Dusan Lazar

List of Publications by Year
in descending order

55 papers	3,058 citations	185998 28 h-index	161609 54 g-index
59 all docs	59 docs citations	59 times ranked	2700 citing authors

#	Article	IF	Citations
1	Reconstruction of the absorption spectrum of Synechocystis sp. PCC 6803 optical mutants from the in vivo signature of individual pigments. Photosynthesis Research, 2021, 147, 75-90.	1.6	10
2	Photosynthesis dynamics and regulation sensed in the frequency domain. Plant Physiology, 2021, 187, 646-661.	2.3	15
3	Towards spruce-type photosystem II: consequences of the loss of light-harvesting proteins LHCB3 and LHCB6 in Arabidopsis. Plant Physiology, 2021, 187, 2691-2715.	2.3	10
4	Photosynthesis: basics, history and modelling. Annals of Botany, 2020, 126, 511-537.	1.4	147
5	Photosynthetic performance of Antarctic lichen Dermatocarpon polyphyllizum when affected by desiccation and low temperatures. Photosynthesis Research, 2020, 145, 159-177.	1.6	12
6	Celebrating the contributions of Govindjee after his retirement: 1999â€"2020. New Zealand Journal of Botany, 2020, 58, 422-460.	0.8	2
7	Special issue in honour of Prof. Reto J. Strasser -ÂAnalysis of K- and L-band appearance in OJIPs in Antarctic lichens in low and high temperature. Photosynthetica, 2020, 58, 646-656.	0.9	11
8	Light absorption and scattering by high light-tolerant, fast-growing Chlorella vulgaris IPPAS C-1 cells. Algal Research, 2020, 49, 101881.	2.4	3
9	Exogenous application of cytokinin during dark senescence eliminates the acceleration of photosystem II impairment caused by chlorophyll b deficiency in barley. Plant Physiology and Biochemistry, 2019, 136, 43-51.	2.8	20
10	Analysis of Cold-Developed vs. Cold-Acclimated Leaves Reveals Various Strategies of Cold Acclimation of Field Pea Cultivars. Remote Sensing, 2019, 11, 2964.	1.8	3
11	Chlorophyll a Fluorescence in Cyanobacteria: Relation to Photosynthesis. , 2019, , 79-130.		35
12	Heart failure disease management program, its contribution to established pharmacotherapy and long-term prognosis in real clinical practice - retrospective data analysis. Biomedical Papers of the Medical Faculty of the University Palacký, Olomouc, Czechoslovakia, 2019, 163, 318-323.	0.2	2
13	On the source of non-linear light absorbance in photosynthetic samples. Photosynthesis Research, 2018, 136, 345-355.	1.6	5
14	Chlorophyll a fluorescence induction: Can just a one-second measurement be used to quantify abiotic stress responses?. Photosynthetica, 2018, 56, 86-104.	0.9	305
15	A method of a bicolor fast-Fourier pulse-amplitude modulation chlorophyll fluorometry. Photosynthetica, 2018, 56, 1447-1452.	0.9	12
16	Modeling the light-induced electric potential difference Î"Î¨ across the thylakoid membrane based on the transition state rate theory. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 239-248.	0.5	14
17	Modeling the light-induced electric potential difference (Î"Î¨), the pH difference (Î"pH) and the proton motive force across the thylakoid membrane in C3 leaves. Journal of Theoretical Biology, 2017, 413, 11-23.	0.8	27
18	Analysis of the effect of chloroplast arrangement on optical properties of green tobacco leaves. Remote Sensing of Environment, 2016, 174, 181-196.	4.6	31

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19	Parameters of photosynthetic energy partitioning. Journal of Plant Physiology, 2015, 175, 131-147.	1.6	161
20	Automated integrative high-throughput phenotyping of plant shoots: a case study of the cold-tolerance of pea (Pisum sativum L.). Plant Methods, 2015, 11, 20.	1.9	85
21	Automated phenotyping of plant shoots using imaging methods for analysis of plant stress responses â€“ a review. Plant Methods, 2015, 11, 29.	1.9	214
22	Simulations show that a small part of variable chlorophyll a fluorescence originates in photosystem I and contributes to overall fluorescence rise. Journal of Theoretical Biology, 2013, 335, 249-264.	0.8	48
23	Exogenous melatonin affects photosynthesis in characeae<i>Chara australis</i>. Plant Signaling and Behavior, 2013, 8, e23279.	1.2	78
24	Analysis of S2,3-states Decay Processes: Focused on Cyanobacteria. Advanced Topics in Science and Technology in China, 2013, , 209-212.	0.0	1
25	The harmful alga Aureococcus anophagefferens utilizes 19â€²-butanoyloxyfucoxanthin as well as xanthophyll cycle carotenoids in acclimating to higher light intensities. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1557-1564.	0.5	20
26	E-photosynthesis: Web-based platform for modeling of complex photosynthetic processes. BioSystems, 2011, 103, 115-124.	0.9	12
27	Impact of two different types of heat stress on chloroplast movement and fluorescence signal of tobacco leaves. Plant Cell Reports, 2010, 29, 705-714.	2.8	11
28	Modelling of light-induced chlorophyll a fluorescence rise (O-J-I-P transient) and changes in 820 nm-transmittance signal of photosynthesis. Photosynthetica, 2009, 47, 483-498.	0.9	72
29	On the approaches applied in formulation of a kinetic model of photosystem II: Different approaches lead to different simulations of the chlorophyll a fluorescence transients. Journal of Theoretical Biology, 2009, 257, 260-269.	0.8	44
30	Models of Chlorophyll a Fluorescence Transients. Advances in Photosynthesis and Respiration, 2009, , 85-123.	1.0	49
31	Evidence for Intermediate S-States as Initial Phase in the Process of Oxygen-Evolving Complex Oxidation. Biophysical Journal, 2008, 94, 2725-2736.	0.2	26
32	Response to Kinetic Models of Photosystem II Should Incorporate a Role for QB-Nonreducing Reaction Centers. Biophysical Journal, 2008, 95, 3115-3116.	0.2	1
33	Impact of dimeric organization of enzyme on its function: the case of photosynthetic water splitting. Bioinformatics, 2008, 24, 2755-2759.	1.8	7
34	The polyphasic chlorophyll a fluorescence rise measured under high intensity of exciting light. Functional Plant Biology, 2006, 33, 9.	1.1	296
35	Early Detection of Plant Stress from Changes in Distributions of Chlorophyll a Fluorescence Parameters Measured with Fluorescence Imaging. Journal of Fluorescence, 2006, 16, 173-176.	1.3	16
36	A theoretical study on effect of the initial redox state of cytochrome b559 on maximal chlorophyll fluorescence level (FM): implications for photoinhibition of photosystem II. Journal of Theoretical Biology, 2005, 233, 287-300.	0.8	26

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37	Experimental and theoretical study on high temperature induced changes in chlorophyll a fluorescence oscillations in barley leaves upon 2 % CO₂. Photosynthetica, 2005, 43, 13-27.	0.9	19
38	Effect of herbicide clomazone on photosynthetic processes in primary barley (Hordeum vulgare L.) leaves. Pesticide Biochemistry and Physiology, 2004, 78, 161-170.	1.6	36
39	The Gradient of Exciting Radiation within a Sample Affects the Relative Height of Steps in the Fast Chlorophyll a Fluorescence Rise. Photosynthetica, 2004, 42, 161-172.	0.9	34
40	High-Temperature Induced Chlorophyll Fluorescence Rise in Plants at 40â€“50 Â°C: Experimental and Theoretical Approach. Photosynthesis Research, 2004, 81, 49-66.	1.6	62
41	Moderately Elevated Temperature Eliminates Resistance of Rice Plants with Enhanced Expression of Glutathione Reductase to Intensive Photooxidative Stress. Photosynthetica, 2003, 41, 571-578.	0.9	24
42	Chlorophyll a Fluorescence Rise Induced by High Light Illumination of Dark-adapted Plant Tissue Studied by Means of a Model of Photosystem II and Considering Photosystem II Heterogeneity. Journal of Theoretical Biology, 2003, 220, 469-503.	0.8	145
43	On the determination of QB-non-reducing photosystem II centers from chlorophyll a fluorescence induction. Plant Science, 2003, 164, 665-670.	1.7	33
44	Experimental and theoretical studies on the excess capacity of Photosystem II. Photosynthesis Research, 2002, 72, 271-284.	1.6	39
45	Determination of the antenna heterogeneity of Photosystem II by direct simultaneous fitting of several fluorescence rise curves measured with DCMU at different light intensities. Photosynthesis Research, 2001, 68, 247-257.	1.6	35
46	Research note: On the intermediate steps between the O and P steps in chlorophyll a fluorescence rise measured at different intensities of exciting light. Functional Plant Biology, 2001, 28, 1151.	1.1	15
47	Thermoluminescence and fluorescence study of changes in Photosystem II photochemistry in desiccating barley leaves. Photosynthesis Research, 2000, 65, 29-40.	1.6	53
48	Decrease of Fluorescence Intensity After the K Step in Chlorophyll a Fluorescence Induction is Suppressed by Electron Acceptors and Donors to Photosystem 2. Photosynthetica, 1999, 37, 255-265.	0.9	38
49	Mathematical simulation of chlorophyll a fluorescence rise measured with 3-(3â€²,4â€²-dichlorophenyl)-1,1-dimethylurea-treated barley leaves at room and high temperatures. European Biophysics Journal, 1999, 28, 468-477.	1.2	64
50	Chlorophyll a fluorescence induction1Dedicated to Docent Jan NauÅ¡ on the occasion of his 50th birthday.1. Biochimica Et Biophysica Acta - Bioenergetics, 1999, 1412, 1-28.	0.5	371
51	Statistical properties of chlorophyll fluorescence induction parameters. Photosynthetica, 1998, 35, 121-127.	0.9	68
52	Mathematical Modelling of 3-(3â€²,4â€²-dichlorophenyl)-1,1-dimenthylurea Action in Plant Leaves. Journal of Theoretical Biology, 1998, 191, 79-86.	0.8	39
53	High-temperature induced chlorophyll fluorescence changes in barley leaves Comparison of the critical temperatures determined from fluorescence induction and from fluorescence temperature curve. Plant Science, 1997, 124, 159-164.	1.7	63
54	An appearance of K-peak in fluorescence induction depends on the acclimation of barley leaves to higher temperatures. Journal of Luminescence, 1997, 72-74, 595-596.	1.5	34

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55	Mathematical Modeling of Changes in Chlorophyll Fluorescence Induction Caused by Herbicides. Pesticide Biochemistry and Physiology, 1997, 57, 200-210.	1.6	52