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	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
2	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
3	The polyphasic chlorophyll a fluorescence rise measured under high intensity of exciting light. Functional Plant Biology, 2006, 33, 9.	1.1	296
4	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
5	Parameters of photosynthetic energy partitioning. Journal of Plant Physiology, 2015, 175, 131-147.	1.6	161
6	Photosynthesis: basics, history and modelling. Annals of Botany, 2020, 126, 511-537.	1.4	147
7	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
8	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
9	Exogenous melatonin affects photosynthesis in characeae<i>Chara australis</i>. Plant Signaling and Behavior, 2013, 8, e23279.	1.2	78
10	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
11	Statistical properties of chlorophyll fluorescence induction parameters. Photosynthetica, 1998, 35, 121-127.	0.9	68
12	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
13	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
14	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
15	Thermoluminescence and fluorescence study of changes in Photosystem II photochemistry in desiccating barley leaves. Photosynthesis Research, 2000, 65, 29-40.	1.6	53
16	Mathematical Modeling of Changes in Chlorophyll Fluorescence Induction Caused by Herbicides. Pesticide Biochemistry and Physiology, 1997, 57, 200-210.	1.6	52
17	Models of Chlorophyll a Fluorescence Transients. Advances in Photosynthesis and Respiration, 2009, , 85-123.	1.0	49
18	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

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19	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
20	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
21	Experimental and theoretical studies on the excess capacity of Photosystem II. Photosynthesis Research, 2002, 72, 271-284.	1.6	39
22	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
23	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
24	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
25	Chlorophyll a Fluorescence in Cyanobacteria: Relation to Photosynthesis. , 2019, , 79-130.		35
26	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
27	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
28	On the determination of QB-non-reducing photosystem II centers from chlorophyll a fluorescence induction. Plant Science, 2003, 164, 665-670.	1.7	33
29	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
30	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
31	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
32	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
33	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
34	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
35	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
36	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

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37	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
38	Photosynthesis dynamics and regulation sensed in the frequency domain. Plant Physiology, 2021, 187, 646-661.	2.3	15
39	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
40	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
41	E-photosynthesis: Web-based platform for modeling of complex photosynthetic processes. BioSystems, 2011, 103, 115-124.	0.9	12
42	A method of a bicolor fast-Fourier pulse-amplitude modulation chlorophyll fluorometry. Photosynthetica, 2018, 56, 1447-1452.	0.9	12
43	Photosynthetic performance of Antarctic lichen Dermatocarpon polyphyllizum when affected by desiccation and low temperatures. Photosynthesis Research, 2020, 145, 159-177.	1.6	12
44	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
45	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
46	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
47	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
48	Impact of dimeric organization of enzyme on its function: the case of photosynthetic water splitting. Bioinformatics, 2008, 24, 2755-2759.	1.8	7
49	On the source of non-linear light absorbance in photosynthetic samples. Photosynthesis Research, 2018, 136, 345-355.	1.6	5
50	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
51	Light absorption and scattering by high light-tolerant, fast-growing Chlorella vulgaris IPPAS C-1 cells. Algal Research, 2020, 49, 101881.	2.4	3
52	Celebrating the contributions of Govindjee after his retirement: 1999â€“2020. New Zealand Journal of Botany, 2020, 58, 422-460.	0.8	2
53	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
54	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

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55	Analysis of S2,3-states Decay Processes: Focused on Cyanobacteria. Advanced Topics in Science and Technology in China, 2013, , 209-212.	0.0	1