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	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
2	PeakForest: a multi-platform digital infrastructure for interoperable metabolite spectral data and metadata management. Metabolomics, 2022, 18, .	1.4	4
3	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
4	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
5	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
6	Metabolomics and fish nutrition: a review in the context of sustainable feed development. Reviews in Aquaculture, 2020, 12, 261-282.	4.6	84
7	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
8	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
9	Hyperpolarized NMR Metabolomics at Natural ¹³C Abundance. Analytical Chemistry, 2020, 92, 14867-14871.	3.2	44
10	Integrative Metabolomics for Assessing the Effect of Insect (Hermetia illucens) Protein Extract on Rainbow Trout Metabolism. Metabolites, 2020, 10, 83.	1.3	27
11	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
12	Omics Data Reveal Putative Regulators of Einkorn Grain Protein Composition under Sulfur Deficiency. Plant Physiology, 2020, 183, 501-516.	2.3	20
13	Comparative Metabolomics and Molecular Phylogenetics of Melon (Cucumis melo, Cucurbitaceae) Biodiversity. Metabolites, 2020, 10, 121.	1.3	35
14	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
15	Central Metabolism Is Tuned to the Availability of Oxygen in Developing Melon Fruit. Frontiers in Plant Science, 2019, 10, 594.	1.7	9
16	NMR-Based Tissular and Developmental Metabolomics of Tomato Fruit. Metabolites, 2019, 9, 93.	1.3	18
17	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
18	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

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19	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
20	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
21	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
22	Characterizing alternative feeds for rainbow trout (O. mykiss) by 1H NMR metabolomics. Metabolomics, 2018, 14, 155.	1.4	18
23	Metabotyping of 30 maize hybrids under early-sowing conditions reveals potential marker-metabolites for breeding. Metabolomics, 2018, 14, 132.	1.4	15
24	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
25	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
26	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
27	NMRProcFlow: a graphical and interactive tool dedicated to 1D spectra processing for NMR-based metabolomics. Metabolomics, 2017, 13, 36.	1.4	128
28	Plant metabolism as studied by NMR spectroscopy. Progress in Nuclear Magnetic Resonance Spectroscopy, 2017, 102-103, 61-97.	3.9	85
29	Highly Repeatable Dissolution Dynamic Nuclear Polarization for Heteronuclear NMR Metabolomics. Analytical Chemistry, 2016, 88, 6179-6183.	3.2	57
30	The peach HECATE3-like gene FLESHY plays a double role during fruit development. Plant Molecular Biology, 2016, 91, 97-114.	2.0	24
31	¹H-NMR metabolic profiling of wines from three cultivans, three soil types and two contrasting vintages. Oeno One, 2016, 41, 103.	0.7	4
32	A MULTI-LEVEL OMIC APPROACH OF TOMATO FRUIT QUALITY. Acta Horticulturae, 2015, , 793-800.	0.1	0
33	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
34	COordination of Standards in MetabOlomicS (COSMOS): facilitating integrated metabolomics data access. Metabolomics, 2015, 11, 1587-1597.	1.4	140
35	Absolute quantification of metabolites in tomato fruit extracts by fast 2D NMR. Metabolomics, 2015, 11, 1231-1242.	1.4	50
36	Hyperpolarized NMR of plant and cancer cell extracts at natural abundance. Analyst, The, 2015, 140, 5860-5863.	1.7	87

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37	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
38	Aluminium stress disrupts metabolic performance of Plantago almogravensis plantlets transiently. BioMetals, 2015, 28, 997-1007.	1.8	2
39	MeRy-B, a Metabolomic Database and Knowledge Base for Exploring Plant Primary Metabolism. Methods in Molecular Biology, 2014, 1083, 3-16.	0.4	22
40	Metabolomics in melon: A new opportunity for aroma analysis. Phytochemistry, 2014, 99, 61-72.	1.4	66
41	High-Resolution 1H-NMR Spectroscopy and Beyond to Explore Plant Metabolome. Advances in Botanical Research, 2013, , 1-66.	0.5	14
42	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
43	Metabolomic and elemental profiling of melon fruit quality as affected by genotype and environment. Metabolomics, 2013, 9, 57-77.	1.4	74
44	An efficient spectra processing method for metabolite identification from 1H-NMR metabolomics data. Analytical and Bioanalytical Chemistry, 2013, 405, 5049-5061.	1.9	24
45	(Homo)glutathione Deficiency Impairs Root-knot Nematode Development in Medicago truncatula. PLoS Pathogens, 2012, 8, e1002471.	2.1	48
46	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
47	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
48	New Opportunities in Metabolomics and Biochemical Phenotyping for Plant Systems Biology. , 2012, , .		2
49	Plant Metabolomics and Its Potential for Systems Biology Research. Methods in Enzymology, 2011, 500, 299-336.	0.4	78
50	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
51	Metabolic response in roots of Prunus rootstocks submitted to iron chlorosis. Journal of Plant Physiology, 2011, 168, 415-423.	1.6	58
52	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
53	Extensive metabolic crossâ€talk in melon fruit revealed by spatial and developmental combinatorial metabolomics. New Phytologist, 2011, 190, 683-696.	3.5	111
54	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

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55	Precautions for Harvest, Sampling, Storage, and Transport of Crop Plant Metabolomics Samples. Methods in Molecular Biology, 2011, 860, 51-63.	0.4	17
56	STUDY OF THE GENETIC BASIS OF PRUNUS FRUIT QUALITY ON TWO APRICOT AND TWO PEACH POPULATIONS. Acta Horticulturae, 2010, , 183-188.	0.1	0
57	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
58	Metabolic acclimation to hypoxia revealed by metabolite gradients in melon fruit. Journal of Plant Physiology, 2010, 167, 242-245.	1.6	75
59	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
60	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
61	Proton NMR quantitative profiling for quality assessment of greenhouse-grown tomato fruit. Metabolomics, 2009, 5, 183-198.	1.4	51
62	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
63	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
64	DETECTION OF QTLS CONTROLLING MAJOR FRUIT QUALITY COMPONENTS IN PEACH WITHIN THE EUROPEAN PROJECT ISAFRUIT. Acta Horticulturae, 2009, , 533-538.	0.1	5
65	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
66	Transcriptional and Metabolic Adjustments in ADP-Glucose Pyrophosphorylase-Deficientbt2Maize Kernels Â. Plant Physiology, 2008, 146, 1553-1570.	2.3	25
67	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
68	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
69	Microclimate Influence on Mineral and Metabolic Profiles of Grape Berries. Journal of Agricultural and Food Chemistry, 2006, 54, 6765-6775.	2.4	188
70	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
71	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
72	1H NMR METABOLIC FINGERPRINTS OF GRAPE BERRIES PRODUCED IN DIFFERENT PLOTS IN BORDEAUX, FRANCE. Acta Horticulturae, 2005, , 257-264.	0.1	2

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73	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
74	PROPIONIBACTERIUM spp.. , 2002, , 2330-2339.		4
75	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
76	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
77	Stress and osmoprotection in propionibacteria. Dairy Science and Technology, 1999, 79, 59-69.	0.9	32
78	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