

Flavin Monooxygenase-Generated N-Hydroxypipicolinic Acid Promotes Systemic Immunity

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Citation Report

#	ARTICLE	IF	CITATIONS
1	A critical role for Arabidopsis <i>MILDEW RESISTANCE LOCUS</i> O2 in systemic acquired resistance. <i>Plant Journal</i> , 2018, 94, 1064-1082.	2.8	28
2	Pipped at the Post: Pipecolic Acid Derivative Identified as SAR Regulator. <i>Cell</i> , 2018, 173, 286-287.	13.5	16
3	Recent Advances in Synthetic Chemical Inducers of Plant Immunity. <i>Frontiers in Plant Science</i> , 2018, 9, 1613.	1.7	72
4	Different Pathogen Defense Strategies in Arabidopsis: More than Pathogen Recognition. <i>Cells</i> , 2018, 7, 252.	1.8	84
5	Arabidopsis thaliana Immunity-Related Compounds Modulate Disease Susceptibility in Barley. <i>Agronomy</i> , 2018, 8, 142.	1.3	14
6	A MPK3/6-WRKY33-ALD1-Pipecolic Acid Regulatory Loop Contributes to Systemic Acquired Resistance. <i>Plant Cell</i> , 2018, 30, 2480-2494.	3.1	119
7	Systemic Acquired Resistance and Salicylic Acid: Past, Present, and Future. <i>Molecular Plant-Microbe Interactions</i> , 2018, 31, 871-888.	1.4	350
8	Chemical Activation of EDS1/PAD4 Signaling Leading to Pathogen Resistance in Arabidopsis. <i>Plant and Cell Physiology</i> , 2018, 59, 1592-1607.	1.5	31
9	Lysine metabolism to <i>N</i> -hydroxy-pipecolic acid: an integral immune-activating pathway in plants. <i>Plant Journal</i> , 2018, 96, 5-21.	2.8	88
10	Signals of Systemic Immunity in Plants: Progress and Open Questions. <i>International Journal of Molecular Sciences</i> , 2018, 19, 1146.	1.8	59
11	Plants Pack a Quiver Full of Arrows. <i>Cell Host and Microbe</i> , 2018, 23, 573-575.	5.1	8
12	<i>N</i> -hydroxy-pipecolic acid is a mobile metabolite that induces systemic disease resistance in <i>Arabidopsis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E4920-E4929.	3.3	187
13	Synthesis versus degradation: directions of amino acid metabolism during Arabidopsis abiotic stress response. <i>Plant Molecular Biology</i> , 2018, 98, 121-135.	2.0	243
14	Deadlier than the malate. <i>Cell Research</i> , 2018, 28, 609-610.	5.7	1
15	Stressed Out About Hormones: How Plants Orchestrate Immunity. <i>Cell Host and Microbe</i> , 2019, 26, 163-172.	5.1	172
16	Chloroplasts as mediators of plant biotic interactions over short and long distances. <i>Current Opinion in Plant Biology</i> , 2019, 50, 148-155.	3.5	16
17	Extracellular pyridine nucleotides trigger plant systemic immunity through a lectin receptor kinase/BAK1 complex. <i>Nature Communications</i> , 2019, 10, 4810.	5.8	65
18	An engineered pathway for <i>N</i> -hydroxy-pipecolic acid synthesis enhances systemic acquired resistance in tomato. <i>Science Signaling</i> , 2019, 12, .	1.6	46

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19	Down regulation of cotton GbTRP1 leads to accumulation of anthranilates and confers resistance to <i>Verticillium dahliae</i> . <i>Journal of Cotton Research</i> , 2019, 2, .	1.0	2
20	Systemic acquired resistance networks amplify airborne defense cues. <i>Nature Communications</i> , 2019, 10, 3813.	5.8	85
21	Salicylic Acid Binding Proteins (SABPs): The Hidden Forefront of Salicylic Acid Signalling. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4377.	1.8	65
22	Pipecolic Acid Is Induced in Barley upon Infection and Triggers Immune Responses Associated with Elevated Nitric Oxide Accumulation. <i>Molecular Plant-Microbe Interactions</i> , 2019, 32, 1303-1313.	1.4	24
23	Root-specific camalexin biosynthesis controls the plant growth-promoting effects of multiple bacterial strains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 15735-15744.	3.3	134
24	Gene networks underlying the early regulation of <i>Paraburkholderia phytofirmans</i> PsJN induced systemic resistance in <i>Arabidopsis</i> . <i>PLoS ONE</i> , 2019, 14, e0221358.	1.1	34
25	Unleashing the Synthetic Power of Plant Oxygenases: From Mechanism to Application. <i>Plant Physiology</i> , 2019, 179, 813-829.	2.3	28
26	A Comparative Transcriptomic and Proteomic Analysis of Hexaploid Wheat's Responses to Colonization by <i>Bacillus velezensis</i> and <i>Gaeumannomyces graminis</i> , Both Separately and Combined. <i>Molecular Plant-Microbe Interactions</i> , 2019, 32, 1336-1347.	1.4	22
27	S-Alk(en)ylcysteine sulfoxides in the genus <i>Allium</i> : proposed biosynthesis, chemical conversion, and bioactivities. <i>Journal of Experimental Botany</i> , 2019, 70, 4123-4137.	2.4	73
28	Cell Death Triggered by the YUCCA-like Bs3 Protein Coincides with Accumulation of Salicylic Acid and Pipecolic Acid But Not of Indole-3-Acetic Acid. <i>Plant Physiology</i> , 2019, 180, 1647-1659.	2.3	8
29	Involvement of Salicylic Acid in Anthracnose Infection in Tea Plants Revealed by Transcriptome Profiling. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2439.	1.8	29
30	The Emergence of a Mobile Signal for Systemic Acquired Resistance. <i>Plant Cell</i> , 2019, 31, 1414-1415.	3.1	14
31	WRKY transcription factors: evolution, binding, and action. <i>Phytopathology Research</i> , 2019, 1, .	0.9	152
32	Bacterial infection systemically suppresses stomatal density. <i>Plant, Cell and Environment</i> , 2019, 42, 2411-2421.	2.8	37
33	<i>Arabidopsis</i> mutant <i>dnd2</i> exhibits increased auxin and abscisic acid content and reduced stomatal conductance. <i>Plant Physiology and Biochemistry</i> , 2019, 140, 18-26.	2.8	10
34	<i>Arabidopsis mlo3</i> mutant plants exhibit spontaneous callose deposition and signs of early leaf senescence. <i>Plant Molecular Biology</i> , 2019, 101, 21-40.	2.0	16
35	<i>NbALD1</i> mediates resistance to turnip mosaic virus by regulating the accumulation of salicylic acid and the ethylene pathway in <i>Nicotiana benthamiana</i> . <i>Molecular Plant Pathology</i> , 2019, 20, 990-1004.	2.0	23
36	Salicylic acid: biosynthesis, perception, and contributions to plant immunity. <i>Current Opinion in Plant Biology</i> , 2019, 50, 29-36.	3.5	334

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37	Methyl Salicylate Glucosylation Regulates Plant Defense Signaling and Systemic Acquired Resistance. <i>Plant Physiology</i> , 2019, 180, 2167-2181.	2.3	62
38	A gossypol biosynthetic intermediate disturbs plant defence response. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019, 374, 20180319.	1.8	13
39	N-hydroxy-pipecolic acid and salicylic acid: a metabolic duo for systemic acquired resistance. <i>Current Opinion in Plant Biology</i> , 2019, 50, 44-57.	3.5	107
40	The NAC family transcription factor GmNAC42â€“1 regulates biosynthesis of the anticancer and neuroprotective glyceollins in soybean. <i>BMC Genomics</i> , 2019, 20, 149.	1.2	25
41	The Arabidopsis thaliana Nâ€“recognin E3 ligase PROTEOLYSIS1 influences the immune response. <i>Plant Direct</i> , 2019, 3, e00194.	0.8	12
42	A Role for Tocopherol Biosynthesis in Arabidopsis Basal Immunity to Bacterial Infection. <i>Plant Physiology</i> , 2019, 181, 1008-1028.	2.3	49
43	Isolation of Open Chromatin Identifies Regulators of Systemic Acquired Resistance. <i>Plant Physiology</i> , 2019, 181, 817-833.	2.3	28
44	Protein kinaseâ€“mediated signalling in priming: Immune signal initiation, propagation, and establishment of longâ€“term pathogen resistance in plants. <i>Plant, Cell and Environment</i> , 2019, 42, 904-917.	2.8	34
45	The role of amino acid metabolism during abiotic stress release. <i>Plant, Cell and Environment</i> , 2019, 42, 1630-1644.	2.8	278
46	Characterizing both bacteria and fungi improves understanding of the Arabidopsis root microbiome. <i>Scientific Reports</i> , 2019, 9, 24.	1.6	135
47	Mitogen-Activated Protein Kinase Phosphatase 1 (MKP1) Negatively Regulates the Production of Reactive Oxygen Species During Arabidopsis Immune Responses. <i>Molecular Plant-Microbe Interactions</i> , 2019, 32, 464-478.	1.4	27
48	Plant immunity in signal integration between biotic and abiotic stress responses. <i>New Phytologist</i> , 2020, 225, 87-104.	3.5	267
49	Metabolic engineering advances and prospects for amino acid production. <i>Metabolic Engineering</i> , 2020, 58, 17-34.	3.6	177
50	Translational Regulation of Metabolic Dynamics during Effector-Triggered Immunity. <i>Molecular Plant</i> , 2020, 13, 88-98.	3.9	68
51	Redundant CAMTA Transcription Factors Negatively Regulate the Biosynthesis of Salicylic Acid and N-Hydroxy-pipecolic Acid by Modulating the Expression of SARD1 and CBP60g. <i>Molecular Plant</i> , 2020, 13, 144-156.	3.9	88
52	Arabidopsis CAMTA Transcription Factors Regulate Pipecolic Acid Biosynthesis and Priming of Immunity Genes. <i>Molecular Plant</i> , 2020, 13, 157-168.	3.9	78
53	Calciumâ€“dependent protein kinase 5 links calcium signaling with N-hydroxy-pipecolic acid and SARD1â€“dependent immune memory in systemic acquired resistance. <i>New Phytologist</i> , 2020, 225, 310-325.	3.5	46
54	Construction and applications of a B vitamin genetic resource for investigation of vitaminâ€“dependent metabolism in maize. <i>Plant Journal</i> , 2020, 101, 442-454.	2.8	9

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55	<i>JMJ14</i> encoded H3K4 demethylase modulates immune responses by regulating defence gene expression and pipecolic acid levels. <i>New Phytologist</i> , 2020, 225, 2108-2121.	3.5	29
56	High-resolution expression profiling of selected gene sets during plant immune activation. <i>Plant Biotechnology Journal</i> , 2020, 18, 1610-1619.	4.1	21
57	Biosynthetic Pathways to Nonproteinogenic β -Amino Acids. <i>Chemical Reviews</i> , 2020, 120, 3161-3209.	23.0	94
58	Biosynthesis and Regulation of Salicylic Acid and N-Hydroxypipecolic Acid in Plant Immunity. <i>Molecular Plant</i> , 2020, 13, 31-41.	3.9	98
59	FMO1 Is Involved in Excess Light Stress-Induced Signal Transduction and Cell Death Signaling. <i>Cells</i> , 2020, 9, 2163.	1.8	19
60	Diverse Roles of the Salicylic Acid Receptors NPR1 and NPR3/NPR4 in Plant Immunity. <i>Plant Cell</i> , 2020, 32, 4002-4016.	3.1	87
61	Mitochondrial signalling is critical for acclimation and adaptation to flooding in <i>Arabidopsis thaliana</i> . <i>Plant Journal</i> , 2020, 103, 227-247.	2.8	51
62	Acibenzolar-S-Methyl Activates Stomatal-Based Defense Systemically in Japanese Radish. <i>Frontiers in Plant Science</i> , 2020, 11, 565745.	1.7	7
64	Mobile signals in systemic acquired resistance. <i>Current Opinion in Plant Biology</i> , 2020, 58, 41-47.	3.5	41
65	Endophytic Fungi Activated Similar Defense Strategies of <i>Achnatherum sibiricum</i> Host to Different Trophic Types of Pathogens. <i>Frontiers in Microbiology</i> , 2020, 11, 1607.	1.5	17
66	Transcriptional Response of Osmolyte Synthetic Pathways and Membrane Transporters in a Euryhaline Diatom During Long-term Acclimation to a Salinity Gradient. <i>Journal of Phycology</i> , 2020, 56, 1712-1728.	1.0	16
67	Analysis of melatonin regulation of germination and antioxidant metabolism in different wheat cultivars under polyethylene glycol stress. <i>PLoS ONE</i> , 2020, 15, e0237536.	1.1	18
68	CYP720A1 function in roots is required for flowering time and systemic acquired resistance in the foliage of <i>Arabidopsis</i> . <i>Journal of Experimental Botany</i> , 2020, 71, 6612-6622.	2.4	1
69	N-hydroxypipecolic acid: a general and conserved activator of systemic plant immunity. <i>Journal of Experimental Botany</i> , 2020, 71, 6193-6196.	2.4	3
70	RIN13-mediated disease resistance depends on the SNC1-EDS1/PAD4 signaling pathway in <i>Arabidopsis</i> . <i>Journal of Experimental Botany</i> , 2020, 71, 7393-7404.	2.4	8
71	Inducible biosynthesis and immune function of the systemic acquired resistance inducer N-hydroxypipecolic acid in monocotyledonous and dicotyledonous plants. <i>Journal of Experimental Botany</i> , 2020, 71, 6444-6459.	2.4	36
72	Putrescine elicits ROS-dependent activation of the salicylic acid pathway in <i>Arabidopsis thaliana</i> . <i>Plant, Cell and Environment</i> , 2020, 43, 2755-2768.	2.8	40
73	A flavin-dependent monooxygenase catalyzes the initial step in cyanogenic glycoside synthesis in ferns. <i>Communications Biology</i> , 2020, 3, 507.	2.0	20

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74	Local Responses and Systemic Induced Resistance Mediated by Ectomycorrhizal Fungi. <i>Frontiers in Plant Science</i> , 2020, 11, 590063.	1.7	43
75	The Lifecycle of the Plant Immune System. <i>Critical Reviews in Plant Sciences</i> , 2020, 39, 72-100.	2.7	68
76	The plant cuticle regulates apoplastic transport of salicylic acid during systemic acquired resistance. <i>Science Advances</i> , 2020, 6, eaaz0478.	4.7	63
77	Ectomycorrhizal fungi induce systemic resistance against insects on a nonmycorrhizal plant in a CERK1-dependent manner. <i>New Phytologist</i> , 2020, 228, 728-740.	3.5	32
78	The isoleucic acid triad: distinct impacts on plant defense, root growth, and formation of reactive oxygen species. <i>Journal of Experimental Botany</i> , 2020, 71, 4258-4270.	2.4	12
79	Structure and function of a flavin-dependent S-monooxygenase from garlic (<i>Allium sativum</i>). <i>Journal of Biological Chemistry</i> , 2020, 295, 11042-11055.	1.6	14
80	Salicylic acid: transport and long-distance immune signaling. <i>Current Opinion in Virology</i> , 2020, 42, 53-57.	2.6	30
81	Flavin-dependent N-hydroxylating enzymes: distribution and application. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 6481-6499.	1.7	34
82	The differential expression patterns of paralogs in response to stresses indicate expression and sequence divergences. <i>BMC Plant Biology</i> , 2020, 20, 277.	1.6	7
83	Evidence from stable-isotope labeling that catechol is an intermediate in salicylic acid catabolism in the flowers of <i>Silene latifolia</i> (white campion). <i>Planta</i> , 2020, 252, 3.	1.6	3
84	Lysine Catabolism Through the Saccharopine Pathway: Enzymes and Intermediates Involved in Plant Responses to Abiotic and Biotic Stress. <i>Frontiers in Plant Science</i> , 2020, 11, 587.	1.7	47
85	The rice/maize pathogen <i>Cochliobolus</i> spp. infect and reproduce on <i>Arabidopsis</i> revealing differences in defensive phytohormone function between monocots and dicots. <i>Plant Journal</i> , 2020, 103, 412-429.	2.8	12
86	Microbial Engineering for Production of Functionalized Amino Acids and Amines. <i>Biotechnology Journal</i> , 2020, 15, e1900451.	1.8	32
87	The "Green" FMOs: Diversity, Functionality and Application of Plant Flavoproteins. <i>Catalysts</i> , 2020, 10, 329.	1.6	26
88	<i>Pieris brassicae</i> eggs trigger interplant systemic acquired resistance against a foliar pathogen in <i>Arabidopsis</i> . <i>New Phytologist</i> , 2020, 228, 1652-1661.	3.5	11
90	Modulation of Plant Defense System in Response to Microbial Interactions. <i>Frontiers in Microbiology</i> , 2020, 11, 1298.	1.5	131
91	Genetic Network between Leaf Senescence and Plant Immunity: Crucial Regulatory Nodes and New Insights. <i>Plants</i> , 2020, 9, 495.	1.6	48
92	Short- and long-distance signaling in plant defense. <i>Plant Journal</i> , 2021, 105, 505-517.	2.8	34

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93	Systemic propagation of immunity in plants. <i>New Phytologist</i> , 2021, 229, 1234-1250.	3.5	193
94	Dissecting Contrasts in Cell Death, Hormone, and Defense Signaling in Response to <i>Botrytis cinerea</i> and Reactive Oxygen Species. <i>Molecular Plant-Microbe Interactions</i> , 2021, 34, 75-87.	1.4	7
95	An indigo-producing plant, <i>Polygonum tinctorium</i> , possesses a flavin-containing monooxygenase capable of oxidizing indole. <i>Biochemical and Biophysical Research Communications</i> , 2021, 534, 199-205.	1.0	17
96	A nonproteinaceous <i>Fusarium</i> cell wall extract triggers receptor-like protein-dependent immune responses in <i>Arabidopsis</i> and cotton. <i>New Phytologist</i> , 2021, 230, 275-289.	3.5	9
97	Systemic acquired resistance (SAR)-associated molecules induce resistance in lab- and greenhouse-grown cucumber. <i>Physiological and Molecular Plant Pathology</i> , 2021, 113, 101592.	1.3	0
100	Natural variation in temperature-modulated immunity uncovers transcription factor bHLH059 as a thermoresponsive regulator in <i>Arabidopsis thaliana</i> . <i>PLoS Genetics</i> , 2021, 17, e1009290.	1.5	23
101	Where do the electrons go? How numerous redox processes drive phytochemical diversity. <i>Phytochemistry Reviews</i> , 2021, 20, 367-407.	3.1	11
102	How to achieve immune balance and harmony: glycosyltransferase UGT76B1 inactivates N-hydroxy-pipecolic acid to suppress defense responses. <i>Plant Cell</i> , 2021, 33, 453-454.	3.1	3
104	UGT76B1, a promiscuous hub of small molecule-based immune signaling, glucosylates N-hydroxypipecolic acid, and balances plant immunity. <i>Plant Cell</i> , 2021, 33, 714-734.	3.1	47
105	Chemokine-like MDL proteins modulate flowering time and innate immunity in plants. <i>Journal of Biological Chemistry</i> , 2021, 296, 100611.	1.6	10
106	ALD1 accumulation in <i>Arabidopsis</i> epidermal plastids confers local and non-autonomous disease resistance. <i>Journal of Experimental Botany</i> , 2021, 72, 2710-2726.	2.4	18
107	Transcriptomic Analysis of Wheat Seedling Responses to the Systemic Acquired Resistance Inducer N-Hydroxypipecolic Acid. <i>Frontiers in Microbiology</i> , 2021, 12, 621336.	1.5	8
108	The branched-chain amino acid aminotransferase TaBCAT1 modulates amino acid metabolism and positively regulates wheat rust susceptibility. <i>Plant Cell</i> , 2021, 33, 1728-1747.	3.1	27
110	Genome-wide identification and expression analysis of the TaYUCCA gene family in wheat. <i>Molecular Biology Reports</i> , 2021, 48, 1269-1279.	1.0	11
111	More stories to tell: NONEXPRESSOR OF PATHOGENESIS-RELATED GENES1, a salicylic acid receptor. <i>Plant, Cell and Environment</i> , 2021, 44, 1716-1727.	2.8	38
112	Exogenous pipecolic acid modulates plant defence responses against <i>Podosphaera xanthii</i> and <i>Pseudomonas syringae</i> pv. <i>lachrymans</i> in cucumber (<i>Cucumis sativus</i> L.). <i>Plant Biology</i> , 2021, 23, 473-484.	1.8	7
113	A quest for long-distance signals: the epidermis as central regulator of pipecolic acid-associated systemic acquired resistance. <i>Journal of Experimental Botany</i> , 2021, 72, 2266-2268.	2.4	2
114	Glycosylation of N-hydroxy-pipecolic acid equilibrates between systemic acquired resistance response and plant growth. <i>Molecular Plant</i> , 2021, 14, 440-455.	3.9	44

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115	Pattern-recognition receptors are required for NLR-mediated plant immunity. <i>Nature</i> , 2021, 592, 105-109.	13.7	590
117	Metabolomic Patterns of Septoria Canker Resistant and Susceptible <i>Populus trichocarpa</i> Genotypes 24 Hours Postinoculation. <i>Phytopathology</i> , 2021, 111, 2052-2066.	1.1	6
119	Engineering plant disease resistance against biotrophic pathogens. <i>Current Opinion in Plant Biology</i> , 2021, 60, 101987.	3.5	18
120	The mobile SAR signal N-hydroxy-pipecolic acid induces NPR1-dependent transcriptional reprogramming and immune priming. <i>Plant Physiology</i> , 2021, 186, 1679-1705.	2.3	39
121	UGT76B1 controls the growth-immunity trade-off during systemic acquired resistance. <i>Molecular Plant</i> , 2021, 14, 544-546.	3.9	4
122	Signals in systemic acquired resistance of plants against microbial pathogens. <i>Molecular Biology Reports</i> , 2021, 48, 3747-3759.	1.0	21
123	Imine chemistry in plant metabolism. <i>Current Opinion in Plant Biology</i> , 2021, 60, 101999.	3.5	7
124	NHR-49/PPAR α and HLH-30/TFEB cooperate for <i>C. elegans</i> host defense via a flavin-containing monooxygenase. <i>ELife</i> , 2021, 10, .	2.8	37
127	Rethinking of the Roles of Endophyte Symbiosis and Mycotoxin in Oxytropis Plants. <i>Journal of Fungi</i> (Basel, Switzerland), 2021, 7, 400.	1.5	11
128	Coordination of microbe-host homeostasis by crosstalk with plant innate immunity. <i>Nature Plants</i> , 2021, 7, 814-825.	4.7	95
129	Salicylic Acid: Biosynthesis and Signaling. <i>Annual Review of Plant Biology</i> , 2021, 72, 761-791.	8.6	193
130	The immune components ENHANCED DISEASE SUSCEPTIBILITY 1 and PHYTOALEXIN DEFICIENT 4 are required for cell death caused by overaccumulation of ceramides in Arabidopsis. <i>Plant Journal</i> , 2021, 107, 1447-1465.	2.8	19
131	WIND transcription factors orchestrate wound-induced callus formation, vascular reconnection and defense response in Arabidopsis. <i>New Phytologist</i> , 2021, 232, 734-752.	3.5	32
132	The flavin monooxygenase Bs3 triggers cell death in plants, impairs growth in yeast and produces H ₂ O ₂ in vitro. <i>PLoS ONE</i> , 2021, 16, e0256217.	1.1	3
133	Unravelling Plant Responses to Stress-The Importance of Targeted and Untargeted Metabolomics. <i>Metabolites</i> , 2021, 11, 558.	1.3	21
134	Chromatin accessibility landscapes activated by cell-surface and intracellular immune receptors. <i>Journal of Experimental Botany</i> , 2021, 72, 7927-7941.	2.4	14
135	Metabolic regulation of systemic acquired resistance. <i>Current Opinion in Plant Biology</i> , 2021, 62, 102050.	3.5	69
136	An Emerging Role for Chloroplasts in Disease and Defense. <i>Annual Review of Phytopathology</i> , 2021, 59, 423-445.	3.5	30

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137	The scope of flavin-dependent reactions and processes in the model plant <i>Arabidopsis thaliana</i> . <i>Phytochemistry</i> , 2021, 189, 112822.	1.4	18
138	Epigenetics: a catalyst of plant immunity against pathogens. <i>New Phytologist</i> , 2022, 233, 66-83.	3.5	44
139	Free Amino Acids and Methylglyoxal as Players in the Radiation Hormesis Effect after Low-Dose β -Irradiation of Barley Seeds. <i>Agriculture (Switzerland)</i> , 2021, 11, 918.	1.4	11
140	N-hydroxypipicolinic acid-induced transcription requires the salicylic acid signaling pathway at basal SA levels. <i>Plant Physiology</i> , 2021, 187, 2803-2819.	2.3	12
141	Plant immune networks. <i>Trends in Plant Science</i> , 2022, 27, 255-273.	4.3	140
142	Dissecting the metabolic reprogramming of maize root under nitrogen-deficient stress conditions. <i>Journal of Experimental Botany</i> , 2022, 73, 275-291.	2.4	12
143	Activation of TIR signalling boosts pattern-triggered immunity. <i>Nature</i> , 2021, 598, 500-503.	13.7	176
145	Insect eggs trigger systemic acquired resistance against a fungal and an oomycete pathogen. <i>New Phytologist</i> , 2021, 232, 2491-2505.	3.5	9
146	Flavoprotein monooxygenases: Versatile biocatalysts. <i>Biotechnology Advances</i> , 2021, 51, 107712.	6.0	78
147	<i>Arabidopsis</i> UGT76B1 glycosylates <i>N</i> -hydroxy-pipicolinic acid and inactivates systemic acquired resistance in tomato. <i>Plant Cell</i> , 2021, 33, 750-765.	3.1	48
148	The glycosyltransferase UGT76B1 modulates <i>N</i> -hydroxy-pipicolinic acid homeostasis and plant immunity. <i>Plant Cell</i> , 2021, 33, 735-749.	3.1	71
149	Metabolic profiling reveals local and systemic responses of kiwifruit to <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> . <i>Plant Direct</i> , 2020, 4, e00297.	0.8	20
150	Plant Immunity: Danger Perception and Signaling. <i>Cell</i> , 2020, 181, 978-989.	13.5	520
162	Multi-Omics Revealed Molecular Mechanisms Underlying Guard Cell Systemic Acquired Resistance. <i>International Journal of Molecular Sciences</i> , 2021, 22, 191.	1.8	15
163	Metabolomics analysis identifies metabolites associated with systemic acquired resistance in <i>Arabidopsis</i> . <i>PeerJ</i> , 2020, 8, e10047.	0.9	9
164	How activated NLRs induce anti-microbial defenses in plants. <i>Biochemical Society Transactions</i> , 2021, 49, 2177-2188.	1.6	14
165	Gene flow, linked selection, and divergent sorting of ancient polymorphism shape genomic divergence landscape in a group of edaphic specialists. <i>Molecular Ecology</i> , 2022, 31, 104-118.	2.0	10
166	Salicylic acid: A key regulator of redox signalling and plant immunity. <i>Plant Physiology and Biochemistry</i> , 2021, 168, 381-397.	2.8	78

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175	Zones of Defense? SA Receptors Have It Under Control. <i>Plant Cell</i> , 2020, 32, 3658-3659.	3.1	1
176	A Novel Role of Pipecolic Acid Biosynthetic Pathway in Drought Tolerance through the Antioxidant System in Tomato. <i>Antioxidants</i> , 2021, 10, 1923.	2.2	19
177	Protein Phosphorylation Changes During Systemic Acquired Resistance in <i>Arabidopsis thaliana</i> . <i>Frontiers in Plant Science</i> , 2021, 12, 748287.	1.7	11
178	Transcriptomic Changes in Internode Explants of Stinging Nettle during Callogenesis. <i>International Journal of Molecular Sciences</i> , 2021, 22, 12319.	1.8	1
179	Studies on regulation of plant physiology by pesticides. <i>Journal of Pesticide Sciences</i> , 2021, 46, 393-398.	0.8	4
180	Immunity-associated volatile emissions of β -ionone and nonanal propagate defence responses in neighbouring barley plants. <i>Journal of Experimental Botany</i> , 2022, 73, 615-630.	2.4	25
181	Comparative Omics Analysis of Endophyte-Infected and Endophyte-Free <i>Achnatherum Sibiricum</i> in Response to Pathogenic Fungi. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
182	Mitogen-activated protein kinase cascades in plant signaling. <i>Journal of Integrative Plant Biology</i> , 2022, 64, 301-341.	4.1	149
183	Zones of Defense? SA Receptors Have It Under Control. <i>Plant Cell</i> , 2020, 32, 3658-3659.	3.1	2
185	Transcriptional Coactivators: Driving Force of Plant Immunity. <i>Frontiers in Plant Science</i> , 2022, 13, 823937.	1.7	7
186	Plant SYP12 syntaxins mediate an evolutionarily conserved general immunity to filamentous pathogens. <i>ELife</i> , 2022, 11, .	2.8	18
187	A flavin-dependent monooxygenase produces nitrogenous tomato aroma volatiles using cysteine as a nitrogen source. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	18
188	Molecular innovations in plant TIR-based immunity signaling. <i>Plant Cell</i> , 2022, 34, 1479-1496.	3.1	55
189	Salicylic acid carboxyl glucosyltransferase UGT87E7 regulates disease resistance in <i>Camellia sinensis</i> . <i>Plant Physiology</i> , 2022, 188, 1507-1520.	2.3	34
190	Exciting times in plant biotic interactions. <i>Plant Cell</i> , 2022, 34, 1421-1424.	3.1	3
191	Chiral secondary amino acids, their importance, and methods of analysis. <i>Amino Acids</i> , 2022, 54, 687-719.	1.2	3
192	Salicylic Acid and N-Hydroxypipicolinic Acid at the Fulcrum of the Plant Immunity-Growth Equilibrium. <i>Frontiers in Plant Science</i> , 2022, 13, 841688.	1.7	17
193	GIGANTEA regulates <i>PAD4</i> transcription to promote pathogen defense against <i>Hyaloperonospora arabidopsidis</i> in <i>Arabidopsis thaliana</i> . <i>Plant Signaling and Behavior</i> , 2022, 17, 2058719.	1.2	5

#	ARTICLE	IF	CITATIONS
194	Transcriptome analysis of asparagus in response to postharvest treatment with <i>Yarrowia lipolytica</i> . <i>Biological Control</i> , 2022, 169, 104906.	1.4	5
195	Plant Immune Memory in Systemic Tissue Does Not Involve Changes in Rapid Calcium Signaling. <i>Frontiers in Plant Science</i> , 2021, 12, 798230.	1.7	9
196	Metabolomics Insights into Chemical Convergence in <i>Xanthomonas perforans</i> and Metabolic Changes Following Treatment with the Small Molecule Carvacrol. <i>Metabolites</i> , 2021, 11, 879.	1.3	3
197	Extracellular vesicles: Their functions in plant–pathogen interactions. <i>Molecular Plant Pathology</i> , 2022, 23, 760-771.	2.0	22
198	Suppression of MYC transcription activators by the immune cofactor NPR1 fine-tunes plant immune responses. <i>Cell Reports</i> , 2021, 37, 110125.	2.9	41
199	A plastidial retrograde signal potentiates biosynthesis of systemic stress response activators. <i>New Phytologist</i> , 2022, 233, 1732-1749.	3.5	4
200	Photoperiod Stress in <i>Arabidopsis thaliana</i> Induces a Transcriptional Response Resembling That of Pathogen Infection. <i>Frontiers in Plant Science</i> , 2022, 13, .	1.7	5
202	Multi-omics analysis of xylem sap uncovers dynamic modulation of poplar defenses by ammonium and nitrate. <i>Plant Journal</i> , 2022, 111, 282-303.	2.8	11
203	The Kelch–F-box protein SMALL AND GLOSSY LEAVES 1 (SAGL1) negatively influences salicylic acid biosynthesis in <i>Arabidopsis thaliana</i> by promoting the turnover of transcription factor SYSTEMIC ACQUIRED RESISTANCE DEFICIENT 1 (SARD1). <i>New Phytologist</i> , 2022, 235, 885-897.	3.5	11
204	Activation of NLR-Mediated Autoimmunity in <i>Arabidopsis</i> Early in Short Days 4 Mutant. <i>Frontiers in Plant Science</i> , 2022, 13, .	1.7	1
205	Protein glycosylation changes during systemic acquired resistance in <i>Arabidopsis thaliana</i> . <i>International Journal of Biological Macromolecules</i> , 2022, 212, 381-392.	3.6	5
206	Protein Metabolism in Plants to Survive against Abiotic Stress. , 0, , .		2
208	Phased small RNA-mediated systemic signaling in plants. <i>Science Advances</i> , 2022, 8, .	4.7	19
209	Infection by endophytic <i>Epichloa sibirica</i> was associated with activation of defense hormone signal transduction pathways and enhanced pathogen resistance in the grass <i>Achnatherum sibiricum</i> . <i>Phytopathology</i> , 0, , .	1.1	2
210	PeTGA1 enhances disease resistance against <i>Colletotrichum gloeosporioides</i> through directly regulating PeSARD1 in poplar. <i>International Journal of Biological Macromolecules</i> , 2022, 214, 672-684.	3.6	9
211	Roles of AGD2a in Plant Development and Microbial Interactions of <i>Lotus japonicus</i> . <i>International Journal of Molecular Sciences</i> , 2022, 23, 6863.	1.8	0
212	New molecules in plant defence against pathogens. <i>Essays in Biochemistry</i> , 0, , .	2.1	11
213	Recent advancements on the synthesis and biological significance of pipercolic acid and its derivatives. <i>Journal of Molecular Structure</i> , 2022, 1268, 133719.	1.8	5

#	ARTICLE	IF	CITATIONS
214	UPLC-MS/MS Profile Combined With RNA-Seq Reveals the Amino Acid Metabolism in <i>Zanthoxylum bungeanum</i> Leaves Under Drought Stress. <i>Frontiers in Nutrition</i> , 0, 9, .	1.6	5
215	Effects of Domestication on Plant's Microbiome Interactions. <i>Plant and Cell Physiology</i> , 2022, 63, 1654-1666.	1.5	11
216	AIG2A and AIG2B limit the activation of salicylic acid-regulated defenses by tryptophan-derived secondary metabolism in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2022, 34, 4641-4660.	3.1	6
217	News about amino acid metabolism in plant's microbe interactions. <i>Trends in Biochemical Sciences</i> , 2022, 47, 839-850.	3.7	38
218	Systemic acquired resistance-associated transport and metabolic regulation of salicylic acid and glycerol-3-phosphate. <i>Essays in Biochemistry</i> , 2022, 66, 673-681.	2.1	6
219	Overexpression of the <i>Arabidopsis</i> MACPF Protein AtMACP2 Promotes Pathogen Resistance by Activating SA Signaling. <i>International Journal of Molecular Sciences</i> , 2022, 23, 8784.	1.8	7
220	Explorations of chemical molecules that increase plant disease resistance. <i>Japanese Journal of Pesticide Science</i> , 2022, 47, 51-55.	0.0	0
221	Amino acids and their derivatives mediating defense priming and growth tradeoff. <i>Current Opinion in Plant Biology</i> , 2022, 69, 102288.	3.5	18
222	Comparative omics analysis of endophyte-infected and endophyte-free <i>Achnatherum sibiricum</i> in response to pathogenic fungi. <i>Biological Control</i> , 2022, 175, 105040.	1.4	0
223	The ornithine cyclodeaminase/Î-crySTALLIN superfamily of proteins: A novel family of oxidoreductases for the biocatalytic synthesis of chiral amines. <i>Current Research in Biotechnology</i> , 2022, 4, 402-419.	1.9	1
224	Identification of a regiospecific <i>S</i>-oxygenase for the production of marasmin in traditional medicinal plant <i>Tulbaghia violacea</i>. <i>Plant Biotechnology</i> , 2022, 39, 281-289.	0.5	0
225	<i>In vivo</i> Imaging Enables Understanding of Seamless Plant Defense Responses to Wounding and Pathogen Attack. <i>Plant and Cell Physiology</i> , 2022, 63, 1391-1404.	1.5	2
226	Molecular mechanisms of resistance to <i>Myzus persicae</i> conferred by the peach Rm2 gene: A multi-omics view. <i>Frontiers in Plant Science</i> , 0, 13, .	1.7	0
227	Translocation of acibenzolar, an active metabolic substance of acibenzolar-S-methyl, to distal leaves in cabbage and Japanese radish. <i>Journal of General Plant Pathology</i> , 0, , .	0.6	0
228	Transcriptomic and Metabolomic Analysis of a <i>Pseudomonas</i> -Resistant versus a Susceptible <i>Arabidopsis</i> Accession. <i>International Journal of Molecular Sciences</i> , 2022, 23, 12087.	1.8	1
229	<i>N</i>-Hydroxy pipecolic acid methyl ester is involved in <i>Arabidopsis</i> immunity. <i>Journal of Experimental Botany</i> , 2023, 74, 458-471.	2.4	5
230	Ozone and nitrogen dioxide regulate similar gene expression responses in <i>Arabidopsis</i> but natural variation in the extent of cell death is likely controlled by different genetic loci. <i>Frontiers in Plant Science</i> , 0, 13, .	1.7	2
231	<sc>PBS3</sc> : a versatile player in and beyond salicylic acid biosynthesis in <i>Arabidopsis</i>. <i>New Phytologist</i> , 0, , .	3.5	1

#	ARTICLE	IF	CITATIONS
232	OXIDATIVE SIGNAL-INDUCIBLE1 induces immunity by coordinating N-hydroxypipicolinic acid, salicylic acid, and camalexin synthesis. <i>New Phytologist</i> , 2023, 237, 1285-1301.	3.5	3
233	Glutathione and neodosmin feedback sustain plant immunity. <i>Journal of Experimental Botany</i> , 2023, 74, 976-990.	2.4	6
234	Genetic requirements for infection-specific responses in conferring disease resistance in <i>Arabidopsis</i> . <i>Frontiers in Plant Science</i> , 0, 13, .	1.7	2
235	Promotion of <i>Arabidopsis</i> immune responses by a rhizosphere fungus via supply of pipicolinic acid to plants and selective augment of phytoalexins. <i>Science China Life Sciences</i> , 2023, 66, 1119-1133.	2.3	7
236	Insights into metabolite biosynthesis and regulation in rice immune signaling. <i>Trends in Microbiology</i> , 2022, , .	3.5	0
238	Comparative Metabolomic and Transcriptomic Analyses of Phytochemicals in Two Elite Sweet Potato Cultivars for Table Use. <i>Molecules</i> , 2022, 27, 8939.	1.7	2
239	Interconnected Set of Enzymes Provide Lysine Biosynthetic Intermediates and Ornithine Derivatives as Key Precursors for the Biosynthesis of Bioactive Secondary Metabolites. <i>Antibiotics</i> , 2023, 12, 159.	1.5	0
240	Resting cytosol Ca ²⁺ level maintained by Ca ²⁺ pumps affects environmental responses in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2023, 191, 2534-2550.	2.3	8
241	Regulation of Salicylic Acid and N-Hydroxy-Pipicolinic Acid in Systemic Acquired Resistance. <i>Plant Pathology Journal</i> , 2023, 39, 21-27.	0.7	2
242	Evaluation of negative effect of Naphthenic acids (NAs) on physiological metabolism and polycyclic aromatic hydrocarbons adsorption of <i>Phragmites australis</i> . <i>Chemosphere</i> , 2023, 318, 137909.	4.2	2
243	Î ² -D-XYLOSIDASE 4 modulates systemic immune signaling in <i>Arabidopsis thaliana</i> . <i>Frontiers in Plant Science</i> , 0, 13, .	1.7	4
244	Plant Immunity: A Plastic System Operated Through Cell-Fate Transition. <i>Journal of Plant Biology</i> , 2023, 66, 193-206.	0.9	1
245	N-hydroxypipicolinic acid induces systemic acquired resistance and transcriptional reprogramming via TGA transcription factors. <i>Plant, Cell and Environment</i> , 2023, 46, 1900-1920.	2.8	8
246	Tuning the Wavelength: Manipulation of Light Signaling to Control Plant Defense. <i>International Journal of Molecular Sciences</i> , 2023, 24, 3803.	1.8	4
247	Puncta-localized <sc>TRAF</sc> domain protein <sc>TC1b</sc> contributes to the autoimmunity of <i>sncl</i>. <i>Plant Journal</i> , 2023, 114, 591-612.	2.8	0
248	Soybean transporter AAT <i>Rhg1</i> abundance increases along the nematode migration path and impacts vesiculation and ROS. <i>Plant Physiology</i> , 2023, 192, 133-153.	2.3	2
249	Genomic Survey of Flavin Monooxygenases in Wild and Cultivated Rice Provides Insight into Evolution and Functional Diversities. <i>International Journal of Molecular Sciences</i> , 2023, 24, 4190.	1.8	1
250	Integrated Metabolome and Transcriptome Analysis Unveils the Underlying Molecular Response of <i>Panax ginseng</i> Plants to the <i>Phytophthora cactorum</i> Infection. <i>Agriculture (Switzerland)</i> , 2023, 13, 509.	1.4	1

#	ARTICLE	IF	CITATIONS
251	Manipulation of plant metabolism by pathogen effectors: more than just food. <i>FEMS Microbiology Reviews</i> , 2023, 47, .	3.9	8
252	Pipecolic acid synthesis is required for systemic acquired resistance and plant-to-plant-induced immunity in barley. <i>Journal of Experimental Botany</i> , 0, , .	2.4	3
253	Evaluation of Amino Acid Profiles of Rice Genotypes under Different Salt Stress Conditions. <i>Plants</i> , 2023, 12, 1315.	1.6	6
254	Methyl jasmonate redirects the dynamics of carbohydrates and amino acids toward the lignans accumulation in <i>Linum album</i> cells. <i>Plant Physiology and Biochemistry</i> , 2023, 198, 107677.	2.8	2
261	Signaling Pathway of Reactive Oxygen Species in Crop Plants Under Abiotic Stress. , 2023, , 249-262.		0
292	Specialized metabolite modifications in Brassicaceae seeds and plants: diversity, functions and related enzymes. <i>Natural Product Reports</i> , 0, , .	5.2	0