

Imre Vass

List of Publications by Year in descending order

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papers

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citations

94433

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91
docs citations

91
times ranked

4569
citing authors

#	ARTICLE	IF	CITATIONS
1	Reversible and irreversible intermediates during photoinhibition of photosystem II: stable reduced QA species promote chlorophyll triplet formation.. Proceedings of the National Academy of Sciences of the United States of America, 1992, 89, 1408-1412.	7.1	487
2	A Soluble Carotenoid Protein Involved in Phycobilisome-Related Energy Dissipation in Cyanobacteria. Plant Cell, 2006, 18, 992-1007.	6.6	396
3	Detection of Singlet Oxygen and Superoxide with Fluorescent Sensors in Leaves Under Stress by Photoinhibition or UV Radiation. Plant and Cell Physiology, 2002, 43, 1154-1164.	3.1	213
4	A novel aldose/aldehyde reductase protects transgenic plants against lipid peroxidation under chemical and drought stresses. Plant Journal, 2000, 24, 437-446.	5.7	211
5	Plants ectopically expressing the ironbinding protein, ferritin, are tolerant to oxidative damage and pathogens. Nature Biotechnology, 1999, 17, 192-196.	17.5	208
6	Janus-faced charge recombinations in photosystem II photoinhibition. Trends in Plant Science, 2009, 14, 200-205.	8.8	196
7	Singlet oxygen production in thylakoid membranes during photoinhibition as detected by EPR spectroscopy. Photosynthesis Research, 1994, 39, 191-199.	2.9	177
8	Copper Toxicity Affects Photosystem II Electron Transport at the Secondary Quinone Acceptor, Q _B . Plant Physiology, 1989, 90, 175-179.	4.8	138
9	Operon <i>flv4-flv2</i> Provides Cyanobacterial Photosystem II with Flexibility of Electron Transfer. Plant Cell, 2012, 24, 1952-1971.	6.6	133
10	Thermoluminescence from the photosynthetic apparatus. Photosynthesis Research, 1996, 48, 117-126.	2.9	130
11	The Cyanobacterial Photoactive Orange Carotenoid Protein Is an Excellent Singlet Oxygen Quencher \hat{A} . Plant Cell, 2014, 26, 1781-1791.	6.6	110
12	Title is missing!. Photosynthesis Research, 1997, 54, 55-62.	2.9	109
13	Inhibition of Photosynthetic Electron Transport by UV-A Radiation Targets the Photosystem II Complex \hat{A} . Photochemistry and Photobiology, 2000, 72, 513.	2.5	90
14	UV-B-induced Differential Transcription of <i>psbA</i> Genes Encoding the D1 Protein of Photosystem II in the Cyanobacterium <i>Synechocystis</i> 6803. Journal of Biological Chemistry, 1998, 273, 17439-17444.	3.4	89
15	Detoxification function of aldose/aldehyde reductase during drought and ultraviolet-B (280-320 nm) stresses. Plant, Cell and Environment, 2003, 26, 513-522.	5.7	89
16	Double (Fluorescent and Spin) Sensors for Detection of Reactive Oxygen Species in the Thylakoid Membrane. Free Radical Biology and Medicine, 1998, 24, 649-652.	2.9	83
17	In Vivo Target Sites of Nitric Oxide in Photosynthetic Electron Transport as Studied by Chlorophyll Fluorescence in Pea Leaves. Plant Physiology, 2008, 146, 1920-1927.	4.8	81
18	Response of Organ Structure and Physiology to Autotetraploidization in Early Development of Energy Willow <i>Salix viminalis</i> . Plant Physiology, 2016, 170, 1504-1523.	4.8	79

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19	Flavodiiron Protein Flv2/Flv4-Related Photoprotective Mechanism Dissipates Excitation Pressure of PSII in Cooperation with Phycobilisomes in Cyanobacteria. <i>Plant Physiology</i> , 2014, 164, 805-818.	4.8	77
20	Bacterial symbionts enhance photo-fermentative hydrogen evolution of <i>Chlamydomonas</i> algae. <i>Green Chemistry</i> , 2014, 16, 4716-4727.	9.0	75
21	Deletion of the PEST-like Region of Photosystem Two Modifies the QB-binding Pocket but Does Not Prevent Rapid Turnover of D1. <i>Journal of Biological Chemistry</i> , 1995, 270, 14919-14927.	3.4	72
22	Potato Annexin STANN1 Promotes Drought Tolerance and Mitigates Light Stress in Transgenic <i>Solanum tuberosum</i> L. <i>Plants. PLoS ONE</i> , 2015, 10, e0132683.	2.5	72
23	Thermoluminescence: experimental. <i>Photosynthesis Research</i> , 2009, 101, 195-204.	2.9	70
24	The interaction of visible and UV-B light during photodamage and repair of Photosystem II. <i>Photosynthesis Research</i> , 2003, 75, 127-137.	2.9	68
25	Nuclear localization of a hypoxia-inducible novel non-symbiotic hemoglobin in cultured alfalfa cells. <i>FEBS Letters</i> , 2000, 482, 125-130.	2.8	62
26	Phenotyping shows improved physiological traits and seed yield of transgenic wheat plants expressing the alfalfa aldose reductase under permanent drought stress. <i>Acta Physiologiae Plantarum</i> , 2014, 36, 663-673.	2.1	61
27	Construction of bioluminescent cyanobacterial reporter strains for detection of nickel, cobalt and zinc. <i>FEMS Microbiology Letters</i> , 2008, 289, 258-264.	1.8	59
28	Photosystem II damage induced by chemically generated singlet oxygen in tobacco leaves. <i>Physiologia Plantarum</i> , 2007, 131, 33-40.	5.2	58
29	The history of photosynthetic thermoluminescence. <i>Photosynthesis Research</i> , 2003, 76, 303-318.	2.9	56
30	A Mutant Small Heat Shock Protein with Increased Thylakoid Association Provides an Elevated Resistance Against UV-B Damage in <i>Synechocystis</i> 6803. <i>Journal of Biological Chemistry</i> , 2008, 283, 22983-22991.	3.4	53
31	Inactivation of photosynthetic oxygen evolution by UV-B irradiation: A thermoluminescence study. <i>Photosynthesis Research</i> , 1993, 38, 455-462.	2.9	52
32	THE 75°C THERMOLUMINESCENCE BAND OF GREEN TISSUES: CHEMILUMINESCENCE FROM MEMBRANE-CHLOROPHYLL INTERACTION. <i>Photochemistry and Photobiology</i> , 1993, 58, 280-283.	2.5	51
33	Molecular Mechanisms of Light Stress of Photosynthesis. <i>Annals of the New York Academy of Sciences</i> , 2007, 1113, 114-122.	3.8	50
34	The function of D1-H332 in Photosystem II electron transport studied by thermoluminescence and chlorophyll fluorescence in site-directed mutants of <i>Synechocystis</i> 6803. <i>FEBS Journal</i> , 2004, 271, 3523-3532.	0.2	47
35	Thermoimaging as a tool for studying light-induced heating of leaves. <i>Environmental and Experimental Botany</i> , 2008, 64, 90-96.	4.2	45
36	Proline is a quencher of singlet oxygen and superoxide both in in vitro systems and isolated thylakoids. <i>Physiologia Plantarum</i> , 2021, 172, 7-18.	5.2	45

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37	Functional Characterization and Quantification of the Alternative PsbA Copies in <i>Thermosynechococcus elongatus</i> and Their Role in Photoprotection. <i>Journal of Biological Chemistry</i> , 2010, 285, 29851-29856.	3.4	44
38	Inhibition of photosynthetic CO ₂ fixation in the coral <i>Pocillopora damicornis</i> and its relationship to thermal bleaching. <i>Journal of Experimental Biology</i> , 2014, 217, 2150-62.	1.7	42
39	Maximum fluorescence and electron transport kinetics determined by light-induced fluorescence transients (LIFT) for photosynthesis phenotyping. <i>Photosynthesis Research</i> , 2019, 140, 221-233.	2.9	39
40	<i>Symbiodinium</i> sp. cells produce light-induced intra- and extracellular singlet oxygen, which mediates photodamage of the photosynthetic apparatus and has the potential to interact with the animal host in coral symbiosis. <i>New Phytologist</i> , 2016, 212, 472-484.	7.3	37
41	Coregulated Genes Link Sulfide:Quinone Oxidoreductase and Arsenic Metabolism in <i>Synechocystis</i> sp. Strain PCC6803. <i>Journal of Bacteriology</i> , 2014, 196, 3430-3440.	2.2	36
42	Cyclic Nucleotides, the Photosynthetic Apparatus and Response to a UV-B Stress in the Cyanobacterium <i>Synechocystis</i> sp. PCC 6803. <i>Journal of Biological Chemistry</i> , 2005, 280, 33935-33944.	3.4	35
43	Co-occurrence of Mild Salinity and Drought Synergistically Enhances Biomass and Grain Retardation in Wheat. <i>Frontiers in Plant Science</i> , 2019, 10, 501.	3.6	35
44	Removal of 33 kDa extrinsic protein specifically stabilizes the S2 QA ⁻ charge pair in photosystem II. <i>FEBS Letters</i> , 1987, 211, 215-220.	2.8	34
45	Photoinactivation of Photosystem II by flashing light. <i>Photosynthesis Research</i> , 2005, 84, 15-20.	2.9	34
46	Photoinhibition of carotenoidless reaction centers from <i>Rhodobacter sphaeroides</i> by visible light. Effects on protein structure and electron transport. <i>Photosynthesis Research</i> , 2001, 70, 175-184.	2.9	32
47	Stimulation of energy willow biomass with triacontanol and seaweed extract. <i>Industrial Crops and Products</i> , 2018, 120, 104-112.	5.2	32
48	Contrasting response of biomass and grain yield to severe drought in Cappelle Desprez and Plainsman V wheat cultivars. <i>PeerJ</i> , 2016, 4, e1708.	2.0	32
49	Thermoluminescence studies on the function of Photosystem II in the desiccation tolerant lichen <i>Cladonia convoluta</i> . <i>Photosynthesis Research</i> , 1996, 48, 205-212.	2.9	31
50	UV-B radiation induced exchange of the D1 reaction centre subunits produced from the psbA2 and psbA3 genes in the cyanobacterium <i>Synechocystis</i> sp. PCC 6803. <i>FEBS Journal</i> , 2000, 267, 2640-2648.	0.2	31
51	Mutation of Residue Threonine-2 of the D2 Polypeptide and Its Effect on Photosystem II Function in <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 1998, 117, 515-524.	4.8	28
52	Energetics of Photosystem II charge recombination in <i>Acaryochloris marina</i> studied by thermoluminescence and flash-induced chlorophyll fluorescence measurements. <i>Photosynthesis Research</i> , 2008, 98, 131-140.	2.9	27
53	Superoxide radicals are not the main promoters of acceptor-side-induced photoinhibitory damage in spinach thylakoids. <i>Photosynthesis Research</i> , 1995, 46, 399-407.	2.9	26
54	Reduced Turnover of the D1 Polypeptide and Photoactivation of Electron Transfer in Novel Herbicide Resistant Mutants of <i>Synechocystis</i> sp. PCC 6803. <i>FEBS Journal</i> , 1997, 248, 731-740.	0.2	26

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55	Transcriptional regulation of the bidirectional hydrogenase in the cyanobacterium <i>Synechocystis</i> 6803. <i>Journal of Biotechnology</i> , 2009, 142, 31-37.	3.8	25
56	D1 protein turnover is involved in protection of Photosystem II against UV-B induced damage in the cyanobacterium <i>Arthrospira</i> (<i>Spirulina</i>) <i>platensis</i> . <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2011, 104, 320-325.	3.8	23
57	Comparison of the Functional Properties of the Monomeric and Dimeric Forms of the Isolated CP47-Reaction Center Complex. <i>Journal of Biological Chemistry</i> , 1998, 273, 16128-16133.	3.4	22
58	Phosphatidylglycerol depletion affects photosystem II activity in <i>Synechococcus</i> sp. PCC 7942 cells. <i>Photosynthesis Research</i> , 2010, 103, 19-30.	2.9	22
59	Differential gene expression and physiological changes during acute or persistent plant virus interactions may contribute to viral symptom differences. <i>PLoS ONE</i> , 2019, 14, e0216618.	2.5	22
60	The extreme halophyte <i>Salicornia veneta</i> is depleted of the extrinsic PsbQ and PsbP proteins of the oxygen-evolving complex without loss of functional activity. <i>Annals of Botany</i> , 2009, 103, 505-515.	2.9	21
61	The Ability of Cyanobacterial Cells to Restore UV-B Radiation Induced Damage to Photosystem II is Influenced by Photolyase Dependent DNA Repair. <i>Photochemistry and Photobiology</i> , 2013, 89, 384-390.	2.5	21
62	Investigating the Photoprotective Role of Cytochrome b-559 in Photosystem II in a Mutant with Altered Ligation of the Haem. <i>Plant and Cell Physiology</i> , 2014, 55, 1276-1285.	3.1	19
63	Thermoluminescence properties of the isolated photosystem two reaction centre. <i>Photosynthesis Research</i> , 1989, 22, 295-301.	2.9	17
64	Dissecting the Photoprotective Mechanism Encoded by the <i>flv4</i> Operon: a Distinct Contribution of Sll0218 in Photosystem II Stabilization. <i>Plant, Cell and Environment</i> , 2017, 40, 378-389.	5.7	17
65	UV-B induced differential transcription of <i>psbD</i> genes encoding the D2 protein of Photosystem II in the cyanobacterium <i>Synechocystis</i> 6803. <i>Photosynthesis Research</i> , 2000, 64, 257-266.	2.9	16
66	Characterization of the <i>psbK</i> locus of <i>Synechocystis</i> sp. PCC 6803 in terms of Photosystem II function. <i>Photosynthesis Research</i> , 1993, 38, 369-377.	2.9	15
67	A single plasmid based CRISPR interference in <i>Synechocystis</i> 6803 – A proof of concept. <i>PLoS ONE</i> , 2019, 14, e0225375.	2.5	15
68	Charge stabilization and recombination in Photosystem II containing the D1 protein product of the <i>psbA1</i> gene in <i>Synechocystis</i> 6803. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 4832-4837.	2.8	13
69	The role of D1-Ala344 in charge stabilization and recombination in Photosystem II. <i>Photochemical and Photobiological Sciences</i> , 2005, 4, 1049.	2.9	13
70	Chloramphenicol Mediates Superoxide Production in Photosystem II and Enhances Its Photodamage in Isolated Membrane Particles. <i>Frontiers in Plant Science</i> , 2016, 7, 479.	3.6	13
71	Chloramphenicol enhances Photosystem II photodamage in intact cells of the cyanobacterium <i>Synechocystis</i> PCC 6803. <i>Photosynthesis Research</i> , 2020, 145, 227-235.	2.9	13
72	Determination of activation energies and half-lives of thermoluminescence bands of chloroplasts applying the method of multicomponent curve resolution. <i>FEBS Letters</i> , 1980, 116, 293-297.	2.8	12

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73	Resistance of reaction centers from <i>Rhodobacter sphaeroides</i> against UV-B radiation. Effects on protein structure and electron transport. <i>Photosynthesis Research</i> , 1996, 50, 171-179.	2.9	12
74	The cry-DASH cryptochrome encoded by the <i>sll1629</i> gene in the cyanobacterium <i>Synechocystis</i> PCC 6803 is required for Photosystem II repair. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2014, 130, 318-326.	3.8	12
75	The stress-induced SCP/HLIP family of small light-harvesting-like proteins (ScpABCDE) protects Photosystem II from photoinhibitory damages in the cyanobacterium <i>Synechocystis</i> sp. PCC 6803. <i>Photosynthesis Research</i> , 2018, 135, 103-114.	2.9	11
76	Secondary metabolite from <i>Nostoc ostocoides</i> XPORK14A inhibits photosynthesis and growth of <i>Synechocystis</i> PCC 6803. <i>Plant, Cell and Environment</i> , 2014, 37, 1371-1381.	5.7	10
77	β -Carotene influences the phycobilisome antenna of cyanobacterium <i>Synechocystis</i> sp. PCC 6803. <i>Photosynthesis Research</i> , 2016, 130, 403-415.	2.9	10
78	A multi-parametric screening platform for photosynthetic trait characterization of microalgae and cyanobacteria under inorganic carbon limitation. <i>PLoS ONE</i> , 2020, 15, e0236188.	2.5	8
79	Singlet oxygen damages the function of Photosystem II in isolated thylakoids and in the green alga <i>Chlorella sorokiniana</i> . <i>Photosynthesis Research</i> , 2021, 149, 93-105.	2.9	8
80	Drought and Saline Stress Tolerance Induced in Somatic Hybrids of <i>Solanum chacoense</i> and Potato Cultivars by Using Mismatch Repair Deficiency. <i>Agriculture (Switzerland)</i> , 2021, 11, 696.	3.1	8
81	Stimulatory effects of pyridazinone herbicides on <i>Chlorella</i> . <i>Plant Science Letters</i> , 1980, 19, 285-294.	1.8	7
82	The role of the PsbU subunit in the light sensitivity of PSII in the cyanobacterium <i>Synechococcus</i> 7942. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2011, 105, 149-156.	3.8	7
83	A simple method to produce <i>Synechocystis</i> PCC6803 biofilm under laboratory conditions for electron microscopic and functional studies. <i>PLoS ONE</i> , 2020, 15, e0236842.	2.5	6
84	Functional characterization of the PS II-LHC II supercomplex isolated by a direct method from spinach thylakoid membranes. <i>Photosynthesis Research</i> , 2000, 64, 179-187.	2.9	5
85	Crop breeding for a changing climate in the Pannonian region: towards integration of modern phenotyping tools. <i>Journal of Experimental Botany</i> , 2022, 73, 5089-5110.	4.8	5
86	The luminal loop connecting transmembrane helices I and II of the D1 polypeptide is important for assembly of the photosystem two complex. <i>Photosynthesis Research</i> , 1996, 50, 79-91.	2.9	4
87	Viable protoplast formation of the coral endosymbiont alga <i>Symbiodinium</i> spp. in a microfluidics platform. <i>Lab on A Chip</i> , 2022, 22, 2986-2999.	6.0	4
88	Energization and ultrastructural pattern of thylakoids formed under periodic illumination followed by continuous light. <i>Photosynthesis Research</i> , 1986, 9, 229-238.	2.9	2
89	Transcriptional regulation of the bidirectional hydrogenase by oxygen and light in two <i>Anabaena</i> species. <i>New Zealand Journal of Botany</i> , 2014, 52, 28-35.	1.1	2
90	Environmental pH and a Glu364 to Gln mutation in the chlorophyll a-binding CP47 protein affect redox-active TyrD and charge recombination in Photosystem II. <i>FEBS Letters</i> , 2019, 593, 163-174.	2.8	1

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91	Identification of the <scp>AG</scp> afterglow thermoluminescence band in the cyanobacterium <i>Synechocystis <scp>PCC</scp> 6803</i>. <i>Physiologia Plantarum</i> , 2021, 171, 291-300.	5.2	1