Javier Pozueta-Romero

List of Publications by Year
in descending order

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98 papers	4,898 citations	81900 39 h-index	102487 66 g-index
99 all docs	99 docs citations	99 times ranked	4948 citing authors

#	Article	IF	Citations
1	Regulation of glycogen metabolism in yeast and bacteria. FEMS Microbiology Reviews, 2010, 34, 952-985.	8.6	340
2	Starch Granule Initiation in<i>Arabidopsis</i>Requires the Presence of Either Class IV or Class III Starch Synthases. Plant Cell, 2009, 21, 2443-2457.	6.6	217
3	Starch biosynthesis, its regulation and biotechnological approaches to improve crop yields. Biotechnology Advances, 2014, 32, 87-106.	11.7	211
4	Enhancing Sucrose Synthase Activity in Transgenic Potato (Solanum tuberosum L.) Tubers Results in Increased Levels of Starch, ADPglucose and UDPglucose and Total Yield. Plant and Cell Physiology, 2009, 50, 1651-1662.	3.1	186
5	Sucrose synthase activity in the <i>sus1/sus2/sus3/sus4 Arabidopsis</i> mutant is sufficient to support normal cellulose and starch production. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 321-326.	7.1	183
6	Effect of anoxia on starch breakdown in rice and wheat seeds. Planta, 1992, 188, 611-8.	3.2	168
7	Rice Plastidial N-Glycosylated Nucleotide Pyrophosphatase/Phosphodiesterase Is Transported from the ER-Golgi to the Chloroplast through the Secretory Pathway. Plant Cell, 2006, 18, 2582-2592.	6.6	150
8	Plastidial Glyceraldehyde-3-Phosphate Dehydrogenase Deficiency Leads to Altered Root Development and Affects the Sugar and Amino Acid Balance in Arabidopsis Â. Plant Physiology, 2009, 151, 541-558.	4.8	147
9	Fluid Phase Endocytic Uptake of Artificial Nano-Spheres and Fluorescent Quantum Dots by Sycamore Cultured Cells. Plant Signaling and Behavior, 2006, 1, 196-200.	2.4	143
10	Sucrose Synthase Catalyzes the de novo Production of ADPglucose Linked to Starch Biosynthesis in Heterotrophic Tissues of Plants. Plant and Cell Physiology, 2003, 44, 500-509.	3.1	124
11	Enhancing Sucrose Synthase Activity Results in Increased Levels of Starch and ADP-Glucose in Maize (Zea mays L.) Seed Endosperms. Plant and Cell Physiology, 2013, 54, 282-294.	3.1	119
12	A Ubiquitous Plant Housekeeping Gene, PAP, Encodes a Major Protein Component of Bell Pepper Chromoplasts. Plant Physiology, 1997, 115, 1185-1194.	4.8	104
13	Glycogen Phosphorylase, the Product of the glgP Gene, Catalyzes Glycogen Breakdown by Removing Glucose Units from the Nonreducing Ends in Escherichia coli. Journal of Bacteriology, 2006, 188, 5266-5272.	2.2	103
14	Direct transport of ADPglucose by an adenylate translocator is linked to starch biosynthesis in amyloplasts.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 5769-5773.	7.1	96
15	Sucrose Synthase Controls Both Intracellular ADP Glucose Levels and Transitory Starch Biosynthesis in Source Leaves. Plant and Cell Physiology, 2005, 46, 1366-1376.	3.1	95
16	Volatile compounds emitted by diverse phytopathogenic microorganisms promote plant growth and flowering through cytokinin action. Plant, Cell and Environment, 2016, 39, 2592-2608.	5.7	93
17	Fruit-Specific Expression of a Defensin-Type Gene Family in Bell Pepper (Upregulation during Ripening) Tj ETQq1 1 0.784314 rgBT /Ov	4.8	83
18	Microbial Volatile Emissions Promote Accumulation of Exceptionally High Levels of Starch in Leaves in Mono- and Dicotyledonous Plants. Plant and Cell Physiology, 2010, 51, 1674-1693.	3.1	83

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19	Sucrose-inducible Endocytosis as a Mechanism for Nutrient Uptake in Heterotrophic Plant Cells. Plant and Cell Physiology, 2005, 46, 474-481.	3.1	79
20	Most of ADP{middle dot}glucose linked to starch biosynthesis occurs outside the chloroplast in source leaves. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13080-13085.	7.1	71
21	Adenosine diphosphate glucose pyrophosphatase: A plastidial phosphodiesterase that prevents starch biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 8705-8710.	7.1	70
22	Genome-wide screening of genes affecting glycogen metabolism inEscherichia coliK-12. FEBS Letters, 2007, 581, 2947-2953.	2.8	66
23	Two isoforms of a nucleotide-sugar pyrophosphatase/phosphodiesterase from barley leaves (Hordeum) Tj ETQq1 1 0.784314 rgBT /Over	2.8	63
24	ADP-Glucose Transport by the Chloroplast Adenylate Translocator Is Linked to Starch Biosynthesis. Plant Physiology, 1991, 97, 1565-1572.	4.8	61
25	Arabidopsis Responds to <i>Alternaria alternata</i> Volatiles by Triggering Plastid Phosphoglucose Isomerase-Independent Mechanisms. Plant Physiology, 2016, 172, 1989-2001.	4.8	58
26	Enzyme Sets of Glycolysis, Gluconeogenesis, and Oxidative Pentose Phosphate Pathway Are Not Complete in Nongreen Highly Purified Amyloplasts of Sycamore (Acer pseudoplatanus L.) Cell Suspension Cultures. Plant Physiology, 1990, 94, 538-544.	4.8	55
27	Enhancing the expression of starch synthase class IV results in increased levels of both transitory and longâ€term storage starch. Plant Biotechnology Journal, 2011, 9, 1049-1060.	8.3	54
28	Arabidopsis thaliana Mutants Lacking ADP-Glucose Pyrophosphorylase Accumulate Starch and Wild-type ADP-Glucose Content: Further Evidence for the Occurrence of Important Sources, other than ADP-Glucose Pyrophosphorylase, of ADP-Glucose Linked to Leaf Starch Biosynthesis. Plant and Cell Physiology, 2011, 52, 1162-1176.	3.1	54
29	Characterization of a family of genes encoding a fruit-specific wound-stimulated protein of bell pepper (Capsicum annuum): identification of a new family of transposable elements. Plant Molecular Biology, 1995, 28, 1011-1025.	3.9	53
30	Adenosine diphosphate sugar pyrophosphatase prevents glycogen biosynthesis in Escherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 8128-8132.	7.1	53
31	Existence of two parallel mechanisms for glucose uptake in heterotrophic plant cells. Journal of Experimental Botany, 2005, 56, 1905-1912.	4.8	53
32	Escherichia coliAspP activity is enhanced by macromolecular crowding and by both glucose-1,6-bisphosphate and nucleotide-sugars. FEBS Letters, 2007, 581, 1035-1040.	2.8	53
33	Evidence for two endocytic transport pathways in plant cells. Plant Science, 2009, 177, 341-348.	3.6	50
34	Title is missing!. Plant Cell, Tissue and Organ Culture, 2001, 67, 173-180.	2.3	47
35	Dual Targeting to Mitochondria and Plastids of AtBT1 and ZmBT1, Two Members of the Mitochondrial Carrier Family. Plant and Cell Physiology, 2011, 52, 597-609.	3.1	46
36	<i>Escherichia coli</i> glycogen genes are organized in a single <i>glgBXCAP</i> transcriptional unit possessing an alternative suboperonic promoter within <i>glgC</i> that directs <i>glgAP</i> expression. Biochemical Journal, 2011, 433, 107-117.	3.7	44

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37	In and out of the plant storage vacuole. Plant Science, 2012, 190, 52-61.	3.6	44
38	<i>Escherichia coli</i> glycogen metabolism is controlled by the PhoP-PhoQ regulatory system at submillimolar environmental Mg2+ concentrations, and is highly interconnected with a wide variety of cellular processes. Biochemical Journal, 2009, 424, 129-141.	3.7	43
39	Reappraisal of the Currently Prevailing Model of Starch Biosynthesis in Photosynthetic Tissues: A Proposal Involving the Cytosolic Production of ADP-Glucose by Sucrose Synthase and Occurrence of Cyclic Turnover of Starch in the Chloroplast. Plant and Cell Physiology, 2001, 42, 1311-1320.	3.1	42
40	Genome-Wide Screening of Genes Whose Enhanced Expression Affects Glycogen Accumulation in Escherichia coli. DNA Research, 2010, 17, 61-71.	3.4	41
41	Microbial Volatile-Induced Accumulation of Exceptionally High Levels of Starch in Arabidopsis Leaves Is a Process Involving NTRC and Starch Synthase Classes III and IV. Molecular Plant-Microbe Interactions, 2011, 24, 1165-1178.	2.6	40
42	Characterization of multiple SPS knockout mutants reveals redundant functions of the four Arabidopsis sucrose phosphate synthase isoforms in plant viability, and strongly indicates that enhanced respiration and accelerated starch turnover can alleviate the blockage of sucrose biosynthesis. Plant Science, 2015, 238, 135-147.	3.6	39
43	Post-Translational Redox Modification of ADP-Glucose Pyrophosphorylase in Response to Light is Not a Major Determinant of Fine Regulation of Transitory Starch Accumulation in Arabidopsis Leaves. Plant and Cell Physiology, 2012, 53, 433-444.	3.1	38
44	Sucrose Transport into Citrus Juice Cells: Evidence for an Endocytic Transport System. Journal of the American Society for Horticultural Science, 2005, 130, 269-274.	1.0	37
45	No need to shift the paradigm on the metabolic pathway to transitory starch in leaves. Trends in Plant Science, 2005, 10, 154-156.	8.8	35
46	Cloning, Expression and Characterization of a Nudix Hydrolase that Catalyzes the Hydrolytic Breakdown of ADP-glucose Linked to Starch Biosynthesis in Arabidopsis thaliana. Plant and Cell Physiology, 2006, 47, 926-934.	3.1	35
47	Volatile compounds other than CO₂ emitted by different microorganisms promote distinct posttranscriptionally regulated responses in plants. Plant, Cell and Environment, 2019, 42, 1729-1746.	5.7	35
48	Occurrence of more than one important source of ADPglucose linked to glycogen biosynthesis in <i>Escherichia coli</i> and <i>Salmonella</i>. FEBS Letters, 2007, 581, 4423-4429.	2.8	32
49	An <i>Escherichia coli</i> mutant producing a truncated inactive form of GlgC synthesizes glycogen: Further evidences for the occurrence of various important sources of ADPglucose in enterobacteria. FEBS Letters, 2007, 581, 4417-4422.	2.8	30
50	Plastidic Phosphoglucose Isomerase Is an Important Determinant of Starch Accumulation in Mesophyll Cells, Growth, Photosynthetic Capacity, and Biosynthesis of Plastidic Cytokinins in Arabidopsis. PLoS ONE, 2015, 10, e0119641.	2.5	30
51	New enzymes, new pathways and an alternative view on starch biosynthesis in both photosynthetic and heterotrophic tissues of plants. Biocatalysis and Biotransformation, 2006, 24, 63-76.	2.0	29
52	An Important Pool of Sucrose Linked to Starch Biosynthesis is Taken up by Endocytosis in Heterotrophic Cells. Plant and Cell Physiology, 2006, 47, 447-456.	3.1	29
53	Specific delivery of AtBT1 to mitochondria complements the aberrant growth and sterility phenotype of homozygous <i>Atbt1</i> Arabidopsis mutants. Plant Journal, 2011, 68, 1115-1121.	5.7	29
54	Nonautonomous inverted repeat Alien transposable elements are associated with genes of both monocotyledonous and dicotyledonous plants. Gene, 1996, 171, 147-153.	2.2	28

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55	GlgS, described previously as a glycogen synthesis control protein, negatively regulates motility and biofilm formation in <i>Escherichia coli</i>. Biochemical Journal, 2013, 452, 559-573.	3.7	28
56	Cloning, expression and characterization of a mammalian Nudix hydrolase-like enzyme that cleaves the pyrophosphate bond of UDP-glucose. Biochemical Journal, 2003, 370, 409-415.	3.7	26
57	Plant responses to fungal volatiles involve global posttranslational thiol redox proteome changes that affect photosynthesis. Plant, Cell and Environment, 2019, 42, 2627-2644.	5.7	26
58	Comparative Genomic and Phylogenetic Analyses of Gammaproteobacterial glg Genes Traced the Origin of the Escherichia coli Glycogen glgBXCAP Operon to the Last Common Ancestor of the Sister Orders Enterobacteriales and Pasteurellales. PLoS ONE, 2015, 10, e0115516.	2.5	23
59	A sensitive method for confocal fluorescence microscopic visualization of starch granules in iodine stained samples. Plant Signaling and Behavior, 2012, 7, 1146-1150.	2.4	22
60	HPLC-MS/MS Analyses Show That the Near-Starchless aps1 and pgm Leaves Accumulate Wild Type Levels of ADPglucose: Further Evidence for the Occurrence of Important ADPglucose Biosynthetic Pathway(s) Alternative to the pPGI-pPGM-AGP Pathway. PLoS ONE, 2014, 9, e104997.	2.5	22
61	<i>N</i>-Glycomic and Microscopic Subcellular Localization Analyses of NPP1, 2 and 6 Strongly Indicate that<i>trans</i>-Golgi Compartments Participate in the Golgi to Plastid Traffic of Nucleotide Pyrophosphatase/Phosphodiesterases in Rice. Plant and Cell Physiology, 2016, 57, 1610-1628.	3.1	21
62	Systematic Production of Inactivating and Non-Inactivating Suppressor Mutations at the relA Locus That Compensate the Detrimental Effects of Complete spoT Loss and Affect Glycogen Content in Escherichia coli. PLoS ONE, 2014, 9, e106938.	2.5	21
63	A cAMP/CRP-controlled mechanism for the incorporation of extracellular ADP-glucose in Escherichia coli involving NupC and NupG nucleoside transporters. Scientific Reports, 2018, 8, 15509.	3.3	20
64	Genetic and isotope ratio mass spectrometric evidence for the occurrence of starch degradation and cycling in illuminated Arabidopsis leaves. PLoS ONE, 2017, 12, e0171245.	2.5	19
65	Volatiles from the fungal phytopathogen <i>Penicillium aurantiogriseum</i> modulate root metabolism and architecture through proteome resetting. Plant, Cell and Environment, 2020, 43, 2551-2570.	5.7	19
66	ADPG formation by the ADP-specific cleavage of sucrose-reassessment of sucrose synthase. FEBS Letters, 1991, 291, 233-237.	2.8	18
67	Nucleotide Pyrophosphatase/Phosphodiesterase 1 Exerts a Negative Effect on Starch Accumulation and Growth in Rice Seedlings under High Temperature and CO2 Concentration Conditions. Plant and Cell Physiology, 2014, 55, 320-332.	3.1	18
68	Response to Neuhaus : No need to shift the paradigm on the metabolic pathway to transitory starch in leaves. Trends in Plant Science, 2005, 10, 156-158.	8.8	16
69	A chromoplast-specific protein in Capsicum annuum: characterization and expression of the corresponding gene. Current Genetics, 1994, 26, 524-527.	1.7	15
70	Sucrose-Starch Conversion in Heterotrophic Tissues of Plants. Critical Reviews in Plant Sciences, 1999, 18, 489-525.	5.7	15
71	Distinct isoforms of ADPglucose pyrophosphatase and ADPglucose pyrophosphorylase occur in the suspension-cultured cells of sycamore (Acer pseudoplatanus L.). FEBS Letters, 2000, 480, 277-282.	2.8	15
72	Plastidial Phosphoglucose Isomerase Is an Important Determinant of Seed Yield through Its Involvement in Gibberellin-Mediated Reproductive Development and Storage Reserve Biosynthesis in Arabidopsis. Plant Cell, 2018, 30, 2082-2098.	6.6	15

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73	Action mechanisms of small microbial volatile compounds in plants. Journal of Experimental Botany, 2022, 73, 498-510.	4.8	15
74	Sucrose-Starch Conversion in Heterotrophic Tissues of Plants. Critical Reviews in Plant Sciences, 1999, 18, 489-525.	5.7	14
75	Identification of a short interspersed repetitive element in partially spliced transcripts of the bell pepper (Capsicum annuum) PAP gene: new evolutionary and regulatory aspects on plant tRNA-related SINEs. Gene, 1998, 214, 51-58.	2.2	13
76	Mannitolâ€enhanced, fluidâ€phase endocytosis in storage parenchyma cells of celery (<i>Apium) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	1.7	13
77	Plastidial Localization of a Potato â€˜Nudixâ€™ Hydrolase of ADP-glucose Linked to Starch Biosynthesis. Plant and Cell Physiology, 2008, 49, 1734-1746.	3.1	13
78	Unraveling the role of transient starch in the response of Arabidopsis to elevated CO2 under long-day conditions. Environmental and Experimental Botany, 2018, 155, 158-164.	4.2	13
79	Comparative analysis of mitochondrial and amyloplast adenylate translocators. FEBS Letters, 1991, 287, 62-66.	2.8	12
80	Artifactual detection of ADP-dependent sucrose synthase in crude plant extracts. FEBS Letters, 1992, 309, 283-287.	2.8	12
81	Proteomics Analysis Reveals Non-Controlled Activation of Photosynthesis and Protein Synthesis in a Rice npp1 Mutant under High Temperature and Elevated CO2 Conditions. International Journal of Molecular Sciences, 2018, 19, 2655.	4.1	12
82	Influence of crop load on the expression patterns of starch metabolism genes in alternate-bearing citrus trees. Plant Physiology and Biochemistry, 2014, 80, 105-113.	5.8	11
83	Reply to Smith et al.: No evidence to challenge the current paradigm on starch and cellulose biosynthesis involving sucrose synthase activity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, .	7.1	10
84	Activity of membrane-associated sucrose synthase is regulated by its phosphorylation status in cultured cells of sycamore (Acer pseudoplatanus). Physiologia Plantarum, 2004, 122, 275-280.	5.2	9
85	Enhanced Yield of Pepper Plants Promoted by Soil Application of Volatiles From Cell-Free Fungal Culture Filtrates Is Associated With Activation of the Beneficial Soil Microbiota. Frontiers in Plant Science, 2021, 12, 752653.	3.6	9
86	CytoplasmicEscherichia coliADP sugar pyrophosphatase binds to cell membranes in response to extracellular signals as the cell population density increases. FEMS Microbiology Letters, 2008, 288, 25-32.	1.8	8
87	Mitochondrial Zea mays Brittle1-1 Is a Major Determinant of the Metabolic Fate of Incoming Sucrose and Mitochondrial Function in Developing Maize Endosperms. Frontiers in Plant Science, 2019, 10, 242.	3.6	8
88	Fluid-phase endocytosis in<i>Citrus</i>juice cells is independent from vacuolar pH and inhibited by chlorpromazine, an inhibitor of PI-3 kinases and clathrin-mediated endocytosis. Journal of Horticultural Science and Biotechnology, 2007, 82, 900-907.	1.9	7
89	Proteostatic Regulation of MEP and Shikimate Pathways by Redox-Activated Photosynthesis Signaling in Plants Exposed to Small Fungal Volatiles. Frontiers in Plant Science, 2021, 12, 637976.	3.6	7
90	A suggested model for potato MIVOISAP involving functions of central carbohydrate and amino acid metabolism, as well as actin cytoskeleton and endocytosis. Plant Signaling and Behavior, 2010, 5, 1638-1641.	2.4	6

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91	Fluid-Phase Endocytosis in Plant Cells. , 2012, , 107-122.		6
92	Endocytic Uptake of Nutrients, Cell Wall Molecules and Fluidized Cell Wall Portions into Heterotrophic Plant Cells. , 0, , 19-35.		5
93	Filtering Centrifugation Through Two Layers of Silicone Oil: A Method for the Kinetic Analysis of Rapid Metabolite Transport in Organelles.. Cell Structure and Function, 1991, 16, 357-363.	1.1	5
94	The Hyperbolic and Linear Phases of the Sucrose Accumulation Curve in Turnip Storage Cells Denote Carrier-mediated and Fluid Phase Endocytic Transport, Respectively. Journal of the American Society for Horticultural Science, 2008, 133, 612-618.	1.0	5
95	No evidence for the occurrence of substrate inhibition of<i>Arabidopsis thaliana</i>sucrose synthase-1 (AtSUS1) by fructose and UDP-glucose. Plant Signaling and Behavior, 2012, 7, 799-802.	2.4	4
96	Architectural remodeling of the tonoplast during fluid-phase endocytosis. Plant Signaling and Behavior, 2013, 8, e24793.	2.4	4
97	Distinct Profiles of ADP- and UDP-Specific Sucrose Synthases in Developing Rice Grains. Bioscience, Biotechnology and Biochemistry, 1992, 56, 695-696.	1.3	3
98	A Method for Accurate Analysis of Intermembrane Space in Organelles Enclosed by Double Envelope Membranes.. Cell Structure and Function, 1992, 17, 47-53.	1.1	0