Bart Panis

List of Publications by Year
in descending order

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135 papers	4,705 citations	101543 36 h-index	114465 63 g-index
146 all docs	146 docs citations	146 times ranked	4039 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	High-throughput determination of malondialdehyde in plant tissues. Analytical Biochemistry, 2005, 347, 201-207.	2.4	274
3	Droplet vitrification of apical meristems: a cryopreservation protocol applicable to all Musaceae. Plant Science, 2005, 168, 45-55.	3.6	261
4	Arbuscular Mycorrhizal Fungi for the Biocontrol of Plant-Parasitic Nematodes: A Review of the Mechanisms Involved. Frontiers in Microbiology, 2015, 6, 1280.	3.5	208
5	Proteome analysis of nonâ€model plants: A challenging but powerful approach. Mass Spectrometry Reviews, 2008, 27, 354-377.	5.4	180
6	Genetic Transformation of Banana and Plantain (Musa spp.) via Particle Bombardment. Nature Biotechnology, 1995, 13, 481-485.	17.5	138
7	Mycorrhiza-induced resistance against the rootâ€“knot nematode Meloidogyne incognita involves priming of defense gene responses in tomato. Soil Biology and Biochemistry, 2013, 60, 45-54.	8.8	138
8	Cryopreservation for the elimination of cucumber mosaic and banana streak viruses from banana (Musa spp.). Plant Cell Reports, 2002, 20, 1117-1122.	5.6	134
9	Development of embryogenic cell suspensions from shoot meristematic tissue in bananas and plantains (Musa spp.). Plant Science, 2006, 170, 104-112.	3.6	111
10	Cryotherapy of shoot tips: a technique for pathogen eradication to produce healthy planting materials and prepare healthy plant genetic resources for cryopreservation. Annals of Applied Biology, 2009, 154, 351-363.	2.5	111
11	Banana (Musa spp.) as a model to study the meristem proteome: Acclimation to osmotic stress. Proteomics, 2007, 7, 92-105.	2.2	110
12	Arbuscular mycorrhizal fungi induce systemic resistance in tomato against the sedentary nematode Meloidogyne incognita and the migratory nematode Pratylenchus penetrans. Applied Soil Ecology, 2012, 61, 1-6.	4.3	101
13	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
14	Arbuscular mycorrhizal fungi reduce root-knot nematode penetration through altered root exudation of their host. Plant and Soil, 2012, 354, 335-345.	3.7	90
15	Transient gene expression in electroporated banana (Musa spp., cv. ?Bluggoe?, ABB group) protoplasts isolated from regenerable embryogenetic cell suspensions. Plant Cell Reports, 1994, 13, 262-6.	5.6	73
16	Ultrastructural changes associated with cryopreservation of banana (Musa spp.) highly proliferating meristems. Plant Cell Reports, 2003, 21, 690-698.	5.6	73
17	Challenges and Prospects for the Conservation of Crop Genetic Resources in Field Genebanks, in In Vitro Collections and/or in Liquid Nitrogen. Plants, 2020, 9, 1634.	3.5	72
18	Cryopreservation of banana (Musa spp.) meristem cultures after preculture on sucrose. Plant Science, 1996, 121, 95-106.	3.6	69

#	Article	IF	Citations
19	Sixty years of plant cryopreservation: from freezing hardy mulberry twigs to establishing reference crop collections for future generations. Acta Horticulturae, 2019, , 1-8.	0.2	67
20	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
21	Plant regeneration through direct somatic embryogenesis from protoplasts of banana (Musa spp.). Plant Cell Reports, 1993, 12-12, 403-407.	5.6	63
22	Advances in cryopreservation of in vitro-derived propagules: technologies and explant sources. Plant Cell, Tissue and Organ Culture, 2021, 144, 7-20.	2.3	62
23	Structure and regulation of the Asr gene family in banana. Planta, 2011, 234, 785-798.	3.2	59
24	Treatment of missing values for multivariate statistical analysis of gelâ€based proteomics data. Proteomics, 2008, 8, 1371-1383.	2.2	56
25	Change in sugar, sterol and fatty acid composition in banana meristems caused by sucrose-induced acclimation and its effects on cryopreservation. Physiologia Plantarum, 2006, 128, 80-94.	5.2	52
26	Functional genomics in a non-model crop: transcriptomics or proteomics?. Physiologia Plantarum, 2008, 133, 117-130.	5.2	50
27	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
28	Cryopreservation of shoot-tips by droplet vitrification applicable to all taro (Colocasia esculenta) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	2.3	47
29	Changes in sugar content and proteome of potato in response to cold and dehydration stress and their implications for cryopreservation. Journal of Proteomics, 2014, 98, 99-111.	2.4	46
30	Lyophilization, a Practical Way to Store and Transport Tissues Prior to Protein Extraction for 2DE Analysis?. Proteomics, 2007, 7, 64-69.	2.2	45
31	Unravelling the effect of sucrose and cold pretreatment on cryopreservation of potato through sugar analysis and proteomics. Cryobiology, 2015, 71, 432-441.	0.7	43
32	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
33	CRYOPRESERVATION OF PLANT GERMPLASM. Acta Horticulturae, 2001, , 79-86.	0.2	39
34	DROPLET VITRIFICATION: THE FIRST GENERIC CRYOPRESERVATION PROTOCOL FOR ORGANIZED PLANT TISSUES?. Acta Horticulturae, 2011, , 157-162.	0.2	39
35	Arbuscular mycorrhizal fungi affect both penetration and further life stage development of root-knot nematodes in tomato. Mycorrhiza, 2012, 22, 157-163.	2.8	39
36	Differential Protein Expression in Response to Abiotic Stress in Two Potato Species: Solanum commersonii Dun and Solanum tuberosum L.. International Journal of Molecular Sciences, 2013, 14, 4912-4933.	4.1	39

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37	Pre-treatment with salicylic acid improves plant regeneration after cryopreservation of grapevine (Vitis spp.) by droplet vitrification. Acta Physiologiae Plantarum, 2016, 38, 1.	2.1	35
38	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
39	Improved cryopreservation method for the long-term conservation of the world potato germplasm collection. Plant Cell, Tissue and Organ Culture, 2015, 120, 117-125.	2.3	32
40	Strategies to revise agrosystems and breeding to control Fusarium wilt of banana. Nature Food, 2020, 1, 599-604.	14.0	32
41	Sugar-Mediated Acclimation: The Importance of Sucrose Metabolism in Meristems. Journal of Proteome Research, 2010, 9, 5038-5046.	3.7	30
42	Preâ€adaptation to climate change through topographyâ€driven phenotypic plasticity. Journal of Ecology, 2020, 108, 1465-1474.	4.0	30
43	REMOVAL OF LEAFROLL VIRUSES FROM INFECTED GRAPEVINE PLANTS BY DROPLET VITRIFICATION. Acta Horticulturae, 2015, , 491-498.	0.2	29
44	Cryopreservation of hairy root cultures of MaesaÂlanceolata and MedicagoÂtruncatula. Plant Cell, Tissue and Organ Culture, 2009, 96, 289-296.	2.3	28
45	Challenges and solutions for the identification of membrane proteins in non-model plants. Journal of Proteomics, 2011, 74, 1165-1181.	2.4	28
46	Safeguarding and using global banana diversity: a holistic approach. CABI Agriculture and Bioscience, 2020, 1, .	2.4	26
47	The acyclic nucleoside phosphonate analogues, adefovir, tenofovir and PMEDAP, efficiently eliminate banana streak virus from banana (Musa spp.). Antiviral Research, 2003, 59, 121-126.	4.1	25
48	The use of 2Dâ€DIGE to understand the regeneration of somatic embryos in avocado. Proteomics, 2013, 13, 3498-3507.	2.2	25
49	Ecological divergence of wild strawberry DNA methylation patterns at distinct spatial scales. Molecular Ecology, 2020, 29, 4871-4881.	3.9	25
50	Evaluation of chloroform/methanol extraction to facilitate the study of membrane proteins of non-model plants. Planta, 2010, 231, 1113-1125.	3.2	24
51	The proteome profile of embryogenic cell suspensions of Coffea arabica L.. Proteomics, 2016, 16, 1001-1005.	2.2	22
52	Conservation status assessment of banana crop wild relatives using species distribution modelling. Diversity and Distributions, 2021, 27, 729-746.	4.1	20
53	Cryopreservation of apple in vitro axillary buds using droplet-vitrification. Cryo-Letters, 2011, 32, 175-85.	0.3	20
54	Development of a PVS2 droplet vitrification method for potato cryopreservation. Cryo-Letters, 2014, 35, 255-66.	0.3	20

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55	Cold hardening and sucrose treatment improve cryopreservation of date palm meristems. Biologia Plantarum, 2013, 57, 375-379.	1.9	19
56	A comparative analysis of the fatty acid composition of sexual and asexual eggs ofDaphnia magnaand its plasticity as a function of food quality. Journal of Plankton Research, 2015, 37, 752-763.	1.8	19
57	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
58	Finding the Significant Markers. Methods in Molecular Biology, 2008, 428, 327-347.	0.9	18
59	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
60	Transient gene expression in transformed banana (Musa cv. Bluggoe) protoplasts and embryogenic cell suspensions. Euphytica, 1995, 85, 89-95.	1.2	16
61	Adventitious shoot formation is not inherent to micropropagation of banana as it is in maize. Plant Cell, Tissue and Organ Culture, 2008, 95, 321-332.	2.3	15
62	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
63	Long-term maintenance of Pinus nigra embryogenic cultures through cryopreservation. Acta Physiologiae Plantarum, 2012, 34, 227-233.	2.1	15
64	Abiotic stress research in crops using -omics approaches: drought stress and banana in the spotlight. Acta Horticulturae, 2016, , 81-90.	0.2	15
65	Development of a fast and user-friendly cryopreservation protocol for sweet potato genetic resources. Scientific Reports, 2020, 10, 14674.	3.3	15
66	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
67	Simultaneous liquid chromatography determination of polyamines and arylalkyl monoamines. Analytical Biochemistry, 2006, 354, 127-131.	2.4	13
68	Thermotherapy, Chemotherapy, and Meristem Culture in Banana. Methods in Molecular Biology, 2012, 11013, 419-433.	0.9	13
69	COMPETENCE OF SCALPS FOR SOMATIC EMBRYOGENESIS IN MUSA. Acta Horticulturae, 1998, , 475-484.	0.2	12
70	Genetic diversity and core subset selection inex situseed collections of the banana crop wild relativeMusa balbisiana. Plant Genetic Resources: Characterisation and Utilisation, 2019, 17, 536-544.	0.8	12
71	Seed Banks as Incidental Fungi Banks: Fungal Endophyte Diversity in Stored Seeds of Banana Wild Relatives. Frontiers in Microbiology, 2021, 12, 643731.	3.5	12
72	In-field behaviour of banana plants (Musa AA sp) obtained after regeneration of cryopreserved embryogenic cell suspensions. Cryo-Letters, 2000, 21, 19-24.	0.3	12

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73	Recovery and characterisation of hybrid firs (Abies alba x A. cephalonica, Abies albax A. numidica) embryogenic tissues after cryopreservation. Cryo-Letters, 2010, 31, 206-17.	0.3	12
74	Establishment of embryogenic cell suspensions and plant regeneration of the dessert banana â€˜Williamsâ€™ (MusaAAA group). Journal of Horticultural Science and Biotechnology, 2005, 80, 551-556.	1.9	11
75	Detection of Burkholderia in the seeds of Psychotria punctata (Rubiaceae) â€“ Microscopic evidence for vertical transmission in the leaf nodule symbiosis. PLoS ONE, 2018, 13, e0209091.	2.5	11
76	Genetic diversity and structure of Musa balbisiana populations in Vietnam and its implications for the conservation of banana crop wild relatives. PLoS ONE, 2021, 16, e0253255.	2.5	11
77	Cryopreservation of embryogenic tissues of Pinus nigra Arn. by a slow freezing method. Cryo-Letters, 2007, 28, 69-76.	0.3	11
78	Cryopreservation of Pelargonium apices by droplet-vitrification. Cryo-Letters, 2008, 29, 243-51.	0.3	11
79	Efficient slow-growth conservation and assessment of clonal fidelity of Ullucus tuberosus Caldas microshoots. Plant Cell, Tissue and Organ Culture, 2019, 138, 559-570.	2.3	10
80	Developing coconut cryopreservation protocols and establishing cryo-genebank at RDA; a collaborative project between RDA and Bioversity International. Acta Horticulturae, 2019, , 343-348.	0.2	10
81	Cryopreservation of Thymus moroderi by droplet vitrification. Cryo-Letters, 2010, 31, 14-23.	0.3	10
82	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
83	GERMPLASM CONSERVATION, VIRUS ERADICATION AND SAFE STORAGE OF TRANSFORMATION COMPETENT CULTURES IN BANANA: THE IMPORTANCE OF CRYOPRESERVATION. Acta Horticulturae, 2005, , 51-60.	0.2	9
84	Immunogold silver staining associated with epi-fluorescence for cucumber mosaic virus localisation on semi-thin sections of banana tissues. European Journal of Histochemistry, 2007, 51, 153-8.	1.5	9
85	Cryopreservation of olive embryogenic cultures. Cryo-Letters, 2009, 30, 359-72.	0.3	9
86	Cryopreservation of Galanthus elwesii Hook. apical meristems by droplet vitrification. Cryo-Letters, 2013, 34, 1-9.	0.3	9
87	Cryopreservation of Monocots. , 2008, , 241-280.		8
88	Physiological and Structural Aspects of In Vitro Somatic Embryogenesis in Abies alba Mill. Forests, 2020, 11, 1210.	2.1	8
89	Cryopreservation and In Vitro banking: a cool subject â€“ Preface from the editors. Plant Cell, Tissue and Organ Culture, 2021, 144, 1-5.	2.3	8
90	Regulation of seed germination by diurnally alternating temperatures in disturbance-adapted banana crop wild relatives (Musa acuminata). Seed Science Research, 2020, 30, 238-248.	1.7	8

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91	Securing Plant Genetic Resources for Perpetuity through Cryopreservation. Indian Journal of Plant Genetic Resources, 2016, 29, 300.	0.1	8
92	Transient gene expression in transformed banana (Musa cv. Bluggoe) protoplasts and embryogenic cell suspensions. Developments in Plant Breeding, 1995, , 89-95.	0.2	8
93	DEVELOPMENT OF IN VITRO TECHNIQUES FOR ELIMINATION OF VIRUS DISEASES FROM MUSA. Acta Horticulturae, 2001, , 535-538.	0.2	7
94	Strategies for conservation of endangered wild grapevine (Vitis viniferaL. subsp.sylvestris(C.C. Gmel.)) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.2	7
95	Tissue regeneration of Abies embryogenic cell lines after 1 year storage in liquid nitrogen. Biologia (Poland), 2016, 71, 93-99.	1.5	7
96	Direct nematicidal effects of methyl jasmonate and acibenzolar-S-methyl against Meloidogyne incognita. Natural Product Research, 2017, 31, 1219-1222.	1.8	7
97	Cryopreservation of Ashe magnolia shoot-tips by droplet-vitrification. Acta Horticulturae, 2019, , 233-240.	0.2	7
98	FREEZE-PRESERVATION OF EMBRYOGENIC MUSA SUSPENSION CULTURES. , 1992, , 183-195.		7
99	Cryopreservation of Radopholus similis, a tropical plant-parasitic nematode. Cryobiology, 2007, 55, 148-157.	0.7	6
100	GENETICALLY MODIFIED BANANAS: PAST, PRESENT AND FUTURE. Acta Horticulturae, 2013, , 71-80.	0.2	6
101	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
102	Maximizing genetic representation in seed collections from populations of self and cross-pollinated banana wild relatives. BMC Plant Biology, 2021, 21, 415.	3.6	6
103	Development of the first axillary in vitro shoot multiplication protocol for coconut palms. Scientific Reports, 2021, 11, 18367.	3.3	6
104	Elucidation of the compatible interaction between banana and Meloidogyne incognita via high-throughput proteome profiling. PLoS ONE, 2017, 12, e0178438.	2.5	6
105	Banana seed genetic resources for food security: Status, constraints, and future priorities. Food and Energy Security, 2022, 11, e345.	4.3	6
106	Shoot-tip cryopreservation by droplet vitrification of Byrsonima intermedia A. Juss.: a woody tropical and medicinal plant species from Brazilian cerrado. Cryo-Letters, 2013, 34, 338-48.	0.3	6
107	CONSERVATION OF BANANA GERMPLASM THROUGH CRYOPRESERVATION. Acta Horticulturae, 1998, , 515-521.	0.2	5
108	RASPBERRY CRYOPRESERVATION BY DROPLET VITRIFICATION TECHNIQUE. Acta Horticulturae, 2011, , 965-969.	0.2	5

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109	FROM FUNDAMENTAL RESEARCH DISCOVERIES TO APPLICATIONS FOR BANANA IMPROVEMENT. Acta Horticulturae, 2011, , 47-53.	0.2	5
110	CRYOTHERAPY OF SHOOT TIPS: A NEWLY EMERGING TECHNIQUE FOR EFFICIENT ELIMINATION OF PLANT PATHOGENS. Acta Horticulturae, 2011, , 373-384.	0.2	5
111	<b>Cryopreservation of <i>Byrsonima intermedia</i> embryos followed by room temperature thawing. Acta Scientiarum - Agronomy, 2014, 36, 309.	0.6	5
112	Is the bacterial leaf nodule symbiosis obligate for Psychotria umbellata? The development of a Burkholderia-free host plant. PLoS ONE, 2019, 14, e0219863.	2.5	5
113	Droplet-vitrification methods for apical bud cryopreservation of yacon [Smallanthus sonchifolius (Poepp. and Endl.) H. Rob.]. Plant Cell, Tissue and Organ Culture, 2021, 147, 197-208.	2.3	4
114	Cryopreservation of Germplasm of Banana and Plantain (Musa Species). Biotechnology in Agriculture and Forestry, 1995, , 381-397.	0.2	4
115	IN VITRO STORAGE AND CRYOPRESERVATION AS SUBSTANTIAL COMPLEMENTS IN CONCERTED ACTIONS TO BETTER MAINTAIN AND USE CROP GERMPLASM. Acta Horticulturae, 2012, , 35-50.	0.2	4
116	Plant Protein Sample Preparation for 2-DE. Springer Protocols, 2009, , 109-119.	0.3	3
117	Cryopreservation of Bituminaria bituminosa varieties and hybrids. Cryobiology, 2015, 71, 279-285.	0.7	3
118	Genetic Transformation in Musa Species (Banana). Biotechnology in Agriculture and Forestry, 1995, , 214-227.	0.2	3
119	Improvement of bananas for black sigatoka and panama disease resistance through genetic manipulation. African Crop Science Journal, 2010, 2, .	0.2	2
120	Plant proteomics in Europe â€" COST action FA0603. Journal of Proteomics, 2011, 74, 1161-1164.	2.4	2
121	The potential to propagate coconut clones through direct shoot organogenesis: A review. Scientia Horticulturae, 2021, 289, 110400.	3.6	2
122	OUP accepted manuscript. , 2022, 10, coab099.		2
123	Seed germination, preservation and population genetics of wild Musa germplasm. Burleigh Dodds Series in Agricultural Science, 2020, , 167-192.	0.2	2
124	Phylogeography and conservation gaps of Musa balbisiana Colla genetic diversity revealed by microsatellite markers. Genetic Resources and Crop Evolution, 2022, 69, 2515-2534.	1.6	2
125	Potential of flow cytometry for monitoring genetic stability of banana embryogenic cell suspension cultures. , 2005, , 337-344.		1
126	ULTRASTRUCTURAL CHANGES IN SUSPENSION CULTURES OF BANANA (MUSA SPP. AAA) DURING CRYOPRESERVATION BY VITRIFICATION. Acta Horticulturae, 2011, , 73-81.	0.2	1

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127	Evaluation of four different strategies to characterize plasma membrane proteins from banana roots. Ciencia E Agrotecnologia, 2014, 38, 424-434.	1.5	1
128	GMOs in horticulture â€“ exciting opportunities or a dead end? A case study on banana. Acta Horticulturae, 2016, , 49-58.	0.2	1
129	Using seminatural and simulated habitats for seed germination ecology of banana wild relatives. Ecology and Evolution, 2021, 11, 14644-14657.	1.9	1
130	CRYOPRESERVATION OF AVOCADO EMBRYOGENIC CULTURES. Acta Horticulturae, 2011, , 215-218.	0.2	0
131	CRYOPRESERVATION OF DATE PALM HIGHLY REGENERABLE TISSUES USING VITRIFICATION PROCEDURES. Acta Horticulturae, 2011, , 219-226.	0.2	0
132	In Vitro Cryopreservation of Date Palm Caulogenic Meristems. Methods in Molecular Biology, 2017, 1638, 39-48.	0.9	0
133	Correction to: Safeguarding and using global banana diversity: a holistic approach. CABI Agriculture and Bioscience, 2020, 1, .	2.4	0
134	Exploitation and progress of GMOs â€“ past, present and future: exciting opportunities or a dead end?. Acta Horticulturae, 2016, , 101-114.	0.2	0
135	Tissue necrosis prevention during shoot multiplication of coconut. Acta Horticulturae, 2022, , 173-180.	0.2	0