Zhenzhu Xu

List of Publications by Year
in descending order

55 papers	3,448 citations	218592 26 h-index	149623 56 g-index
69 all docs	69 docs citations	69 times ranked	4501 citing authors

#	Article	IF	Citations
1	Responses of leaf stomatal density to water status and its relationship with photosynthesis in a grass. Journal of Experimental Botany, 2008, 59, 3317-3325.	2.4	624
2	Plant responses to drought and rewatering. Plant Signaling and Behavior, 2010, 5, 649-654.	1.2	427
3	Elevated-CO2 Response of Stomata and Its Dependence on Environmental Factors. Frontiers in Plant Science, 2016, 7, 657.	1.7	265
4	Combined effects of water stress and high temperature on photosynthesis, nitrogen metabolism and lipid peroxidation of a perennial grass Leymus chinensis. Planta, 2006, 224, 1080-1090.	1.6	255
5	Response and adaptation of photosynthesis, respiration, and antioxidant systems to elevated CO2 with environmental stress in plants. Frontiers in Plant Science, 2015, 6, 701.	1.7	188
6	Are plant growth and photosynthesis limited by pre-drought following rewatering in grass?. Journal of Experimental Botany, 2009, 60, 3737-3749.	2.4	155
7	Effects of elevated CO2, warming and precipitation change on plant growth, photosynthesis and peroxidation in dominant species from North China grassland. Planta, 2014, 239, 421-435.	1.6	141
8	Biotic and abiotic factors controlling the spatial and temporal variation of soil respiration in an agricultural ecosystem. Soil Biology and Biochemistry, 2007, 39, 418-425.	4.2	116
9	Interactive Effects of Elevated CO2, Drought, and Warming on Plants. Journal of Plant Growth Regulation, 2013, 32, 692-707.	2.8	96
10	Nitrogen Metabolism and Photosynthesis in Leymus chinensis in Response to Long-term Soil Drought. Journal of Plant Growth Regulation, 2006, 25, 252-266.	2.8	78
11	Maize leaf functional responses to drought episode and rewatering. Agricultural and Forest Meteorology, 2018, 249, 57-70.	1.9	76
12	Changes in Chlorophyll Fluorescence in Maize Plants with Imposed Rapid Dehydration at Different Leaf Ages. Journal of Plant Growth Regulation, 2008, 27, 83-92.	2.8	61
13	Responses of photosynthetic capacity to soil moisture gradient in perennial rhizome grass and perennial bunchgrass. BMC Plant Biology, 2011, 11, 21.	1.6	59
14	Nitrogen Translocation in Wheat Plants Under Soil Water Deficit. Plant and Soil, 2006, 280, 291-303.	1.8	50
15	Effects of Soil Drought with Nocturnal Warming on Leaf Stomatal Traits and Mesophyll Cell Ultrastructure of a Perennial Grass. Crop Science, 2009, 49, 1843-1851.	0.8	49
16	Theory and application for the promotion of wheat production in China: past, present and future. Journal of the Science of Food and Agriculture, 2013, 93, 2339-2350.	1.7	48
17	Vertical distributions of chlorophyll and nitrogen and their associations with photosynthesis under drought and rewatering regimes in a maize field. Agricultural and Forest Meteorology, 2019, 272-273, 40-54.	1.9	48
18	Soil temperature and biotic factors drive the seasonal variation of soil respiration in a maize (Zea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.8	43

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19	Combined effects of elevated CO2 and soil drought on carbon and nitrogen allocation of the desert shrub Caragana intermedia. Plant and Soil, 2007, 301, 87-97.	1.8	43
20	Tracking chlorophyll fluorescence as an indicator of drought and rewatering across the entire leaf lifespan in a maize field. Agricultural Water Management, 2019, 211, 190-201.	2.4	43
21	Nitrogen deposition magnifies the sensitivity of desert steppe plant communities to large changes in precipitation. Journal of Ecology, 2020, 108, 598-610.	1.9	41
22	Interactive Effects of Warming and Increased Precipitation on Community Structure and Composition in an Annual Forb Dominated Desert Steppe. PLoS ONE, 2013, 8, e70114.	1.1	37
23	Climatic warming shifts the soil nematode community in a desert steppe. Climatic Change, 2018, 150, 243-258.	1.7	37
24	Effects of warming and changing precipitation rates on soil respiration over two years in a desert steppe of northern China. Plant and Soil, 2016, 400, 15-27.	1.8	36
25	Photosynthetic Potential and its Association with Lipid Peroxidation in Response to High Temperature at Different Leaf Ages in Maize. Journal of Plant Growth Regulation, 2011, 30, 41-50.	2.8	35
26	Excessive nitrogen application decreases grain yield and increases nitrogen loss in a wheatâ€“soil system. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2011, 61, 681-692.	0.3	33
27	Photosynthetic resistance and resilience under drought, flooding and rewatering in maize plants. Photosynthesis Research, 2021, 148, 1-15.	1.6	31
28	Ecosystem responses to warming and watering in typical and desert steppes. Scientific Reports, 2016, 6, 34801.	1.6	27
29	Climate warming-induced drought constrains vegetation productivity by weakening the temporal stability of the plant community in an arid grassland ecosystem. Agricultural and Forest Meteorology, 2021, 307, 108526.	1.9	26
30	Nitrogen metabolism in flag leaf and grain of wheat in response to irrigation regimes. Journal of Plant Nutrition and Soil Science, 2006, 169, 118-126.	1.1	24
31	Nitrogen cycles in terrestrial ecosystems: climate change impacts and mitigation. Environmental Reviews, 2016, 24, 132-143.	2.1	24
32	Forest litterfall and its composition: a new data set of observational data from <scp>C</scp>hina. Ecology, 2016, 97, 1365-1365.	1.5	20
33	Short- and long-term warming alters soil microbial community and relates to soil traits. Applied Soil Ecology, 2018, 131, 22-28.	2.1	20
34	Comparison of water vapour, heat and energy exchanges over agricultural and wetland ecosystems. Hydrological Processes, 2009, 23, 2069-2080.	1.1	18
35	Statistical characteristics of forest litterfall in China. Science China Life Sciences, 2018, 61, 358-360.	2.3	17
36	Detection of Photosynthetic Performance of Stipa bungeana Seedlings under Climatic Change using Chlorophyll Fluorescence Imaging. Frontiers in Plant Science, 2015, 6, 1254.	1.7	15

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37	Responses of plant biomass and yield component in rice, wheat, and maize to climatic warming: a meta-analysis. Planta, 2020, 252, 90.	1.6	14
38	Effects of cotton field management practices on soil CO2 emission and C balance in an arid region of Northwest China. Journal of Arid Land, 2014, 6, 468-477.	0.9	13
39	Elevated CO2 can modify the response to a water status gradient in a steppe grass: from cell organelles to photosynthetic capacity to plant growth. BMC Plant Biology, 2016, 16, 157.	1.6	13
40	Temperature sensitivity increases with decreasing soil carbon quality in forest ecosystems across northeast China. Climatic Change, 2020, 160, 373-384.	1.7	10
41	Climatic warming enhances soil respiration resilience in an arid ecosystem. Science of the Total Environment, 2021, 756, 144005.	3.9	10
42	Growth variations of Dahurian larch plantations across northeast China: Understanding the effects of temperature and precipitation. Journal of Environmental Management, 2021, 292, 112739.	3.8	10
43	Resistance, recovery, and resilience of desert steppe to precipitation alterations with nitrogen deposition. Journal of Cleaner Production, 2021, 317, 128434.	4.6	10
44	Soil carbon release responses to long-term versus short-term climatic warming in an arid ecosystem. Biogeosciences, 2020, 17, 781-792.	1.3	9
45	Evaluation of restoration approaches on the Inner Mongolian Steppe based on criteria of the Society for Ecological Restoration. Land Degradation and Development, 2020, 31, 285-296.	1.8	7
46	A self-photoprotection mechanism helps Stipa baicalensis adapt to future climate change. Scientific Reports, 2016, 6, 25839.	1.6	6
47	Driving mechanisms of climate-plant-soil patterns on the structure and function of different grasslands along environmental gradients in Tibetan and Inner Mongolian Plateaus in China. Journal of Cleaner Production, 2022, 339, 130696.	4.6	6
48	Interactive effects of elevated CO 2 and precipitation change on leaf nitrogen of dominant Stipa L. species. Ecology and Evolution, 2015, 5, 2956-2965.	0.8	5
49	Precipitation variations, rather than N deposition, determine plant ecophysiological traits in a desert steppe in Northern China. Ecological Indicators, 2022, 141, 109144.	2.6	5
50	Does precipitation mediate the effects of elevated CO 2 on plant growth in the grass species Stipa grandis ?. Environmental and Experimental Botany, 2016, 131, 146-154.	2.0	4
51	Sensitive indicators of Stipa bungeana response to precipitation under ambient and elevated CO2 concentration. International Journal of Biometeorology, 2018, 62, 141-151.	1.3	4
52	The relationship between leaf and ecosystem CO2 exchanges in a maize field. Acta Physiologiae Plantarum, 2018, 40, 1.	1.0	4
53	A compiled soil respiration dataset at different time scales for forest ecosystems across China from 2000 to 2018. Earth System Science Data, 2022, 14, 2951-2961.	3.7	4
54	Effects of elevated CO 2 on Stipa baicalensis photosynthesis depend on precipitation and growth phase. Ecological Research, 2019, 34, 790-801.	0.7	3

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55	Vertical distribution of gas exchanges and their integration throughout the entire canopy in a maize field. Photosynthesis Research, 2021, 147, 269-281.	1.6	2