

Christophe D Hulst

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

52
papers

2,807
citations

30
h-index

52
g-index

54
ext. papers

3,102
ext. citations

6.6
avg, IF

4.09
L-index

#	Paper	IF	Citations
52	NegFluo, a Fast and Efficient Method to Determine Starch Granule Size and Morphology in Plant Chloroplasts. <i>Frontiers in Plant Science</i> , 2019 , 10, 1075	6.2	2
51	Intra-Sample Heterogeneity of Potato Starch Reveals Fluctuation of Starch-Binding Proteins According to Granule Morphology. <i>Plants</i> , 2019 , 8,	4.5	3
50	Deletion of BSG1 in <i>Chlamydomonas reinhardtii</i> leads to abnormal starch granule size and morphology. <i>Scientific Reports</i> , 2019 , 9, 1990	4.9	8
49	PII1: a protein involved in starch initiation that determines granule number and size in Arabidopsis chloroplast. <i>New Phytologist</i> , 2019 , 221, 356-370	9.8	21
48	Control of Starch Biosynthesis in Vascular Plants and Algae 2018 , 258-289		
47	The <i>Chlamydomonas mex1</i> mutant shows impaired starch mobilization without maltose accumulation. <i>Journal of Experimental Botany</i> , 2017 , 68, 5177-5189	7	8
46	Biochemical characterization of Arabidopsis thaliana starch branching enzyme 2.2 reveals an enzymatic positive cooperativity. <i>Biochimie</i> , 2017 , 140, 146-158	4.6	8
45	Rapid and sensitive quantification of C3- and C6-phosphoesters in starch by fluorescence-assisted capillary electrophoresis. <i>Carbohydrate Polymers</i> , 2016 , 152, 784-791	10.3	6
44	Expression of <i>Escherichia coli</i> glycogen branching enzyme in an Arabidopsis mutant devoid of endogenous starch branching enzymes induces the synthesis of starch-like polyglucans. <i>Plant, Cell and Environment</i> , 2016 , 39, 1432-47	8.4	9
43	Branching patterns in leaf starches from Arabidopsis mutants deficient in diverse starch synthases. <i>Carbohydrate Research</i> , 2015 , 401, 96-108	2.9	10
42	Starch Biosynthesis in Leaves and Its Regulation 2015 , 211-237		5
41	Characterization of hyperbranched glycopolymers produced in vitro using enzymes. <i>Analytical and Bioanalytical Chemistry</i> , 2014 , 406, 1607-18	4.4	19
40	Analysis of the functional interaction of Arabidopsis starch synthase and branching enzyme isoforms reveals that the cooperative action of SSI and BEs results in glucans with polymodal chain length distribution similar to amylopectin. <i>PLoS ONE</i> , 2014 , 9, e102364	3.7	30
39	From dusk till dawn: the Arabidopsis thaliana sugar starving responsive network. <i>Frontiers in Plant Science</i> , 2014 , 5, 482	6.2	7
38	Tracking sulfur and phosphorus within single starch granules using synchrotron X-ray microfluorescence mapping. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2014 , 1840, 113-9	4	14
37	Function of isoamylase-type starch debranching enzymes ISA1 and ISA2 in the Zea mays leaf. <i>New Phytologist</i> , 2013 , 200, 1009-21	9.8	27
36	Characterization of substrate and product specificity of the purified recombinant glycogen branching enzyme of <i>Rhodothermus obamensis</i> . <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2013 , 1830, 2167-77	4	49

35	In vitro synthesis of hyperbranched β -glucans using a biomimetic enzymatic toolbox. <i>Biomacromolecules</i> , 2013 , 14, 438-47	6.9	24
34	Distinct functional properties of isoamylase-type starch debranching enzymes in monocot and dicot leaves. <i>Plant Physiology</i> , 2013 , 163, 1363-75	6.6	27
33	Integrated functions among multiple starch synthases determine both amylopectin chain length and branch linkage location in Arabidopsis leaf starch. <i>Journal of Experimental Botany</i> , 2011 , 62, 4547-597	6.0	60
32	The priming of storage glucan synthesis from bacteria to plants: current knowledge and new developments. <i>New Phytologist</i> , 2010 , 188, 13-21	9.8	37
31	Engineering the chloroplast targeted malarial vaccine antigens in Chlamydomonas starch granules. <i>PLoS ONE</i> , 2010 , 5, e15424	3.7	63
30	Starch granule initiation in Arabidopsis requires the presence of either class IV or class III starch synthases. <i>Plant Cell</i> , 2009 , 21, 2443-57	11.6	175
29	Overlapping functions of the starch synthases SSII and SSIII in amylopectin biosynthesis in Arabidopsis. <i>BMC Plant Biology</i> , 2008 , 8, 96	5.3	92
28	The relocation of starch metabolism to chloroplasts: when, why and how. <i>Trends in Plant Science</i> , 2008 , 13, 574-82	13.1	78
27	Further evidence for the mandatory nature of polysaccharide debranching for the aggregation of semicrystalline starch and for overlapping functions of debranching enzymes in Arabidopsis leaves. <i>Plant Physiology</i> , 2008 , 148, 1309-23	6.6	68
26	Pathway of cytosolic starch synthesis in the model glaucophyte <i>Cyanophora paradoxa</i> . <i>Eukaryotic Cell</i> , 2008 , 7, 247-57		43
25	Metabolic symbiosis and the birth of the plant kingdom. <i>Molecular Biology and Evolution</i> , 2008 , 25, 536-483	4.3	132
24	The phenotype of soluble starch synthase IV defective mutants of Arabidopsis thaliana suggests a novel function of elongation enzymes in the control of starch granule formation. <i>Plant Journal</i> , 2007 , 49, 492-504	6.9	205
23	Circadian clock regulation of starch metabolism establishes GBSSI as a major contributor to amylopectin synthesis in Chlamydomonas reinhardtii. <i>Plant Physiology</i> , 2006 , 142, 305-17	6.6	94
22	Mutants of Arabidopsis lacking starch branching enzyme II substitute plastidial starch synthesis by cytoplasmic maltose accumulation. <i>Plant Cell</i> , 2006 , 18, 2694-709	11.6	86
21	Plastidial phosphorylase is required for normal starch synthesis in Chlamydomonas reinhardtii. <i>Plant Journal</i> , 2006 , 48, 274-85	6.9	93
20	Nature of the periplastidial pathway of starch synthesis in the cryptophyte <i>Guillardia theta</i> . <i>Eukaryotic Cell</i> , 2006 , 5, 954-63		49
19	Soluble starch synthase I: a major determinant for the synthesis of amylopectin in Arabidopsis thaliana leaves. <i>Plant Journal</i> , 2005 , 43, 398-412	6.9	146
18	Mutants of Arabidopsis lacking a chloroplastic isoamylase accumulate phytyglycogen and an abnormal form of amylopectin. <i>Plant Physiology</i> , 2005 , 138, 184-95	6.6	145

17	Starch division and partitioning. A mechanism for granule propagation and maintenance in the picophytoplanktonic green alga <i>Ostreococcus tauri</i> . <i>Plant Physiology</i> , 2004 , 136, 3333-40	6.6	65
16	STA11, a <i>Chlamydomonas reinhardtii</i> locus required for normal starch granule biogenesis, encodes disproportionating enzyme. Further evidence for a function of alpha-1,4 glucanotransferases during starch granule biosynthesis in green algae. <i>Plant Physiology</i> , 2003 , 132, 137-45	6.6	35
15	Defining the Functions of Maltodextrin Active Enzymes in Starch Metabolism in the Unicellular Alga <i>Chlamydomonas reinhardtii</i> . <i>Journal of Applied Glycoscience (1999)</i> , 2003 , 50, 187-189	1	4
14	Granule-bound starch synthase I. A major enzyme involved in the biogenesis of B-crystallites in starch granules. <i>FEBS Journal</i> , 2002 , 269, 3810-20		46
13	When Simpler Is Better. Unicellular Green Algae for Discovering New Genes and Functions in Carbohydrate Metabolism. <i>Plant Physiology</i> , 2001 , 127, 1334-1338	6.6	42
12	Two loci control phytyglycogen production in the monocellular green alga <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 2001 , 125, 1710-22	6.6	42
11	Starchless mutants of <i>Chlamydomonas reinhardtii</i> lack the small subunit of a heterotetrameric ADP-glucose pyrophosphorylase. <i>Journal of Bacteriology</i> , 2001 , 183, 1069-77	3.5	144
10	Biochemical characterization of wild-type and mutant isoamylases of <i>Chlamydomonas reinhardtii</i> supports a function of the multimeric enzyme organization in amylopectin maturation. <i>Plant Physiology</i> , 2001 , 125, 1723-31	6.6	52
9	The debranching enzyme complex missing in glycogen accumulating mutants of <i>Chlamydomonas reinhardtii</i> displays an isoamylase-type specificity. <i>Plant Science</i> , 2000 , 157, 145-156	5.3	26
8	Genetic and biochemical evidence for the involvement of alpha-1,4 glucanotransferases in amylopectin synthesis. <i>Plant Physiology</i> , 1999 , 120, 993-1004	6.6	84
7	Novel, starch-like polysaccharides are synthesized by an unbound form of granule-bound starch synthase in glycogen-accumulating mutants of <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 1999 , 119, 321-30	6.6	66
6	Biochemical characterization of the <i>chlamydomonas reinhardtii</i> alpha-1,4 glucanotransferase supports a direct function in amylopectin biosynthesis. <i>Plant Physiology</i> , 1999 , 120, 1005-14	6.6	69
5	Amylose is synthesized in vitro by extension of and cleavage from amylopectin. <i>Journal of Biological Chemistry</i> , 1998 , 273, 22232-40	5.4	102
4	Starches from A to C. <i>Chlamydomonas reinhardtii</i> as a model microbial system to investigate the biosynthesis of the plant amylopectin crystal. <i>Plant Physiology</i> , 1997 , 115, 949-57	6.6	105
3	Storage, Photosynthesis, and Growth: The Conditional Nature of Mutations Affecting Starch Synthesis and Structure in <i>Chlamydomonas</i> . <i>Plant Cell</i> , 1995 , 7, 1117-1127	11.6	52
2	Storage, Photosynthesis, and Growth: The Conditional Nature of Mutations Affecting Starch Synthesis and Structure in <i>Chlamydomonas</i> . <i>Plant Cell</i> , 1995 , 7, 1117	11.6	28
1	Control of Starch Biosynthesis in Vascular Plants and Algae		258-289