Lizelle A Piater

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6953443/publications.pdf

Version: 2024-02-01

71 papers	3,374 citations	218677 26 h-index	149698 56 g-index
71 all docs	71 docs citations	71 times ranked	4072 citing authors

#	Article	IF	Citations
1	Innate immunity in plants and animals: striking similarities and obvious differences. Immunological Reviews, 2004, 198, 249-266.	6.0	1,071
2	The Chemistry of Plantâ€“Microbe Interactions in the Rhizosphere and the Potential for Metabolomics to Reveal Signaling Related to Defense Priming and Induced Systemic Resistance. Frontiers in Plant Science, 2018, 9, 112.	3.6	338
3	Plant metabolomics: A new frontier in phytochemical analysis. South African Journal of Science, 2013, 109, 11.	0.7	125
4	Analyses of chlorogenic acids and related cinnamic acid derivatives from Nicotiana tabacumtissues with the aid of UPLC-QTOF-MS/MS based on the in-source collision-induced dissociation method. Chemistry Central Journal, 2014, 8, 66.	2.6	116
5	Biostimulants for Plant Growth and Mitigation of Abiotic Stresses: A Metabolomics Perspective. Metabolites, 2020, 10, 505.	2.9	116
6	Subcritical Water Extraction of Biological Materials. Separation and Purification Reviews, 2017, 46, 21-34.	5.5	101
7	Metabolomics in Plant Priming Research: The Way Forward?. International Journal of Molecular Sciences, 2018, 19, 1759.	4.1	83
8	Metabolomic Analysis of Defense-Related Reprogramming in Sorghum bicolor in Response to Colletotrichum sublineolum Infection Reveals a Functional Metabolic Web of Phenylpropanoid and Flavonoid Pathways. Frontiers in Plant Science, 2018, 9, 1840.	3.6	83
9	A Conversation on Data Mining Strategies in LC-MS Untargeted Metabolomics: Pre-Processing and Pre-Treatment Steps. Metabolites, 2016, 6, 40.	2.9	62
10	Ergosterol, an orphan fungal microbeâ€associated molecular pattern (<scp>MAMP</scp>). Molecular Plant Pathology, 2014, 15, 747-761.	4.2	58
11	Multi-Platform Metabolomic Analyses of Ergosterol-Induced Dynamic Changes in Nicotiana tabacum Cells. PLoS ONE, 2014, 9, e87846.	2.5	53
12	Hydroxycinnamate Amides: Intriguing Conjugates of Plant Protective Metabolites. Trends in Plant Science, 2021, 26, 184-195.	8.8	51
13	Differential extraction of phytochemicals from the multipurpose tree, Moringa oleifera, using green extraction solvents. South African Journal of Botany, 2018, 115, 81-89.	2.5	47
14	Phenylpropanoid Defences in Nicotiana tabacum Cells: Overlapping Metabolomes Indicate Common Aspects to Priming Responses Induced by Lipopolysaccharides, Chitosan and Flagellin-22. PLoS ONE, 2016, 11, e0151350.	2.5	46
15	Multivariate statistical models of metabolomic data reveals different metabolite distribution patterns in isonitrosoacetophenone-elicited Nicotiana tabacum and Sorghum bicolor cells. SpringerPlus, 2014, 3, 254.	1.2	45
16	Profiling of Altered Metabolomic States in Nicotiana tabacum Cells Induced by Priming Agents. Frontiers in Plant Science, 2016, 7, 1527.	3.6	44
17	Perturbation of pharmacologically relevant polyphenolic compounds in Moringa oleifera against photo-oxidative damages imposed by gamma radiation. Journal of Photochemistry and Photobiology B: Biology, 2016, 156, 79-86.	3.8	44
18	Metabolic Profiling of PGPR-Treated Tomato Plants Reveal Priming-Related Adaptations of Secondary Metabolites and Aromatic Amino Acids. Metabolites, 2020, 10, 210.	2.9	44

#	Article	IF	Citations
19	Priming agents of plant defence stimulate the accumulation of mono- and di-acylated quinic acids in cultured tobacco cells. Physiological and Molecular Plant Pathology, 2014, 88, 61-66.	2.5	41
20	Untargeted Metabolomics Reveal Defensome-Related Metabolic Reprogramming in Sorghum bicolor against Infection by Burkholderia andropogonis. Metabolites, 2019, 9, 8.	2.9	41
21	Metabolomics: A Tool for Cultivar Phenotyping and Investigation of Grain Crops. Agronomy, 2020, 10, 831.	3.0	40
22	Reduction of vanadium(V) by EnterobacterÂcloacae EV-SA01 isolated from a South African deep gold mine. Biotechnology Letters, 2009, 31, 845-849.	2.2	36
23	A Metabolomic Landscape of Maize Plants Treated With a Microbial Biostimulant Under Well-Watered and Drought Conditions. Frontiers in Plant Science, 2021, 12, 676632.	3.6	36
24	Soil Salinity, a Serious Environmental Issue and Plant Responses: A Metabolomics Perspective. Metabolites, 2021, 11, 724.	2.9	34
25	Rhizosphere Tripartite Interactions and PGPR-Mediated Metabolic Reprogramming towards ISR and Plant Priming: A Metabolomics Review. Biology, 2022, 11, 346.	2.8	33
26	The Lipopolysaccharide-Induced Metabolome Signature in Arabidopsis thaliana Reveals Dynamic Reprogramming of Phytoalexin and Phytoanticipin Pathways. PLoS ONE, 2016, 11, e0163572.	2.5	30
27	Distribution patterns of flavonoids from three Momordica species by ultra-high performance liquid chromatography quadrupole time of flight mass spectrometry: a metabolomic profiling approach. Revista Brasileira De Farmacognosia, 2016, 26, 507-513.	1.4	29
28	Plant Responses to Abiotic Stresses and Rhizobacterial Biostimulants: Metabolomics and Epigenetics Perspectives. Metabolites, 2021, 11, 457.	2.9	28
29	Secondary metabolite perturbations in Phaseolus vulgaris leaves due to gamma radiation. Plant Physiology and Biochemistry, 2015, 97, 287-295.	5.8	27
30	Collision energy alteration during mass spectrometric acquisition is essential to ensure unbiased metabolomic analysis. Analytical and Bioanalytical Chemistry, 2012, 404, 367-372.	3.7	26
31	Ergosterol-Induced Sesquiterpenoid Synthesis in Tobacco Cells. Molecules, 2012, 17, 1698-1715.	3.8	25
32	Molecular mechanisms associated with microbial biostimulant-mediated growth enhancement, priming and drought stress tolerance in maize plants. Scientific Reports, 2022, 12, .	3.3	24
33	Identification of lipopolysaccharide-interacting plasma membrane-type proteins in Arabidopsis thaliana. Plant Physiology and Biochemistry, 2017, 111, 155-165.	5.8	23
34	Unravelling the Metabolic Reconfiguration of the Post-Challenge Primed State in Sorghum bicolor Responding to Colletotrichum sublineolum Infection. Metabolites, 2019, 9, 194.	2.9	22
35	Metabolomic Evaluation of Tissue-Specific Defense Responses in Tomato Plants Modulated by PGPR-Priming against Phytophthora capsici Infection. Plants, 2021, 10, 1530.	3.5	21
36	Metabolomics for Biomarker Discovery: Key Signatory Metabolic Profiles for the Identification and Discrimination of Oat Cultivars. Metabolites, 2021, 11, 165.	2.9	20

#	Article	IF	Citations
37	Simultaneous analysis of defenseâ€related phytohormones in Arabidopsis thaliana responding to fungal infection. Applications in Plant Sciences, 2016, 4, 1600013.	2.1	19
38	Mass spectrometry in untargeted liquid chromatography/mass spectrometry metabolomics: Electrospray ionisation parameters and global coverage of the metabolome. Rapid Communications in Mass Spectrometry, 2018, 32, 121-132.	1.5	18
39	Adaptive defence-related changes in the metabolome of Sorghum bicolor cells in response to lipopolysaccharides of the pathogen Burkholderia andropogonis. Scientific Reports, 2020, 10, 7626.	3.3	18
40	Identification of Candidate Ergosterol-Responsive Proteins Associated with the Plasma Membrane of Arabidopsis thaliana. International Journal of Molecular Sciences, 2019, 20, 1302.	4.1	17
41	Metabolomics-guided investigations of unintended effects of the expression of the hydroxycinnamoyl quinate hydroxycinnamoyltransferase (hqt1) gene from Cynara cardunculus var. scolymus in Nicotiana tabacum cell cultures. Plant Physiology and Biochemistry, 2018, 127, 287-298.	5.8	15
42	Identification of MAMP-Responsive Plasma Membrane-Associated Proteins in Arabidopsis thaliana Following Challenge with Different LPS Chemotypes from Xanthomonas campestris. Pathogens, 2020, 9, 787.	2.8	14
43	Concurrent Metabolic Profiling and Quantification of Aromatic Amino Acids and Phytohormones in Solanum lycopersicum Plants Responding to Phytophthora capsici. Metabolites, 2020, 10, 466.	2.9	14
44	Metabolomic analysis of isonitrosoacetophenone-induced perturbations in phenolic metabolism of Nicotiana tabacum cells. Phytochemistry, 2013, 94, 82-90.	2.9	13
45	Comparative Metabolite Profiling of Wheat Cultivars (Triticum aestivum) Reveals Signatory Markers for Resistance and Susceptibility to Stripe Rust and Aluminium (Al3+) Toxicity. Metabolites, 2022, 12, 98.	2.9	13
46	Time-resolved decoding of metabolic signatures of in vitro growth of the hemibiotrophic pathogen Colletotrichum sublineolum. Scientific Reports, 2019, 9, 3290.	3.3	12
47	Comparative conventional- and quantum dot-labeling strategies for LPS binding site detection in Arabidopsis thaliana mesophyll protoplasts. Frontiers in Plant Science, 2015, 6, 335.	3.6	11
48	Lipopolysaccharide perception in Arabidopsis thaliana: Diverse LPS chemotypes from Burkholderia cepacia, Pseudomonas syringae and Xanthomonas campestris trigger differential defence-related perturbations in the metabolome. Plant Physiology and Biochemistry, 2020, 156, 267-277.	5.8	11
49	A Metabolomics Approach and Chemometric Tools for Differentiation of Barley Cultivars and Biomarker Discovery. Metabolites, 2021, 11, 578.	2.9	11
50	The NAC transcription factor gene ANAC072 is differentially expressed in Arabidopsis thaliana in response to microbe-associated molecular pattern (MAMP) molecules. Physiological and Molecular Plant Pathology, 2012, 80, 19-27.	2.5	10
51	Prospects of Gene Knockouts in the Functional Study of MAMP-Triggered Immunity: A Review. International Journal of Molecular Sciences, 2020, 21, 2540.	4.1	10
52	Isonitrosoacetophenone Drives Transcriptional Reprogramming in Nicotiana tabacum Cells in Support of Innate Immunity and Defense. PLoS ONE, 2015, 10, e0117377.	2.5	9
53	Altered metabolomic states elicited by Flg22 and FlgII-28 in Solanum lycopersicum: intracellular perturbations and metabolite defenses. BMC Plant Biology, 2021, 21, 429.	3.6	9
54	Metabolomic insights into the bioconversion of isonitrosoacetophenone in Arabidopsis thaliana and its effects on defense-related pathways. Plant Physiology and Biochemistry, 2014, 84, 87-95.	5.8	8

#	Article	IF	Citations
55	Metabolomic Evaluation of Ralstonia solanacearum Cold Shock Protein Peptide (csp22)-Induced Responses in Solanum lycopersicum. Frontiers in Plant Science, 2021, 12, 803104.	3.6	8
56	The Short and Long of it: Shorter Chromatographic Analysis Suffice for Sample Classification During UHPLC-MS-Based Metabolic Fingerprinting. Chromatographia, 2013, 76, 279-285.	1.3	7
57	Untargeted metabolomics analysis reveals dynamic changes in azelaic acid- and salicylic acid derivatives in LPS-treated Nicotiana tabacum cells. Biochemical and Biophysical Research Communications, 2017, 482, 1498-1503.	2.1	7
58	A thioredoxin reductase-like protein from the thermophile, Thermus scotoductusÃ¢Â€ÂƒSA-01, displaying iron reductase activity. FEMS Microbiology Letters, 2010, 302, 182-188.	1.8	6
59	Gamma radiation treatment activates glucomoringin synthesis in Moringa oleifera. Revista Brasileira De Farmacognosia, 2017, 27, 569-575.	1.4	6
60	A Global Metabolic Map Defines the Effects of a Si-Based Biostimulant on Tomato Plants under Normal and Saline Conditions. Metabolites, 2021, 11, 820.	2.9	6
61	Metabolomic Characterisation of Discriminatory Metabolites Involved in Halo Blight Disease in Oat Cultivars Caused by Pseudomonas syringae pv. coronafaciens. Metabolites, 2022, 12, 248.	2.9	6
62	Biotransformation of isonitrosoacetophenone (2-keto-2-phenyl-acetaldoxime) in tobacco cell suspensions. Biotechnology Letters, 2012, 34, 1351-1356.	2.2	5
63	Proteomic analysis of Arabidopsis plasma membranes reveals lipopolysaccharide-responsive changes. Biochemical and Biophysical Research Communications, 2017, 486, 1137-1142.	2.1	5
64	Habituated Moringa oleifera callus retains metabolic responsiveness to external plant growth regulators. Plant Cell, Tissue and Organ Culture, 2019, 137, 249-264.	2.3	5
65	The Disruptive 4IR in the Life Sciences: Metabolomics. Lecture Notes in Electrical Engineering, 2020, , 227-256.	0.4	4
66	Hordatines and Associated Precursors Dominate Metabolite Profiles of Barley (Hordeum vulgare L.) Seedlings: A Metabolomics Study of Five Cultivars. Metabolites, 2022, 12, 310.	2.9	4
67	Untargeted Metabolomics Profiling of Arabidopsis WT, lbr-2-2 and bak1-4 Mutants Following Treatment with Two LPS Chemotypes. Metabolites, 2022, 12, 379.	2.9	4
68	Subcritical Water Extraction and Its Prospects for Aflatoxins Extraction in Biological Materials. , 0, , .		2
69	Lipopolysaccharides trigger synthesis of the allelochemical sorgoleone in cell cultures of Sorghum bicolor. Plant Signaling and Behavior, 2020, 15, 1796340.	2.4	2
70	Cloning of the cnr operon into a strain of Bacillaceae bacterium for the development of a suitable biosorbent. World Journal of Microbiology and Biotechnology, 2016, 32, 114.	3.6	1
71	Plasma Membrane-Associated Proteins Identified in Arabidopsis Wild Type, lbr2-2 and bak1-4 Mutants Treated with LPSs from PseudomonasÂsyringae and Xanthomonas campestris. Membranes, 2022, 12, 606.	3.0	1