Bernard Kloareg

List of Publications by Year
in descending order

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98 papers	8,737 citations	44069 48 h-index	42399 92 g-index
98 all docs	98 docs citations	98 times ranked	6447 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	Evolution and Diversity of Plant Cell Walls: From Algae to Flowering Plants. Annual Review of Plant Biology, 2011, 62, 567-590.	18.7	613
3	Linear Î²-1,3 Glucans Are Elicitors of Defense Responses in Tobacco. Plant Physiology, 2000, 124, 1027-1038.	4.8	445
4	The cell wall polysaccharide metabolism of the brown alga Ectocarpus siliculosus. Insights into the evolution of extracellular matrix polysaccharides in Eukaryotes. New Phytologist, 2010, 188, 82-97.	7.3	381
5	Genome structure and metabolic features in the red seaweed Chondrus crispus 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
6	Chemical and enzymatic fractionation of cell walls from Fucales: insights into the structure of the extracellular matrix of brown algae. Annals of Botany, 2014, 114, 1203-1216.	2.9	219
7	A review about brown algal cell walls and fucose-containing sulfated polysaccharides: Cell wall context, biomedical properties and key research challenges. Carbohydrate Polymers, 2017, 175, 395-408.	10.2	217
8	The Î¹-carrageenase of P. carrageenovora Features a Tunnel-Shaped Active Site. Structure, 2001, 9, 513-525.	3.3	193
9	Oligoguluronates Elicit an Oxidative Burst in the Brown Algal Kelp Laminaria digitata. Plant Physiology, 2001, 125, 278-291.	4.8	189
10	Central and storage carbon metabolism of the brown alga Ectocarpus siliculosus: insights into the origin and evolution of storage carbohydrates in Eukaryotes. New Phytologist, 2010, 188, 67-81.	7.3	172
11	Sulfated Fucan Oligosaccharides Elicit Defense Responses in Tobacco and Local and Systemic Resistance Against Tobacco Mosaic Virus. Molecular Plant-Microbe Interactions, 2003, 16, 115-122.	2.6	169
12	Biotic interactions of marine algae. Current Opinion in Plant Biology, 2002, 5, 308-317.	7.1	168
13	Isolation and Analysis of the Cell Walls of Brown Algae:Fucus spiralis, F. ceranoides, F. vesiculosus, F. serratus, Bifurcaria bifurcataandLaminaria digitata. Journal of Experimental Botany, 1987, 38, 1573-1580.	4.8	159
14	Purification and characterization of the alpha-agarase from Alteromonas agarlyticus (Cataldi) comb. nov., strain GJ1B. FEBS Journal, 1993, 214, 599-607.	0.2	154
15	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
16	The Innate Immunity of a Marine Red Alga Involves Oxylipins from Both the Eicosanoid and Octadecanoid Pathways. Plant Physiology, 2004, 135, 1838-1848.	4.8	137
17	Complete Sequence of the Mitochondrial DNA of the RhodophyteChondrus crispus(Gigartinales). Gene Content and Genome Organization. Journal of Molecular Biology, 1995, 250, 484-495.	4.2	134
18	The endo-Î²-agarases AgaA and AgaB from the marine bacterium Zobellia galactanivorans: two paralogue enzymes with different molecular organizations and catalytic behaviours. Biochemical Journal, 2005, 385, 703-713.	3.7	130

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19	NMR spectroscopy analysis of oligoguluronates and oligomannuronates prepared by acid or enzymatic hydrolysis of homopolymeric blocks of alginic acid. Application to the determination of the substrate specificity of Haliotis tuberculata alginate lyase. Carbohydrate Research, 1996, 289, 11-23.	2.3	129
20	Development and physiology of the brown alga Ectocarpus siliculosus: two centuries of research. New Phytologist, 2008, 177, 319-332.	7.3	128
21	Oligoalginate recognition and oxidative burst play a key role in natural and induced resistance of sporophytes of laminariales. Journal of Chemical Ecology, 2002, 28, 2057-2081.	1.8	127
22	Sulfated Oligosaccharides Mediate the Interaction between a Marine Red Alga and Its Green Algal Pathogenic Endophyte. Plant Cell, 1999, 11, 1635-1650.	6.6	123
23	The Three-dimensional Structures of Two Î²-Agarases. Journal of Biological Chemistry, 2003, 278, 47171-47180.	3.4	120
24	Î¹-Carrageenases Constitute a Novel Family of Glycoside Hydrolases, Unrelated to That of Îº-Carrageenases. Journal of Biological Chemistry, 2000, 275, 35499-35505.	3.4	113
25	Polyanionic characteristics of purified sulphated homofucans from brown algae. International Journal of Biological Macromolecules, 1986, 8, 380-386.	7.5	112
26	Oligosaccharide recognition signals and defence reactions in marine plant-microbe interactions. Current Opinion in Microbiology, 1999, 2, 276-283.	5.1	111
27	Free Fatty Acids and Methyl Jasmonate Trigger Defense Reactions in Laminaria digitata. Plant and Cell Physiology, 2009, 50, 789-800.	3.1	109
28	Fractionation and analysis of fucans from brown algae. Phytochemistry, 1990, 29, 2441-2445.	2.9	107
29	Cloning and biochemical characterization of the fucanase FcnA: definition of a novel glycoside hydrolase family specific for sulfated fucans. Glycobiology, 2006, 16, 1021-1032.	2.5	95
30	The Brown Algal Kelp Laminaria digitata Features Distinct Bromoperoxidase and Iodoperoxidase Activities. Journal of Biological Chemistry, 2003, 278, 23545-23552.	3.4	94
31	Characterization of Mannuronan C-5-Epimerase Genes from the Brown Alga Laminaria digitata Â. Plant Physiology, 2003, 133, 726-735.	4.8	89
32	Isolation and Culture of a Marine Bacterium Degrading the Sulfated Fucans from Marine Brown Algae. Marine Biotechnology, 2006, 8, 27-39.	2.4	87
33	Arabinogalactan proteins have deep roots in eukaryotes: identification of genes and epitopes in brown algae and their role in Fucus serratus embryo development. New Phytologist, 2016, 209, 1428-1441.	7.3	87
34	Degradation of Î»-carrageenan by Pseudoalteromonas carrageenovora Î»-carrageenase: a new family of glycoside hydrolases unrelated to Îº- and Î¹-carrageenases. Biochemical Journal, 2007, 404, 105-114.	3.7	83
35	Purification and characterization of a new k-carrageenase from a marine Cytophaga-like bacterium. FEBS Journal, 1991, 201, 241-247.	0.2	82
36	Isolation Conditions for High Yields of Protoplasts fromLaminaria saccharinaandL. digitata(Phaeophyceae). Journal of Experimental Botany, 1989, 40, 1237-1246.	4.8	81

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37	The gene encoding the kappa-carrageenase of Alteromonas carrageenovora is related to Î²-1,3-1,4-glucanases. Gene, 1994, 139, 105-109.	2.2	78
38	The Î¹-Carrageenase of Alteromonas fortis. Journal of Biological Chemistry, 2001, 276, 40202-40209.	3.4	71
39	The Complete Sequence of a Brown Algal Mitochondrial Genome, the Ectocarpale Pylaiella littoralis (L.) Kjellm.. Journal of Molecular Evolution, 2001, 53, 80-88.	1.8	68
40	Characterisation of complementary DNAs from the expressed sequence tag analysis of life cycle stages of Laminaria digitata (Phaeophyceae). Plant Molecular Biology, 2000, 43, 503-513.	3.9	64
41	The Structural Bases of the Processive Degradation of Î¹-Carrageenan, a Main Cell Wall Polysaccharide of Red Algae. Journal of Molecular Biology, 2003, 334, 421-433.	4.2	60
42	Mass production of viable protoplasts from Macrocystis pyrifera (L.) C. Ag. (Phaeophyta). Plant Science, 1989, 62, 105-112.	3.6	58
43	The mitochondrial genome of the brown alga Laminaria digitata: a comparative analysis. European Journal of Phycology, 2002, 37, 163-172.	2.0	57
44	Alpha-Agarases Define a New Family of Glycoside Hydrolases, Distinct from Beta-Agarase Families. Applied and Environmental Microbiology, 2007, 73, 4691-4694.	3.1	57
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	A rapid method for the separation and analysis of carrageenan oligosaccharides released by iota- and kappa-carrageenase. Carbohydrate Research, 2001, 331, 101-106.	2.3	50
47	AN EXPRESSED SEQUENCE TAG ANALYSIS OF THALLUS AND REGENERATING PROTOPLASTS OF CHONDRUS CRISPUS (GIGARTINALES, RHODOPHYCEAE)1. Journal of Phycology, 2006, 42, 104-112.	2.3	50
48	The Cyclization of the 3,6-Anhydro-Galactose Ring of Î¹-Carrageenan Is Catalyzed by Two d-Galactose-2,6-Sulfurylases in the Red Alga Chondrus crispus. Plant Physiology, 2009, 151, 1609-1616.	4.8	50
49	The evolutionary origin of red algae as deduced from the nuclear genes encoding cytosolic and chloroplast glyceraldehyde-3-phosphate dehydrogenases from Chondrus crispus. Journal of Molecular Evolution, 1994, 38, 319-327.	1.8	49
50	Free or silica-bound oligokappa-carrageenans elicit laminarinase activity in Rubus cells and protoplasts. Plant Science, 1995, 110, 27-35.	3.6	49
51	STRUCTURE-ACTIVITY RELATIONSHIPS OF OLIGOAGAR ELICITORS TOWARD GRACILARIA CONFERTA (RHODOPHYTA). Journal of Phycology, 2001, 37, 418-426.	2.3	49
52	In vivo speciation studies and antioxidant properties of bromine in Laminaria digitata reinforce the significance of iodine accumulation for kelps. Journal of Experimental Botany, 2013, 64, 2653-2664.	4.8	49
53	Parthenogenesis and apospory in the Laminariales: A flow cytometry analysis. European Journal of Phycology, 1996, 31, 369-380.	2.0	48
54	Release and transformations of inorganic iodine by marine macroalgae. Estuarine, Coastal and Shelf Science, 2009, 82, 406-414.	2.1	46

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55	Up-Regulation of Lipoxygenase, Phospholipase, and Oxylipin-Production in the Induced Chemical Defense of the Red Alga Gracilaria chilensis against Epiphytes. Journal of Chemical Ecology, 2011, 37, 677-686.	1.8	46
56	The Reverse-Transcriptase-Like Proteins Encoded by Group II Introns in the Mitochondrial Genome of the Brown Alga Pylaiella littoralis Belong to Two Different Lineages Which Apparently Coevolved with the Group II Ribosyme Lineages. Journal of Molecular Evolution, 1997, 44, 33-42.	1.8	44
57	A survey of iodine content in Laminaria digitata. Botanica Marina, 2004, 47, .	1.2	44
58	DISSECTION OF TWO DISTINCT DEFENSE-RELATED RESPONSES TO AGAR OLIGOSACCHARIDES IN GRACILARIA CHILENSIS (RHODOPHYTA) AND GRACILARIA CONFERTA (RHODOPHYTA)1. Journal of Phycology, 2005, 41, 863-873.	2.3	43
59	Seaweed liquid fertilizer fromAscophyllum nodosum contains elicitors of plantd-glycanases. Journal of Applied Phycology, 1993, 5, 343-349.	2.8	42
60	NMR spectroscopic investigation of agarose oligomers produced by an Î±-agarase. Carbohydrate Research, 1994, 253, 69-77.	2.3	42
61	Title is missing!. Journal of Applied Phycology, 2001, 13, 185-193.	2.8	40
62	Nucleotide sequence of thecox3gene fromChondrus crispus: evidence that UGA encodes tryptophan and evolutionary implications. Nucleic Acids Research, 1994, 22, 1400-1403.	14.5	39
63	Degradation of Î»-carrageenan by Pseudoalteromonas carrageenovora Î»-carrageenase: a new family of glycoside hydrolases unrelated to Î°- and Î¹-carrageenases. Biochemical Journal, 2007, 404, 105.	3.7	38
64	Isolation of protoplasts from zygotes of Fucus distichus (L.) powell (Phaeophyta). Plant Science, 1987, 50, 189-194.	3.6	37
65	Apoplastic oxidation of L-asparagine is involved in the control of the green algal endophyte Acrochaete operculata Correa & Nielsen by the red seaweed Chondrus crispus Stackhouse. Journal of Experimental Botany, 2005, 56, 1317-1326.	4.8	37
66	Different regulation of haloperoxidation during agar oligosaccharide-activated defence mechanisms in two related red algae, Gracilaria sp. and Gracilaria chilensis. Journal of Experimental Botany, 2007, 58, 4365-4372.	4.8	36
67	The family 6 carbohydrate-binding modules have coevolved with their appended catalytic modules toward similar substrate specificity. Glycobiology, 2009, 19, 615-623.	2.5	36
68	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
69	Photosynthesis and photoinhibition in protoplasts of the marine brown algaLaminaria saccharina. Journal of Experimental Botany, 1994, 45, 211-220.	4.8	33
70	Processing and Hydrolytic Mechanism of the cgkA-Encoded kappa-Carrageenase of Alteromonas carrageenovora. FEBS Journal, 1995, 228, 971-975.	0.2	33
71	The GAPDH gene system of the red alga Chondrus crispus: promotor structures, intron/exon organization, genomic complexity and differential expression of genes. Plant Molecular Biology, 1993, 23, 981-994.	3.9	32
72	Isolation and regeneration of protoplasts fromPorphyra dentataandPorphyra crispata. European Journal of Phycology, 1993, 28, 277-283.	2.0	32

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73	Purification and determination of the action pattern of Haliotis tuberculata laminarinase. Carbohydrate Research, 1998, 310, 283-289.	2.3	30
74	Inhibition of the Establishment of Zygotic Polarity by Protein Tyrosine Kinase Inhibitors Leads to an Alteration of Embryo Pattern in Fucus. Developmental Biology, 2000, 219, 165-182.	2.0	30
75	CLONAL PROPAGATION OF LAMINARIA DIGITATA (PHAEOPHYCEAE) SPOROPHYTES THROUGH A DIPLOID CELL-FILAMENT SUSPENSION. Journal of Phycology, 2001, 37, 411-417.	2.3	26
76	A Signal Released by an Endophytic Attacker Acts as a Substrate for a Rapid Defensive Reaction of the Red AlgaChondrus crispus. ChemBioChem, 2002, 3, 1260-1263.	2.6	25
77	Structural features and phylogeny of the actin gene of Chondrus crispus (Gigartinales, Rhodophyta). Current Genetics, 1995, 28, 164-172.	1.7	24
78	Expression, purification, crystallization and preliminary X-ray analysis of the Î¹-carrageenase from Pseudoalteromonas carrageenovora. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 918-920.	2.5	24
79	Ion-Exchange Properties of Isolated Cell Walls of Brown Algae: The Interstitial Solution. Journal of Experimental Botany, 1987, 38, 1652-1662.	4.8	23
80	Expression, purification, crystallization and preliminary X-ray analysis of the Î¹-carrageenase fromAlteromonas fortis. Acta Crystallographica Section D: Biological Crystallography, 2000, 56, 766-768.	2.5	23
81	Cell Cycle in the Fucus Zygote Parallels a Somatic Cell Cycle but Displays a Unique Translational Regulation of Cyclin-Dependent Kinases. Plant Cell, 2001, 13, 585-598.	6.6	23
82	Cell Wall and Rhizoid Polarity in Pelvetia Embryos. Developmental Biology, 1993, 160, 303-314.	2.0	22
83	Kelps feature systemic defense responses: insights into the evolution of innate immunity in multicellular eukaryotes. New Phytologist, 2014, 204, 567-576.	7.3	21
84	CELL WALL BIOLOGY IN RED ALGAE: DIVIDE AND CONQUER. Journal of Phycology, 2000, 36, 793-797.	2.3	20
85	Processing and Hydrolytic Mechanism of the cgkA-Encoded kappa-Carrageenase of Alteromonas carrageenovora. FEBS Journal, 1995, 228, 971-975.	0.2	19
86	Transcription initiation and RNA processing in the mitochondria of the red alga Chondrus crispus: convergence in the evolution of transcription mechanisms in mitochondria. Journal of Molecular Biology, 1998, 283, 549-557.	4.2	19
87	The Ectocarpus Genome and Brown Algal Genomics. Advances in Botanical Research, 2012, 64, 141-184.	1.1	18
88	Detection of Vanadate-Dependent Bromoperoxidases in Protoplasts from the Brown Algae Laminaria digitata and L. saccharina. Journal of Plant Physiology, 1991, 137, 520-524.	3.5	17
89	Explant exenisation for tissue culture in marine macroalgae. Chinese Journal of Oceanology and Limnology, 1992, 10, 268-275.	0.7	17
90	STUDIES OF VANDADIUM-BROMOPEROXIDASE USING SURFACE AND CORTICAL PROTOPLASTS OF MACROCYSTIS PYRIEFERA (PHAEOPHYTA)1. Journal of Phycology, 1990, 26, 589-592.	2.3	16

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91	DEFENSE EVOLUTION IN THE GRACILARIACEAE (RHODOPHYTA): SUBSTRATE-REGULATED OXIDATION OF AGAR OLIGOSACCHARIDES IS MORE ANCIENT THAN THE OLIGOAGAR-ACTIVATED OXIDATIVE BURST1. Journal of Phycology, 2010, 46, 958-968.	2.3	16
92	ISOLATION AND CHARACTERIZATION OF SIX cDNAs INVOLVED IN CARBON METABOLISM IN LAMINARIA DIGITATA (PHAEOPHYCEAE). Journal of Phycology, 1999, 35, 1237-1245.	2.3	13
93	Physical map and gene organization of the mitochondrial genome of Chondrus crispus (Rhodophyta,) Tj ETQq1 1 0.784314 rgBT /Ove	3.9	10
94	Cell cycle-dependent control of polarised development by a cyclin-dependent kinase-like protein in theFucuszygote. Development (Cambridge), 2001, 128, 4383-4392.	2.5	8
95	Presence of Exogenous Sulfate Is Mandatory for Tip Growth in the Brown Alga Ectocarpus subulatus. Frontiers in Plant Science, 2020, 11, 1277.	3.6	7
96	MRNA expression in mitochondria of the red alga Chondrus crispus requires a unique RNA-processing mechanism, internal cleavage of upstream tRNAs at pyrimidine 48 1 1Edited by M. Yaniv. Journal of Molecular Biology, 1999, 288, 579-584.	4.2	6
97	Structure et propriÃ©tÃ©s d'Ã©change des parois cellulaires des Algues brunes. Implications Ã©cophysiologiques. Bulletin De La SociÃ©tÃ© Botanique De France ActualitÃ©s Botaniques, 1991, 138, 305-318.	0.0	4
98	Cell Cycle in the Fucus Zygote Parallels a Somatic Cell Cycle but Displays a Unique Translational Regulation of Cyclin-Dependent Kinases. Plant Cell, 2001, 13, 585.	6.6	0