Sebastien Christian Carpentier

List of Publications by Year
in descending order

107	3,513	172457	161849
papers	citations	29 h-index	54 g-index

112	112	112	4520
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Preparation of protein extracts from recalcitrant plant tissues: An evaluation of different methods for two-dimensional gel electrophoresis analysis. Proteomics, 2005, 5, 2497-2507.	2.2	447
2	Proteome analysis of nonâ€•model plants: A challenging but powerful approach. Mass Spectrometry Reviews, 2008, 27, 354-377.	5.4	180
3	Fine tuning of trehalose biosynthesis and hydrolysis as novel tools for the generation of abiotic stress tolerant plants. Frontiers in Plant Science, 2014, 5, 147.	3.6	145
4	Overexpression of the Trehalase Gene AtTRE1 Leads to Increased Drought Stress Tolerance in Arabidopsis and Is Involved in Abscisic Acid-Induced Stomatal Closure Â Â. Plant Physiology, 2013, 161, 1158-1171.	4.8	117
5	The role of Arabidopsis ABA receptors from the PYR/PYL/RCAR family in stomatal acclimation and closure signal integration. Nature Plants, 2019, 5, 1002-1011.	9.3	115
6	Plant Phenotyping Research Trends, a Science Mapping Approach. Frontiers in Plant Science, 2018, 9, 1933.	3.6	113
7	Banana (Musa spp.) as a model to study the meristem proteome: Acclimation to osmotic stress. Proteomics, 2007, 7, 92-105.	2.2	110
8	Addressing the Challenge of Defining Valid Proteomic Biomarkers and Classifiers. BMC Bioinformatics, 2010, 11, 594.	2.6	108
9	Screening the banana biodiversity for drought tolerance: can an in vitro growth model and proteomics be used as a tool to discover tolerant varieties and understand homeostasis. Frontiers in Plant Science, 2012, 3, 176.	3.6	96
10	Did backcrossing contribute to the origin of hybrid edible bananas?. Annals of Botany, 2010, 106, 849-857.	2.9	79
11	Proteomic analysis of core breakdown disorder in Conference pears (Pyrus communis L.). Proteomics, 2007, 7, 2083-2099.	2.2	74
12	The impact of slow stomatal kinetics on photosynthesis and water use efficiency under fluctuating light. Plant Physiology, 2021, 186, 998-1012.	4.8	71
13	A decade of plant proteomics and mass spectrometry: Translation of technical advancements to food security and safety issues. Mass Spectrometry Reviews, 2013, 32, 335-365.	5.4	70
14	The quest for tolerant varieties: the importance of integrating â€œomicsâ€•techniques to phenotyping. Frontiers in Plant Science, 2015, 6, 448.	3.6	67
15	Somatic Embryogenesis in Coffee: The Evolution of Biotechnology and the Integration of Omics Technologies Offer Great Opportunities. Frontiers in Plant Science, 2017, 8, 1460.	3.6	64
16	Structure and regulation of the Asr gene family in banana. Planta, 2011, 234, 785-798.	3.2	59
17	Treatment of missing values for multivariate statistical analysis of gelâ€•based proteomics data. Proteomics, 2008, 8, 1371-1383.	2.2	56
18	Transpiration efficiency versus growth: Exploring the banana biodiversity for drought tolerance. Scientia Horticulturae, 2015, 185, 175-182.	3.6	53

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19	Aggregating sequences that occur in many proteins constitute weak spots of bacterial proteostasis. Nature Communications, 2018, 9, 866.	12.8	53
20	Functional genomics in a non-model crop: transcriptomics or proteomics?. Physiologia Plantarum, 2008, 133, 117-130.	5.2	50
21	Functional Proteome Analysis of the Banana Plant (Musa spp.) Using de Novo Sequence Analysis of Derivatized Peptides. Journal of Proteome Research, 2007, 6, 70-80.	3.7	49
22	Lyophilization, a Practical Way to Store and Transport Tissues Prior to Protein Extraction for 2DE Analysis?. Proteomics, 2007, 7, 64-69.	2.2	45
23	Improving the identification rate of data independent label-free quantitative proteomics experiments on non-model crops: A case study on apple fruit. Journal of Proteomics, 2014, 105, 31-45.	2.4	44
24	A workflow for peptide-based proteomics in a poorly sequenced plant: A case study on the plasma membrane proteome of banana. Journal of Proteomics, 2011, 74, 1218-1229.	2.4	40
25	New insights into the heterogeneous ripening in Hass avocado via LCâ€“MS/MS proteomics. Postharvest Biology and Technology, 2017, 132, 51-61.	6.0	38
26	Integration of proteomics and metabolomics data of early and middle season Hass avocados under heat treatment. Food Chemistry, 2019, 289, 512-521.	8.2	35
27	Differential root transcriptomics in a polyploid non-model crop: the importance of respiration during osmotic stress. Scientific Reports, 2016, 6, 22583.	3.3	34
28	Transient alkalinization of the leaf apoplast stiffens the cell wall during onset of chloride salinity in corn leaves. Journal of Biological Chemistry, 2017, 292, 18800-18813.	3.4	34
29	Homeolog expression analysis in an allotriploid non-model crop via integration of transcriptomics and proteomics. Scientific Reports, 2018, 8, 1353.	3.3	34
30	The use of 2D-electrophoresis and de novo sequencing to characterize inter- and intra-cultivar protein polymorphisms in an allopolyploid crop. Phytochemistry, 2011, 72, 1243-1250.	2.9	33
31	Follicular fluid biomarkers for human in vitro fertilization outcome: Proof of principle. Proteome Science, 2016, 14, 17.	1.7	31
32	Sugar-Mediated Acclimation: The Importance of Sucrose Metabolism in Meristems. Journal of Proteome Research, 2010, 9, 5038-5046.	3.7	30
33	Identification of an enterovirus recombinant with a torovirus-like gene insertion during a diarrhea outbreak in fattening pigs. Virus Evolution, 2017, 3, vex024.	4.9	30
34	Obtaining of peptides with inÂvitro antioxidant and angiotensin IÂconverting enzyme inhibitory activities from caÃ±ihua protein (Chenopodium pallidicaule Aellen). Journal of Cereal Science, 2018, 83, 139-146.	3.7	29
35	Autologous micrograft accelerates endogenous wound healing response through ERK-induced cell migration. Cell Death and Differentiation, 2020, 27, 1520-1538.	11.2	29
36	2â€Ð DIGE reveals changes in wheat xylanase inhibitor protein families due to Fusarium graminearum Î”Tri5 infection and grain development. Proteomics, 2010, 10, 2303-2319.	2.2	28

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37	Challenges and solutions for the identification of membrane proteins in non-model plants. Journal of Proteomics, 2011, 74, 1165-1181.	2.4	28
38	Unravelling the complex story of intergenomic recombination in ABB allotriploid bananas. Annals of Botany, 2021, 127, 7-20.	2.9	27
39	Safeguarding and using global banana diversity: a holistic approach. CABI Agriculture and Bioscience, 2020, 1, .	2.4	26
40	The use of 2Dâ€ÐIGE to understand the regeneration of somatic embryos in avocado. Proteomics, 2013, 13, 3498-3507.	2.2	25
41	Identification of lanthionine and lysinoalanine in heat-treated wheat gliadin and bovine serum albumin using tandem mass spectrometry with higher-energy collisional dissociation. Amino Acids, 2016, 48, 959-971.	2.7	25
42	Using Growth and Transpiration Phenotyping Under Controlled Conditions to Select Water Efficient Banana Genotypes. Frontiers in Plant Science, 2019, 10, 352.	3.6	25
43	Controlled transgene dosage and PAC-mediated transgenesis in mice using a chromosomal vector. Genomics, 2003, 82, 596-605.	2.9	24
44	Evaluation of chloroform/methanol extraction to facilitate the study of membrane proteins of non-model plants. Planta, 2010, 231, 1113-1125.	3.2	24
45	The proteome profile of embryogenic cell suspensions of Coffea arabica L.. Proteomics, 2016, 16, 1001-1005.	2.2	22
46	Effect of paleopolyploidy and allopolyploidy on gene expression in banana. BMC Genomics, 2019, 20, 244.	2.8	22
47	Identification of dimedone-trapped sulfenylated proteins in plants under stress. Biochemistry and Biophysics Reports, 2017, 9, 106-113.	1.3	21
48	The Enrichment ofHistomonas meleagridisand Its Pathogen-Specific Protein Analysis: A First Step to Shed Light on Its Virulence. Avian Diseases, 2016, 60, 628-636.	1.0	20
49	Genotype-Specific Growth and Proteomic Responses of Maize Toward Salt Stress. Frontiers in Plant Science, 2018, 9, 661.	3.6	20
50	Characterizing fruit ripening in plantain and Cavendish bananas: A proteomics approach. Journal of Proteomics, 2020, 214, 103632.	2.4	20
51	Problems inherent to a meta-analysis of proteomics data: A case study on the plants' response to Cd in different cultivation conditions. Journal of Proteomics, 2014, 108, 30-54.	2.4	19
52	A look behind the screens: Characterization of the HSP70 family during osmotic stress in a non-model crop. Journal of Proteomics, 2015, 119, 10-20.	2.4	19
53	Filling the gaps in gene banks: Collecting, characterizing, and phenotyping wild banana relatives of Papua New Guinea. Crop Science, 2021, 61, 137-149.	1.8	19
54	Finding the Significant Markers. Methods in Molecular Biology, 2008, 428, 327-347.	0.9	18

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55	Challenges for Ex Situ Conservation of Wild Bananas: Seeds Collected in Papua New Guinea Have Variable Levels of Desiccation Tolerance. Plants, 2020, 9, 1243.	3.5	17
56	A digital sensor to measure real-time leaf movements and detect abiotic stress in plants. Plant Physiology, 2021, 187, 1131-1148.	4.8	17
57	Suitability of root, tuber, and banana crops in Central Africa can be favoured under future climates. Agricultural Systems, 2021, 193, 103246.	6.1	17
58	The Neonatal and Juvenile Pig in Pediatric Drug Discovery and Development. Pharmaceutics, 2021, 13, 44.	4.5	17
59	Sequence of proteome profiles in preclinical and symptomatic Alzheimer's disease. Alzheimer's and Dementia, 2021, 17, 946-958.	0.8	16
60	A quantitative portrait of three xylanase inhibiting protein families in different wheat cultivars using 2D-DIGE and multivariate statistical tools. Journal of Proteomics, 2009, 72, 484-500.	2.4	15
61	Unraveling tobacco BY-2 protein complexes with BN PAGE/LCâ€“MS/MS and clustering methods. Journal of Proteomics, 2011, 74, 1201-1217.	2.4	15
62	Distinct autophagy-apoptosis related pathways activated by Multi-walled (NM 400) and Single-walled carbon nanotubes (NIST-SRM2483) in human bronchial epithelial (16HBE14o-) cells. Journal of Hazardous Materials, 2020, 387, 121691.	12.4	15
63	In planta PCR-based detection of early infection of plant-parasitic nematodes in the roots: a step towards the understanding of infection and plant defence. European Journal of Plant Pathology, 2010, 128, 343-351.	1.7	14
64	Development of in vitro technique to screen for drought tolerant banana varieties by sorbitol induced osmotic stress. African Journal of Plant Science, 2012, 6, 16-425.	0.7	14
65	Proteome Analysis of Orphan Plant Species, Fact or Fiction?. Methods in Molecular Biology, 2014, 1072, 333-346.	0.9	13
66	Seminal and Nodal Roots of Barley Differ in Anatomy, Proteome and Nitrate Uptake Capacity. Plant and Cell Physiology, 2020, 61, 1297-1308.	3.1	12
67	Cranio-maxillofacial, orthodontic and dental treatment in three patients with Apert syndrome. European Archives of Paediatric Dentistry: Official Journal of the European Academy of Paediatric Dentistry, 2014, 15, 281-289.	1.9	11
68	Effect of Seasonal Drought on the Agronomic Performance of Four Banana Genotypes (Musa spp.) in the East African Highlands. Agronomy, 2021, 11, 4.	3.0	11
69	Enamel defects on the maxillary premolars in patients with cleft lip and/or palate: a retrospective case-control study. European Archives of Paediatric Dentistry: Official Journal of the European Academy of Paediatric Dentistry, 2014, 15, 159-165.	1.9	10
70	Data for the characterization of the HSP70 family during osmotic stress in banana, a non-model crop. Data in Brief, 2015, 3, 78-84.	1.0	10
71	Identification of the major regenerative III protein (RegIII) in the porcine intestinal mucosa as RegIIIÎ³, not RegIIIÎ±. Veterinary Immunology and Immunopathology, 2015, 167, 51-56.	1.2	10
72	Proteome Changes during Transition from Human Embryonic to Vascular Progenitor Cells. Journal of Proteome Research, 2016, 15, 1995-2007.	3.7	10

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73	Changes in the fine root proteome of Fagus sylvatica L. trees associated with P-deficiency and amelioration of P-deficiency. Journal of Proteomics, 2017, 169, 33-40.	2.4	10
74	The Plantain Proteome, a Focus on Allele Specific Proteins Obtained from Plantain Fruits. Proteomics, 2018, 18, 1700227.	2.2	10
75	Dawn regulates guard cell proteins in Arabidopsis thaliana that function in ATP production from fatty acid beta-oxidation. Plant Molecular Biology, 2018, 98, 525-543.	3.9	10
76	Proteomic analysis of mashua (Tropaeolum tuberosum) tubers subjected to postharvest treatments. Food Chemistry, 2020, 305, 125485.	8.2	10
77	Breeding Climate-Resilient Bananas. , 2020, , 91-115.		10
78	Highâ€throughput phenotyping reveals differential transpiration behaviour within the banana wild relatives highlighting diversity in drought tolerance. Plant, Cell and Environment, 2022, 45, 1647-1663.	5.7	10
79	2nd Combined Working Group and Management Committee Meeting of Urine and Kidney Proteomics COST Action 29â€“30 March 2009, Nafplio, Greece. Proteomics - Clinical Applications, 2009, 3, 1017-1022.	1.6	9
80	Characterization of the formation of somatic embryos from mature zygotic embryos of Passiflora ligularis Juss.. Plant Cell, Tissue and Organ Culture, 2017, 131, 97-105.	2.3	9
81	Influence of preâ€harvest calcium, potassium and triazole application on the proteome of apple at harvest. Journal of the Science of Food and Agriculture, 2016, 96, 4984-4993.	3.5	8
82	A digital catalog of highâ€density markers for banana germplasm collections. Plants People Planet, 2022, 4, 61-67.	3.3	7
83	dsRNA Molecules From the Tobacco Mosaic Virus p126 Gene Counteract TMV-Induced Proteome Changes at an Early Stage of Infection. Frontiers in Plant Science, 2021, 12, 663707.	3.6	7
84	The cryoprotectant PVS2 plays a crucial role in germinating Passiflora ligularis embryos after cryopreservation by influencing the mobilization of lipids and the antioxidant metabolism. Journal of Plant Physiology, 2019, 239, 71-82.	3.5	6
85	Identification of rye B chromosomeâ€associated peptides by mass spectrometry. New Phytologist, 2021, 230, 2179-2185.	7.3	6
86	Odorant-binding proteins in canine anal sac glands indicate an evolutionarily conserved role in mammalian chemical communication. Bmc Ecology and Evolution, 2021, 21, 182.	1.6	6
87	Elucidation of the compatible interaction between banana and Meloidogyne incognita via high-throughput proteome profiling. PLoS ONE, 2017, 12, e0178438.	2.5	6
88	FROM FUNDAMENTAL RESEARCH DISCOVERIES TO APPLICATIONS FOR BANANA IMPROVEMENT. Acta Horticulturae, 2011, , 47-53.	0.2	5
89	Gene Erosion Can Lead to Gain-of-Function Alleles That Contribute to Bacterial Fitness. MBio, 2021, 12, e0112921.	4.1	5
90	Polyploidy affects the development of Venturia inaequalis in scab-resistant and -susceptible apple cultivars. Scientia Horticulturae, 2021, 290, 110436.	3.6	5

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91	Proteomic Differences between Azole-Susceptible and -Resistant <i>Aspergillus fumigatus</i> Strains. Advances in Microbiology, 2018, 08, 77-99.	0.6	5
92	From fruit growth to ripening in plantain: a careful balance between carbohydrate synthesis and breakdown. Journal of Experimental Botany, 2022, 73, 4832-4849.	4.8	5
93	Multiple Testing and Pattern Recognition in 2-DE Proteomics. Methods in Molecular Biology, 2016, 1384, 215-235.	0.9	4
94	Plant Protein Sample Preparation for 2-DE. Springer Protocols, 2009, , 109-119.	0.3	3
95	Genome-wide BAC-end sequencing of Musa acuminata DH Pahang reveals further insights into the genome organization of banana. Tree Genetics and Genomes, 2011, 7, 933-940.	1.6	3
96	Mutation breeding as an effective tool for papaya improvement in South Africa. Acta Horticulturae, 2016, , 71-78.	0.2	3
97	Plant Plasma Membrane Proteomics: Challenges and Possibilities. , 2011, , 411-434.		2
98	Evaluation of four different strategies to characterize plasma membrane proteins from banana roots. Ciencia E Agrotecnologia, 2014, 38, 424-434.	1.5	1
99	Abiotic Stress Tolerance Research Using-Omics Approaches. , 2016, , 77-91.		1
100	The importance of the light spectrum in a high-throughput phenotyping lab concept: evaluating transpiration and biomass growth of different banana cultivars under different blue/red light ratios. Acta Horticulturae, 2020, , 13-20.	0.2	1
101	Proteomics analysis reveals new insights into surface pitting of sweet cherry cultivars displaying contrasting susceptibility. Journal of Horticultural Science and Biotechnology, 2022, 97, 615-625.	1.9	1
102	IN SEARCH OF BIOMARKERS FOR BROWNING IN APPLE: A PROTEOMICS APPROACH. Acta Horticulturae, 2015, , 107-113.	0.2	0
103	BROWNING OF APPLE CORTEX DURING CA STORAGE: A PROTEOMICS APPROACH. Acta Horticulturae, 2015, , 373-379.	0.2	0
104	Role of Bioinformatics as a Tool. , 2012, , 194-216.		0
105	Exploring the Potential of Genetic Diversity via Proteomics: Past, Present, and Future Perspectives for Banana. Sustainable Development and Biodiversity, 2015, , 311-323.	1.7	0
106	The Use of Proteomics in Search of Allele-Specific Proteins in (Allo)polyploid Crops. Methods in Molecular Biology, 2020, 2139, 297-308.	0.9	0
107	The usage of phenotyping, genetics and functional genomics approaches to improve environmental stress factors in banana. Burleigh Dodds Series in Agricultural Science, 2020, , 367-396.	0.2	0