J Mark Cock

List of Publications by Year in descending order

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127	7,459	45	80
papers	citations	h-index	g-index
139	139	139	5984
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	The Ectocarpus genome and the independent evolution of multicellularity in brown algae. Nature, 2010, 465, 617-621.	27.8	774
2	The cell wall polysaccharide metabolism of the brown alga <i>Ectocarpus siliculosus</i> . Insights into the evolution of extracellular matrix polysaccharides in Eukaryotes. New Phytologist, 2010, 188, 82-97.	7. 3	381
3	A Large Family of Genes That Share Homology withCLAVATA3. Plant Physiology, 2001, 126, 939-942.	4.8	316
4	Genome structure and metabolic features in the red seaweed <i>Chondrus crispus </i> shed light on evolution of the Archaeplastida. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5247-5252.	7.1	307
5	The S-locus receptor kinase is inhibited by thioredoxins and activated by pollen coat proteins. Nature, 2001, 410, 220-223.	27.8	259
6	HECTAR: A method to predict subcellular targeting in heterokonts. BMC Bioinformatics, 2008, 9, 393.	2.6	197
7	BIGPETALp, a bHLH transcription factor is involved in the control of Arabidopsis petal size. EMBO Journal, 2006, 25, 3912-3920.	7.8	188
8	Central and storage carbon metabolism of the brown alga <i>Ectocarpus siliculosus</i> : insights into the origin and evolution of storage carbohydrates in Eukaryotes. New Phytologist, 2010, 188, 67-81.	7.3	172
9	PROPOSAL OFECTOCARPUS SILICULOSUS(ECTOCARPALES, PHAEOPHYCEAE) AS A MODEL ORGANISM FOR BROWN ALGAL GENETICS AND GENOMICS. Journal of Phycology, 2004, 40, 1079-1088.	2.3	144
10	Global expression analysis of the brown alga Ectocarpus siliculosus (Phaeophyceae) reveals large-scale reprogramming of the transcriptome in response to abiotic stress. Genome Biology, 2009, 10, R66.	9.6	138
11	Characterization of the S locus genes, SLG and SRK, of the Brassica S3 haplotype: identification of a membrane-localized protein encoded by the S locus receptor kinase gene. Plant Journal, 1995, 7, 429-440.	5.7	131
12	A Haploid System of Sex Determination in the Brown Alga Ectocarpus sp Current Biology, 2014, 24, 1945-1957.	3.9	131
13	Development and physiology of the brown alga <i>Ectocarpus siliculosus</i> : two centuries of research. New Phytologist, 2008, 177, 319-332.	7. 3	128
14	Complex life cycles of multicellular eukaryotes: New approaches based on the use of model organisms. Gene, 2007, 406, 152-170.	2.2	127
15	Interaction of Calmodulin, a Sorting Nexin and Kinase-Associated Protein Phosphatase with the Brassica oleracea S Locus Receptor Kinase. Plant Physiology, 2003, 133, 919-929.	4.8	124
16	Sexual Dimorphism and the Evolution of Sex-Biased Gene Expression in the Brown Alga Ectocarpus. Molecular Biology and Evolution, 2015, 32, 1581-1597.	8.9	111
17	Life-cycle-generation-specific developmental processes are modified in the <i>immediate upright </i> mutant of the brown alga <i>Ectocarpus siliculosus </i> li>. Development (Cambridge), 2008, 135, 1503-1512.	2.5	106
18	Auxin Metabolism and Function in the Multicellular Brown Alga <i>Ectocarpus siliculosus</i> \hat{A} Â. Plant Physiology, 2010, 153, 128-144.	4.8	103

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19	Both the adaxial and abaxial epidermal layers of the rose petal emit volatile scent compounds. Planta, 2007, 226, 853-866.	3.2	102
20	<i>OUROBOROS</i> is a master regulator of the gametophyte to sporophyte life cycle transition in the brown alga <i>Ectocarpus</i> . Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11518-11523.	7.1	88
21	Scent evolution in Chinese roses. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 5927-5932.	7.1	86
22	Copper stress proteomics highlights local adaptation of two strains of the model brown alga <i>Ectocarpus siliculosus </i> Is Proteomics, 2010, 10, 2074-2088.	2.2	85
23	Phylogeny and Evolution of the Brown Algae. Critical Reviews in Plant Sciences, 2020, 39, 281-321.	5.7	82
24	The S15 Self-Incompatibility Haplotype in Brassica oleracea Includes Three S Gene Family Members Expressed in Stigmas. Plant Cell, 1999, 11, 971-986.	6.6	81
25	Further analysis of the interactions between the Brassica S receptor kinase and three interacting proteins (ARC1, THL1 and THL2) in the yeast two-hybrid system. Plant Molecular Biology, 2001, 45, 365-376.	3.9	81
26	Analysis of gene expression in rose petals using expressed sequence tags. FEBS Letters, 2002, 515, 35-38.	2.8	78
27	Making inroads into plant receptor kinase signalling pathways. Trends in Plant Science, 2003, 8, 231-237.	8.8	77
28	Plastid genomes of two brown algae, Ectocarpus siliculosus and Fucus vesiculosus: further insights on the evolution of red-algal derived plastids. BMC Evolutionary Biology, 2009, 9, 253.	3.2	77
29	Biosynthesis of the major scent components 3,5-dimethoxytoluene and 1,3,5-trimethoxybenzene by novel roseO-methyltransferases. FEBS Letters, 2002, 523, 113-118.	2.8	76
30	Two large Arabidopsis thaliana gene families are homologous to the Brassica gene superfamily that encodes pollen coat proteins and the male component of the self-incompatibility response. Plant Molecular Biology, 2001, 46, 17-34.	3.9	73
31	Receptor kinase signalling in plants and animals: distinct molecular systems with mechanistic similarities. Current Opinion in Cell Biology, 2002, 14, 230-236.	5.4	73
32	The Algal Revolution. Trends in Plant Science, 2017, 22, 726-738.	8.8	73
33	The S locus receptor kinase gene encodes a soluble glycoprotein corresponding to the SRK extracellular domain in Brassica oleracea. Plant Journal, 1995, 8, 827-834.	5.7	69
34	Role of Petal-Specific Orcinol O-Methyltransferases in the Evolution of Rose Scent. Plant Physiology, 2006, 140, 18-29.	4.8	67
35	UV Chromosomes and Haploid Sexual Systems. Trends in Plant Science, 2018, 23, 794-807.	8.8	66
36	Reâ€annotation, improved largeâ€scale assembly and establishment of a catalogue of noncoding loci for the genome of the model brown alga <i>Ectocarpus</i> . New Phytologist, 2017, 214, 219-232.	7.3	65

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37	Multiple gene movements into and out of haploid sex chromosomes. Genome Biology, 2017, 18, 104.	8.8	63
38	<i>Ectocarpus</i> : A Model Organism for the Brown Algae. Cold Spring Harbor Protocols, 2012, 2012, pdb.emo065821.	0.3	62
39	Regulation of glutamine synthetase genes in leaves of Phaseolus vulgaris. Plant Molecular Biology, 1991, 17, 761-771.	3.9	59
40	Antisense suppression of thioredoxinhmRNA in Brassica napus cv Plant Molecular Biology, 2004, 55, 619-630.	3.9	59
41	The FTO Gene, Implicated in Human Obesity, Is Found Only in Vertebrates and Marine Algae. Journal of Molecular Evolution, 2008, 66, 80-84.	1.8	59
42	A sequenceâ€ŧagged genetic map for the brown alga <i>Ectocarpus siliculosus</i> provides largeâ€₅cale assembly of the genome sequence. New Phytologist, 2010, 188, 42-51.	7.3	59
43	Evolution and regulation of complex life cycles: a brown algal perspective. Current Opinion in Plant Biology, 2014, 17, 1-6.	7.1	57
44	Role of endoreduplication and apomeiosis during parthenogenetic reproduction in the model brown alga <i>Ectocarpus</i> . New Phytologist, 2010, 188, 111-121.	7.3	54
45	Inheritance of organelles in artificial hybrids of the isogamous multicellular chromist algaEctocarpus siliculosus(Phaeophyceae). European Journal of Phycology, 2004, 39, 235-242.	2.0	53
46	How to Cultivate <i>Ectocarpus</i> : Figure 1 Cold Spring Harbor Protocols, 2012, 2012, pdb.prot067934.	0.3	51
47	High-density genetic map and identification of QTLs for responses to temperature and salinity stresses in the model brown alga Ectocarpus. Scientific Reports, 2017, 7, 43241.	3.3	50
48	Evolution and maintenance of haploid-diploid life cycles in natural populations: The case of the marine brown alga <i>Ectocarpus</i> . Evolution; International Journal of Organic Evolution, 2015, 69, 1808-1822.	2.3	49
49	Expression of glutamine synthetase genes in roots and nodules of Phaseolus vulgaris following changes in the ammonium supply and infection with various Rhizobium mutants. Plant Molecular Biology, 1990, 14, 549-560.	3.9	47
50	Convergent recruitment of TALE homeodomain life cycle regulators to direct sporophyte development in land plants and brown algae. ELife, 2019, 8, .	6.0	44
51	Natural antisense transcripts of the S locus receptor kinase gene and related sequences in Brassica oleracea. Molecular Genetics and Genomics, 1997, 255, 514-524.	2.4	43
52	Targeted CRISPR as9â€based gene knockouts in the model brown alga <i>Ectocarpus</i> . New Phytologist, 2021, 231, 2077-2091.	7.3	41
53	microRNAs and the evolution of complex multicellularity: identification of a large, diverse complement of microRNAs in the brown alga <i>Ectocarpus</i> . Nucleic Acids Research, 2015, 43, 6384-6398.	14.5	40
54	Reinstatement of Ectocarpus crouaniorum Thuret in Le Jolis as a third common species of Ectocarpus (Ectocarpales, Phaeophyceae) in Western Europe, and its phenology at Roscoff, Brittany. Phycological Research, 2010, 58, 157-170.	1.6	38

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55	instaGRAAL: chromosome-level quality scaffolding of genomes using a proximity ligation-based scaffolder. Genome Biology, 2020, 21, 148.	8.8	38
56	Comparison of the expression patterns of two small gene families of S gene family receptor kinase genes during the defence response in Brassica oleracea and Arabidopsis thaliana. Gene, 2002, 282, 215-225.	2.2	37
57	Development of PCRâ€Based Markers to Determine the Sex of Kelps. PLoS ONE, 2015, 10, e0140535.	2.5	36
58	Rapid turnover of life-cycle-related genes in the brown algae. Genome Biology, 2019, 20, 35.	8.8	36
59	Evolution of life cycles and reproductive traits: Insights from the brown algae. Journal of Evolutionary Biology, 2021, 34, 992-1009.	1.7	35
60	The <i>Ectocarpus</i> genome sequence: insights into brown algal biology and the evolutionary diversity of the eukaryotes. New Phytologist, 2010, 188, 1-4.	7. 3	34
61	Origin and evolution of sexâ€determination systems in the brown algae. New Phytologist, 2019, 222, 1751-1756.	7.3	34
62	Role and Evolution of the Extracellular Matrix in the Acquisition of Complex Multicellularity in Eukaryotes: A Macroalgal Perspective. Genes, 2021, 12, 1059.	2.4	34
63	Intrahaplotype Polymorphism at the Brassica S Locus. Genetics, 2001, 159, 811-822.	2.9	34
64	Proteomics Analysis of Heterogeneous Flagella in Brown Algae (Stramenopiles). Protist, 2014, 165, 662-675.	1.5	32
65	Algal models in plant biology. Journal of Experimental Botany, 2011, 62, 2425-2430.	4.8	29
66	Characterization of GDP-mannose Dehydrogenase from the Brown Alga Ectocarpus siliculosus Providing the Precursor for the Alginate Polymer. Journal of Biological Chemistry, 2011, 286, 16707-16715.	3.4	29
67	Ecological and evolutionary genomics of marine photosynthetic organisms. Molecular Ecology, 2013, 22, 867-907.	3.9	29
68	Histone modifications during the life cycle of the brown alga Ectocarpus. Genome Biology, 2021, 22, 12.	8.8	29
69	Rapid Induction by Wounding and Bacterial Infection of an S Gene Family Receptor-Like Kinase Gene in Brassica oleracea. Plant Cell, 1997, 9, 49.	6.6	28
70	Diversity and Evolution of Sensor Histidine Kinases in Eukaryotes. Genome Biology and Evolution, 2019, 11, 86-108.	2.5	28
71	EARLY DEVELOPMENT PATTERN OF THE BROWN ALGA <i>ECTOCARPUS SILICULOSUS </i> /i> (ECTOCARPALES,) Tj	ETQg1 1	0.784314 rgB 27
72	Gene silencing in <i><scp>F</scp>ucus</i> embryos: developmental consequences of <scp>RNA</scp> iâ€mediated cytoskeletal disruption. Journal of Phycology, 2013, 49, 819-829.	2.3	27

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73	The <i>Ectocarpus IMMEDIATE UPRIGHT</i> gene encodes a member of a novel family of cysteine-rich proteins that have an unusual distribution across the eukaryotes. Development (Cambridge), 2017, 144, 409-418.	2.5	27
74	A nuclear gene with many introns encoding ammonium-inducible chloroplastic NADP-specific glutamate dehydrogenase(s) inChlorella sorokiniana. Plant Molecular Biology, 1991, 17, 1023-1044.	3.9	26
75	A key role for sex chromosomes in the regulation of parthenogenesis in the brown alga Ectocarpus. PLoS Genetics, 2019, 15, e1008211.	3.5	26
76	A W-box is required for full expression of the SA-responsive gene SFR2. Gene, 2005, 344, 181-192.	2.2	25
77	The Pseudoautosomal Regions of the U/V Sex Chromosomes of the Brown Alga <i>Ectocarpus</i> Exhibit Unusual Features. Molecular Biology and Evolution, 2015, 32, 2973-2985.	8.9	25
78	Biotic interactions as drivers of algal origin and evolution. New Phytologist, 2017, 216, 670-681.	7.3	25
79	PCR-generated cDNA library of transition-stage maize embryos: cloning and expression of calmodulin genes during early embryogenesis. Plant Molecular Biology, 1995, 27, 105-113.	3.9	24
80	Ectocarpus: an evo-devo model for the brown algae. EvoDevo, 2020, 11, 19.	3.2	24
81	Brown algae. Current Biology, 2011, 21, R573-R575.	3.9	23
82	Characterization of newly developed expressed sequence tag-derived microsatellite markers revealed low genetic diversity within and low connectivity between European Saccharina latissima populations. Journal of Applied Phycology, 2016, 28, 3057-3070.	2.8	23
83	SLR3: A modified receptor kinase gene that has been adapted to encode a putative secreted glycoprotein similar to theS locus glycoprotein. Molecular Genetics and Genomics, 1995, 248, 151-161.	2.4	22
84	DISTAG/TBCCd1 Is Required for Basal Cell Fate Determination in <i>Ectocarpus</i> . Plant Cell, 2017, 29, 3102-3122.	6.6	22
85	Rapid Evolution of microRNA Loci in the Brown Algae. Genome Biology and Evolution, 2017, 9, 740-749.	2.5	22
86	Characterization of the gene encoding the plastid-located glutamine synthetase of Phaseolus vulgaris: regulation of ?-glucuronidase gene fusions in transgenic tobacco. Plant Molecular Biology, 1992, 18, 1141-1149.	3.9	21
87	Production and Emission of Volatile Compounds by Petal Cells. Plant Signaling and Behavior, 2007, 2, 525-526.	2.4	21
88	Nonâ€cell autonomous regulation of life cycle transitions in the model brown alga Ectocarpus. New Phytologist, 2013, 197, 503-510.	7.3	21
89	Priming of Marine Macrophytes for Enhanced Restoration Success and Food Security in Future Oceans. Frontiers in Marine Science, 2021, 8, .	2.5	21
90	Genetic diversity of <i>Ectocarpus</i> (Ectocarpales, Phaeophyceae) in Peru and northern Chile, the area of origin of the genomeâ€sequenced strain. New Phytologist, 2010, 188, 30-41.	7.3	20

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91	Microarray estimation of genomic inter-strain variability in the genus Ectocarpus (Phaeophyceae). BMC Molecular Biology, $2011, 12, 2$.	3.0	19
92	The Ectocarpus Genome and Brown Algal Genomics. Advances in Botanical Research, 2012, 64, 141-184.	1.1	18
93	Genetic Diversity in the UV Sex Chromosomes of the Brown Alga Ectocarpus. Genes, 2018, 9, 286.	2.4	18
94	Brown Algal Model Organisms. Annual Review of Genetics, 2020, 54, 71-92.	7.6	16
95	Genetic Crosses between <i>Ectocarpus</i> Strains: Figure 1 Cold Spring Harbor Protocols, 2012, 2012, pdb.prot067942.	0.3	15
96	Cytokinin and Ethylene Cell Signaling Pathways from Prokaryotes to Eukaryotes. Cells, 2020, 9, 2526.	4.1	14
97	Genome-wide comparison of ultraviolet and ethyl methanesulphonate mutagenesis methods for the brown alga Ectocarpus. Marine Genomics, 2015, 24, 109-113.	1.1	13
98	Organelle inheritance and genome architecture variation in isogamous brown algae. Scientific Reports, 2020, 10, 2048.	3.3	12
99	Selection drives convergent gene expression changes during transitions to co-sexuality in haploid sexual systems. Nature Ecology and Evolution, 2022, 6, 579-589.	7.8	12
100	Genetic regulation of life cycle transitions in the brown alga Ectocarpus. Plant Signaling and Behavior, 2011, 6, 1858-1860.	2.4	11
101	A partially sexâ€reversed giant kelp sheds light into the mechanisms of sexual differentiation in a UV sexual system. New Phytologist, 2021, 232, 252-263.	7.3	11
102	RESTRICTION ENZYME ANALYSIS AND CLONING OF HIGH MOLECULAR WEIGHT GENOMIC DNA ISOLATED FROM CHLORELLA SOROKINIANA (CHLOROPHYTA)1. Journal of Phycology, 1990, 26, 361-367.	2.3	10
103	In Silico Survey of the Mitochondrial Protein Uptake and Maturation Systems in the Brown Alga Ectocarpus siliculosus. PLoS ONE, 2011, 6, e19540.	2.5	10
104	Cell cycles and endocycles in the model brown seaweed, <i>Ectocarpus siliculosus </i> Plant Signaling and Behavior, 2010, 5, 1473-1475.	2.4	9
105	Signatures of Transcription Factor Evolution and the Secondary Gain of Red Algae Complexity. Genes, 2021, 12, 1055.	2.4	9
106	Emergence of Ectocarpus as a Model System to Study the Evolution of Complex Multicellularity in the Brown Algae. Advances in Marine Genomics, 2015, , 153-162.	1.2	9
107	Chromatin landscape associated with sexual differentiation in a UV sex determination system. Nucleic Acids Research, 2022, 50, 3307-3322.	14.5	9
108	Immunostaining of Ectocarpus Cells. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot067975-pdb.prot067975.	0.3	6

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109	Genomics of brown algae: current advances and future prospects. Genes and Genomics, 2012, 34, 1-5.	1.4	6
110	A glutamate dehydrogenase gene sequence. Nucleic Acids Research, 1989, 17, 10500-10500.	14.5	5
111	Unusual Patterns of Mitochondrial Inheritance in the Brown Alga Ectocarpus. Molecular Biology and Evolution, 2019, 36, 2778-2789.	8.9	5
112	Megaviruses: An involvement in phytohormone receptor gene transfer in brown algae?. Gene, 2019, 704, 149-151.	2.2	5
113	S-locus glycoproteins are expressed along the path of pollen tubes in Brassica pistils. Planta, 1995, 196, 614.	3.2	4
114	A Functional S Locus Anther Gene Is Not Required for the Self-Incompatibility Response in Brassica oleracea. Plant Cell, 1997, 9, 2065.	6.6	4
115	Parallelisable non-invasive biomass, fitness and growth measurement of macroalgae and other protists with nephelometry. Algal Research, 2020, 46, 101762.	4.6	4
116	Biochemical characteristics of a diffusible factor that induces gametophyte to sporophyte switching in the brown alga Ectocarpus. Journal of Phycology, 2021, 57, 742-753.	2.3	3
117	Extraction of High-Quality Genomic DNA from <i>Ectocarpus</i> . Cold Spring Harbor Protocols, 2012, 2012, pdb.prot067967.	0.3	2
118	Alternation of Generations in Plants and Algae. , 2021, , 631-644.		2
119	Genomics of Marine Algae. , 2010, , 179-211.		2
120	Providing a phylogenetic framework for trait-based analyses in brown algae: Phylogenomic tree inferred from 32 nuclear protein-coding sequences. Molecular Phylogenetics and Evolution, 2022, 168, 107408.	2.7	2
121	An Efficient Chromatin Immunoprecipitation Protocol for the Analysis of Histone Modification Distributions in the Brown Alga Ectocarpus. Methods and Protocols, 2022, 5, 36.	2.0	2
122	Production and Bioassay of a Diffusible Factor That Induces Gametophyte-to-Sporophyte Developmental Reprogramming in the Brown Alga Ectocarpus. Bio-protocol, 2020, 10, e3753.	0.4	1
123	Alternation of Generations in Plants and Algae. , 2017, , 1-14.		1
124	Characterization of three putative receptors homologous to genes of Brassica involved in self-incompatibility. Biology of the Cell, 1995, 84, 97-97.	2.0	0
125	Expression of the extracellular domain of a plant receptor in insect cells using different baculovirus vectors. Biology of the Cell, 1995, 84, 97-97.	2.0	0
126	03-P056 Molecular control of the alternation of generations in the brown alga Ectocarpus: The OUROBOROS mutant exhibits homeotic conversion of the sporophyte into a gametophyte. Mechanisms of Development, 2009, 126, S83.	1.7	O

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127	Evolution of Multicellularity. Genes, 2021, 12, 1532.	2.4	O