Jean Rivoal

List of Publications by Citations

54 papers	2,249 citations	25 h-index	47 g-index
58 ext. papers	2,451 ext. citations	4.7 avg, IF	4.83 L-index

#	Paper	IF	Citations
54	Expression of a stress-induced hemoglobin affects NO levels produced by alfalfa root cultures under hypoxic stress. *Plant Journal*, **2003**, 35, 763-70	6.9	250
53	Osmoprotective compounds in the Plumbaginaceae: a natural experiment in metabolic engineering of stress tolerance. *Proceedings of the National Academy of Sciences of the United States of America*, **1994**, 91, 306-10	11.5	226
52	Plant haemoglobins, nitric oxide and hypoxic stress. *Annals of Botany*, **2003**, 91 Spec No, 173-8	4.1	188
51	Class-1 hemoglobins, nitrate and NO levels in anoxic maize cell-suspension cultures. *Planta*, **2004**, 219, 66-72	4.7	164
50	Anaerobic stress induces the transcription and translation of sucrose synthase in rice. *Plant Physiology*, **1991**, 95, 669-74	6.6	124
49	Isozymes of plant hexokinase: occurrence, properties and functions. *Phytochemistry*, **2007**, 68, 709-31	4	110
48	Biosynthesis of 3-dimethylsulfoniopropionate in Wollastonia biflora (L.) DC. Evidence that S-methylmethionine is an intermediate. *Plant Physiology*, **1994**, 105, 103-10	6.6	87
47	Metabolic Control of Anaerobic Glycolysis (Overexpression of Lactate Dehydrogenase in Transgenic Tomato Roots Supports the Davies-Roberts Hypothesis and Points to a Critical Role for Lactate Secretion. *Plant Physiology*, **1994**, 106, 1179-1185	6.6	83
46	Consequences of Oxidative Stress on Plant Glycolytic and Respiratory Metabolism. *Frontiers in Plant Science*, **2019**, 10, 166	6.2	67
45	Proteomic analysis of common bean seed with storage protein deficiency reveals up-regulation of sulfur-rich proteins and starch and raffinose metabolic enzymes, and down-regulation of the secretory pathway. *Journal of Proteomics*, **2010**, 73, 1587-600	3.9	55
44	Evidence for a Large and Sustained Glycolytic Flux to Lactate in Anoxic Roots of Some Members of the Halophytic Genus Limonium. *Plant Physiology*, **1993**, 101, 553-560	6.6	53
43	Purification and characterization of high- and low-molecular-mass isoforms of phosphoenolpyruvate carboxylase from Chlamydomonas reinhardtii. Kinetic, structural and immunological evidence that the green algal enzyme is distinct from the prokaryotic and higher plant enzymes. *Biochemical Journal*, **1998**, 331 (Pt 1), 201-9	3.8	52
42	Arsenic resistance in Pteris vittata L.: identification of a cytosolic triosephosphate isomerase based on cDNA expression cloning in Escherichia coli. *Plant Molecular Biology*, **2006**, 62, 845-57	4.6	47
41	Two unrelated phosphoenolpyruvate carboxylase polypeptides physically interact in the high molecular mass isoforms of this enzyme in the unicellular green alga Selenastrum minutum. *Journal of Biological Chemistry*, **2001**, 276, 12588-97	5.4	44
40	Purification and partial characterization of pyruvate decarboxylase from Oryza sativa L. *FEBS Journal*, **1990**, 194, 791-7		44
39	Differential induction of pyruvate decarboxylase subunits and transcripts in anoxic rice seedlings. *Plant Physiology*, **1997**, 114, 1021-9	6.6	39
38	Lactate Dehydrogenase in Oryza sativa L. Seedlings and Roots: Identification and Partial Characterization. *Plant Physiology*, **1991**, 95, 682-6	6.6	38

37	Purification and properties of four phosphoenolpyruvate carboxylase isoforms from the green alga Selenastrum minutum: evidence that association of the 102-kDa catalytic subunit with unrelated polypeptides may modify the physical and kinetic properties of the enzyme. *Archives of Biochemistry and Biophysics*, **1996**, 332, 47-57	4.1	36
36	Cloning and characterization of a cytosolic isoform of triosephosphate isomerase developmentally regulated in potato leaves. *Plant Science*, **2005**, 168, 183-194	5.3	34
35	Characterization of a cytosolic nucleoside diphosphate kinase associated with cell division and growth in potato. *Planta*, **2006**, 224, 108-24	4.7	34
34	Choline-O-Sulfate Biosynthesis in Plants (Identification and Partial Characterization of a Salinity-Inducible Choline Sulfotransferase from Species of Limonium (Plumbaginaceae). *Plant Physiology*, **1994**, 106, 1187-1193	6.6	33
33	Clues to the functions of plant NDPK isoforms. *Naunyn-Schmiedebergs Archives of Pharmacology*, **2015**, 388, 119-32	3.4	27
32	A large decrease of cytosolic triosephosphate isomerase in transgenic potato roots affects the distribution of carbon in primary metabolism. *Planta*, **2012**, 236, 1177-90	4.7	25
31	Rice cytosolic glyceraldehyde 3-phosphate dehydrogenase contains two subunits differentially regulated by anaerobiosis. *Plant Molecular Biology*, **1989**, 12, 131-9	4.6	25
30	A method for activity staining after native polyacrylamide gel electrophoresis using a coupled enzyme assay and fluorescence detection: application to the analysis of several glycolytic enzymes. *Analytical Biochemistry*, **2002**, 300, 94-9	3.1	24
29	Cytosolic Triosephosphate Isomerase from Is Reversibly Modified by Glutathione on Cysteines 127 and 218. *Frontiers in Plant Science*, **2016**, 7, 1942	6.2	23
28	Characterization of a mitochondrial NADP-dependent isocitrate dehydrogenase in axes of germinating sunflower seeds. *Plant Science*, **1994**, 102, 49-59	5.3	22
27	Cloning, expression, purification, and properties of a putative plasma membrane hexokinase from Solanum chacoense. *Protein Expression and Purification*, **2006**, 47, 329-39	2	18
26	In vitro phosphorylation of phosphoenolpyruvate carboxylase from the green alga Selenastrum minutum. *Plant and Cell Physiology*, **2002**, 43, 785-92	4.9	17
25	Cloning, biochemical characterization and expression of a sunflower (Helianthus annuus L.) hexokinase associated with seed storage compounds accumulation. *Journal of Plant Physiology*, **2011**, 168, 299-308	3.6	16
24	Molecular cloning and biochemical characterization of three phosphoglycerate kinase isoforms from developing sunflower (Helianthus annuus L.) seeds. *Phytochemistry*, **2012**, 79, 27-38	4	13
23	Arabidopsis thaliana alcohol dehydrogenase is differently affected by several redox modifications. *PLoS ONE*, **2018**, 13, e0204530	3.7	13
22	Glutathione Metabolism in Plants under Stress: Beyond Reactive Oxygen Species Detoxification. *Metabolites*, **2021**, 11,	5.6	13
21	The Plant Ovule Secretome: A Different View toward Pollen-Pistil Interactions. *Journal of Proteome Research*, **2015**, 14, 4763-75	5.6	12
20	The dinoflagellate Lingulodinium polyedrum responds to N depletion by a polarized deposition of starch and lipid bodies. *PLoS ONE*, **2014**, 9, e111067	3.7	12

19	Quantification of uridine 5'-diphosphate (UDP)-glucose by high-performance liquid chromatography and its application to a nonradioactive assay for nucleoside diphosphate kinase using UDP-glucose pyrophosphorylase as a coupling enzyme. *Analytical Biochemistry*, **2003**, 323, 188-96	3.1	11
18	Engineering the expression level of cytosolic nucleoside diphosphate kinase in transgenic Solanum tuberosum roots alters growth, respiration and carbon metabolism. *Plant Journal*, **2017**, 89, 914-926	6.9	10
17	Analyzing the effect of decreasing cytosolic triosephosphate isomerase on Solanum tuberosum hairy root cells using a kinetic-metabolic model. *Biotechnology and Bioengineering*, **2013**, 110, 924-35	4.9	9
16	Molecular and biochemical characterization of the sunflower (Helianthus annuus L.) cytosolic and plastidial enolases in relation to seed development. *Plant Science*, **2018**, 272, 117-130	5.3	8
15	Plant nucleoside diphosphate kinase 1: A housekeeping enzyme with moonlighting activity. *Plant Signaling and Behavior*, **2018**, 13, e1475804	2.5	8
14	The futile cycling of hexose phosphates could account for the fact that hexokinase exerts a high control on glucose phosphorylation but not on glycolytic rate in transgenic potato (Solanum tuberosum) roots. *PLoS ONE*, **2013**, 8, e53898	3.7	8
13	Autophosphorylation of Solanum chacoense cytosolic nucleoside diphosphate kinase on Ser117. *Journal of Experimental Botany*, **2006**, 57, 4079-88	7	8
12	Cloning, biochemical characterisation, tissue localisation and possible post-translational regulatory mechanism of the cytosolic phosphoglucose isomerase from developing sunflower seeds. *Planta*, **2010**, 232, 845-59	4.7	7
11	Characterization of ScORK28, a transmembrane functional protein receptor kinase predominantly expressed in ovaries from the wild potato species Solanum chacoense. *FEBS Letters*, **2007**, 581, 5137-42	3.8	7
10	A dinoflagellate CDK5-like cyclin-dependent kinase. *Biology of the Cell*, **2007**, 99, 531-40	3.5	5
9	Expression, purification and characterization of Solanum tuberosum recombinant cytosolic pyruvate kinase. *Protein Expression and Purification*, **2015**, 110, 7-13	2	4
8	Purification to homogeneity and characterization of nonproteolyzed potato (Solanum tuberosum) tuber hexokinase 1. *Botany*, **2011**, 89, 289-299	1.3	4
7	A rapid ion exchange procedure that facilitates spectrophotometric assays of phosphorylated metabolites in potato extracts. *Acta Physiologiae Plantarum*, **2009**, 31, 855-859	2.6	4
6	Thrips-induced damage of chrysanthemum inflorescences: evidence for enhanced leakage of carotenoid pigments. *Entomologia Experimentalis Et Applicata*, **2007**, 123, 247-252	2.1	3
5	Label-free MS/MS analyses of the dinoflagellate Lingulodinium identifies rhythmic proteins facilitating adaptation to a diurnal LD cycle. *Science of the Total Environment*, **2020**, 704, 135430	10.2	2
4	Phycobilin heterologous production from the Rhodophyta Porphyridium cruentum. *Journal of Biotechnology*, **2021**, 341, 30-42	3.7	2
3	The stress induced caleosin, RD20/CLO3, acts as a negative regulator of GPA1 in Arabidopsis. *Plant Molecular Biology*, **2021**, 107, 159-175	4.6	1
2	Sustained substrate cycles between hexose phosphates and free sugars in phosphate-deficient potato (Solanum tuberosum) cell cultures. *Planta*, **2019**, 249, 1319-1336	4.7	1

List of Publications

1 Characterization of High and Low Molecular Mass Isoforms of Phosphoenolpyruvate Carboxylase from the Green Alga Selenastrum Minutum **1998**, 3403-3406