

Vaclav Motyka

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1378987/publications.pdf>

Version: 2024-02-01

83
papers

5,095
citations

109321

35
h-index

91884

69
g-index

84
all docs

84
docs citations

84
times ranked

5126
citing authors

#	ARTICLE	IF	CITATIONS
1	Cytokinin-Deficient Transgenic Arabidopsis Plants Show Multiple Developmental Alterations Indicating Opposite Functions of Cytokinins in the Regulation of Shoot and Root Meristem Activity. <i>Plant Cell</i> , 2003, 15, 2532-2550.	6.6	1,272
2	Distribution, biological activities, metabolism, and the conceivable function of cis-zeatin-type cytokinins in plants. <i>Journal of Experimental Botany</i> , 2011, 62, 2827-2840.	4.8	269
3	Enhanced drought and heat stress tolerance of tobacco plants with ectopically enhanced cytokinin oxidase/dehydrogenase gene expression. <i>Journal of Experimental Botany</i> , 2013, 64, 2805-2815.	4.8	222
4	Complex phytohormone responses during the cold acclimation of two wheat cultivars differing in cold tolerance, winter Samanta and spring Sandra. <i>Journal of Plant Physiology</i> , 2012, 169, 567-576.	3.5	209
5	Comparison of hormonal responses to heat, drought and combined stress in tobacco plants with elevated proline content. <i>Journal of Plant Physiology</i> , 2010, 167, 1360-1370.	3.5	183
6	The role of cytokinins in responses to water deficit in tobacco plants overexpressing <i>trans-zeatin O-glucosyltransferase</i> gene under <i>35S</i> or <i>SAG12</i> promoters. <i>Plant, Cell and Environment</i> , 2008, 31, 341-353.	5.7	160
7	Regulation of cytokinin content in plant cells. <i>Physiologia Plantarum</i> , 1997, 101, 689-700.	5.2	123
8	Senescence-induced ectopic expression of the <i>A. tumefaciens ipt</i> gene in wheat delays leaf senescence, increases cytokinin content, nitrate influx, and nitrate reductase activity, but does not affect grain yield. <i>Journal of Experimental Botany</i> , 2008, 59, 377-387.	4.8	123
9	Cytokinins in the Bryophyte <i>Physcomitrella patens</i> : Analyses of Activity, Distribution, and Cytokinin Oxidase/Dehydrogenase Overexpression Reveal the Role of Extracellular Cytokinins. <i>Plant Physiology</i> , 2007, 145, 786-800.	4.8	101
10	The <i>Pseudomonas</i> type III effector HopQ1 activates cytokinin signaling and interferes with plant innate immunity. <i>New Phytologist</i> , 2014, 201, 585-598.	7.3	99
11	Dynamics of Endogenous Phytohormones during Desiccation and Recovery of the Resurrection Plant Species <i>Haberlea rhodopensis</i> . <i>Journal of Plant Growth Regulation</i> , 2013, 32, 564-574.	5.1	97
12	Cytokinin-induced upregulation of cytokinin oxidase activity in tobacco includes changes in enzyme glycosylation and secretion. <i>Physiologia Plantarum</i> , 2003, 117, 11-21.	5.2	94
13	The <i>Solanum lycopersicum</i> WRKY3 Transcription Factor SlWRKY3 Is Involved in Salt Stress Tolerance in Tomato. <i>Frontiers in Plant Science</i> , 2017, 8, 1343.	3.6	89
14	Cytokinins in Tobacco and Wheat Chloroplasts. Occurrence and Changes Due to Light/Dark Treatment. <i>Plant Physiology</i> , 1999, 121, 245-252.	4.8	87
15	<i>SIDREB2</i> , a tomato dehydration-responsive element-binding 2 transcription factor, mediates salt stress tolerance in tomato and <i>Arabidopsis</i> . <i>Plant, Cell and Environment</i> , 2016, 39, 62-79.	5.7	85
16	Diurnal variation of cytokinin, auxin and abscisic acid levels in tobacco leaves. <i>Journal of Experimental Botany</i> , 2005, 56, 2877-2883.	4.8	82
17	Control of cytokinin and auxin homeostasis in cyanobacteria and algae. <i>Annals of Botany</i> , 2017, 119, 151-166.	2.9	82
18	Tomato (<i>Solanum lycopersicum</i> L.) SlIPT3 and SlIPT4 isopentenyltransferases mediate salt stress response in tomato. <i>BMC Plant Biology</i> , 2015, 15, 85.	3.6	73

#	ARTICLE	IF	CITATIONS
19	Cytokinin activities of N ⁶ -benzyladenosine derivatives hydroxylated on the side-chain phenyl ring. <i>Journal of Plant Growth Regulation</i> , 1987, 6, 113-120.	5.1	67
20	Studying Secondary Growth and Bast Fiber Development: The Hemp Hypocotyl Peeks behind the Wall. <i>Frontiers in Plant Science</i> , 2016, 7, 1733.	3.6	62
21	Phytohormone Profiling across the Bryophytes. <i>PLoS ONE</i> , 2015, 10, e0125411.	2.5	60
22	Profiles of Endogenous Phytohormones Over the Course of Norway Spruce Somatic Embryogenesis. <i>Frontiers in Plant Science</i> , 2018, 9, 1283.	3.6	59
23	Distinct metabolism of <i>trans</i> -zeatin glucosides of isopentenyladenine and <i>trans</i> -zeatin determines cytokinin metabolic spectrum in <i>Arabidopsis</i> . <i>New Phytologist</i> , 2020, 225, 2423-2438.	7.3	57
24	Transcriptional and hormonal regulation of petal and stamen development by STAMENLESS, the tomato (<i>Solanum lycopersicum</i> L.) orthologue to the B-class APETALA3 gene. <i>Journal of Experimental Botany</i> , 2014, 65, 2243-2256.	4.8	55
25	Endogenous cytokinin accumulation and cytokinin oxidase activity during shoot organogenesis of <i>Petunia hybrida</i> . <i>Physiologia Plantarum</i> , 1999, 105, 141-147.	5.2	54
26	The <i>Solanum lycopersicum</i> Zinc Finger2 Cysteine-2/Histidine-2 Repressor-Like Transcription Factor Regulates Development and Tolerance to Salinity in Tomato and <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2014, 164, 1967-1990.	4.8	54
27	Hormone Autotrophic Growth and Differentiation Identifies Mutant Lines of <i>Arabidopsis</i> with Altered Cytokinin and Auxin Content or Signaling. <i>Plant Physiology</i> , 2000, 122, 721-730.	4.8	51
28	Glutamate kinase as a potential biomarker of heavy metal stress in plants. <i>Ecotoxicology and Environmental Safety</i> , 2008, 70, 223-230.	6.0	50
29	Transient accumulation of <i>cis</i> - and <i>trans</i> -zeatin type cytokinins and its relation to cytokinin oxidase activity during cell cycle of synchronized tobacco BY-2 cells. <i>Plant Physiology and Biochemistry</i> , 2002, 40, 333-337.	5.8	47
30	Nomenclature for Members of the Two-Component Signaling Pathway of Plants. <i>Plant Physiology</i> , 2013, 161, 1063-1065.	4.8	45
31	Characterization of natural leaf senescence in tobacco (<i>Nicotiana tabacum</i>) plants grown in vitro. <i>Protoplasma</i> , 2016, 253, 259-275.	2.1	43
32	Phytohormone profiling in relation to osmotic adjustment in NaCl-treated plants of the halophyte tomato wild relative species <i>Solanum chilense</i> comparatively to the cultivated glycophyte <i>Solanum lycopersicum</i> . <i>Plant Science</i> , 2017, 258, 77-89.	3.6	42
33	Remodeling of Cytokinin Metabolism at Infection Sites of <i>Colletotrichum graminicola</i> on Maize Leaves. <i>Molecular Plant-Microbe Interactions</i> , 2012, 25, 1073-1082.	2.6	41
34	Cytokinin oxidase from auxin- and cytokinin-dependent callus cultures of tobacco (<i>Nicotiana tabacum</i>) Tj ETQq0 0 0 rgBT /Overlock 10 T	5.1	38
35	The Involvement of Cytokinin Oxidase/Dehydrogenase and Zeatin Reductase in Regulation of Cytokinin Levels in Pea (<i>Pisum sativum</i> L.) Leaves. <i>Journal of Plant Growth Regulation</i> , 2005, 24, 188-200.	5.1	38
36	In vitro shoot organogenesis and comparative analysis of endogenous phytohormones in kohlrabi (<i>Brassica oleracea</i> var. <i>gongylodes</i>): effects of genotype, explant type and applied cytokinins. <i>Plant Cell, Tissue and Organ Culture</i> , 2015, 121, 741-760.	2.3	36

#	ARTICLE	IF	CITATIONS
37	Cytokinin Metabolism of Pathogenic Fungus <i>Leptosphaeria maculans</i> Involves Isopentenyltransferase, Adenosine Kinase and Cytokinin Oxidase/Dehydrogenase. <i>Frontiers in Microbiology</i> , 2017, 8, 1374.	3.5	36
38	Regulation of cytokinin oxidase activity in tobacco callus expressing the T-DNA ipt gene. <i>Physiologia Plantarum</i> , 1997, 99, 89-96.	5.2	34
39	Control of cytokinin biosynthesis and metabolism. <i>New Comprehensive Biochemistry</i> , 1999, , 141-160.	0.1	32
40	Positive impact of vermicompost leachate on salt stress resistance in tomato (<i>Solanum lycopersicum</i>) Tj ETQq0 0 0,rgBT /Overlock 10 TF	3.7	32
41	Integrating the Roles for Cytokinin and Auxin in De Novo Shoot Organogenesis: From Hormone Uptake to Signaling Outputs. <i>International Journal of Molecular Sciences</i> , 2021, 22, 8554.	4.1	30
42	Endogenous levels of cytokinins, indole-3-acetic acid and abscisic acid in in vitro grown potato: A contribution to potato hormonomics. <i>Scientific Reports</i> , 2020, 10, 3437.	3.3	27
43	Regenerative Capacity of Cacti <i>Schlumbergera</i> and <i>Rhipsalidopsis</i> in Relation to Endogenous Phytohormones, Cytokinin Oxidase/Dehydrogenase, and Peroxidase Activities. <i>Journal of Plant Growth Regulation</i> , 2006, 25, 79-88.	5.1	26
44	Involvement of cis-Zeatin, Dihydrozeatin, and Aromatic Cytokinins in Germination and Seedling Establishment of Maize, Oats, and Lucerne. <i>Journal of Plant Growth Regulation</i> , 2012, 31, 392-405.	5.1	26
45	Cytokinin metabolism in maize: Novel evidence of cytokinin abundance, interconversions and formation of a new trans-zeatin metabolic product with a weak anticytokinin activity. <i>Plant Science</i> , 2016, 247, 127-137.	3.6	25
46	Cytokinin Profiles of AtCKX2-Overexpressing Potato Plants and the Impact of Altered Cytokinin Homeostasis on Tuberization In Vitro. <i>Journal of Plant Growth Regulation</i> , 2012, 31, 460-470.	5.1	24
47	Cytokinin N-glucosylation inhibitors suppress deactivation of exogenous cytokinins in radish, but their effect on active endogenous cytokinins is counteracted by other regulatory mechanisms. <i>Physiologia Plantarum</i> , 2004, 121, 215-222.	5.2	22
48	Evidence for Importance of tRNA-Dependent Cytokinin Biosynthetic Pathway in the Moss <i>Physcomitrella patens</i> . <i>Journal of Plant Growth Regulation</i> , 2008, 27, 271-281.	5.1	21
49	Comparison of endogenous cytokinins and cytokinin oxidase/dehydrogenase activity in germinating and thermoinhibited <i>Tagetes minuta</i> achenes. <i>Journal of Plant Physiology</i> , 2012, 169, 696-703.	3.5	21
50	Combined effects of fungal inoculants and the cytokinin-like growth regulator thidiazuron on growth, phytohormone contents and endophytic root fungi in <i>Miscanthus giganteus</i> . <i>Plant Physiology and Biochemistry</i> , 2017, 120, 120-131.	5.8	21
51	Cytokinin N-glucosides: Occurrence, Metabolism and Biological Activities in Plants. <i>Biomolecules</i> , 2021, 11, 24.	4.0	21
52	Overexpression of Arabidopsis cytokinin oxidase/dehydrogenase genes AtCKX1 and AtCKX2 in transgenic <i>Centaurium erythraea</i> Rafn.. <i>Plant Cell, Tissue and Organ Culture</i> , 2013, 115, 139-150.	2.3	19
53	Light Regulates the Cytokinin-Dependent Cold Stress Responses in Arabidopsis. <i>Frontiers in Plant Science</i> , 2020, 11, 608711.	3.6	19
54	Cytological, Biochemical and Molecular Events of the Embryogenic State in Douglas-fir (<i>Pseudotsuga</i>) Tj ETQq0 0 0,rgBT /Overlock 10 TF	3.8	18

#	ARTICLE	IF	CITATIONS
55	Characterization of <i>Arabidopsis thaliana</i> mutant <i>ror-1</i> (roscovitine-resistant) and its utilization in understanding of the role of cytokinin N-glucosylation pathway in plants. <i>Plant Growth Regulation</i> , 2010, 61, 231-242.	3.4	17
56	Endogenous Phytohormones in Spontaneously Regenerated <i>Centaurium erythraea</i> Rafn. Plants Grown In Vitro. <i>Journal of Plant Growth Regulation</i> , 2016, 35, 543-552.	5.1	17
57	Photoperiodic control of cytokinin transport and metabolism in <i>Chenopodium rubrum</i> . <i>Physiologia Plantarum</i> , 1996, 98, 564-570.	5.2	16
58	Antioxidant enzymatic protection during tobacco leaf ageing is affected by cytokinin depletion. <i>Plant Growth Regulation</i> , 2011, 65, 23-34.	3.4	16
59	Hormonal Regulation of Early Fruit Development in European Pear (<i>Pyrus communis</i> cv. "Conference"™). <i>Horticulturae</i> , 2019, 5, 9.	2.8	16
60	Response of cytokinins and nitrogen metabolism in the fronds of <i>Pteris</i> sp. under arsenic stress. <i>PLoS ONE</i> , 2020, 15, e0233055.	2.5	16
61	Regulation of cytokinin content in plant cells. <i>Physiologia Plantarum</i> , 1997, 101, 689-700.	5.2	15
62	Effect of exogenous cytokinins, auxins and adenine on cytokinin N-glucosylation and cytokinin oxidase/dehydrogenase activity in de-rooted radish seedlings. <i>Plant Growth Regulation</i> , 2004, 44, 15-23.	3.4	15
63	Senescence progression in a single darkened cotyledon depends on the light status of the other cotyledon in <i>Cucurbita pepo</i> (zucchini) seedlings: potential involvement of cytokinins and cytokinin oxidase/dehydrogenase activity. <i>Physiologia Plantarum</i> , 2008, 134, 609-623.	5.2	15
64	Effect of Cytokinin and Auxin Treatments on Morphogenesis, Terpenoid Biosynthesis, Photosystem Structural Organization, and Endogenous Isoprenoid Cytokinin Profile in <i>Artemisia alba</i> Turra In Vitro. <i>Journal of Plant Growth Regulation</i> , 2018, 37, 403-418.	5.1	14
65	Increase in activity, glycosylation and expression of cytokinin oxidase/dehydrogenase during the senescence of barley leaf segments in the dark. <i>Physiologia Plantarum</i> , 2007, 130, 572-579.	5.2	13
66	Changes in cytokinin levels and metabolism in tobacco (<i>Nicotiana tabacum</i> L.) explants during in vitro shoot organogenesis induced by trans-zeatin and dihydrozeatin. <i>Plant Growth Regulation</i> , 2011, 65, 427-437.	3.4	13
67	Changes in cytokinin content and altered cytokinin homeostasis in <i>AtCKX1</i> and <i>AtCKX2</i> -overexpressing centaury (<i>Centaurium erythraea</i> Rafn.) plants grown in vitro. <i>Plant Cell, Tissue and Organ Culture</i> , 2015, 120, 767-777.	2.3	13
68	Sucrose interferes with endogenous cytokinin homeostasis and expression of organogenesis-related genes during de novo shoot organogenesis in kohlrabi. <i>Scientific Reports</i> , 2021, 11, 6494.	3.3	12
69	Endogenous phytohormone profiles in <i>Pteris</i> fern species differing in arsenic accumulating ability. <i>Environmental and Experimental Botany</i> , 2019, 166, 103822.	4.2	10
70	Overexpressing <i>AtCKX1</i> in Potato Plants grown In Vitro: The Effects on Cytokinin Composition and Tuberization. <i>Journal of Plant Growth Regulation</i> , 2021, 40, 37-47.	5.1	10
71	Antibody-mediated modulation of cytokinins in tobacco: organ-specific changes in cytokinin homeostasis. <i>Journal of Experimental Botany</i> , 2018, 69, 441-454.	4.8	8
72	Heat Stress Targeting Individual Organs Reveals the Central Role of Roots and Crowns in Rice Stress Responses. <i>Frontiers in Plant Science</i> , 2021, 12, 799249.	3.6	8

#	ARTICLE	IF	CITATIONS
73	Desiccation as a Post-maturation Treatment Helps Complete Maturation of Norway Spruce Somatic Embryos: Carbohydrates, Phytohormones and Proteomic Status. <i>Frontiers in Plant Science</i> , 2022, 13, 823617.	3.6	8
74	Regulation of cytokinin oxidase activity in tobacco callus expressing the T-DNA ipt gene. <i>Physiologia Plantarum</i> , 1997, 99, 89-96.	5.2	6
75	Auxins and Cytokinins in Plant Development and Interactions with Other Phytohormones 2014. <i>Journal of Plant Growth Regulation</i> , 2014, 33, 709-714.	5.1	6
76	CgIPT1 is required for synthesis of cis-zeatin cytokinins and contributes to stress tolerance and virulence in <i>Colletotrichum graminicola</i> . <i>Fungal Genetics and Biology</i> , 2020, 143, 103436.	2.1	6
77	Phytohormone profiles in non-transformed and AtCKX transgenic centaury (<i>Centaurium erythraea</i>) Tj ETQq1 1 0.784314 rgBT /Overlook	3.3	6
78	Evolutionary diversification of cytokinin-specific glucosyltransferases in angiosperms and enigma of missing cis-zeatin O-glucosyltransferase gene in Brassicaceae. <i>Scientific Reports</i> , 2021, 11, 7885.	3.3	5
79	Impact of jasmonic acid on lignification in the hemp hypocotyl. <i>Plant Signaling and Behavior</i> , 2019, 14, 1592641.	2.4	2
80	Hormonome Dynamics During Microgametogenesis in Different <i>Nicotiana</i> Species. <i>Frontiers in Plant Science</i> , 2021, 12, 735451.	3.6	2
81	Comparison of salinity and drought stress effects on abscisic acid metabolites activity of cytokinin oxidase/dehydrogenase and chlorophyll levels in radish audtabacco. <i>Ecological Questions</i> , 2010, 14, .	0.3	1
82	Local induction of senescence by darkness in <i>Cucurbita pepo</i> (zucchini) cotyledons or the primary leaf induces opposite effects in the adjacent illuminated organ. <i>Plant Growth Regulation</i> , 2011, 65, 459-471.	3.4	1
83	Transgenic AtCKX Centaury Plants Grown In Vitro. , 0, , .		0