

# Christophe D Hulst

## List of Publications by Citations

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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	The phenotype of soluble starch synthase IV defective mutants of <i>Arabidopsis thaliana</i> suggests a novel function of elongation enzymes in the control of starch granule formation. <i>Plant Journal</i> , <b>2007</b> , 49, 492-504	6.9	205
51	Starch granule initiation in <i>Arabidopsis</i> requires the presence of either class IV or class III starch synthases. <i>Plant Cell</i> , <b>2009</b> , 21, 2443-57	11.6	175
50	Soluble starch synthase I: a major determinant for the synthesis of amylopectin in <i>Arabidopsis thaliana</i> leaves. <i>Plant Journal</i> , <b>2005</b> , 43, 398-412	6.9	146
49	Mutants of <i>Arabidopsis</i> lacking a chloroplastic isoamylase accumulate phytyglycogen and an abnormal form of amylopectin. <i>Plant Physiology</i> , <b>2005</b> , 138, 184-95	6.6	145
48	Starchless mutants of <i>Chlamydomonas reinhardtii</i> lack the small subunit of a heterotetrameric ADP-glucose pyrophosphorylase. <i>Journal of Bacteriology</i> , <b>2001</b> , 183, 1069-77	3.5	144
47	Metabolic symbiosis and the birth of the plant kingdom. <i>Molecular Biology and Evolution</i> , <b>2008</b> , 25, 536-483	4.3	132
46	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> , <b>1997</b> , 115, 949-57	6.6	105
45	Amylose is synthesized in vitro by extension of and cleavage from amylopectin. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 22232-40	5.4	102
44	Circadian clock regulation of starch metabolism establishes GBSSI as a major contributor to amylopectin synthesis in <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , <b>2006</b> , 142, 305-17	6.6	94
43	Plastidial phosphorylase is required for normal starch synthesis in <i>Chlamydomonas reinhardtii</i> . <i>Plant Journal</i> , <b>2006</b> , 48, 274-85	6.9	93
42	Overlapping functions of the starch synthases SSII and SSIII in amylopectin biosynthesis in <i>Arabidopsis</i> . <i>BMC Plant Biology</i> , <b>2008</b> , 8, 96	5.3	92
41	Mutants of <i>Arabidopsis</i> lacking starch branching enzyme II substitute plastidial starch synthesis by cytoplasmic maltose accumulation. <i>Plant Cell</i> , <b>2006</b> , 18, 2694-709	11.6	86
40	Genetic and biochemical evidence for the involvement of alpha-1,4 glucanotransferases in amylopectin synthesis. <i>Plant Physiology</i> , <b>1999</b> , 120, 993-1004	6.6	84
39	The relocation of starch metabolism to chloroplasts: when, why and how. <i>Trends in Plant Science</i> , <b>2008</b> , 13, 574-82	13.1	78
38	Biochemical characterization of the <i>chlamydomonas reinhardtii</i> alpha-1,4 glucanotransferase supports a direct function in amylopectin biosynthesis. <i>Plant Physiology</i> , <b>1999</b> , 120, 1005-14	6.6	69
37	Further evidence for the mandatory nature of polysaccharide debranching for the aggregation of semicrystalline starch and for overlapping functions of debranching enzymes in <i>Arabidopsis</i> leaves. <i>Plant Physiology</i> , <b>2008</b> , 148, 1309-23	6.6	68
36	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> , <b>1999</b> , 119, 321-30	6.6	66

35	Starch division and partitioning. A mechanism for granule propagation and maintenance in the picophytoplanktonic green alga <i>Ostreococcus tauri</i> . <i>Plant Physiology</i> , <b>2004</b> , 136, 3333-40	6.6	65
34	Engineering the chloroplast targeted malarial vaccine antigens in <i>Chlamydomonas</i> starch granules. <i>PLoS ONE</i> , <b>2010</b> , 5, e15424	3.7	63
33	Integrated functions among multiple starch synthases determine both amylopectin chain length and branch linkage location in <i>Arabidopsis</i> leaf starch. <i>Journal of Experimental Botany</i> , <b>2011</b> , 62, 4547-597		60
32	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> , <b>2001</b> , 125, 1723-31	6.6	52
31	Storage, Photosynthesis, and Growth: The Conditional Nature of Mutations Affecting Starch Synthesis and Structure in <i>Chlamydomonas</i> . <i>Plant Cell</i> , <b>1995</b> , 7, 1117-1127	11.6	52
30	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> , <b>2013</b> , 1830, 2167-77	4	49
29	Nature of the periplastidial pathway of starch synthesis in the cryptophyte <i>Guillardia theta</i> . <i>Eukaryotic Cell</i> , <b>2006</b> , 5, 954-63		49
28	Granule-bound starch synthase I. A major enzyme involved in the biogenesis of B-crystallites in starch granules. <i>FEBS Journal</i> , <b>2002</b> , 269, 3810-20		46
27	Pathway of cytosolic starch synthesis in the model glaucophyte <i>Cyanophora paradoxa</i> . <i>Eukaryotic Cell</i> , <b>2008</b> , 7, 247-57		43
26	When Simpler Is Better. Unicellular Green Algae for Discovering New Genes and Functions in Carbohydrate Metabolism. <i>Plant Physiology</i> , <b>2001</b> , 127, 1334-1338	6.6	42
25	Two loci control phytoglycogen production in the monocellular green alga <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , <b>2001</b> , 125, 1710-22	6.6	42
24	The priming of storage glucan synthesis from bacteria to plants: current knowledge and new developments. <i>New Phytologist</i> , <b>2010</b> , 188, 13-21	9.8	37
23	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> , <b>2003</b> , 132, 137-45	6.6	35
22	Analysis of the functional interaction of <i>Arabidopsis</i> 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> , <b>2014</b> , 9, e102364	3.7	30
21	Storage, Photosynthesis, and Growth: The Conditional Nature of Mutations Affecting Starch Synthesis and Structure in <i>Chlamydomonas</i> . <i>Plant Cell</i> , <b>1995</b> , 7, 1117	11.6	28
20	Function of isoamylase-type starch debranching enzymes ISA1 and ISA2 in the <i>Zea mays</i> leaf. <i>New Phytologist</i> , <b>2013</b> , 200, 1009-21	9.8	27
19	Distinct functional properties of isoamylase-type starch debranching enzymes in monocot and dicot leaves. <i>Plant Physiology</i> , <b>2013</b> , 163, 1363-75	6.6	27
18	The debranching enzyme complex missing in glycogen accumulating mutants of <i>Chlamydomonas reinhardtii</i> displays an isoamylase-type specificity. <i>Plant Science</i> , <b>2000</b> , 157, 145-156	5.3	26

17	In vitro synthesis of hyperbranched $\beta$ -glucans using a biomimetic enzymatic toolbox. <i>Biomacromolecules</i> , <b>2013</b> , 14, 438-47	6.9	24
16	PII1: a protein involved in starch initiation that determines granule number and size in Arabidopsis chloroplast. <i>New Phytologist</i> , <b>2019</b> , 221, 356-370	9.8	21
15	Characterization of hyperbranched glycopolymers produced in vitro using enzymes. <i>Analytical and Bioanalytical Chemistry</i> , <b>2014</b> , 406, 1607-18	4.4	19
14	Tracking sulfur and phosphorus within single starch granules using synchrotron X-ray microfluorescence mapping. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2014</b> , 1840, 113-9	4	14
13	Branching patterns in leaf starches from Arabidopsis mutants deficient in diverse starch synthases. <i>Carbohydrate Research</i> , <b>2015</b> , 401, 96-108	2.9	10
12	Expression of Escherichia coli 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> , <b>2016</b> , 39, 1432-47	8.4	9
11	The Chlamydomonas mex1 mutant shows impaired starch mobilization without maltose accumulation. <i>Journal of Experimental Botany</i> , <b>2017</b> , 68, 5177-5189	7	8
10	Deletion of BSG1 in Chlamydomonas reinhardtii leads to abnormal starch granule size and morphology. <i>Scientific Reports</i> , <b>2019</b> , 9, 1990	4.9	8
9	Biochemical characterization of Arabidopsis thaliana starch branching enzyme 2.2 reveals an enzymatic positive cooperativity. <i>Biochimie</i> , <b>2017</b> , 140, 146-158	4.6	8
8	From dusk till dawn: the Arabidopsis thaliana sugar starving responsive network. <i>Frontiers in Plant Science</i> , <b>2014</b> , 5, 482	6.2	7
7	Rapid and sensitive quantification of C3- and C6-phosphoesters in starch by fluorescence-assisted capillary electrophoresis. <i>Carbohydrate Polymers</i> , <b>2016</b> , 152, 784-791	10.3	6
6	Starch Biosynthesis in Leaves and Its Regulation <b>2015</b> , 211-237		5
5	Defining the Functions of Maltodextrin Active Enzymes in Starch Metabolism in the Unicellular Alga Chlamydomonas reinhardtii. <i>Journal of Applied Glycoscience (1999)</i> , <b>2003</b> , 50, 187-189	1	4
4	Intra-Sample Heterogeneity of Potato Starch Reveals Fluctuation of Starch-Binding Proteins According to Granule Morphology. <i>Plants</i> , <b>2019</b> , 8,	4.5	3
3	NegFluo, a Fast and Efficient Method to Determine Starch Granule Size and Morphology in Plant Chloroplasts. <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 1075	6.2	2
2	Control of Starch Biosynthesis in Vascular Plants and Algae <b>2018</b> , 258-289		2
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