Colin Brownlee

List of Publications by Year
in descending order

70 papers	7,874 citations	109321 35 h-index	91884 69 g-index
78 all docs	78 docs citations	78 times ranked	7656 citing authors

#	Article	IF	Citations
1	The Phaeodactylum genome reveals the evolutionary history of diatom genomes. Nature, 2008, 456, 239-244.	27.8	1,458
2	Communicating with Calcium. Plant Cell, 1999, 11, 691-706.	6.6	902
3	The Ectocarpus genome and the independent evolution of multicellularity in brown algae. Nature, 2010, 465, 617-621.	27.8	774
4	THE GENERATION OF Ca2+SIGNALS IN PLANTS. Annual Review of Plant Biology, 2004, 55, 401-427.	18.7	462
5	A model system approach to biological climate forcing. The example of Emiliania huxleyi. Global and Planetary Change, 1993, 8, 27-46.	3.5	302
6	Exocytosis and Endocytosis. Plant Cell, 1999, 11, 643-659.	6.6	251
7	The Evolution of Calcium-Based Signalling in Plants. Current Biology, 2017, 27, R667-R679.	3.9	214
8	Ca2+ signalling in plants and green algae â€“ changing channels. Trends in Plant Science, 2008, 13, 506-514.	8.8	205
9	A Voltage-Gated H+ Channel Underlying pH Homeostasis in Calcifying Coccolithophores. PLoS Biology, 2011, 9, e1001085.	5.6	202
10	Why marine phytoplankton calcify. Science Advances, 2016, 2, e1501822.	10.3	181
11	Ca2+, Annexins, and GTP Modulate Exocytosis from Maize Root Cap Protoplasts. Plant Cell, 1998, 10, 1267-1276.	6.6	172
12	Dissecting the impact of CO₂ and <scp>pH</scp> on the mechanisms of photosynthesis and calcification in the coccolithophore <i>Emiliania huxleyi</i>. New Phytologist, 2013, 199, 121-134.	7.3	171
13	Spatiotemporal Patterning of Reactive Oxygen Production and Ca2+ Wave Propagation in Fucus Rhizoid Cells. Plant Cell, 2002, 14, 2369-2381.	6.6	154
14	Calcium channels in photosynthetic eukaryotes: implications for evolution of calciumâ€based signalling. New Phytologist, 2010, 187, 23-43.	7.3	153
15	Coccolithophore Cell Biology: Chalking Up Progress. Annual Review of Marine Science, 2017, 9, 283-310.	11.6	118
16	A P _{IIB} -type Ca ²⁺ -ATPase is essential for stress adaptation in <i>Physcomitrella patens</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19555-19560.	7.1	116
17	Molecular Mechanisms Underlying Calcification in Coccolithophores. Geomicrobiology Journal, 2010, 27, 585-595.	2.0	110
18	Proton channels in algae: reasons to be excited. Trends in Plant Science, 2012, 17, 675-684.	8.8	104

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19	Genetic tool development in marine protists: emerging model organisms for experimental cell biology. Nature Methods, 2020, 17, 481-494.	19.0	97
20	Visualizing Changes in Cytosolic-Free Ca 2+ during the Response of Stomatal Guard Cells to Abscisic Acid. Plant Cell, 1992, 4, 1113.	6.6	93
21	Expression of biomineralizationâ€related ion transport genes in <i>Emiliania huxleyi</i>. Environmental Microbiology, 2011, 13, 3250-3265.	3.8	82
22	Ratio confocal imaging of free cytoplasmic calcium gradients in polarising and polarised<i>Fucus</i>zygotes. Zygote, 1993, 1, 9-15.	1.1	81
23	A role for diatom-like silicon transporters in calcifying coccolithophores. Nature Communications, 2016, 7, 10543.	12.8	78
24	Dynamics of formation and secretion of heterococcoliths by Coccolithus pelagicus ssp. braarudii. European Journal of Phycology, 2007, 42, 125-136.	2.0	71
25	Visualization of the cytoplasmic Ca2+ gradient in <i>Fucus serratus</i> rhizoids: Correlation with cell ultrastructure and polarity. Journal of Cell Science, 1988, 91, 249-256.	2.0	69
26	Compartmentalized Calcium Signaling in Cilia Regulates Intraflagellar Transport. Current Biology, 2013, 23, 2311-2318.	3.9	68
27	Calcification in coccolithophores: A cellular perspective. , 2004, , 31-49.		65
28	A tip-high, Ca2+-interdependent, reactive oxygen species gradient is associated with polarized growth in Fucus serratus zygotes. Planta, 2008, 227, 1037-1046.	3.2	62
29	Calcification and inorganic carbon acquisition in coccolithophores. Functional Plant Biology, 2002, 29, 289.	2.1	61
30	Polarity determination inFucus: From zygote to multicellular embryo. Seminars in Cell and Developmental Biology, 1998, 9, 179-185.	5.0	54
31	Alternative Mechanisms for Fast Na+/Ca2+ Signaling in Eukaryotes via a Novel Class of Single-Domain Voltage-Gated Channels. Current Biology, 2019, 29, 1503-1511.e6.	3.9	46
32	Coccolithophore biomineralization: New questions, new answers. Seminars in Cell and Developmental Biology, 2015, 46, 11-16.	5.0	42
33	A Novel Clâˆ’ Inward-Rectifying Current in the Plasma Membrane of the Calcifying Marine Phytoplankton Coccolithus pelagicus Â. Plant Physiology, 2003, 131, 1391-1400.	4.8	40
34	Biolistic delivery of Ca2+dyes into plant and algal cells. Plant Journal, 2006, 46, 327-335.	5.7	39
35	Rapid spatiotemporal patterning of cytosolic Ca²⁺ underlies flagellar excision in <i>Chlamydomonas reinhardtii</i>. Plant Journal, 2008, 53, 401-413.	5.7	39
36	Cellular calcium imaging: so, whatâ€™s new?. Trends in Cell Biology, 2000, 10, 451-457.	7.9	35

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37	Spatial and temporal specificity of Ca²⁺ signalling in <i>Chlamydomonas reinhardtii</i> in response to osmotic stress. New Phytologist, 2016, 212, 920-933.	7.3	35
38	Choosing sides: establishment of polarity in zygotes of fucoid algae. Seminars in Cell and Developmental Biology, 2001, 12, 345-351.	5.0	34
39	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
40	The requirement for calcification differs between ecologically important coccolithophore species. New Phytologist, 2018, 220, 147-162.	7.3	33
41	Ca2+ signals coordinate zygotic polarization and cell cycle progression in the brown alga Fucus serratus. Development (Cambridge), 2008, 135, 2173-2181.	2.5	32
42	Dynamic changes in carbonate chemistry in the microenvironment around single marine phytoplankton cells. Nature Communications, 2018, 9, 74.	12.8	31
43	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
44	Tansley Review No. 70 Signal transduction during fertilization in algae and vascular plants. New Phytologist, 1994, 127, 399-423.	7.3	28
45	Spatial re-organisation of cortical microtubules in vivo during polarisation and asymmetric division of Fucus zygotes. Journal of Cell Science, 2005, 118, 2723-2734.	2.0	28
46	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
47	The role of the cytoskeleton in biomineralisation in haptophyte algae. Scientific Reports, 2017, 7, 15409.	3.3	26
48	CALCIUM RELEASE FROM INTRACELLULAR STORES IS NECESSARY FOR THE PHOTOPHOBIC RESPONSE IN THE BENTHIC DIATOM <i>NAVICULA PERMINUTA</i> (BACILLARIOPHYCEAE)¹. Journal of Phycology, 2012, 48, 675-681.	2.3	24
49	Coccolithophore calcification: Changing paradigms in changing oceans. Acta Biomaterialia, 2021, 120, 4-11.	8.3	24
50	Role of silicon in the development of complex crystal shapes in coccolithophores. New Phytologist, 2021, 231, 1845-1857.	7.3	24
51	A Novel Ca2+ Signaling Pathway Coordinates Environmental Phosphorus Sensing and Nitrogen Metabolism in Marine Diatoms. Current Biology, 2021, 31, 978-989.e4.	3.9	24
52	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
53	Spatiotemporal patterns of intracellular Ca²⁺ signalling govern hypoâ€osmotic stress resilience in marine diatoms. New Phytologist, 2021, 230, 155-170.	7.3	23
54	Spatial Organization of Calcium Signaling Involved in Cell Volume Control in the Fucus Rhizoid. Plant Cell, 1996, 8, 2015.	6.6	22

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55	Reduced H⁺channel activity disrupts pH homeostasis and calcification in coccolithophores at low ocean pH. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2118009119.	7.1	17
56	An Extracellular Polysaccharide-Rich Organic Layer Contributes to Organization of the Coccosphere in Coccolithophores. Frontiers in Marine Science, 2018, 5, .	2.5	15
57	A Novel Single-Domain Na⁺-Selective Voltage-Gated Channel in Photosynthetic Eukaryotes. Plant Physiology, 2020, 184, 1674-1683.	4.8	15
58	Ca2+ elevations disrupt interactions between intraflagellar transport and the flagella membrane in <i>Chlamydomonas</i>. Journal of Cell Science, 2021, 134, .	2.0	15
59	Haplo-diplontic life cycle expands coccolithophore niche. Biogeosciences, 2021, 18, 1161-1184.	3.3	12
60	Intracellular signalling: Sphingosine-1-phosphate branches out. Current Biology, 2001, 11, R535-R538.	3.9	11
61	Plant K + Transport: Not Just an Uphill Struggle. Current Biology, 2002, 12, R402-R404.	3.9	9
62	Sr in coccoliths of Scyphosphaera apsteinii: Partitioning behavior and role in coccolith morphogenesis. Geochimica Et Cosmochimica Acta, 2020, 285, 41-54.	3.9	9
63	Regulation and integration of membrane transport in marine diatoms. Seminars in Cell and Developmental Biology, 2023, 134, 79-89.	5.0	7
64	Calcification. , 2016, , 301-318.		6
65	Plant Physiology: One Way to Dump Salt. Current Biology, 2018, 28, R1145-R1147.	3.9	6
66	Carnivorous Plants: Trapping, Digesting and Absorbing All in One. Current Biology, 2013, 23, R714-R716.	3.9	5
67	Plant development: Keeping your distance. Current Biology, 2000, 10, R555-R557.	3.9	4
68	Distinct physiological responses of<i>Coccolithus braarudii</i>life cycle phases to light intensity and nutrient availability. European Journal of Phycology, 2023, 58, 58-71.	2.0	3
69	Plant Physiology: The Venus Flytrap Counts on Secretion. Current Biology, 2017, 27, R763-R764.	3.9	1
70	Stomatal Physiology: Cereal Successes. Current Biology, 2018, 28, R551-R553.	3.9	1