Ellen Zuther

List of Publications by Year
in descending order

85 papers	5,154 citations	76326 40 h-index	95266 68 g-index
89 all docs	89 docs citations	89 times ranked	5993 citing authors

#	Article	IF	Citations
1	Cold stress and freezing tolerance negatively affect the fitness of Arabidopsis thaliana accessions under field and controlled conditions. Planta, 2022, 255, 39.	3.2	11
2	Specific <scp>CBF</scp> transcription factors and coldâ€responsive genes fineâ€tune the early triggering response after acquisition of cold priming and memory. Physiologia Plantarum, 2022, 174, .	5.2	11
3	Cell wall modification by the xyloglucan endotransglucosylase/hydrolase <scp>XTH19</scp> influences freezing tolerance after cold and subâ€zero acclimation. Plant, Cell and Environment, 2021, 44, 915-930.	5.7	43
4	Natural Variation among Arabidopsis Accessions in the Regulation of Flavonoid Metabolism and Stress Gene Expression by Combined UV Radiation and Cold. Plant and Cell Physiology, 2021, 62, 502-514.	3.1	14
5	Unravelling Differences in Candidate Genes for Drought Tolerance in Potato (Solanum tuberosum L.) by Use of New Functional Microsatellite Markers. Genes, 2021, 12, 494.	2.4	11
6	Stabilization of Dry Sucrose Glasses by Four LEA_4 Proteins from Arabidopsis thaliana. Biomolecules, 2021, 11, 615.	4.0	8
7	Physiological and molecular attributes contribute to high night temperature tolerance in cereals. Plant, Cell and Environment, 2021, 44, 2034-2048.	5.7	16
8	Genome-Wide Approach to Identify Quantitative Trait Loci for Drought Tolerance in Tetraploid Potato (Solanum tuberosum L.). International Journal of Molecular Sciences, 2021, 22, 6123.	4.1	9
9	Characterization of the Heat-Stable Proteome during Seed Germination in Arabidopsis with Special Focus on LEA Proteins. International Journal of Molecular Sciences, 2021, 22, 8172.	4.1	12
10	Differentiation of the High Night Temperature Response in Leaf Segments of Rice Cultivars with Contrasting Tolerance. International Journal of Molecular Sciences, 2021, 22, 10451.	4.1	2
11	Subcellular Localization of Seed-Expressed LEA_4 Proteins Reveals Liquid-Liquid Phase Separation for LEA9 and for LEA48 Homo- and LEA42-LEA48 Heterodimers. Biomolecules, 2021, 11, 1770.	4.0	13
12	Can Metabolite- and Transcript-Based Selection for Drought Tolerance in Solanum tuberosum Replace Selection on Yield in Arid Environments?. Frontiers in Plant Science, 2020, 11, 1071.	3.6	8
13	Utilizing PacBio Iso-Seq for Novel Transcript and Gene Discovery of Abiotic Stress Responses in Oryza sativa L.. International Journal of Molecular Sciences, 2020, 21, 8148.	4.1	30
14	Season Affects Yield and Metabolic Profiles of Rice (Oryza sativa) under High Night Temperature Stress in the Field. International Journal of Molecular Sciences, 2020, 21, 3187.	4.1	21
15	Characterisation of the ERF102 to ERF105 genes of Arabidopsis thaliana and their role in the response to cold stress. Plant Molecular Biology, 2020, 103, 303-320.	3.9	41
16	Evaluation of Seven Different RNA-Seq Alignment Tools Based on Experimental Data from the Model Plant Arabidopsis thaliana. International Journal of Molecular Sciences, 2020, 21, 1720.	4.1	29
17	Transcriptional and Post-Transcriptional Regulation and Transcriptional Memory of Chromatin Regulators in Response to Low Temperature. Frontiers in Plant Science, 2020, 11, 39.	3.6	26
18	Repair of sub-lethal freezing damage in leaves of Arabidopsis thaliana. BMC Plant Biology, 2020, 20, 35.	3.6	8

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19	Introduction: Plant Cold Acclimation and Winter Survival. Methods in Molecular Biology, 2020, 2156, 1-7.	0.9	18
20	Analysis of Changes in Plant Cell Wall and Structure During Cold Acclimation. Methods in Molecular Biology, 2020, 2156, 255-268.	0.9	4
21	Measuring Freezing Tolerance of Leaves and Rosettes: Electrolyte Leakage and Chlorophyll Fluorescence Assays. Methods in Molecular Biology, 2020, 2156, 9-21.	0.9	9
22	Molecular signatures associated with increased freezing tolerance due to low temperature memory in <i>Arabidopsis</i>. Plant, Cell and Environment, 2019, 42, 854-873.	5.7	89
23	Metabolic responses of rice source and sink organs during recovery from combined drought and heat stress in the field. GigaScience, 2019, 8, .	6.4	14
24	Deacclimation after cold acclimationâ€"a crucial, but widely neglected part of plant winter survival. Journal of Experimental Botany, 2019, 70, 4595-4604.	4.8	73
25	Metabolic responses of rice cultivars with different tolerance to combined drought and heat stress under field conditions. GigaScience, 2019, 8, .	6.4	52
26	Transcriptome analysis reveals potential roles of a barley ASR gene that confers stress tolerance in transgenic rice. Journal of Plant Physiology, 2019, 238, 29-39.	3.5	8
27	Both cold and sub-zero acclimation induce cell wall modification and changes in the extracellular proteome in Arabidopsis thaliana. Scientific Reports, 2019, 9, 2289.	3.3	51
28	Induced, Imprinted, and Primed Responses to Changing Environments: Does Metabolism Store and Process Information?. Frontiers in Plant Science, 2019, 10, 106.	3.6	63
29	Opposite fates of the purine metabolite allantoin under water and nitrogen limitations in bread wheat. Plant Molecular Biology, 2019, 99, 477-497.	3.9	41
30	Plant Temperature Acclimation and Growth Rely on Cytosolic Ribosome Biogenesis Factor Homologs. Plant Physiology, 2018, 176, 2251-2276.	4.8	39
31	Molecular mechanisms of combined heat and drought stress resilience in cereals. Current Opinion in Plant Biology, 2018, 45, 212-217.	7.1	68
32	Metabolite and transcript markers for the prediction of potato drought tolerance. Plant Biotechnology Journal, 2018, 16, 939-950.	8.3	68
33	Natural Variation in Freezing Tolerance and Cold Acclimation Response in Arabidopsis thaliana and Related Species. Advances in Experimental Medicine and Biology, 2018, 1081, 81-98.	1.6	16
34	Combined drought and heat stress impact during flowering and grain filling in contrasting rice cultivars grown under field conditions. Field Crops Research, 2018, 229, 66-77.	5.1	61
35	Ecotype-Dependent Response of Bacterial Communities Associated with <i>Arabidopsis</i> to Cold Acclimation. Phytobiomes Journal, 2018, 2, 3-13.	2.7	8
36	Impact of seasonal warming on overwintering and spring phenology of blackcurrant. Environmental and Experimental Botany, 2017, 140, 96-109.	4.2	21

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37	Integrated analysis of rice transcriptomic and metabolomic responses to elevated night temperatures identifies sensitivityâ€•and toleranceâ€•related profiles. Plant, Cell and Environment, 2017, 40, 121-137.	5.7	54
38	<i>ERF105</i> is a transcription factor gene of <i>Arabidopsis thaliana</i> required for freezing tolerance and cold acclimation. Plant, Cell and Environment, 2017, 40, 108-120.	5.7	102
39	Rapid transcriptional and metabolic regulation of the deacclimation process in cold acclimated Arabidopsis thaliana. BMC Genomics, 2017, 18, 731.	2.8	68
40	Rootstock Sub-Optimal Temperature Tolerance Determines Transcriptomic Responses after Long-Term Root Cooling in Rootstocks and Scions of Grafted Tomato Plants. Frontiers in Plant Science, 2017, 8, 911.	3.6	32
41	Natural Variation of Cold Deacclimation Correlates with Variation of Cold-Acclimation of the Plastid Antioxidant System in Arabidopsis thaliana Accessions. Frontiers in Plant Science, 2016, 7, 305.	3.6	51
42	Priming and memory of stress responses in organisms lacking a nervous system. Biological Reviews, 2016, 91, 1118-1133.	10.4	388
43	The drought response of potato reference cultivars with contrasting tolerance. Plant, Cell and Environment, 2016, 39, 2370-2389.	5.7	66
44	Flavonoids are determinants of freezing tolerance and cold acclimation in Arabidopsis thaliana. Scientific Reports, 2016, 6, 34027.	3.3	209
45	Salt stress responses in a geographically diverse collection of Eutrema/Thellungiella spp. accessions. Functional Plant Biology, 2016, 43, 590.	2.1	17
46	Metabolite Profiling Reveals Sensitivity-Dependent Metabolic Shifts in Rice (Oryza Sativa L.) Cultivars under High Night Temperature Stress. Procedia Environmental Sciences, 2015, 29, 72.	1.4	4
47	Natural variation in flavonol and anthocyanin metabolism during cold acclimation in <scp><i>A</i></scp><i>rabidopsis thaliana</i> accessions. Plant, Cell and Environment, 2015, 38, 1658-1672.	5.7	126
48	Time-dependent deacclimation after cold acclimation in Arabidopsis thaliana accessions. Scientific Reports, 2015, 5, 12199.	3.3	69
49	Metabolic and transcriptomic signatures of rice floral organs reveal sugar starvation as a factor in reproductive failure under heat and drought stress. Plant, Cell and Environment, 2015, 38, 2171-2192.	5.7	164
50	Assessment of drought tolerance and its potential yield penalty in potato. Functional Plant Biology, 2015, 42, 655.	2.1	26
51	High night temperature strongly impacts TCA cycle, amino acid and polyamine biosynthetic pathways in rice in a sensitivity-dependent manner. Journal of Experimental Botany, 2015, 66, 6385-6397.	4.8	86
52	Sugar Starvation of Rice Anthers is a Factor in Reproductive Failure under Heat and Drought Stress, as shown by Metabolite and Transcript Profiling. Procedia Environmental Sciences, 2015, 29, 70-71.	1.4	0
53	Changes in free polyamine levels, expression of polyamine biosynthesis genes, and performance of rice cultivars under salt stress: a comparison with responses to drought. Frontiers in Plant Science, 2014, 5, 182.	3.6	68
54	A study on ABA involvement in the response of tomato to suboptimal root temperature using reciprocal grafts with notabilis, a null mutant in the ABA-biosynthesis gene LeNCED1. Environmental and Experimental Botany, 2014, 97, 11-21.	4.2	27

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55	Differential physiological responses of different rice (Oryza sativa) cultivars to elevated night temperature during vegetative growth. Functional Plant Biology, 2014, 41, 437.	2.1	45
56	Introduction: Plant Cold Acclimation and Freezing Tolerance. Methods in Molecular Biology, 2014, 1166, 1-6.	0.9	23
57	Measuring Freezing Tolerance: Electrolyte Leakage and Chlorophyll Fluorescence Assays. Methods in Molecular Biology, 2014, 1166, 15-24.	0.9	71
58	Dissecting Rice Polyamine Metabolism under Controlled Long-Term Drought Stress. PLoS ONE, 2013, 8, e60325.	2.5	120
59	Identification of Drought Tolerance Markers in a Diverse Population of Rice Cultivars by Expression and Metabolite Profiling. PLoS ONE, 2013, 8, e63637.	2.5	119
60	Comparison of freezing tolerance, compatible solutes and polyamines in geographically diverse collections of Thellungiella sp. and Arabidopsis thaliana accessions. BMC Plant Biology, 2012, 12, 131.	3.6	76
61	Conducting Molecular Biomarker Discovery Studies in Plants. Methods in Molecular Biology, 2012, 918, 127-150.	0.9	6
62	Differential remodeling of the lipidome during cold acclimation in natural accessions of <i>Arabidopsis thaliana</i>. Plant Journal, 2012, 72, 972-982.	5.7	171
63	Clinal variation in the nonâ€acclimated and coldâ€acclimated freezing tolerance of <i>Arabidopsis thaliana</i> accessions. Plant, Cell and Environment, 2012, 35, 1860-1878.	5.7	145
64	Natural variation in the freezing tolerance of Arabidopsis thaliana: Effects of RNAi-induced CBF depletion and QTL localisation vary among accessions. Plant Science, 2011, 180, 12-23.	3.6	31
65	Evidence against sink limitation by the sucroseâ€toâ€starch route in potato plants expressing fructosyltransferases. Physiologia Plantarum, 2011, 143, 115-125.	5.2	6
66	Interaction with Diurnal and Circadian Regulation Results in Dynamic Metabolic and Transcriptional Changes during Cold Acclimation in Arabidopsis. PLoS ONE, 2010, 5, e14101.	2.5	146
67	Expression profiling of rice cultivars differing in their tolerance to long-term drought stress. Plant Molecular Biology, 2009, 69, 133-153.	3.9	207
68	Natural variation in CBF gene sequence, gene expression and freezing tolerance in the Versailles core collection of Arabidopsis thaliana. BMC Plant Biology, 2008, 8, 105.	3.6	84
69	Combined Metabolomic and Genetic Approaches Reveal a Link between the Polyamine Pathway and Albumin 2 in Developing Pea Seeds. Plant Physiology, 2008, 146, 74-82.	4.8	73
70	Comparative Metabolome Analysis of the Salt Response in Breeding Cultivars of Rice. , 2007, , 285-315.		54
71	Fructans from oat and rye: Composition and effects on membrane stability during drying. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 1611-1619.	2.6	83
72	Transport and metabolism of raffinose family oligosaccharides in transgenic potato. Journal of Experimental Botany, 2006, 57, 3801-3811.	4.8	42

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73	Tissue-specific changes in remobilisation of fructan in the xerophytic tussock species Festuca novae-zelandiae in response to a water deficit. Functional Plant Biology, 2004, 31, 377.	2.1	20
74	Expression of a yeast-derived invertase in companion cells results in long-distance transport of a trisaccharide in an apoplastic loader and influences sucrose transport. Planta, 2004, 218, 759-766.	3.2	29
75	The role of raffinose in the cold acclimation response ofArabidopsis thaliana. FEBS Letters, 2004, 576, 169-173.	2.8	177
76	Overexpression of the sucrose transporter SoSUT1 in potato results in alterations in leaf carbon partitioning and in tuber metabolism but has little impact on tuber morphology. Planta, 2003, 217, 158-167.	3.2	101
77	Expression of Cytosolic and Plastid Acetyl-Coenzyme A Carboxylase Genes in Young Wheat Plants,. Plant Physiology, 2003, 131, 763-772.	4.8	27
78	A photosystem 1psaFJ-nullmutant of the cyanobacteriumSynechocystisPCC 6803 expresses theisiABoperon under iron replete conditions. FEBS Letters, 2003, 549, 52-56.	2.8	59
79	The preservation of liposomes by raffinose family oligosaccharides during drying is mediated by effects on fusion and lipid phase transitions. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1612, 172-177.	2.6	159
80	Specific effects of fructo- and gluco-oligosaccharides in the preservation of liposomes during drying. Glycobiology, 2002, 12, 103-110.	2.5	182
81	Subcellular localization of acetyl-CoA carboxylase in the apicomplexan parasite Toxoplasma gondii. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 2723-2728.	7.1	107
82	The <i>ggpS</i> Gene from <i>Synechocystis</i> sp. Strain PCC 6803 Encoding Glucosyl-Glycerol-Phosphate Synthase Is Involved in Osmolyte Synthesis. Journal of Bacteriology, 1998, 180, 4843-4849.	2.2	80
83	Mutation of a Gene Encoding a Putative Glycoprotease Leads to Reduced Salt Tolerance, Altered Pigmentation, and Cyanophycin Accumulation in the Cyanobacterium Synechocystis sp. Strain PCC 6803. Journal of Bacteriology, 1998, 180, 1715-1722.	2.2	36
84	Characterization of a glucosylglycerol-phosphate-accumulating, salt-sensitive mutant of the cyanobacterium Synechocystis sp. strain PCC 6803. Archives of Microbiology, 1996, 166, 83-91.	2.2	31
85	Selection and characterization of mutants of the cyanobacterium Synechocystis sp. PCC 6803 unable to tolerate high salt concentrations. Archives of Microbiology, 1992, 158, 429.	2.2	43