

Uwe Rascher

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

156
papers

6,333
citations

46
h-index

75
g-index

175
ext. papers

7,668
ext. citations

6.5
avg, IF

5.76
L-index

#	Paper	IF	Citations
156	NIRVP: A robust structural proxy for sun-induced chlorophyll fluorescence and photosynthesis across scales. <i>Remote Sensing of Environment</i> , 2022 , 268, 112763	13.2	14
155	Combining near-infrared radiance of vegetation and fluorescence spectroscopy to detect effects of abiotic changes and stresses. <i>Remote Sensing of Environment</i> , 2022 , 270, 112856	13.2	5
154	Hyperspectral imaging for high-throughput vitality monitoring in ornamental plant production. <i>Scientia Horticulturae</i> , 2022 , 291, 110546	4.1	1
153	Retrieval of Crop Variables from Proximal Multispectral UAV Image Data Using PROSAIL in Maize Canopy. <i>Remote Sensing</i> , 2022 , 14, 1247	5	2
152	Towards consistent assessments of in situ radiometric measurements for the validation of fluorescence satellite missions. <i>Remote Sensing of Environment</i> , 2022 , 274, 112984	13.2	0
151	Fluorescence ratio and photochemical reflectance index as a proxy for photosynthetic quantum efficiency of photosystem II along a phosphorus gradient. <i>Agricultural and Forest Meteorology</i> , 2022 , 322, 109019	5.8	0
150	Heatwave breaks down the linearity between sun-induced fluorescence and gross primary production.. <i>New Phytologist</i> , 2021 ,	9.8	6
149	A First Assessment of the 2018 European Drought Impact on Ecosystem Evapotranspiration. <i>Remote Sensing</i> , 2021 , 13, 16	5	4
148	Towards predicting photosynthetic efficiency and biomass gain in crop genotypes over a field season. <i>Plant Physiology</i> , 2021 ,	6.6	2
147	Bridging the Gap Between Remote Sensing and Plant Phenotyping-Challenges and Opportunities for the Next Generation of Sustainable Agriculture. <i>Frontiers in Plant Science</i> , 2021 , 12, 749374	6.2	3
146	The potential of spatial aggregation to extract remotely sensed sun-induced fluorescence (SIF) of small-sized experimental plots for applications in crop phenotyping. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2021 , 104, 102565	7.3	0
145	Estimating near-infrared reflectance of vegetation from hyperspectral data. <i>Remote Sensing of Environment</i> , 2021 , 267, 112723	13.2	3
144	Spatio-spectral deconvolution for high resolution spectral imaging with an application to the estimation of sun-induced fluorescence. <i>Remote Sensing of Environment</i> , 2021 , 267, 112718	13.2	2
143	Synergistic Use of Multispectral Data and Crop Growth Modelling for Spatial and Temporal Evapotranspiration Estimations. <i>Remote Sensing</i> , 2021 , 13, 2138	5	2
142	Can Vegetation Indices Serve as Proxies for Potential Sun-Induced Fluorescence (SIF)? A Fuzzy Simulation Approach on Airborne Imaging Spectroscopy Data. <i>Remote Sensing</i> , 2021 , 13, 2545	5	4
141	A low-cost automated growth chamber system for continuous measurements of gas exchange at canopy scale in dynamic conditions. <i>Plant Methods</i> , 2021 , 17, 69	5.8	2
140	High-throughput field phenotyping reveals genetic variation in photosynthetic traits in durum wheat under drought. <i>Plant, Cell and Environment</i> , 2021 , 44, 2858-2878	8.4	4

139	Diurnal dynamics of nonphotochemical quenching in Arabidopsis npq mutants assessed by solar-induced fluorescence and reflectance measurements in the field. <i>New Phytologist</i> , 2021 , 229, 2104-2119	9.8	14
138	Characterization of wheat genotypes for drought tolerance and water use efficiency. <i>Scientia Agricola</i> , 2021 , 78,	2.5	5
137	The Sarsense Campaign: Air- and Space-Borne C- and L-Band SAR for the Analysis of Soil and Plant Parameters in Agriculture. <i>Remote Sensing</i> , 2021 , 13, 825	5	6
136	Chlorophyll a fluorescence illuminates a path connecting plant molecular biology to Earth-system science. <i>Nature Plants</i> , 2021 , 7, 998-1009	11.5	18
135	Assessment of plant density for barley and wheat using UAV multispectral imagery for high-throughput field phenotyping. <i>Computers and Electronics in Agriculture</i> , 2021 , 189, 106380	6.5	5
134	Downscaling of far-red solar-induced chlorophyll fluorescence of different crops from canopy to leaf level using a diurnal data set acquired by the airborne imaging spectrometer HyPlant. <i>Remote Sensing of Environment</i> , 2021 , 264, 112609	13.2	8
133	Sustainability Performance through Technology Adoption: A Case Study of Land Leveling in a Paddy Field. <i>Agronomy</i> , 2020 , 10, 1681	3.6	1
132	Unmanned Aerial Systems (UAS)-Based Methods for Solar Induced Chlorophyll Fluorescence (SIF) Retrieval with Non-Imaging Spectrometers: State of the Art. <i>Remote Sensing</i> , 2020 , 12, 1624	5	17
131	The Cassava Source-Sink project: opportunities and challenges for crop improvement by metabolic engineering. <i>Plant Journal</i> , 2020 , 103, 1655-1665	6.9	11
130	Sun-induced fluorescence heterogeneity as a measure of functional diversity. <i>Remote Sensing of Environment</i> , 2020 , 247, 111934	13.2	9
129	Dynamics of sun-induced chlorophyll fluorescence and reflectance to detect stress-induced variations in canopy photosynthesis. <i>Plant, Cell and Environment</i> , 2020 , 43, 1637-1654	8.4	10
128	Phenotyping: New Windows into the Plant for Breeders. <i>Annual Review of Plant Biology</i> , 2020 , 71, 689-713	12.7	40
127	Multi-Scale Evaluation of Drone-Based Multispectral Surface Reflectance and Vegetation Indices in Operational Conditions. <i>Remote Sensing</i> , 2020 , 12, 514	5	29
126	Automatic Differentiation of Damaged and Unharmed Grapes Using RGB Images and Convolutional Neural Networks. <i>Lecture Notes in Computer Science</i> , 2020 , 347-359	0.9	1
125	CloudRoots: integration of advanced instrumental techniques and process modelling of sub-hourly and sub-kilometre land-atmosphere interactions. <i>Biogeosciences</i> , 2020 , 17, 4375-4404	4.6	5
124	Land Surface Temperature Retrieval for Agricultural Areas Using a Novel UAV Platform Equipped with a Thermal Infrared and Multispectral Sensor. <i>Remote Sensing</i> , 2020 , 12, 1075	5	13
123	Sun-Induced Chlorophyll Fluorescence III: Benchmarking Retrieval Methods and Sensor Characteristics for Proximal Sensing. <i>Remote Sensing</i> , 2019 , 11, 962	5	34
122	Sun-Induced Chlorophyll Fluorescence II: Review of Passive Measurement Setups, Protocols, and Their Application at the Leaf to Canopy Level. <i>Remote Sensing</i> , 2019 , 11, 927	5	37

121	Quantifying Lodging Percentage and Lodging Severity Using a UAV-Based Canopy Height Model Combined with an Objective Threshold Approach. <i>Remote Sensing</i> , 2019 , 11, 515	5	43
120	Downscaling of solar-induced chlorophyll fluorescence from canopy level to photosystem level using a random forest model. <i>Remote Sensing of Environment</i> , 2019 , 231, 110772	13.2	67
119	Quantitative and qualitative phenotyping of disease resistance of crops by hyperspectral sensors: seamless interlocking of phytopathology, sensors, and machine learning is needed!. <i>Current Opinion in Plant Biology</i> , 2019 , 50, 156-162	9.9	40
118	Remote sensing of solar-induced chlorophyll fluorescence (SIF) in vegetation: 50 years of progress. <i>Remote Sensing of Environment</i> , 2019 , 231, 111177-111177	13.2	190
117	Exploring the spatial relationship between airborne-derived red and far-red sun-induced fluorescence and process-based GPP estimates in a forest ecosystem. <i>Remote Sensing of Environment</i> , 2019 , 231, 111272	13.2	18
116	Hyplant-Derived Sun-Induced Fluorescence—A New Opportunity to Disentangle Complex Vegetation Signals from Diverse Vegetation Types. <i>Remote Sensing</i> , 2019 , 11, 1691	5	14
115	A Spectral Fitting Algorithm to Retrieve the Fluorescence Spectrum from Canopy Radiance. <i>Remote Sensing</i> , 2019 , 11, 1840	5	17
114	Genotype Specific Photosynthesis x Environment Interactions Captured by Automated Fluorescence Canopy Scans Over Two Fluctuating Growing Seasons. <i>Frontiers in Plant Science</i> , 2019 , 10, 1482	6.2	12
113	Quantitative Estimation of Leaf Heat Transfer Coefficients by Active Thermography at Varying Boundary Layer Conditions. <i>Frontiers in Plant Science</i> , 2019 , 10, 1684	6.2	6
112	The High-Performance Airborne Imaging Spectrometer HyPlant—From Raw Images to Top-of-Canopy Reflectance and Fluorescence Products: Introduction of an Automatized Processing Chain. <i>Remote Sensing</i> , 2019 , 11, 2760	5	30
111	Detection of Anomalous Grapevine Berries Using All-Convolutional Autoencoders 2019 ,		3
110	Nitrogen and Phosphorus effect on Sun-Induced Fluorescence and Gross Primary Productivity in Mediterranean Grassland. <i>Remote Sensing</i> , 2019 , 11, 2562	5	13
109	Maximum fluorescence and electron transport kinetics determined by light-induced fluorescence transients (LIFT) for photosynthesis phenotyping. <i>Photosynthesis Research</i> , 2019 , 140, 221-233	3.7	25
108	Using reflectance to explain vegetation biochemical and structural effects on sun-induced chlorophyll fluorescence. <i>Remote Sensing of Environment</i> , 2019 , 231, 110996	13.2	35
107	Variability of sun-induced chlorophyll fluorescence according to stand age-related processes in a managed loblolly pine forest. <i>Global Change Biology</i> , 2018 , 24, 2980-2996	11.4	24
106	Leaf and canopy photosynthesis of a chlorophyll deficient soybean mutant. <i>Plant, Cell and Environment</i> , 2018 , 41, 1427-1437	8.4	38
105	Remote sensing of plant-water relations: An overview and future perspectives. <i>Journal of Plant Physiology</i> , 2018 , 227, 3-19	3.6	41
104	Phenological analysis of unmanned aerial vehicle based time series of barley imagery with high temporal resolution. <i>Precision Agriculture</i> , 2018 , 19, 134-146	5.6	37

103	Priority effects caused by plant order of arrival affect below-ground productivity. <i>Journal of Ecology</i> , 2018 , 106, 774-780	6	15
102	Measuring the dynamic photosynthome. <i>Annals of Botany</i> , 2018 , 122, 207-220	4.1	53
101	Quantitative assessment of disease severity and rating of barley cultivars based on hyperspectral imaging in a non-invasive, automated phenotyping platform. <i>Plant Methods</i> , 2018 , 14, 45	5.8	59
100	Specim IQ: Evaluation of a New, Miniaturized Handheld Hyperspectral Camera and Its Application for Plant Phenotyping and Disease Detection. <i>Sensors</i> , 2018 , 18,	3.8	79
99	Exploring the physiological information of Sun-induced chlorophyll fluorescence through radiative transfer model inversion. <i>Remote Sensing of Environment</i> , 2018 , 215, 97-108	13.2	26
98	Understanding Soil and Plant Interaction by Combining Ground-Based Quantitative Electromagnetic Induction and Airborne Hyperspectral Data. <i>Geophysical Research Letters</i> , 2018 , 45, 7574-7579 ²⁵	4.9	25
97	Analysis of Airborne Optical and Thermal Imagery for Detection of Water Stress Symptoms. <i>Remote Sensing</i> , 2018 , 10, 1139	5	43
96	2018 ,		1
95	2018 ,		2
94	Field Phenotyping and an Example of Proximal Sensing of Photosynthesis Under Elevated CO2 2018 ,		3
93	Linking photosynthesis and sun-induced fluorescence at sub-daily to seasonal scales. <i>Remote Sensing of Environment</i> , 2018 , 219, 247-258	13.2	52
92	Plant functional traits and canopy structure control the relationship between photosynthetic CO uptake and far-red sun-induced fluorescence in a Mediterranean grassland under different nutrient availability. <i>New Phytologist</i> , 2017 , 214, 1078-1091	9.8	116
91	The FLUorescence EXplorer Mission Concept ESA Earth Explorer 8. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017 , 55, 1273-1284	8.1	162
90	Unsupervised domain adaptation for early detection of drought stress in hyperspectral images. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2017 , 131, 65-76	11.8	16
89	Quantitative global mapping of terrestrial vegetation photosynthesis: The Fluorescence Explorer (FLEX) mission 2017 ,		1
88	Multiangular Observation of Canopy Sun-Induced Chlorophyll Fluorescence by Combining Imaging Spectroscopy and Stereoscopy. <i>Remote Sensing</i> , 2017 , 9, 415	5	30
87	The 2013 FLEXUS Airborne Campaign at the Parker Tract Loblolly Pine Plantation in North Carolina, USA. <i>Remote Sensing</i> , 2017 , 9, 612	5	24
86	Field Phenotyping 2017 , 53-81		12

85	Observation of plant-pathogen interaction by simultaneous hyperspectral imaging reflection and transmission measurements. <i>Functional Plant Biology</i> , 2016 , 44, 23-34	2.7	61
84	Very high spectral resolution imaging spectroscopy: The Fluorescence Explorer (FLEX) mission 2016		2
83	Plant chlorophyll fluorescence: active and passive measurements at canopy and leaf scales with different nitrogen treatments. <i>Journal of Experimental Botany</i> , 2016 , 67, 275-86	7	58
82	Comparison of Sun-Induced Chlorophyll Fluorescence Estimates Obtained from Four Portable Field Spectroradiometers. <i>Remote Sensing</i> , 2016 , 8, 122	5	39
81	Analysis of Red and Far-Red Sun-Induced Chlorophyll Fluorescence and Their Ratio in Different Canopies Based on Observed and Modeled Data. <i>Remote Sensing</i> , 2016 , 8, 412	5	47
80	Combining Sun-Induced Chlorophyll Fluorescence and Photochemical Reflectance Index Improves Diurnal Modeling of Gross Primary Productivity. <i>Remote Sensing</i> , 2016 , 8, 574	5	31
79	Sowing Density: A Neglected Factor Fundamentally Affecting Root Distribution and Biomass Allocation of Field Grown Spring Barley (<i>Hordeum Vulgare</i> L.). <i>Frontiers in Plant Science</i> , 2016 , 7, 944	6.2	39
78	Sun-induced chlorophyll fluorescence from high-resolution imaging spectroscopy data to quantify spatio-temporal patterns of photosynthetic function in crop canopies. <i>Plant, Cell and Environment</i> , 2016 , 39, 1500-12	8.4	69
77	Airborne based spectroscopy of red and far-red sun-induced chlorophyll fluorescence: Implications for improved estimates of gross primary productivity. <i>Remote Sensing of Environment</i> , 2016 , 184, 654-667	13.2	64
76	A model and measurement comparison of diurnal cycles of sun-induced chlorophyll fluorescence of crops. <i>Remote Sensing of Environment</i> , 2016 , 186, 663-677	13.2	61
75	Fluspect-B: A model for leaf fluorescence, reflectance and transmittance spectra. <i>Remote Sensing of Environment</i> , 2016 , 186, 596-615	13.2	109
74	A new spatially scanning 2.7 μ m laser hygrometer and new small-scale wind tunnel for direct analysis of the H ₂ O boundary layer structure at single plant leaves. <i>Applied Physics B: Lasers and Optics</i> , 2015 , 118, 11-21	1.9	2
73	Meta-analysis assessing potential of steady-state chlorophyll fluorescence for remote sensing detection of plant water, temperature and nitrogen stress. <i>Remote Sensing of Environment</i> , 2015 , 168, 420-436	13.2	100
72	HyperART: non-invasive quantification of leaf traits using hyperspectral absorption-reflectance-transmittance imaging. <i>Plant Methods</i> , 2015 , 11, 1	5.8	100
71	The leaf angle distribution of natural plant populations: assessing the canopy with a novel software tool. <i>Plant Methods</i> , 2015 , 11, 11	5.8	59
70	Continuous and long-term measurements of reflectance and sun-induced chlorophyll fluorescence by using novel automated field spectroscopy systems. <i>Remote Sensing of Environment</i> , 2015 , 164, 270-281	13.2	95
69	Red and far red Sun-induced chlorophyll fluorescence as a measure of plant photosynthesis. <i>Geophysical Research Letters</i> , 2015 , 42, 1632-1639	4.9	142
68	Monitoring and Modeling the Terrestrial System from Pores to Catchments: The Transregional Collaborative Research Center on Patterns in the Soil-Vegetation-Atmosphere System. <i>Bulletin of the American Meteorological Society</i> , 2015 , 96, 1765-1787	6.1	68

67	Sun-induced fluorescence - a new probe of photosynthesis: First maps from the imaging spectrometerHyPlant. <i>Global Change Biology</i> , 2015 , 21, 4673-84	11.4	178
66	Angular Dependency of Hyperspectral Measurements over Wheat Characterized by a Novel UAV Based Goniometer. <i>Remote Sensing</i> , 2015 , 7, 725-746	5	85
65	Satellite Remote Sensing-Based In-Season Diagnosis of Rice Nitrogen Status in Northeast China. <i>Remote Sensing</i> , 2015 , 7, 10646-10667	5	68
64	Deploying four optical UAV-based sensors over grassland: challenges and limitations. <i>Biogeosciences</i> , 2015 , 12, 163-175	4.6	107
63	. <i>IEEE Sensors Journal</i> , 2015 , 15, 4603-4611	4	26
62	Magnetic resonance imaging of sugar beet taproots in soil reveals growth reduction and morphological changes during foliar <i>Cercospora beticola</i> infestation. <i>Journal of Experimental Botany</i> , 2015 , 66, 5543-53	7	11
61	Daily and seasonal dynamics of remotely sensed photosynthetic efficiency in tree canopies. <i>Tree Physiology</i> , 2014 , 34, 674-85	4.2	22
60	Non-Invasive Spectral Phenotyping Methods can Improve and Accelerate <i>Cercospora</i> Disease Scoring in Sugar Beet Breeding. <i>Agriculture (Switzerland)</i> , 2014 , 4, 147-158	3	16
59	Field Observations with Laser-Induced Fluorescence Transient (LIFT) Method in Barley and Sugar Beet. <i>Agriculture (Switzerland)</i> , 2014 , 4, 159-169	3	24
58	Diurnal Dynamics of Wheat Evapotranspiration Derived from Ground-Based Thermal Imagery. <i>Remote Sensing</i> , 2014 , 6, 9775-9801	5	7
57	A Novel UAV-Based Ultra-Light Weight Spectrometer for Field Spectroscopy. <i>IEEE Sensors Journal</i> , 2014 , 14, 62-67	4	80
56	Priority effects of time of arrival of plant functional groups override sowing interval or density effects: a grassland experiment. <i>PLoS ONE</i> , 2014 , 9, e86906	3.7	52
55	Non-invasive Phenotyping Methodologies Enable the Accurate Characterization of Growth and Performance of Shoots and Roots 2014 , 173-206		9
54	Sowing different mixtures in dry acidic grassland produced priority effects of varying strength. <i>Acta Oecologica</i> , 2013 , 53, 110-116	1.7	25
53	2013 ,		3
52	Non-invasive measurement of frog skin reflectivity in high spatial resolution using a dual hyperspectral approach. <i>PLoS ONE</i> , 2013 , 8, e73234	3.7	7
51	Deep Phenotyping of Early Plant Response to Abiotic Stress Using Non-invasive Approaches in Barley 2013 , 317-326		1
50	Imaging plants dynamics in heterogenic environments. <i>Current Opinion in Biotechnology</i> , 2012 , 23, 227-35	1.4	110

49	Canopy conundrums: building on the Biosphere 2 experience to scale measurements of inner and outer canopy photoprotection from the leaf to the landscape. <i>Functional Plant Biology</i> , 2012 , 39, 1-24	2.7	35
48	Remote chlorophyll fluorescence measurements with the laser-induced fluorescence transient approach. <i>Methods in Molecular Biology</i> , 2012 , 918, 51-9	1.4	7
47	Herbivory of wild <i>Manduca sexta</i> causes fast down-regulation of photosynthetic efficiency in <i>Datura wrightii</i> : an early signaling cascade visualized by chlorophyll fluorescence. <i>Photosynthesis Research</i> , 2012 , 113, 249-60	3.7	13
46	Monitoring rhizospheric pH, oxygen, and organic acid dynamics in two short-time flooded plant species. <i>Journal of Plant Nutrition and Soil Science</i> , 2012 , 175, 761-768	2.3	16
45	Simplex Distributions for Embedding Data Matrices over Time 2012 ,		10
44	Vertical gradient in soil temperature stimulates development and increases biomass accumulation in barley. <i>Plant, Cell and Environment</i> , 2012 , 35, 884-92	8.4	34
43	Early drought stress detection in cereals: simplex volume maximisation for hyperspectral image analysis. <i>Functional Plant Biology</i> , 2012 , 39, 878-890	2.7	102
42	Evaluation of gross primary production (GPP) variability over several ecosystems in Switzerland using sun-induced chlorophyll fluorescence derived from APEX data 2012 ,		3
41	Functional Diversity of Photosynthetic Light Use of 16 Vascular Epiphyte Species Under Fluctuating Irradiance in the Canopy of a Giant <i>Virola michelii</i> (Myristicaceae) Tree in the Tropical Lowland Forest of French Guyana. <i>Frontiers in Plant Science</i> , 2011 , 2, 117	6.2	5
40	Climate extremes initiate ecosystem-regulating functions while maintaining productivity. <i>Journal of Ecology</i> , 2011 , 99, 689-702	6	205
39	Do plants remember drought? Hints towards a drought-memory in grasses. <i>Environmental and Experimental Botany</i> , 2011 , 71, 34-40	5.9	191
38	Dynamics of organic acid occurrence under flooding stress in the rhizosphere of three plant species from the water fluctuation zone of the Three Gorges Reservoir, P.R. China. <i>Plant and Soil</i> , 2011 , 344, 111-129	4.2	10
37	Modeling the impact of spectral sensor configurations on the FLD retrieval accuracy of sun-induced chlorophyll fluorescence. <i>Remote Sensing of Environment</i> , 2011 , 115, 1882-1892	13.2	113
36	Non-invasive approaches for phenotyping of enhanced performance traits in bean. <i>Functional Plant Biology</i> , 2011 , 38, 968-983	2.7	109
35	Systems analysis of a maize leaf developmental gradient redefines the current C4 model and provides candidates for regulation. <i>Plant Cell</i> , 2011 , 23, 4208-20	11.6	138
34	Remote sensing of sun-induced fluorescence to improve modeling of diurnal courses of gross primary production (GPP). <i>Global Change Biology</i> , 2010 , 16, 171-186	11.4	198
33	Altered physiological function, not structure, drives increased radiation-use efficiency of soybean grown at elevated CO ₂ . <i>Photosynthesis Research</i> , 2010 , 105, 15-25	3.7	13
32	Sensing of Photosynthetic Activity of Crops 2010 , 87-99		2

31	Scientific and technical challenges in remote sensing of plant canopy reflectance and fluorescence. <i>Journal of Experimental Botany</i> , 2009 , 60, 2987-3004	7	115
30	Distributed feedback diode laser spectrometer at 2.7 microm for sensitive, spatially resolved H ₂ O vapor detection. <i>Applied Optics</i> , 2009 , 48, B172-82	0.2	17
29	Simultaneous phenotyping of leaf growth and chlorophyll fluorescence via GROWSCREEN FLUORO allows detection of stress tolerance in <i>Arabidopsis thaliana</i> and other rosette plants. <i>Functional Plant Biology</i> , 2009 , 36, 902-914	2.7	213
28	Diel leaf growth cycles in <i>Clusia</i> spp. are related to changes between C ₃ photosynthesis and crassulacean acid metabolism during development and during water stress. <i>Plant, Cell and Environment</i> , 2008 , 31, 484-91	8.4	11
27	Annual variation of the steady-state chlorophyll fluorescence emission of evergreen plants in temperate zone. <i>Functional Plant Biology</i> , 2008 , 35, 63-76	2.7	29
26	Spatio-temporal variations of photosynthesis: the potential of optical remote sensing to better understand and scale light use efficiency and stresses of plant ecosystems. <i>Precision Agriculture</i> , 2008 , 9, 355-366	5.6	42
25	FLEX (Fluorescence Explorer: A Remote Sensing Approach to Quantify Spatio-Temporal Variations of Photosynthetic Efficiency from Space 2008 , 1387-1390		18
24	Remote Monitoring of Photosynthetic Efficiency Using Laser Induced Fluorescence Transient (LIFT) Technique 2008 , 1539-1543		1
23	A stereo imaging system for measuring structural parameters of plant canopies. <i>Plant, Cell and Environment</i> , 2007 , 30, 1299-308	8.4	134
22	E-photosynthesis: a comprehensive modeling approach to understand chlorophyll fluorescence transients and other complex dynamic features of photosynthesis in fluctuating light. <i>Photosynthesis Research</i> , 2007 , 93, 223-34	3.7	13
21	Monitoring Spatio-temporal Dynamics of Photosynthesis with a Portable Hyperspectral Imaging System. <i>Photogrammetric Engineering and Remote Sensing</i> , 2007 , 73, 45-56	1.6	37
20	Nitrogen input by cyanobacterial biofilms of an inselberg into a tropical rainforest in French Guiana. <i>Flora: Morphology, Distribution, Functional Ecology of Plants</i> , 2007 , 202, 521-529	1.9	22
19	Dynamics of photosynthesis in fluctuating light. <i>Current Opinion in Plant Biology</i> , 2006 , 9, 671-8	9.9	71
18	Functional characteristics of corticolous lichens in the understory of a tropical lowland rain forest. <i>New Phytologist</i> , 2006 , 172, 679-95	9.8	78
17	The "Kluge-Lutge Kammer": a preliminary evaluation of an enclosed, Crassulacean acid metabolism (CAM) Mesocosm that allows separation of synchronized and desynchronized contributions of plants to whole system gas exchange. <i>Plant Biology</i> , 2006 , 8, 167-74	3.7	9
16	Assessing photosynthetic efficiency in an experimental mangrove canopy using remote sensing and chlorophyll fluorescence. <i>Trees - Structure and Function</i> , 2006 , 20, 9-15	2.6	54
15	Vegetation-Climate Interactions among Native and Invasive Species in Hawaiian Rainforest. <i>Ecosystems</i> , 2006 , 9, 1106-1117	3.9	46
14	Slowly reversible de-epoxidation of lutein-epoxide in deep shade leaves of a tropical tree legume may 'lock-in' lutein-based photoprotection during acclimation to strong light. <i>Journal of Experimental Botany</i> , 2005 , 56, 461-8	7	62

13	Remote sensing of heterogeneity in photosynthetic efficiency, electron transport and dissipation of excess light in <i>Populus deltoides</i> stands under ambient and elevated CO ₂ concentrations, and in a tropical forest canopy, using a new laser-induced fluorescence transient device. <i>Global Change Biology</i> , 2005 , 11, 1195-1206	11.4	44
12	The effect of elevated CO ₂ on diel leaf growth cycle, leaf carbohydrate content and canopy growth performance of <i>Populus deltoides</i> . <i>Global Change Biology</i> , 2005 , 11, 1207-1219	11.4	30
11	Measuring photosynthetic parameters at a distance: laser induced fluorescence transient (LIFT) method for remote measurements of photosynthesis in terrestrial vegetation. <i>Photosynthesis Research</i> , 2005 , 84, 121-9	3.7	93
10	Comparison of multi- and hyperspectral imaging data of leaf rust infected wheat plants 2005 ,		12
9	Changing the way we think about global change research: scaling up in experimental ecosystem science. <i>Global Change Biology</i> , 2004 , 10, 393-407	11.4	109
8	Transitions in photosynthetic parameters of midvein and interveinal regions of leaves and their importance during leaf growth and development. <i>Plant Biology</i> , 2004 , 6, 184-91	3.7	26
7	Vascularization, high-volume solution flow, and localized roles for enzymes of sucrose metabolism during tumorigenesis by <i>Agrobacterium tumefaciens</i> . <i>Plant Physiology</i> , 2003 , 133, 1024-37	6.6	61
6	Photosynthetic field capacity of cyanobacteria of a tropical inselberg of the Guiana Highlands. <i>European Journal of Phycology</i> , 2003 , 38, 247-256	2.2	46
5	Responses of a Plant Circadian Rhythm to Thermoperiodic Perturbations with Asymmetric Temporal Patterns and the Rate of Temperature Change. <i>Biological Rhythm Research</i> , 2002 , 33, 151-170	0.8	12
4	Temperature profiles for the expression of endogenous rhythmicity and arrhythmicity of CO ₂ exchange in the CAM plant <i>Kalanchoe daigremontiana</i> can be shifted by slow temperature changes. <i>Planta</i> , 1998 , 207, 76-82	4.7	22
3	Evaluation of the benefits of combined reflection and transmission hyperspectral imaging data through disease detection and quantification in plant-pathogen interactions. <i>Journal of Plant Diseases and Protection</i> , 1	1.5	0
2	ON THE DERIVATION OF CROP HEIGHTS FROM MULTITEMPORAL UAV BASED IMAGERY. <i>ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences</i> , IV-2/W5, 95-102		6
1	QUANTIFYING LODGING PERCENTAGE, LODGING DEVELOPMENT AND LODGING SEVERITY USING A UAV-BASED CANOPY HEIGHT MODEL. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> , XLII-2/W13, 649-655	2.5	2