Anna-Lisa Paul

List of Publications by Year
in descending order

92 papers	3,098 citations	126907 33 h-index	168389 53 g-index
94 all docs	94 docs citations	94 times ranked	2184 citing authors

#	Article	IF	Citations
1	14-3-3 proteins in plant physiology. Seminars in Cell and Developmental Biology, 2011, 22, 720-727.	5.0	234
2	Spaceflight Transcriptomes: Unique Responses to a Novel Environment. Astrobiology, 2012, 12, 40-56.	3.0	140
3	Plants in space. Current Opinion in Plant Biology, 2002, 5, 258-263.	7.1	127
4	The 14-3-3 Proteins <i>Î¼</i> and <i>Ï…</i> Influence Transition to Flowering and Early Phytochrome Response. Plant Physiology, 2007, 145, 1692-1702.	4.8	107
5	14-3-3 phosphoprotein interaction networks â€" does isoform diversity present functional interaction specification?. Frontiers in Plant Science, 2012, 3, 190.	3.6	104
6	Organ-specific remodeling of the Arabidopsis transcriptome in response to spaceflight. BMC Plant Biology, 2013, 13, 112.	3.6	99
7	Isoform-specific Subcellular Localization among 14-3-3 Proteins inArabidopsisSeems to be Driven by Client Interactions. Molecular Biology of the Cell, 2005, 16, 1735-1743.	2.1	96
8	Transgene Expression Patterns Indicate That Spaceflight Affects Stress Signal Perception and Transduction in Arabidopsis. Plant Physiology, 2001, 126, 613-621.	4.8	93
9	Microgravity effects on leaf morphology, cell structure, carbon metabolism and mRNA expression of dwarf wheat. Planta, 2006, 224, 1038-1049.	3.2	92
10	Hypobaric Biology: Arabidopsis Gene Expression at Low Atmospheric Pressure. Plant Physiology, 2004, 134, 215-223.	4.8	90
11	Plant growth strategies are remodeled by spaceflight. BMC Plant Biology, 2012, 12, 232.	3.6	90
12	In vivo and in vitro characterization of protein interactions with the dyad G-box of the Arabidopsis Adh gene.. Plant Cell, 1990, 2, 207-214.	6.6	80
13	Fundamental Plant Biology Enabled by The Space Shuttle. American Journal of Botany, 2013, 100, 226-234.	1.7	75
14	Arabidopsis gene expression patterns are altered during spaceflight. Advances in Space Research, 2005, 36, 1175-1181.	2.6	73
15	Plant phosphopeptide-binding proteins as signaling mediators. Current Opinion in Plant Biology, 2010, 13, 527-532.	7.1	73
16	Spaceflight engages heat shock protein and other molecular chaperone genes in tissue culture cells of <i>Arabidopsis thaliana</i>. American Journal of Botany, 2013, 100, 235-248.	1.7	73
17	Localization of 14-3-3 proteins in the nuclei of arabidopsis and maize. Plant Journal, 1997, 12, 1439-1445.	5.7	71
18	Spaceflight Induces Specific Alterations in the Proteomes of Arabidopsis. Astrobiology, 2015, 15, 32-56.	3.0	63

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19	Genetic dissection of the Arabidopsis spaceflight transcriptome: Are some responses dispensable for the physiological adaptation of plants to spaceflight?. PLoS ONE, 2017, 12, e0180186.	2.5	63
20	In vivo footprinting reveals unique cis-elements and different modes of hypoxic induction in maize Adh1 and Adh2.. Plant Cell, 1991, 3, 159-168.	6.6	62
21	Regulation of genes encoding the large subunit of ribulose-1,5-bisphosphate carboxylase and the photosystem II polypeptides D-1 and D-2 during the cell cycle of Chlamydomonas reinhardtii.. Journal of Cell Biology, 1986, 103, 1837-1845.	5.2	56
22	The effect of spaceflight on the gravity-sensing auxin gradient of roots: GFP reporter gene microscopy on orbit. Npj Microgravity, 2016, 2, 15023.	3.7	54
23	Constitutive and anaerobically induced DNase-I-hypersensitive sites in the 5' region of the maize Adh1 gene. Proceedings of the National Academy of Sciences of the United States of America, 1987, 84, 799-803.	7.1	51
24	High magnetic field induced changes of gene expression in arabidopsis. Biomagnetic Research and Technology, 2006, 4, 7.	2.0	47
25	Growth Performance and Root Transcriptome Remodeling of Arabidopsis in Response to Mars-Like Levels of Magnesium Sulfate. PLoS ONE, 2010, 5, e12348.	2.5	47
26	Epigenomics in an extraterrestrial environment: organ-specific alteration of DNA methylation and gene expression elicited by spaceflight in Arabidopsis thaliana. BMC Genomics, 2019, 20, 205.	2.8	47
27	The 14-3-3 proteins of Arabidopsis regulate root growth and chloroplast development as components of the photosensory system. Journal of Experimental Botany, 2012, 63, 3061-3070.	4.8	44
28	Exposure ofArabidopsis thalianato Hypobaric Environments: Implications for Low-Pressure Bioregenerative Life Support Systems for Human Exploration Missions and Terraforming on Mars. Astrobiology, 2006, 6, 851-866.	3.0	42
29	Parabolic Flight Induces Changes in Gene Expression Patterns in<i>Arabidopsis thaliana</i>. Astrobiology, 2011, 11, 743-758.	3.0	39
30	Utilization of singleâ€image normalized difference vegetation index (<scp>SI</scp>â€<scp>NDVI</scp>) for early plant stress detection. Applications in Plant Sciences, 2018, 6, e01186.	2.1	39
31	Comparative Interactomics: Analysis of <i>Arabidopsis</i> 14-3-3 Complexes Reveals Highly Conserved 14-3-3 Interactions between Humans and Plants. Journal of Proteome Research, 2009, 8, 1913-1924.	3.7	38
32	Plant molecular biology in the space station era: Utilization of KSC fixation tubes with RNAlater. Acta Astronautica, 2005, 56, 623-628.	3.2	37
33	Higher Order Chromatin Structures in Maize and Arabidopsis. Plant Cell, 1998, 10, 1349-1359.	6.6	36
34	Root Skewing-Associated Genes Impact the Spaceflight Response of Arabidopsis thaliana. Frontiers in Plant Science, 2020, 11, 239.	3.6	32
35	Spaceflight-induced alternative splicing during seedling development in Arabidopsis thaliana. Npj Microgravity, 2019, 5, 9.	3.7	31
36	Osmium tetroxide footprinting of a scaffold attachment region in the maizeAdh1 promoter. Plant Molecular Biology, 1993, 22, 1145-1151.	3.9	26

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37	Plants grown in Apollo lunar regolith present stress-associated transcriptomes that inform prospects for lunar exploration. Communications Biology, 2022, 5, 382.	4.4	26
38	Molecular Aspects of Stress-Gene Regulation During Spaceflight. Journal of Plant Growth Regulation, 2002, 21, 166-176.	5.1	25
39	The Plant Health Monitoring System of the EDEN ISS Space Greenhouse in Antarctica During the 2018 Experiment Phase. Frontiers in Plant Science, 2019, 10, 1457.	3.6	25
40	Adenine Nucleotide Pool Perturbation Is a Metabolic Trigger for AMP Deaminase Inhibitor-Based Herbicide Toxicity. Plant Physiology, 2007, 143, 1752-1760.	4.8	24
41	Lunar Plant Biologyâ€"A Review of the Apollo Era. Astrobiology, 2010, 10, 261-274.	3.0	24
42	Skewing in Arabidopsis roots involves disparate environmental signaling pathways. BMC Plant Biology, 2017, 17, 31.	3.6	24
43	The fungicidal and phytotoxic properties of benomyl and PPM in supplemented agar media supporting transgenic arabidopsis plants for a Space Shuttle flight experiment. Applied Microbiology and Biotechnology, 2001, 55, 480-485.	3.6	22
44	ARG1 Functions in the Physiological Adaptation of Undifferentiated Plant Cells to Spaceflight. Astrobiology, 2017, 17, 1077-1111.	3.0	22
45	Higher-order chromatin structure: looping long molecules. , 1999, 41, 713-720.		21
46	The performance of KSC Fixation Tubes with RNALater for orbital experiments: A case study in ISS operations for molecular biology. Advances in Space Research, 2011, 48, 199-206.	2.6	20
47	Developing strategies for automated remote plant production systems: Environmental control and monitoring of the Arthur Clarke Mars Greenhouse in the Canadian High Arctic. Advances in Space Research, 2009, 44, 1367-1381.	2.6	19
48	HSFA2 Functions in the Physiological Adaptation of Undifferentiated Plant Cells to Spaceflight. International Journal of Molecular Sciences, 2019, 20, 390.	4.1	18
49	Dissecting Low Atmospheric Pressure Stress: Transcriptome Responses to the Components of Hypobaria in Arabidopsis. Frontiers in Plant Science, 2017, 8, 528.	3.6	16
50	14-3-3 isoforms participate in red light signaling and photoperiodic flowering. Plant Signaling and Behavior, 2008, 3, 304-306.	2.4	15
51	Spaceflight Exploration in Plant Gravitational Biology. Methods in Molecular Biology, 2015, 1309, 285-305.	0.9	14
52	Phosphomimetic mutation of a conserved serine residue in Arabidopsis thaliana 14-3-3Ï‰ suggests a regulatory role of phosphorylation in dimerization and target interactions. Plant Physiology and Biochemistry, 2015, 97, 296-303.	5.8	13
53	Chemical detection of Z-DNA within the maize Adh1 promoter. Plant Molecular Biology, 1992, 18, 1181-1184.	3.9	12
54	14-3-3 Proteins, red light, and photoperiodic flowering. Plant Signaling and Behavior, 2008, 3, 511-515.	2.4	11

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55	Epigenomic Regulators Elongator Complex Subunit 2 and Methyltransferase 1 Differentially Condition the Spaceflight Response in Arabidopsis. Frontiers in Plant Science, 2021, 12, 691790.	3.6	11
56	Deployment of a Prototype Plant GFP Imager at the Arthur Clarke Mars Greenhouse of the Haughton Mars Project. Sensors, 2008, 8, 2762-2773.	3.8	10
57	Patterns of Arabidopsis gene expression in the face of hypobaric stress. AoB PLANTS, 2017, 9, .	2.3	10
58	Comparing <scp>RNA</scp>â€Seq and microarray gene expression data in two zones of the <i>Arabidopsis</i> root apex relevant to spaceflight. Applications in Plant Sciences, 2018, 6, e01197.	2.1	10
59	Remote sensing of gene expression in Planta: transgenic plants as monitors of exogenous stress perception in extraterrestrial environments. Life Support & Biosphere Science: International Journal of Earth Space, 2002, 8, 83-91.	0.1	10
60	In vivo footprinting identifies an activating element of the maize Adh2 promoter specific for root and vascular tissues. Plant Journal, 1994, 5, 523-533.	5.7	9
61	<i>Arabidopsis thaliana</i> for Spaceflight Applicationsâ€"Preparing Dormant Biology for Passive Stowage and On-Orbit Activation. Gravitational and Space Research: Publication of the American Society for Gravitational and Space Research, 2014, 2, 81-89.	0.8	9
62	PermeabilizedArabidopsis protoplasts provide new insight into the chromatin structure of plant alcohol dehydrogenase genes. , 1998, 22, 7-16.		8
63	Root Growth Patterns and Morphometric Change Based on the Growth Media. Microgravity Science and Technology, 2016, 28, 621-631.	1.4	8
64	A member of the CONSTANS-Like protein family is a putative regulator of reactive oxygen species homeostasis and spaceflight physiological adaptation. AoB PLANTS, 2019, 11, ply075.	2.3	8
65	Mapping by VESGEN of Leaf Venation Patterning in <i>Arabidopsis thaliana</i> with Bioinformatic Dimensions of Gene Expression. Gravitational and Space Research: Publication of the American Society for Gravitational and Space Research, 2014, 2, 68-81.	0.8	8
66	Transcription Factor Veracity: Is GBF3 Responsible for ABA-Regulated Expression of Arabidopsis Adh?. Plant Cell, 1996, 8, 847.	6.6	7
67	Effects of a Spaceflight Environment on Heritable Changes in Wheat Gene Expression. Astrobiology, 2009, 9, 359-367.	3.0	7
68	NDVI imaging within space exploration plant growth modules â€" A case study from EDEN ISS Antarctica. Life Sciences in Space Research, 2020, 26, 1-9.	2.3	7
69	Deployment of a Fully-Automated Green Fluorescent Protein Imaging System in a High Arctic Autonomous Greenhouse. Sensors, 2013, 13, 3530-3548.	3.8	6
70	A method for preparing spaceflight RNA<i>later</i>â€fixed <i>Arabidopsis thaliana</i> (Brassicaceae) tissue for scanning electron microscopy. Applications in Plant Sciences, 2013, 1, 1300034.	2.1	5
71	Data for characterization of SALK_084889, a T-DNA insertion line of Arabidopsis thaliana. Data in Brief, 2017, 13, 253-258.	1.0	5
72	Shared Metabolic Remodeling Processes Characterize the Transcriptome of <i>Arabidopsis thaliana</i> within Various Suborbital Flight Environments. Gravitational and Space Research: Publication of the American Society for Gravitational and Space Research, 2021, 9, 13-29.	0.8	5

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73	Enabling the Spaceflight Methylome: DNA Isolated from Plant Tissues Preserved in RNAlater^{Â®} Is Suitable for Bisulfite PCR Assay of Genome Methylation. Gravitational and Space Research: Publication of the American Society for Gravitational and Space Research, 2016, 4, 28-37.	0.8	5
74	Approaches for Surveying Cosmic Radiation Damage in Large Populations of <i>Arabidopsis thaliana</i> Seeds â€" Antarctic Balloons and Particle Beams. Gravitational and Space Research: Publication of the American Society for Gravitational and Space Research, 2018, 6, 54-73.	0.8	4
75	The TAGES Imaging System: Optimizing a Green Fluorescent Protein Imaging System for Plants. , 2003, , .		3
76	Mars Plant Biology: A Workshop Report and Recommendations for Plant Biology in the Exploration Era. Habitation, 2006, 11, 1-4.	0.2	3
77	Flexible imaging payload for real-time fluorescent biological imaging in parabolic, suborbital and space analog environments. Life Sciences in Space Research, 2014, 3, 32-44.	2.3	3
78	Plant adaptation to low atmospheric pressures: potential molecular responses. Life Support & Biosphere Science: International Journal of Earth Space, 2002, 8, 93-101.	0.1	3
79	In vivo Footprinting Reveals Unique cis-Elements and Different Modes of Hypoxic Induction in Maize Adh1 and Adh2. Plant Cell, 1991, 3, 159.	6.6	2
80	Chapter 27 In Vivo Footprinting of Proteinâ€"DNA Interactions. Methods in Cell Biology, 1995, 49, 391-400.	1.1	2
81	In Vivo Footprinting in Arabidopsis. , 1998, 82, 417-429.		2
82	Higher Order Chromatin Structures in Maize and Arabidopsis. Plant Cell, 1998, 10, 1349.	6.6	2
83	Topographical imaging technique for qualitative analysis of microarray data. BioTechniques, 2006, 41, 554-558.	1.8	1
84	An Analysis of Chromatin Structure and Gene Regulation. , 1987, , 47-58.		1
85	Assays for studying chromatin structure. , 1989, , 231-241.		1
86	A simple optoelectronic device for controlling an electrophoresis apparatus. Review of Scientific Instruments, 1989, 60, 3072-3073.	1.3	0
87	2 Chromatin. Methods in Plant Biochemistry, 1996, , 13-28.	0.2	0
88	Transgenic Plant Biomonitors: Stress Gene Biocompatibility Evaluation of the Plant Growth Facility for PGIM-01. , 0, , .		0
89	Phenotypic characterization of an Arabidopsis T-DNA insertion line SALK_063500. Data in Brief, 2018, 18, 913-919.	1.0	0
90	Gene Expression in Space Biology Experiments. , 2003, , 343-346.		0

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91	Chromatin Structure and Gene Expression. , 1989, , 355-370.		0
92	Genomic Sequencing in Maize. , 1994, , 579-585.		0