Catherine Deborde

List of Publications by Year
in descending order

78 papers	3,532 citations	136740 32 h-index	143772 57 g-index
80 all docs	80 docs citations	80 times ranked	5201 citing authors

#	Article	IF	Citations
1	Gene and Metabolite Regulatory Network Analysis of Early Developing Fruit Tissues Highlights New Candidate Genes for the Control of Tomato Fruit Composition and Development Â Â Â. Plant Physiology, 2009, 149, 1505-1528.	2.3	199
2	Microclimate Influence on Mineral and Metabolic Profiles of Grape Berries. Journal of Agricultural and Food Chemistry, 2006, 54, 6765-6775.	2.4	188
3	1H NMR metabolite fingerprints of grape berry: Comparison of vintage and soil effects in Bordeaux grapevine growing areas. Analytica Chimica Acta, 2006, 563, 346-352.	2.6	159
4	¹H NMR, GCâ^'EI-TOFMS, and Data Set Correlation for Fruit Metabolomics: Application to Spatial Metabolite Analysis in Melon. Analytical Chemistry, 2009, 81, 2884-2894.	3.2	147
5	COordination of Standards in MetabOlomicS (COSMOS): facilitating integrated metabolomics data access. Metabolomics, 2015, 11, 1587-1597.	1.4	140
6	1H NMR and Chemometrics To Characterize Mature Grape Berries in Four Wine-Growing Areas in Bordeaux, France. Journal of Agricultural and Food Chemistry, 2005, 53, 6382-6389.	2.4	137
7	NMRProcFlow: a graphical and interactive tool dedicated to 1D spectra processing for NMR-based metabolomics. Metabolomics, 2017, 13, 36.	1.4	128
8	Quantitative metabolic profiles of tomato flesh and seeds during fruit development: complementary analysis with ANN and PCA. Metabolomics, 2007, 3, 273-288.	1.4	119
9	Extensive metabolic crossâ€talk in melon fruit revealed by spatial and developmental combinatorial metabolomics. New Phytologist, 2011, 190, 683-696.	3.5	111
10	Effects of long-term cadmium exposure on growth and metabolomic profile of tomato plants. Ecotoxicology and Environmental Safety, 2010, 73, 1965-1974.	2.9	96
11	Hyperpolarized NMR of plant and cancer cell extracts at natural abundance. Analyst, The, 2015, 140, 5860-5863.	1.7	87
12	An inter-laboratory comparison demonstrates that [1H]-NMR metabolite fingerprinting is a robust technique for collaborative plant metabolomic data collection. Metabolomics, 2010, 6, 263-273.	1.4	86
13	Plant metabolism as studied by NMR spectroscopy. Progress in Nuclear Magnetic Resonance Spectroscopy, 2017, 102-103, 61-97.	3.9	85
14	Metabolomics and fish nutrition: a review in the context of sustainable feed development. Reviews in Aquaculture, 2020, 12, 261-282.	4.6	84
15	Down-regulation of a single auxin efflux transport protein in tomato induces precocious fruit development. Journal of Experimental Botany, 2012, 63, 4901-4917.	2.4	82
16	Plant Metabolomics and Its Potential for Systems Biology Research. Methods in Enzymology, 2011, 500, 299-336.	0.4	78
17	Sucrose, Glucose, and Fructose Extraction in Aqueous Carrot Root Extracts Prepared at Different Temperatures by Means of Direct NMR Measurements. Journal of Agricultural and Food Chemistry, 2006, 54, 4681-4686.	2.4	75
18	Metabolic acclimation to hypoxia revealed by metabolite gradients in melon fruit. Journal of Plant Physiology, 2010, 167, 242-245.	1.6	75

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19	Metabolomic and elemental profiling of melon fruit quality as affected by genotype and environment. Metabolomics, 2013, 9, 57-77.	1.4	74
20	Metabolomics in melon: A new opportunity for aroma analysis. Phytochemistry, 2014, 99, 61-72.	1.4	66
21	Metabolomic profiling in tomato reveals diel compositional changes in fruit affected by sourceâ€“sink relationships. Journal of Experimental Botany, 2015, 66, 3391-3404.	2.4	62
22	Metabolic response in roots of Prunus rootstocks submitted to iron chlorosis. Journal of Plant Physiology, 2011, 168, 415-423.	1.6	58
23	Highly Repeatable Dissolution Dynamic Nuclear Polarization for Heteronuclear NMR Metabolomics. Analytical Chemistry, 2016, 88, 6179-6183.	3.2	57
24	MeRy-B: a web knowledgebase for the storage, visualization, analysis and annotation of plant NMR metabolomic profiles. BMC Plant Biology, 2011, 11, 104.	1.6	54
25	Proton NMR quantitative profiling for quality assessment of greenhouse-grown tomato fruit. Metabolomics, 2009, 5, 183-198.	1.4	51
26	Absolute quantification of metabolites in tomato fruit extracts by fast 2D NMR. Metabolomics, 2015, 11, 1231-1242.	1.4	50
27	nmrML: A Community Supported Open Data Standard for the Description, Storage, and Exchange of NMR Data. Analytical Chemistry, 2018, 90, 649-656.	3.2	50
28	Enhanced polyamine accumulation alters carotenoid metabolism at the transcriptional level in tomato fruit over-expressing spermidine synthase. Journal of Plant Physiology, 2011, 168, 242-252.	1.6	48
29	(Homo)glutathione Deficiency Impairs Root-knot Nematode Development in Medicago truncatula. PLoS Pathogens, 2012, 8, e1002471.	2.1	48
30	Hyperpolarized NMR Metabolomics at Natural ¹³C Abundance. Analytical Chemistry, 2020, 92, 14867-14871.	3.2	44
31	A genomics and multi-platform metabolomics approach to identify new traits of rice quality in traditional and improved varieties. Metabolomics, 2012, 8, 771-783.	1.4	43
32	Optimizing 1D 1H-NMR profiling of plant samples for high throughput analysis: extract preparation, standardization, automation and spectra processing. Metabolomics, 2019, 15, 28.	1.4	37
33	Biomass composition explains fruit relative growth rate and discriminates climacteric from non-climacteric species. Journal of Experimental Botany, 2020, 71, 5823-5836.	2.4	35
34	Comparative Metabolomics and Molecular Phylogenetics of Melon (Cucumis melo, Cucurbitaceae) Biodiversity. Metabolites, 2020, 10, 121.	1.3	35
35	Maize metabolome and proteome responses to controlled cold stress partly mimic earlyâ€sowing effects in the field and differ from those of Arabidopsis. Plant, Cell and Environment, 2021, 44, 1504-1521.	2.8	32
36	Stress and osmoprotection in propionibacteria. Dairy Science and Technology, 1999, 79, 59-69.	0.9	32

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37	An integrative genomics approach for deciphering the complex interactions between ascorbate metabolism and fruit growth and composition in tomato. Comptes Rendus - Biologies, 2009, 332, 1007-1021.	0.1	30
38	1H-NMR metabolomic profiling reveals a distinct metabolic recovery response in shoots and roots of temporarily drought-stressed sugar beets. PLoS ONE, 2018, 13, e0196102.	1.1	27
39	Integrative Metabolomics for Assessing the Effect of Insect (Hermetia illucens) Protein Extract on Rainbow Trout Metabolism. Metabolites, 2020, 10, 83.	1.3	27
40	Interactions between Pyruvate and Lactate Metabolism in Propionibacterium freudenreichii subsp. shermanii : In Vivo 13 C Nuclear Magnetic Resonance Studies. Applied and Environmental Microbiology, 2000, 66, 2012-2020.	1.4	26
41	Transcriptional and Metabolic Adjustments in ADP-Glucose Pyrophosphorylase-Deficientbt2Maize Kernels Â. Plant Physiology, 2008, 146, 1553-1570.	2.3	25
42	Mycotoxin Biosynthesis and Central Metabolism Are Two Interlinked Pathways in Fusarium graminearum, as Demonstrated by the Extensive Metabolic Changes Induced by Caffeic Acid Exposure. Applied and Environmental Microbiology, 2018, 84, .	1.4	25
43	An efficient spectra processing method for metabolite identification from 1H-NMR metabolomics data. Analytical and Bioanalytical Chemistry, 2013, 405, 5049-5061.	1.9	24
44	The peach HECATE3-like gene FLESHY plays a double role during fruit development. Plant Molecular Biology, 2016, 91, 97-114.	2.0	24
45	Honeydew feeding increased the longevity of two egg parasitoids of the pine processionary moth. Journal of Applied Entomology, 2011, 135, 184-194.	0.8	23
46	MeRy-B, a Metabolomic Database and Knowledge Base for Exploring Plant Primary Metabolism. Methods in Molecular Biology, 2014, 1083, 3-16.	0.4	22
47	Deciphering genetic diversity and inheritance of tomato fruit weight and composition through a systems biology approach. Journal of Experimental Botany, 2013, 64, 5737-5752.	2.4	20
48	Omics Data Reveal Putative Regulators of Einkorn Grain Protein Composition under Sulfur Deficiency. Plant Physiology, 2020, 183, 501-516.	2.3	20
49	Characterizing alternative feeds for rainbow trout (O. mykiss) by 1H NMR metabolomics. Metabolomics, 2018, 14, 155.	1.4	18
50	Intestinal microbiota in rainbow trout,Oncorhynchus mykiss, fed diets with different levels of fish-based and plant ingredients: A correlative approach with some plasma metabolites. Aquaculture Nutrition, 2018, 24, 1563-1576.	1.1	18
51	NMR-Based Tissular and Developmental Metabolomics of Tomato Fruit. Metabolites, 2019, 9, 93.	1.3	18
52	Metabolomic characterization of sunflower leaf allows discriminating genotype groups or stress levels with a minimal set of metabolic markers. Metabolomics, 2019, 15, 56.	1.4	17
53	The Tomato Guanylate-Binding Protein SlGBP1 Enables Fruit Tissue Differentiation by Maintaining Endopolyploid Cells in a Non-Proliferative State. Plant Cell, 2020, 32, 3188-3205.	3.1	17
54	Precautions for Harvest, Sampling, Storage, and Transport of Crop Plant Metabolomics Samples. Methods in Molecular Biology, 2011, 860, 51-63.	0.4	17

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55	Maturation of nematode-induced galls in Medicago truncatula is related to water status and primary metabolism modifications. Plant Science, 2015, 232, 77-85.	1.7	15
56	Metabotyping of 30 maize hybrids under early-sowing conditions reveals potential marker-metabolites for breeding. Metabolomics, 2018, 14, 132.	1.4	15
57	Putative imbalanced amino acid metabolism in rainbow trout long term fed a plant-based diet as revealed by ¹H-NMR metabolomics. Journal of Nutritional Science, 2021, 10, e13.	0.7	15
58	High-Resolution 1H-NMR Spectroscopy and Beyond to Explore Plant Metabolome. Advances in Botanical Research, 2013, , 1-66.	0.5	14
59	A Systems Biology Study in Tomato Fruit Reveals Correlations between the Ascorbate Pool and Genes Involved in Ribosome Biogenesis, Translation, and the Heat-Shock Response. Frontiers in Plant Science, 2018, 9, 137.	1.7	11
60	Proton-NMR Metabolomics of Rainbow Trout Fed a Plant-Based Diet Supplemented with Graded Levels of a Protein-Rich Yeast Fraction Reveal Several Metabolic Processes Involved in Growth. Journal of Nutrition, 2020, 150, 2268-2277.	1.3	11
61	In Vivo13C NMR Study of the Bidirectional Reactions of the Woodâ€“Werkman Cycle and around the Pyruvate Node in Propionibacterium freudenreichii subsp. shermanii and Propionibacterium acidipropionici. Metabolic Engineering, 1999, 1, 309-319.	3.6	9
62	Characterization of GMO or glyphosate effects on the composition of maize grain and maize-based diet for rat feeding. Metabolomics, 2018, 14, 36.	1.4	9
63	Central Metabolism Is Tuned to the Availability of Oxygen in Developing Melon Fruit. Frontiers in Plant Science, 2019, 10, 594.	1.7	9
64	Metabolite Fruit Profile Is Altered in Response to Sourceâ€“Sink Imbalance and Can Be Used as an Early Predictor of Fruit Quality in Nectarine. Frontiers in Plant Science, 2020, 11, 604133.	1.7	9
65	In silico exploration of the fructose-6-phosphate phosphorylation step in glycolysis: genomic evidence of the coexistence of an atypical ATP-dependent along with a PPi-dependent phosphofructokinase in Propionibacterium freudenreichii subsp. shermanii. In Silico Biology, 2004, 4, 517-28.	0.4	8
66	In vivo nuclear magnetic resonance study of citrate metabolism in Propionibacterium freudenreichii subsp. shermanii. Journal of Dairy Research, 1998, 65, 503-514.	0.7	5
67	DETECTION OF QTLS CONTROLLING MAJOR FRUIT QUALITY COMPONENTS IN PEACH WITHIN THE EUROPEAN PROJECT ISAFRUIT. Acta Horticulturae, 2009, , 533-538.	0.1	5
68	PROPIONIBACTERIUM spp.. , 2002, , 2330-2339.		4
69	¹H-NMR metabolic profiling of wines from three cultivans, three soil types and two contrasting vintages. Oeno One, 2016, 41, 103.	0.7	4
70	PeakForest: a multi-platform digital infrastructure for interoperable metabolite spectral data and metadata management. Metabolomics, 2022, 18, .	1.4	4
71	MRSI vs CEST MRI to understand tomato metabolism in ripening fruit: is there a better contrast?. Analytical and Bioanalytical Chemistry, 2021, 413, 1251-1257.	1.9	3
72	Critical assessment of metabolism and related growth and quality traits in trout fed spirulina-supplemented plant-based diets. Aquaculture, 2022, 553, 738033.	1.7	3

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73	New Opportunities in Metabolomics and Biochemical Phenotyping for Plant Systems Biology. , 2012, , .		2
74	Aluminium stress disrupts metabolic performance of Plantago almogravensis plantlets transiently. BioMetals, 2015, 28, 997-1007.	1.8	2
75	1H NMR METABOLIC FINGERPRINTS OF GRAPE BERRIES PRODUCED IN DIFFERENT PLOTS IN BORDEAUX, FRANCE. Acta Horticulturae, 2005, , 257-264.	0.1	2
76	ISAFRUIT - STUDY OF THE GENETIC BASIS OF PRUNUS FRUIT QUALITY IN TWO PEACH AND TWO APRICOT POPULATIONS. Acta Horticulturae, 2009, , 523-528.	0.1	2
77	STUDY OF THE GENETIC BASIS OF PRUNUS FRUIT QUALITY ON TWO APRICOT AND TWO PEACH POPULATIONS. Acta Horticulturae, 2010, , 183-188.	0.1	0
78	A MULTI-LEVEL OMIC APPROACH OF TOMATO FRUIT QUALITY. Acta Horticulturae, 2015, , 793-800.	0.1	0