Thomas BÃ¶rner

List of Publications by Year
in descending order

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110 papers	9,762 citations	28274 55 h-index	37204 96 g-index
117 all docs	117 docs citations	117 times ranked	6193 citing authors

#	Article	IF	Citations
1	Structural organization of microcystin biosynthesis in Microcystis aeruginosa PCC7806: an integrated peptideâ€"polyketide synthetase system. Chemistry and Biology, 2000, 7, 753-764.	6.0	852
2	Phylogenetic evidence for the early evolution of microcystin synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 568-573.	7.1	432
3	The Cyanobacterial Hepatotoxin Microcystin Binds to Proteins and Increases the Fitness of Microcystis under Oxidative Stress Conditions. PLoS ONE, 2011, 6, e17615.	2.5	367
4	Insertional mutagenesis of a peptide synthetase gene that is responsible for hepatotoxin production in the cyanobacterium <i>Microcystis aeruginosa</i> PCC 7806. Molecular Microbiology, 1997, 26, 779-787.	2.5	361
5	A prokaryotic phytochrome. Nature, 1997, 386, 663-663.	27.8	325
6	Microcystin Biosynthesis in Planktothrix: Genes, Evolution, and Manipulation. Journal of Bacteriology, 2003, 185, 564-572.	2.2	317
7	Organellar RNA Polymerases of Higher Plants. International Review of Cytology, 1999, 190, 1-59.	6.2	227
8	PCR-based identification of microcystin-producing genotypes of different cyanobacterial genera. Archives of Microbiology, 2003, 180, 402-410.	2.2	226
9	One RNA polymerase serving two genomes. EMBO Reports, 2000, 1, 435-440.	4.5	205
10	The transcription machineries of plant mitochondria and chloroplasts: Composition, function, and regulation. Journal of Plant Physiology, 2011, 168, 1345-1360.	3.5	192
11	Chloroplast RNA polymerases: Role in chloroplast biogenesis. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 761-769.	1.0	191
12	Cytoplasmic synthesis of plastid polypeptides may be controlled by plastid-synthesised RNA. Nature, 1979, 279, 816-817.	27.8	187
13	Towards clarification of the biological role of microcystins, a family of cyanobacterial toxins. Environmental Microbiology, 2007, 9, 965-970.	3.8	187
14	The Primary Transcriptome of Barley Chloroplasts: Numerous Noncoding RNAs and the Dominating Role of the Plastid-Encoded RNA Polymerase Â Â. Plant Cell, 2012, 24, 123-136.	6.6	186
15	Abundance of active and inactive microcystin genotypes in populations of the toxic cyanobacterium Planktothrix spp.. Environmental Microbiology, 2004, 6, 831-841.	3.8	171
16	From seedling to mature plant: Arabidopsis plastidial genome copy number, RNA accumulation and transcription are differentially regulated during leaf development. Plant Journal, 2007, 50, 710-722.	5.7	164
17	An organellar maturase associates with multiple group II introns. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3245-3250.	7.1	161
18	Fewer genes than organelles: extremely low and variable gene copy numbers in mitochondria of somatic plant cells. Plant Journal, 2010, 64, 948-959.	5.7	160

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19	Inactivation of an ABC Transporter Gene, <i>mcyH</i> , Results in Loss of Microcystin Production in the Cyanobacterium <i>Microcystis aeruginosa</i> PCC 7806. Applied and Environmental Microbiology, 2004, 70, 6370-6378.	3.1	150
20	The mystery of the rings: structure and replication of mitochondrial genomes from higher plants. Trends in Plant Science, 1997, 2, 477-483.	8.8	147
21	Phage-Type RNA Polymerase RPOTmp Performs Gene-Specific Transcription in Mitochondria of Arabidopsis thaliana Â Â. Plant Cell, 2009, 21, 2762-2779.	6.6	134
22	Multiple promoters are a common feature of mitochondrial genes in Arabidopsis. Nucleic Acids Research, 2005, 33, 337-346.	14.5	127
23	Protein-mediated protection as the predominant mechanism for defining processed mRNA termini in land plant chloroplasts. Nucleic Acids Research, 2012, 40, 3092-3105.	14.5	116
24	Ingestion of microcystins by <i>Daphnia</i> : Intestinal uptake and toxic effects. Limnology and Oceanography, 2005, 50, 440-448.	3.1	114
25	Mitochondrial effects on flower and pollen development. Mitochondrion, 2005, 5, 389-402.	3.4	111
26	The cyanobacterial phytochrome Cph2 inhibits phototaxis towards blue light. Molecular Microbiology, 2002, 44, 981-988.	2.5	110
27	Phage T4-like intermediates of DNA replication and recombination in the mitochondria of the higher plant Chenopodium album (L.). Current Genetics, 2000, 37, 304-314.	1.7	106
28	Relaxed Transcription in Arabidopsis Mitochondria Is Counterbalanced by RNA Stability Control Mediated by Polyadenylation and Polynucleotide Phosphorylase. Molecular and Cellular Biology, 2006, 26, 2869-2876.	2.3	104
29	Altered expression of two light-dependent genes in a microcystin-lacking mutant of Microcystis aeruginosa PCC 7806. Microbiology (United Kingdom), 2001, 147, 3113-3119.	1.8	103
30	Flower development in carrot CMS plants: mitochondria affect the expression of MADS box genes homologous to GLOBOSA and DEFICIENS. Plant Journal, 2003, 34, 27-37.	5.7	103
31	Biosynthesis and Structure of Aeruginoside 126A and 126B, Cyanobacterial Peptide Glycosides Bearing a 2-Carboxy-6-Hydroxyoctahydroindole Moiety. Chemistry and Biology, 2007, 14, 565-576.	6.0	101
32	Cytokinin Stimulates Chloroplast Transcription in Detached Barley Leaves. Plant Physiology, 2008, 148, 1082-1093.	4.8	99
33	Splicing and intron-internal RNA editing of trnK-matK transcripts in barley plastids: support for MatK as an essential splice factor. Journal of Molecular Biology, 1997, 270, 179-187.	4.2	98
34	Disruption of aSynechocystissp. PCC 6803 gene with partial similarity to phytochrome genes alters growth under changing light qualities. FEBS Letters, 1997, 406, 89-92.	2.8	96
35	Inter-organellar crosstalk in higher plants: impaired chloroplast development affects mitochondrial gene and transcript levels. Plant Journal, 1999, 19, 635-643.	5.7	96
36	Toxic and non-toxic strains of the cyanobacteriumMicrocystis aeruginosacontain sequences homologous to peptide synthetase genes. FEMS Microbiology Letters, 1996, 135, 295-303.	1.8	94

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37	Six active phage-type RNA polymerase genes in Nicotiana tabacum. Plant Journal, 2002, 30, 625-637.	5.7	94
38	Chloroplast development affects expression of phage-type RNA polymerases in barley leaves. Plant Journal, 2004, 38, 460-472.	5.7	92
39	Two RpoT genes of Physcomitrella patens encode phage-type RNA polymerases with dual targeting to mitochondria and plastids. Gene, 2002, 290, 95-105.	2.2	91
40	Complex chloroplast RNA metabolism: just debugging the genetic programme?. BMC Biology, 2008, 6, 36.	3.8	87
41	Genetic contributions to the risk assessment of microcystin in the environment. Toxicology and Applied Pharmacology, 2005, 203, 192-200.	2.8	86
42	Abscisic acid affects transcription of chloroplast genes via protein phosphatase 2Câ€dependent activation of nuclear genes: repression by guanosineâ€3â€²â€5â€²â€bisdiphosphate and activation by sigma factor. Plant Journal, 2015, 82, 1030-1041.	5.5	79
43	Transposons Inactivate Biosynthesis of the Nonribosomal Peptide Microcystin in Naturally Occurring Planktothrix spp. Applied and Environmental Microbiology, 2006, 72, 117-123.	3.1	75
44	Transcription and transcriptional regulation in plastids. Topics in Current Genetics, 2007, , 121-174.	0.7	75
45	High diversity of plastidial promoters in Arabidopsis thaliana. Molecular Genetics and Genomics, 2007, 277, 725-734.	2.1	75
46	Characterization of the Cph1 holo-phytochrome from Synechocystis sp. PCC 6803. FEBS Journal, 2001, 268, 2055-2063.	0.2	74
47	Phototaxis in the Cyanobacterium Synechocystis sp. PCC 6803: Role of Different Photoreceptors. Photochemistry and Photobiology, 2005, 81, 1481.	2.5	69
48	Characterisation of transcript initiation sites in ribosome-deficient barley plastids. , 1998, 36, 493-496.		67
49	Transcription and the architecture of promoters in chloroplasts. Trends in Plant Science, 1999, 4, 169-170.	8.8	66
50	Arabidopsis Phage-Type RNA Polymerases: Accurate in Vitro Transcription of Organellar Genes. Plant Cell, 2007, 19, 959-971.	6.6	66
51	Chloroplast DNA in Mature and Senescing Leaves: A Reappraisal Â. Plant Cell, 2014, 26, 847-854.	6.6	65
52	Green fluorescent protein as a marker to investigate targeting of organellar RNA polymerases of higher plants inâ€ƒvivo. Plant Journal, 1999, 17, 557-561.	5.7	63
53	Impaired function of the phage-type RNA polymerase RpoTp in transcription of chloroplast genes is compensated by a second phage-type RNA polymerase. Nucleic Acids Research, 2007, 36, 785-792.	14.5	63
54	An Extracellular Glycoprotein Is Implicated in Cell-Cell Contacts in the Toxic Cyanobacterium<i>Microcystis aeruginosa</i>PCC 7806. Journal of Bacteriology, 2008, 190, 2871-2879.	2.2	61

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55	Detection of hepatotoxic Microcystis strains by PCR with intact cells from both culture and environmental samples. Archives of Microbiology, 2002, 178, 421-427.	2.2	60
56	A gene family encoding glutathione peroxidase homologues inHordeum vulgare(barley). FEBS Letters, 1999, 459, 33-38.	2.8	58
57	Metabolic control of the tetrapyrrole biosynthetic pathway for porphyrin distribution in the barley mutant albostrians. Plant Journal, 2003, 35, 512-522.	5.7	56
58	Mutation of the pentatricopeptide repeat-SMR protein SVR7 impairs accumulation and translation of chloroplast ATP synthase subunits in Arabidopsis thaliana. Journal of Plant Research, 2013, 126, 403-414.	2.4	55
59	Plastome mutants. Plant Molecular Biology Reporter, 1986, 4, 69-92.	1.8	54
60	Impaired splicing of the rps 12 transcript in ribosome-deficient plastids. Plant Molecular Biology, 1996, 30, 109-123.	3.9	54
61	The mcyF gene of the microcystin biosynthetic gene cluster from Microcystis aeruginosa encodes an aspartate racemase. Biochemical Journal, 2003, 373, 909-916.	3.7	54
62	Overexpression of phage-type RNA polymerase RpoTp in tobacco demonstrates its role in chloroplast transcription by recognizing a distinct promoter type. Nucleic Acids Research, 2004, 32, 1159-1165.	14.5	54
63	Transcriptomic response to prolonged ethanol production in the cyanobacterium Synechocystis sp. PCC6803. Biotechnology for Biofuels, 2014, 7, 21.	6.2	54
64	Leaf Variegation and Impaired Chloroplast Development Caused by a Truncated CCT Domain Gene in <i>albostrians</i> Barley. Plant Cell, 2019, 31, 1430-1445.	6.6	52
65	Abscisic acid represses the transcription of chloroplast genes*. Journal of Experimental Botany, 2013, 64, 4491-4502.	4.8	49
66	Chloroplast nucleoids are highly dynamic in ploidy, number, and structure during angiosperm leaf development. Plant Journal, 2020, 102, 730-746.	5.7	43
67	Biparental inheritance of plastidial and mitochondrial DNA and hybrid variegation in Pelargonium. Molecular Genetics and Genomics, 2009, 282, 587-593.	2.1	41
68	Identification of Early Nuclear Target Genes of Plastidial Redox Signals that Trigger the Long-Term Response of Arabidopsis to Light Quality Shifts. Molecular Plant, 2015, 8, 1237-1252.	8.3	38
69	The discovery of plastid-to-nucleus retrograde signalingâ€"a personal perspective. Protoplasma, 2017, 254, 1845-1855.	2.1	37
70	High content, size and distribution of single-stranded DNA in the mitochondria of Chenopodium album (L.). Plant Molecular Biology, 1997, 33, 1037-1050.	3.9	36
71	Red and far-red light alter the transcript profile in the cyanobacteriumSynechocystissp. PCC 6803: Impact of cyanobacterial phytochromes. FEBS Letters, 2005, 579, 1613-1618.	2.8	36
72	Methyl jasmonate, gibberellic acid, and auxin affect transcription and transcript accumulation of chloroplast genes in barley. Journal of Plant Physiology, 2011, 168, 1335-1344.	3.5	36

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73	Polar Lipid Composition of a Plastid Ribosome-Deficient Barley Mutant. Plant Physiology, 1982, 69, 1467-1470.	4.8	34
74	Hybrid variegation in the genus Pelargonium. Current Genetics, 1982, 5, 245-249.	1.7	33
75	Development- and tissue-specific expression of the RpoT gene family of Arabidopsis encoding mitochondrial and plastid RNA polymerases. Planta, 2006, 223, 998-1009.	3.2	33
76	Involvement of Cyanobacterial Phytochromes in Growth Under Different Light Qualities and QuantitiesÂ¶. Photochemistry and Photobiology, 2004, 79, 551.	2.5	32
77	A mitochondrial rRNA dimethyladenosine methyltransferase in Arabidopsis. Plant Journal, 2010, 61, 558-569.	5.7	31
78	Cloning and characterization of three cDNAs encoding chloroplast RNA-binding proteins from barley (Hordeum vulgare L.): differential regulation of expression by light and plastid development. Current Genetics, 1999, 36, 173-181.	1.7	27
79	Chloroplasts affect the leaf response to cytokinin. Journal of Plant Physiology, 2002, 159, 1309-1316.	3.5	26
80	Transcription of Plastid Genes. , 0, , 184-224.		24
81	Mitochondrial atp9 genes from petaloid male-sterile and male-fertile carrots differ in their status of heteroplasmy, recombination involvement, post-transcriptional processing as well as accumulation of RNA and protein product. Theoretical and Applied Genetics, 2014, 127, 1689-1701.	3.6	23
82	Analysis of randomly selected cDNAs reveals the expression of stress- and defence-related genes in the barley mutant albostrians. Plant Science, 1998, 133, 191-201.	3.6	22
83	Biparental inheritance of organelles in Pelargonium: evidence for intergenomic recombination of mitochondrial DNA. Planta, 2013, 237, 509-515.	3.2	22
84	Cloning and sequencing of mutantpsbB genes of the cyanobacteriumSynechocystis PCC 6803. Photosynthesis Research, 1993, 37, 139-146.	2.9	21
85	Molecular Biology of Cyanobacterial Toxins. , 2005, , 25-40.		21
86	Faithful transcription initiation from a mitochondrial promoter in transgenic plastids. Nucleic Acids Research, 2007, 35, 7256-7266.	14.5	20
87	Evolution of plant phage-type RNA polymerases: the genome of the basal angiosperm Nuphar advena encodes two mitochondrial and one plastid phage-type RNA polymerases. BMC Evolutionary Biology, 2010, 10, 379.	3.2	19
88	Components of chlorophyll biosynthesis in a barley albina mutant unable to synthesize ?-aminolevulinic acid by utilizing the transfer RNA for glutamic acid. Planta, 1992, 188, 19-27.	3.2	18
89	Chlorophyll Synthetase and Chloroplast tRNAglu are Present in Heat-Bleached, Ribosome-Deficient Plastids. Journal of Plant Physiology, 1992, 139, 427-430.	3.5	17
90	The White Barley Mutant Albostrians Shows Enhanced Resistance to the Biotroph Blumeria graminis f. sp. hordei. Molecular Plant-Microbe Interactions, 2004, 17, 374-382.	2.6	17

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91	Decrease in glycolate pathway enzyme activities in plastids and peroxisomes of the albostrians mutant of barley (Hordeum vulgare L.). Plant Science, 1997, 124, 33-40.	3.6	15
92	Evolution of Phage-Type RNA Polymerases in Higher Plants: Characterization of the Single Phage-Type RNA Polymerase Gene from Selaginella moellendorffii. Journal of Molecular Evolution, 2009, 68, 528-538.	1.8	15
93	Development-Dependent Changes in the Amount and Structural Organization of Plastid DNA. Advances in Photosynthesis and Respiration, 2013, , 215-237.	1.0	15
94	A putative cytochromecbiogenesis gene inSynechocystissp. PCC 68031. FEBS Letters, 1997, 408, 201-205.	2.8	14
95	The barley plastome mutant CL2 affects expression of nuclear and chloroplast housekeeping genes in a cell-age dependent manner. Molecular Genetics and Genomics, 2008, 279, 403-414.	2.1	14
96	Inhibition of the electron transport strongly affects transcription and transcript levels in Arabidopsis mitochondria. Mitochondrion, 2014, 19, 222-230.	3.4	11
97	Chloroplast Gene Expressionâ€"RNA Synthesis and Processing. , 2014, , 3-47.		10
98	Transcription and Transcription Regulation in Chloroplasts and Mitochondria of Higher Plants. , 2012, , 297-325.		9
99	Transcription in Plant Mitochondria. , 2011, , 85-105.		8
100	Measurement of Transcription Rates in Arabidopsis Chloroplasts. Methods in Molecular Biology, 2011, 774, 171-182.	0.9	8
101	Mutation of the ALBOSTRIANS Ohnologous Gene HvCMF3 Impairs Chloroplast Development and Thylakoid Architecture in Barley. Frontiers in Plant Science, 2021, 12, 732608.	3.6	7
102	Cloning and expression of a new cDNA from monocotyledonous plants coding for a diadenosine 5â€²,5â€²â€²â€²-P1,P4-tetraphosphate hydrolase from barley (Hordeum vulgare). FEBS Letters, 1998, 431, 481-485.	2.8	6
103	Reverse protection assay: a tool to analyze transcriptional rates from individual promoters. Plant Methods, 2011, 7, 47.	4.3	6
104	The Arabidopsis AAC Proteins CIL and CIA2 Are Sub-functionalized Paralogs Involved in Chloroplast Development. Frontiers in Plant Science, 2021, 12, 681375.	3.6	6
105	A third mitochondrial RNA polymerase in the moss Physcomitrella patens. Current Genetics, 2014, 60, 25-34.	1.7	4
106	Enzymes of Plastid Ribosome-deficient Mutants. Ferredoxin-NADP+ Reductase. Biochemie Und Physiologie Der Pflanzen, 1981, 176, 737-743.	0.5	3
107	In vitro promoter recognition by the catalytic subunit of plant phage-type RNA polymerases. Plant Molecular Biology, 2016, 92, 357-369.	3.9	2
108	ATP-Dependent Clp Protease Subunit C1, HvClpC1, Is a Strong Candidate Gene for Barley Variegation Mutant luteostrians as Revealed by Genetic Mapping and Genomic Re-sequencing. Frontiers in Plant Science, 2021, 12, 664085.	3.6	2

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109	Regulation of plant primary metabolism. Journal of Plant Physiology, 2011, 168, 1309-1310.	3.5	1
110	Involvement of Cyanobacterial Phytochromes in Growth Under Different Light Qualitities and Quantities^{Â¶}. Photochemistry and Photobiology, 2004, 79, 551-555.	2.5	0