Jorg Schwender

List of Publications by Year
in descending order

46 papers	5,907 citations	136885 32 h-index	254106 43 g-index
50 all docs	50 docs citations	50 times ranked	5017 citing authors

#	Article	IF	Citations
1	Biosynthesis of isoprenoids in higher plant chloroplasts proceeds via a mevalonate-independent pathway. FEBS Letters, 1997, 400, 271-274.	1.3	622
2	Rubisco without the Calvin cycle improves the carbon efficiency of developing green seeds. Nature, 2004, 432, 779-782.	13.7	455
3	Two independent biochemical pathways for isopentenyl diphosphate and isoprenoid biosynthesis in higher plants. Physiologia Plantarum, 1997, 101, 643-652.	2.6	417
4	Biosynthesis of isoprenoids (carotenoids, sterols, prenyl side-chains of chlorophylls and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (pl alga <i>Scenedesmus obliquus</i>. Biochemical Journal, 1996, 316, 73-80.	1.7	373
5	Arabidopsis Genes Involved in Acyl Lipid Metabolism. A 2003 Census of the Candidates, a Study of the Distribution of Expressed Sequence Tags in Organs, and a Web-Based Database. Plant Physiology, 2003, 132, 681-697.	2.3	350
6	The Capacity of Green Oilseeds to Utilize Photosynthesis to Drive Biosynthetic Processes. Plant Physiology, 2004, 136, 2700-2709.	2.3	246
7	A Flux Model of Glycolysis and the Oxidative Pentosephosphate Pathway in Developing Brassica napus Embryos. Journal of Biological Chemistry, 2003, 278, 29442-29453.	1.6	241
8	Mitochondrial Metabolism in Developing Embryos of Brassica napus. Journal of Biological Chemistry, 2006, 281, 34040-34047.	1.6	217
9	Oil accumulation is controlled by carbon precursor supply for fatty acid synthesis in Chlamydomonas reinhardtii. Plant and Cell Physiology, 2012, 53, 1380-1390.	1.5	210
10	Distribution of the mevalonate and glyceraldehyde phosphate/pyruvate pathways for isoprenoid biosynthesis in unicellular algae and the cyanobacterium Synechocystis PCC 6714. Biochemical Journal, 1998, 333, 381-388.	1.7	189
11	Probing in Vivo Metabolism by Stable Isotope Labeling of Storage Lipids and Proteins in Developing Brassica napusEmbryos. Plant Physiology, 2002, 130, 347-361.	2.3	179
12	Isoprenoid biosynthesis in eukaryotic phototrophs: A spotlight on algae. Plant Science, 2012, 185-186, 9-22.	1.7	179
13	Incorporation of 1-deoxy-d -xylulose into isoprene and phytol by higher plants and algae. FEBS Letters, 1997, 414, 129-134.	1.3	168
14	Light Enables a Very High Efficiency of Carbon Storage in Developing Embryos of Rapeseed. Plant Physiology, 2005, 138, 2269-2279.	2.3	164
15	Understanding flux in plant metabolic networks. Current Opinion in Plant Biology, 2004, 7, 309-317.	3.5	162
16	Inhibition of the Non-Mevalonate 1-Deoxy-á´…-xylulose-5-phosphate Pathway of Plant Isoprenoid Biosynthesis by Fosmidomycin. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 1998, 53, 980-986.	0.6	159
17	Cloning and heterologous expression of a cDNA encoding 1-deoxy-D -xylulose-5-phosphate reductoisomerase of Arabidopsis thaliana 1. FEBS Letters, 1999, 455, 140-144.	1.3	141
18	Analysis of Metabolic Flux Phenotypes for Two Arabidopsis Mutants with Severe Impairment in Seed Storage Lipid Synthesis Â Â. Plant Physiology, 2009, 151, 1617-1634.	2.3	139

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19	Chlorophyta exclusively use the 1-deoxyxylulose 5-phosphate/2- C -methylerythritol 4-phosphate pathway for the biosynthesis of isoprenoids. Planta, 2001, 212, 416-423.	1.6	118
20	Seed Architecture Shapes Embryo Metabolism in Oilseed Rape Â. Plant Cell, 2013, 25, 1625-1640.	3.1	109
21	Parallel determination of enzyme activities and in vivo fluxes in Brassica napus embryos grown on organic or inorganic nitrogen source. Phytochemistry, 2007, 68, 2232-2242.	1.4	106
22	Poplar and its Bacterial Endophytes: Coexistence and Harmony. Critical Reviews in Plant Sciences, 2009, 28, 346-358.	2.7	97
23	Metabolic flux analysis as a tool in metabolic engineering of plants. Current Opinion in Biotechnology, 2008, 19, 131-137.	3.3	91
24	FAD2 and FAD3 Desaturases Form Heterodimers That Facilitate Metabolic Channeling in Vivo. Journal of Biological Chemistry, 2014, 289, 17996-18007.	1.6	80
25	Computational analysis of storage synthesis in developing <i>Brassica napus</i> L. (oilseed rape) embryos: flux variability analysis in relation to ¹³C metabolic flux analysis. Plant Journal, 2011, 67, 513-525.	2.8	77
26	Quantitative Multilevel Analysis of Central Metabolism in Developing Oilseeds of Oilseed Rape during in Vitro Culture. Plant Physiology, 2015, 168, 828-848.	2.3	71
27	Metabolic cartography: experimental quantification of metabolic fluxes from isotopic labelling studies. Journal of Experimental Botany, 2012, 63, 2293-2308.	2.4	66
28	Metabolic network reconstruction and flux variability analysis of storage synthesis in developing oilseed rape (<i>Brassica napus</i> L.) embryos. Plant Journal, 2011, 67, 526-541.	2.8	64
29	The Non-Mevalonate Isoprenoid Biosynthesis of Plants as a Test System for New Herbicides and Drugs against Pathogenic Bacteria and the Malaria Parasite. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2000, 55, 305-313.	0.6	54
30	Transcript abundance on its own cannot be used to infer fluxes in central metabolism. Frontiers in Plant Science, 2014, 5, 668.	1.7	53
31	Predictive Modeling of Biomass Component Tradeoffs in <i>Brassica napus</i> Developing Oilseeds Based on in Silico Manipulation of Storage Metabolism Â Â. Plant Physiology, 2012, 160, 1218-1236.	2.3	42
32	Survey of the total fatty acid and triacylglycerol composition and content of 30 duckweed species and cloning of a Î”6-desaturase responsible for the production of Î³-linolenic and stearidonic acids in Lemna gibba. BMC Plant Biology, 2013, 13, 201.	1.6	42
33	Integration of a constraint-based metabolic model of Brassica napus developing seeds with 13C-metabolic flux analysis. Frontiers in Plant Science, 2014, 5, 724.	1.7	32
34	Identification of bottlenecks in the accumulation of cyclic fatty acids in camelina seed oil. Plant Biotechnology Journal, 2018, 16, 926-938.	4.1	32
35	Modeling Plant Metabolism: From Network Reconstruction to Mechanistic Models. Annual Review of Plant Biology, 2020, 71, 303-326.	8.6	27
36	Structural analysis of metabolic networks based on flux centrality. Journal of Theoretical Biology, 2010, 265, 261-269.	0.8	25

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37	WRINKLED1 Regulates BIOTIN ATTACHMENT DOMAIN-CONTAINING Proteins that Inhibit Fatty Acid Synthesis. Plant Physiology, 2019, 181, 55-62.	2.3	25
38	Cellular Plasticity in Response to Suppression of Storage Proteins in the Brassica napus Embryo. Plant Cell, 2020, 32, 2383-2401.	3.1	19
39	Experimental flux measurements on a network scale. Frontiers in Plant Science, 2011, 2, 63.	1.7	16
40	Mathematical models of plant metabolism. Current Opinion in Biotechnology, 2016, 37, 143-152.	3.3	15
41	Expression of a Lychee <i>PHOSPHATIDYLCHOLINE:DIACYLGLYCEROL CHOLINEPHOSPHOTRANSFERASE</i> with an <i>Escherichia coli CYCLOPROPANE SYNTHASE</i> Enhances Cyclopropane Fatty Acid Accumulation in Camelina Seeds. Plant Physiology, 2019, 180, 1351-1361.	2.3	14
42	Isotopic Steady-State Flux Analysis. , 2009, , 245-284.		4
43	The 1-deoxy-d-xylulose-5-phosphate Pathway for Biosynthesis of Carotenoids and Other Plastidic Isoprenoids. , 1998, , 3215-3220.		3
44	Elucidation of Triacylglycerol Overproduction in the C4 Bioenergy Crop Sorghum bicolor by Constraint-Based Analysis. Frontiers in Plant Science, 2022, 13, 787265.	1.7	3
45	Flux Variability Analysis: Application to Developing Oilseed Rape Embryos Using Toolboxes for Constraint-Based Modeling. Methods in Molecular Biology, 2014, 1090, 301-316.	0.4	2
46	Jasmonic Acid Induced Changes in Carotenoid Levels and Zeaxanthin Cycle Performance. , 1995, , 353-355.		2