2020, 11, 1159.	3.6	53
32	Linking oxygen availability with membrane potential maintenance and K <sup>+</sup> retention of barley roots: implications for waterlogging stress tolerance. <i>Plant, Cell and Environment</i> , 2014, 37, 2325-2338.	5.7	45
33	K <sup>+</sup> Uptake, H <sup>+</sup> -ATPase pumping activity and Ca <sup>2+</sup> efflux mechanism are involved in drought tolerance of barley. <i>Environmental and Experimental Botany</i> , 2016, 129, 57-66.	4.2	43
34	Zinc alleviates cadmium toxicity by modulating photosynthesis, ROS homeostasis, and cation flux kinetics in rice. <i>Environmental Pollution</i> , 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. <i>International Journal of Molecular Sciences</i> , 2019, 20, 699.	4.1	42
36	The interaction of salinity and chromium in the influence of barley growth and oxidative stress. <i>Plant, Soil and Environment</i> , 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. <i>Plant Growth Regulation</i> , 2017, 82, 447-455.	3.4	35
38	Revealing mechanisms of salinity tissue tolerance in succulent halophytes: <sc>A</sc> case study for <sc><i>Carpobrotus rossi</i></sc>. <i>Plant, Cell and Environment</i> , 2018, 41, 2654-2667.	5.7	33
39	Calcium Plays a Double-Edged Role in Modulating Cadmium Uptake and Translocation in Rice. <i>International Journal of Molecular Sciences</i> , 2020, 21, 8058.	4.1	32
40	GENOTYPIC DIFFERENCES IN NUTRIENT UPTAKE AND ACCUMULATION IN RICE UNDER CHROMIUM STRESS. <i>Journal of Plant Nutrition</i> , 2010, 33, 518-528.	1.9	31
41	Constraining Transient Climate Sensitivity Using Coupled Climate Model Simulations of Volcanic Eruptions. <i>Journal of Climate</i> , 2014, 27, 7781-7795.	3.2	30
42	The ability to regulate voltage-gated K <sup>+</sup> -permeable channels in the mature root epidermis is essential for waterlogging tolerance in barley. <i>Journal of Experimental Botany</i> , 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. <i>Food Chemistry</i> , 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. <i>Frontiers in Plant Science</i> , 2017, 8, 1941.	3.6	29
45	The Ability to Regulate Transmembrane Potassium Transport in Root Is Critical for Drought Tolerance in Barley. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4111.	4.1	29
46	Leaf epidermis transcriptome reveals drought-Induced hormonal signaling for stomatal regulation in wild barley. <i>Plant Growth Regulation</i> , 2019, 87, 39-54.	3.4	29
47	Metalloid hazards: From plant molecular evolution to mitigation strategies. <i>Journal of Hazardous Materials</i> , 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. <i>Journal of Hazardous Materials</i> , 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. <i>Physiologia Plantarum</i> , 2017, 159, 340-353.	5.2	28
50	Molecular Evolution of Calcium Signaling and Transport in Plant Adaptation to Abiotic Stress. <i>International Journal of Molecular Sciences</i> , 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. <i>Journal of Plant Nutrition and Soil Science</i> , 2010, 173, 135-148.	1.9	27
52	Molecular evolution and functional modification of plant miRNAs with CRISPR. <i>Trends in Plant Science</i> , 2022, 27, 890-907.	8.8	27
53	Calcium Oxide Nanoparticles Have the Role of Alleviating Arsenic Toxicity of Barley. <i>Frontiers in Plant Science</i> , 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. <i>Journal of Plant Nutrition</i> , 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. <i>Functional Plant Biology</i> , 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. <i>BMC Genomics</i> , 2021, 22, 317.	2.8	24
57	Comparing Kinetics of Xylem Ion Loading and Its Regulation in Halophytes and Glycophytes. <i>Plant and Cell Physiology</i> , 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. <i>Sustainability</i> , 2021, 13, 4073.	3.2	20
59	WMO Global Annual to Decadal Climate Update: A Prediction for 2021â€“25. <i>Bulletin of the American Meteorological Society</i> , 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. <i>Acta Physiologiae Plantarum</i> , 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. <i>Soil Science and Plant Nutrition</i> , 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. <i>Frontiers in Plant Science</i> , 2021, 12, 665842.	3.6	17
63	Toward understanding the dust deposition in Antarctica during the Last Glacial Maximum: Sensitivity studies on plausible causes. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	15
64	Expression of a nematode symbiotic bacterium-derived protease inhibitor protein in tobacco enhanced tolerance against <i>Myzus persicae</i> . <i>Plant Cell Reports</i> , 2012, 31, 1981-1989.	5.6	15
65	Influence of Metal-Resistant <i>Staphylococcus aureus</i> Strain K1 on the Alleviation of Chromium Stress in Wheat. <i>Agronomy</i> , 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. <i>Plant and Cell Physiology</i> , 2023, 63, 1857-1872.	3.1	15
67	On the Development of GFDL's Decadal Prediction System: Initialization Approaches and Retrospective Forecast Assessment. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, .	3.8	14
68	The differences in physiological responses, ultrastructure changes, and Na <sup>+</sup> subcellular distribution under salt stress among the barley genotypes differing in salt tolerance. <i>Acta Physiologiae Plantarum</i> , 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. <i>Journal of Cereal Science</i> , 2015, 65, 209-214.	3.7	13
70	Physiological characterizations of three barley genotypes in response to low potassium stress. <i>Acta Physiologiae Plantarum</i> , 2017, 39, 1.	2.1	12
71	Molecular response and evolution of plant anion transport systems to abiotic stress. <i>Plant Molecular Biology</i> , 2022, 110, 397-412.	3.9	12
72	Identification of Cr-tolerant lines in a rice ( <i>Oryza sativa</i> ) DH population. <i>Euphytica</i> , 2010, 174, 199-207.	1.2	11

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73	Impact of climate warming on upper layer of the Bering Sea. <i>Climate Dynamics</i> , 2013, 40, 327-340.	3.8	11
74	Molecular Regulation and Evolution of Cytokinin Signaling in Plant Abiotic Stresses. <i>Plant and Cell Physiology</i> , 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. <i>Plant Growth Regulation</i> , 2017, 81, 243-252.	3.4	8
76	Are Multiseasonal Forecasts of Atmospheric Rivers Possible?. <i>Geophysical Research Letters</i> , 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. <i>Journal of Climate</i> , 2022, 35, 3515-3535.	3.2	8
78	Genetic analysis of genotype×iron nutrition interaction on coleoptile elongation rate in rice ( <i>Oryza</i> ) Tj ETQq0 0.0 rgBT /Qverlock 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. <i>Environmental and Experimental Botany</i> , 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. <i>Euphytica</i> , 2011, 181, 429.	1.2	6
81	Mechanisms of Regional Arctic Sea Ice Predictability in Two Dynamical Seasonal Forecast Systems. <i>Journal of Climate</i> , 2022, 35, 4207-4231.	3.2	6
82	Skillful Seasonal Prediction of North American Summertime Heat Extremes. <i>Journal of Climate</i> , 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. <i>Frontiers in Plant Science</i> , 2021, 12, 761713.	3.6	5
84	When Will Humanity Notice Its Influence on Atmospheric Rivers?. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	5
85	Proteomic analysis of nitrogen stress-responsive proteins in two rice cultivars differing in N utilization efficiency. <i>Journal of Integrated OMICS</i> , 2011, 1, .	0.5	4
86	Assessment of summer rainfall forecast skill in the Intra-Americas in GFDL high and low-resolution models. <i>Climate Dynamics</i> , 2019, 52, 1965-1982.	3.8	4
87	Characterization of Growth and Light Utilization for Rice Genotypes with Different Tiller Angles. <i>Agricultural Sciences in China</i> , 2011, 10, 1701-1709.	0.6	3
88	Roles of Meridional Overturning in Subpolar Southern Ocean SST Trends: Insights from Ensemble Simulations. <i>Journal of Climate</i> , 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. <i>Agronomy</i> , 2022, 12, 339.	3.0	1
90	Editorial: Natural Variations and Genetic Constraints on Plant Nutrition. <i>Frontiers in Genetics</i> , 0, 13, .	2.3	0