Uwe Rascher

List of Publications by Year
in descending order

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163	8,969	28190	48187
papers	citations	55 h-index	88 g-index

175	175	175	8495
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Remote sensing of solar-induced chlorophyll fluorescence (SIF) in vegetation: 50â€¯years of progress. Remote Sensing of Environment, 2019, 231, 111177.	4.6	372
2	Simultaneous phenotyping of leaf growth and chlorophyll fluorescence via GROWSCREEN FLUORO allows detection of stress tolerance in Arabidopsis thaliana and other rosette plants. Functional Plant Biology, 2009, 36, 902.	1.1	274
3	Do plants remember drought? Hints towards a drought-memory in grasses. Environmental and Experimental Botany, 2011, 71, 34-40.	2.0	273
4	Remote sensing of sunâ€induced fluorescence to improve modeling of diurnal courses of gross primary production (GPP). Global Change Biology, 2010, 16, 171-186.	4.2	246
5	Climate extremes initiate ecosystemâ€regulating functions while maintaining productivity. Journal of Ecology, 2011, 99, 689-702.	1.9	243
6	The FLuorescence EXplorer Mission Conceptâ€"ESAâ€™s Earth Explorer 8. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 1273-1284.	2.7	238
7	Sunâ€induced fluorescence â€“ a new probe of photosynthesis: First maps from the imaging spectrometerÂHyPlant. Global Change Biology, 2015, 21, 4673-4684.	4.2	213
8	HyperART: non-invasive quantification of leaf traits using hyperspectral absorption-reflectance-transmittance imaging. Plant Methods, 2015, 11, 1.	1.9	180
9	Red and far red Sunâ€induced chlorophyll fluorescence as a measure of plant photosynthesis. Geophysical Research Letters, 2015, 42, 1632-1639.	1.5	171
10	A stereo imaging system for measuring structural parameters of plant canopies. Plant, Cell and Environment, 2007, 30, 1299-1308.	2.8	165
11	Systems Analysis of a Maize Leaf Developmental Gradient Redefines the Current C4 Model and Provides Candidates for Regulation Â. Plant Cell, 2011, 23, 4208-4220.	3.1	165
12	Plant functional traits and canopy structure control the relationship between photosynthetic <scp>CO</scp>₂ uptake and farâ€red sunâ€induced fluorescence in a Mediterranean grassland under different nutrient availability. New Phytologist, 2017, 214, 1078-1091.	3.5	158
13	Fluspect-B: A model for leaf fluorescence, reflectance and transmittanceÂspectra. Remote Sensing of Environment, 2016, 186, 596-615.	4.6	147
14	Meta-analysis assessing potential of steady-state chlorophyll fluorescence for remote sensing detection of plant water, temperature and nitrogen stress. Remote Sensing of Environment, 2015, 168, 420-436.	4.6	143
15	Modeling the impact of spectral sensor configurations on the FLD retrieval accuracy of sun-induced chlorophyll fluorescence. Remote Sensing of Environment, 2011, 115, 1882-1892.	4.6	142
16	Specim IQ: Evaluation of a New, Miniaturized Handheld Hyperspectral Camera and Its Application for Plant Phenotyping and Disease Detection. Sensors, 2018, 18, 441.	2.1	138
17	Scientific and technical challenges in remote sensing of plant canopy reflectance and fluorescence. Journal of Experimental Botany, 2009, 60, 2987-3004.	2.4	135
18	Deploying four optical UAV-based sensors over grassland: challenges and limitations. Biogeosciences, 2015, 12, 163-175.	1.3	131

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19	Imaging plants dynamics in heterogenic environments. Current Opinion in Biotechnology, 2012, 23, 227-235.	3.3	130
20	Continuous and long-term measurements of reflectance and sun-induced chlorophyll fluorescence by using novel automated field spectroscopy systems. Remote Sensing of Environment, 2015, 164, 270-281.	4.6	130
21	Changing the way we think about global change research: scaling up in experimental ecosystem science. Global Change Biology, 2004, 10, 393-407.	4.2	126
22	Non-invasive approaches for phenotyping of enhanced performance traits in bean. Functional Plant Biology, 2011, 38, 968.	1.1	120
23	Early drought stress detection in cereals: simplex volume maximisation for hyperspectral image analysis. Functional Plant Biology, 2012, 39, 878.	1.1	119
24	A Novel UAV-Based Ultra-Light Weight Spectrometer for Field Spectroscopy. IEEE Sensors Journal, 2014, 14, 62-67.	2.4	113
25	Angular Dependency of Hyperspectral Measurements over Wheat Characterized by a Novel UAV Based Goniometer. Remote Sensing, 2015, 7, 725-746.	1.8	109
26	Downscaling of solar-induced chlorophyll fluorescence from canopy level to photosystem level using a random forest model. Remote Sensing of Environment, 2019, 231, 110772.	4.6	109
27	Measuring photosynthetic parameters at a distance: laser induced fluorescence transient (LIFT) method for remote measurements of photosynthesis in terrestrial vegetation. Photosynthesis Research, 2005, 84, 121-129.	1.6	107
28	Phenotyping: New Windows into the Plant for Breeders. Annual Review of Plant Biology, 2020, 71, 689-712.	8.6	102
29	Functional characteristics of corticolous lichens in the understory of a tropical lowland rain forest. New Phytologist, 2006, 172, 679-695.	3.5	98
30	Sunâ€induced chlorophyll fluorescence from highâ€resolution imaging spectroscopy data to quantify spatioâ€temporal patterns of photosynthetic function in crop canopies. Plant, Cell and Environment, 2016, 39, 1500-1512.	2.8	92
31	Satellite Remote Sensing-Based In-Season Diagnosis of Rice Nitrogen Status in Northeast China. Remote Sensing, 2015, 7, 10646-10667.	1.8	91
32	Dynamics of photosynthesis in fluctuating light. Current Opinion in Plant Biology, 2006, 9, 671-678.	3.5	88
33	Chlorophyll a fluorescence illuminates a path connecting plant molecular biology to Earth-system science. Nature Plants, 2021, 7, 998-1009.	4.7	88
34	Airborne based spectroscopy of red and far-red sun-induced chlorophyll fluorescence: Implications for improved estimates of gross primary productivity. Remote Sensing of Environment, 2016, 184, 654-667.	4.6	84
35	Linking photosynthesis and sun-induced fluorescence at sub-daily to seasonal scales. Remote Sensing of Environment, 2018, 219, 247-258.	4.6	83
36	Plant chlorophyll fluorescence: active and passive measurements at canopy and leaf scales with different nitrogen treatments. Journal of Experimental Botany, 2016, 67, 275-286.	2.4	82

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37	Measuring the dynamic photosynthome. Annals of Botany, 2018, 122, 207-220.	1.4	81
38	Monitoring and Modeling the Terrestrial System from Pores to Catchments: The Transregional Collaborative Research Center on Patterns in the Soilâ€“Vegetationâ€“Atmosphere System. Bulletin of the American Meteorological Society, 2015, 96, 1765-1787.	1.7	80
39	The leaf angle distribution of natural plant populations: assessing the canopy with a novel software tool. Plant Methods, 2015, 11, 11.	1.9	80
40	A model and measurement comparison of diurnal cycles of sun-induced chlorophyll fluorescence of crops. Remote Sensing of Environment, 2016, 186, 663-677.	4.6	80
41	Quantitative assessment of disease severity and rating of barley cultivars based on hyperspectral imaging in a non-invasive, automated phenotyping platform. Plant Methods, 2018, 14, 45.	1.9	78
42	NIRVP: A robust structural proxy for sun-induced chlorophyll fluorescence and photosynthesis across scales. Remote Sensing of Environment, 2022, 268, 112763.	4.6	77
43	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. Journal of Experimental Botany, 2004, 56, 461-468.	2.4	75
44	Observation of plantâ€“pathogen interaction by simultaneous hyperspectral imaging reflection and transmission measurements. Functional Plant Biology, 2017, 44, 23.	1.1	74
45	Remote sensing of plant-water relations: An overview and future perspectives. Journal of Plant Physiology, 2018, 227, 3-19.	1.6	70
46	Leaf and canopy photosynthesis of a chlorophyll deficient soybean mutant. Plant, Cell and Environment, 2018, 41, 1427-1437.	2.8	68
47	Quantitative and qualitative phenotyping of disease resistance of crops by hyperspectral sensors: seamless interlocking of phytopathology, sensors, and machine learning is needed!. Current Opinion in Plant Biology, 2019, 50, 156-162.	3.5	66
48	Priority Effects of Time of Arrival of Plant Functional Groups Override Sowing Interval or Density Effects: A Grassland Experiment. PLoS ONE, 2014, 9, e86906.	1.1	66
49	Vascularization, High-Volume Solution Flow, and Localized Roles for Enzymes of Sucrose Metabolism during Tumorigenesis by Agrobacterium tumefaciens Â. Plant Physiology, 2003, 133, 1024-1037.	2.3	64
50	Assessing photosynthetic efficiency in an experimental mangrove canopy using remote sensing and chlorophyll fluorescence. Trees - Structure and Function, 2006, 20, 9-15.	0.9	64
51	Analysis of Airborne Optical and Thermal Imagery for Detection of Water Stress Symptoms. Remote Sensing, 2018, 10, 1139.	1.8	64
52	Sun-Induced Chlorophyll Fluorescence II: Review of Passive Measurement Setups, Protocols, and Their Application at the Leaf to Canopy Level. Remote Sensing, 2019, 11, 927.	1.8	61
53	Quantifying Lodging Percentage and Lodging Severity Using a UAV-Based Canopy Height Model Combined with an Objective Threshold Approach. Remote Sensing, 2019, 11, 515.	1.8	60
54	Analysis of Red and Far-Red Sun-Induced Chlorophyll Fluorescence and Their Ratio in Different Canopies Based on Observed and Modeled Data. Remote Sensing, 2016, 8, 412.	1.8	59

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55	Vegetationâ€“Climate Interactions among Native and Invasive Species in Hawaiian Rainforest. Ecosystems, 2006, 9, 1106-1117.	1.6	57
56	Sun-Induced Chlorophyll Fluorescence III: Benchmarking Retrieval Methods and Sensor Characteristics for Proximal Sensing. Remote Sensing, 2019, 11, 962.	1.8	57
57	Comparison of Sun-Induced Chlorophyll Fluorescence Estimates Obtained from Four Portable Field Spectroradiometers. Remote Sensing, 2016, 8, 122.	1.8	55
58	Phenological analysis of unmanned aerial vehicle based time series of barley imagery with high temporal resolution. Precision Agriculture, 2018, 19, 134-146.	3.1	55
59	The High-Performance Airborne Imaging Spectrometer HyPlantâ€”From Raw Images to Top-of-Canopy Reflectance and Fluorescence Products: Introduction of an Automatized Processing Chain. Remote Sensing, 2019, 11, 2760.	1.8	53
60	Spatio-temporal variations of photosynthesis: the potential of optical remote sensing to better understand and scale light use efficiency and stresses of plant ecosystems. Precision Agriculture, 2008, 9, 355-366.	3.1	52
61	Using reflectance to explain vegetation biochemical and structural effects on sun-induced chlorophyll fluorescence. Remote Sensing of Environment, 2019, 231, 110996.	4.6	52
62	Heatwave breaks down the linearity between sunâ€induced fluorescence and gross primary production. New Phytologist, 2022, 233, 2415-2428.	3.5	51
63	Photosynthetic field capacity of cyanobacteria of a tropical inselberg of the Guiana Highlands. European Journal of Phycology, 2003, 38, 247-256.	0.9	50
64	Multi-Scale Evaluation of Drone-Based Multispectral Surface Reflectance and Vegetation Indices in Operational Conditions. Remote Sensing, 2020, 12, 514.	1.8	50
65	Sowing Density: A Neglected Factor Fundamentally Affecting Root Distribution and Biomass Allocation of Field Grown Spring Barley (Hordeum Vulgare L.). Frontiers in Plant Science, 2016, 7, 944.	1.7	49
66	Monitoring Spatio-temporal Dynamics of Photosynthesis with a Portable Hyperspectral Imaging System. Photogrammetric Engineering and Remote Sensing, 2007, 73, 45-56.	0.3	48
67	Remote sensing of heterogeneity in photosynthetic efficiency, electron transport and dissipation of excess light in Populus deltoides stands under ambient and elevated CO2 concentrations, and in a tropical forest canopy, using a new laser-induced fluorescence transient device. Global Change Biology, 2005, 11, 1195-1206.	4.2	47
68	Combining Sun-Induced Chlorophyll Fluorescence and Photochemical Reflectance Index Improves Diurnal Modeling of Gross Primary Productivity. Remote Sensing, 2016, 8, 574.	1.8	44
69	Priority effects caused by plant order of arrival affect belowâ€ground productivity. Journal of Ecology, 2018, 106, 774-780.	1.9	43
70	Exploring the physiological information of Sun-induced chlorophyll fluorescence through radiative transfer model inversion. Remote Sensing of Environment, 2018, 215, 97-108.	4.6	41
71	Vertical gradient in soil temperature stimulates development and increases biomass accumulation in barley. Plant, Cell and Environment, 2012, 35, 884-892.	2.8	39
72	Maximum fluorescence and electron transport kinetics determined by light-induced fluorescence transients (LIFT) for photosynthesis phenotyping. Photosynthesis Research, 2019, 140, 221-233.	1.6	39

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73	Combining near-infrared radiance of vegetation and fluorescence spectroscopy to detect effects of abiotic changes and stresses. Remote Sensing of Environment, 2022, 270, 112856.	4.6	39
74	Canopy conundrums: building on the Biosphere 2 experience to scale measurements of inner and outer canopy photoprotection from the leaf to the landscape. Functional Plant Biology, 2012, 39, 1.	1.1	38
75	Multiangular Observation of Canopy Sun-Induced Chlorophyll Fluorescence by Combining Imaging Spectroscopy and Stereoscopy. Remote Sensing, 2017, 9, 415.	1.8	38
76	Land Surface Temperature Retrieval for Agricultural Areas Using a Novel UAV Platform Equipped with a Thermal Infrared and Multispectral Sensor. Remote Sensing, 2020, 12, 1075.	1.8	37
77	The effect of elevated CO2 on diel leaf growth cycle, leaf carbohydrate content and canopy growth performance of Populus deltoides. Global Change Biology, 2005, 11, 1207-1219.	4.2	35
78	A Spectral Fitting Algorithm to Retrieve the Fluorescence Spectrum from Canopy Radiance. Remote Sensing, 2019, 11, 1840.	1.8	35
79	A Method for Uncertainty Assessment of Passive Sun-Induced Chlorophyll Fluorescence Retrieval Using an Infrared Reference Light. IEEE Sensors Journal, 2015, 15, 4603-4611.	2.4	34
80	Exploring the spatial relationship between airborne-derived red and far-red sun-induced fluorescence and process-based GPP estimates in a forest ecosystem. Remote Sensing of Environment, 2019, 231, 111272.	4.6	34
81	The Cassava Sourceâ€“Sink project: opportunities and challenges for crop improvement by metabolic engineering. Plant Journal, 2020, 103, 1655-1665.	2.8	33
82	Diurnal dynamics of nonphotochemical quenching in Arabidopsis npq mutants assessed by solarâ€induced fluorescence and reflectance measurements in the field. New Phytologist, 2021, 229, 2104-2119.	3.5	33
83	Transitions in Photosynthetic Parameters of Midvein and Interveinal Regions of Leaves and Their Importance During Leaf Growth and Development. Plant Biology, 2004, 6, 184-191.	1.8	31
84	Annual variation of the steady-state chlorophyll fluorescence emission of evergreen plants in temperate zone. Functional Plant Biology, 2008, 35, 63.	1.1	29
85	Variability of sunâ€induced chlorophyll fluorescence according to stand ageâ€related processes in a managed loblolly pine forest. Global Change Biology, 2018, 24, 2980-2996.	4.2	29
86	Understanding Soil and Plant Interaction by Combining Groundâ€Based Quantitative Electromagnetic Induction and Airborne Hyperspectral Data. Geophysical Research Letters, 2018, 45, 7571-7579.	1.5	29
87	Temperature profiles for the expression of endogenous rhythmicity and arrhythmicity of CO 2 exchange in the CAM plant KalanchoÃ« daigremontiana can be shifted by slow temperature changes. Planta, 1998, 207, 76-82.	1.6	28
88	Field Observations with Laser-Induced Fluorescence Transient (LIFT) Method in Barley and Sugar Beet. Agriculture (Switzerland), 2014, 4, 159-169.	1.4	28
89	Unmanned Aerial Systems (UAS)-Based Methods for Solar Induced Chlorophyll Fluorescence (SIF) Retrieval with Non-Imaging Spectrometers: State of the Art. Remote Sensing, 2020, 12, 1624.	1.8	28
90	Sowing different mixtures in dry acidic grassland produced priority effects of varying strength. Acta Oecologica, 2013, 53, 110-116.	0.5	27

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91	The 2013 FLEXâ€"US Airborne Campaign at the Parker Tract Loblolly Pine Plantation in North Carolina, USA. Remote Sensing, 2017, 9, 612.	1.8	27
92	Nitrogen input by cyanobacterial biofilms of an inselberg into a tropical rainforest in French Guiana. Flora: Morphology, Distribution, Functional Ecology of Plants, 2007, 202, 521-529.	0.6	26
93	Unsupervised domain adaptation for early detection of drought stress in hyperspectral images. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 131, 65-76.	4.9	25
94	Daily and seasonal dynamics of remotely sensed photosynthetic efficiency in tree canopies. Tree Physiology, 2014, 34, 674-685.	1.4	24
95	Sunâ€"induced fluorescence heterogeneity as a measure of functional diversity. Remote Sensing of Environment, 2020, 247, 111934.	4.6	24
96	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. Remote Sensing of Environment, 2021, 264, 112609.	4.6	24
97	Estimating near-infrared reflectance of vegetation from hyperspectral data. Remote Sensing of Environment, 2021, 267, 112723.	4.6	24
98	Genotype Specific Photosynthesis x Environment Interactions Captured by Automated Fluorescence Canopy Scans Over Two Fluctuating Growing Seasons. Frontiers in Plant Science, 2019, 10, 1482.	1.7	22
99	Dynamics of sunâ€induced chlorophyll fluorescence and reflectance to detect stressâ€induced variations in canopy photosynthesis. Plant, Cell and Environment, 2020, 43, 1637-1654.	2.8	22
100	Assessment of plant density for barley and wheat using UAV multispectral imagery for high-throughput field phenotyping. Computers and Electronics in Agriculture, 2021, 189, 106380.	3.7	20
101	Bridging the Gap Between Remote Sensing and Plant Phenotypingâ€"Challenges and Opportunities for the Next Generation of Sustainable Agriculture. Frontiers in Plant Science, 2021, 12, 749374.	1.7	20
102	Distributed feedback diode laser spectrometer at 27 Î¼m for sensitive, spatially resolved H_2O vapor detection. Applied Optics, 2009, 48, B172.	2.1	19
103	Non-Invasive Spectral Phenotyping Methods can Improve and Accelerate Cercospora Disease Scoring in Sugar Beet Breeding. Agriculture (Switzerland), 2014, 4, 147-158.	1.4	19
104	Nitrogen and Phosphorus effect on Sun-Induced Fluorescence and Gross Primary Productivity in Mediterranean Grassland. Remote Sensing, 2019, 11, 2562.	1.8	19
105	FLEX â€" Fluorescence Explorer: A Remote Sensing Approach to Quantify Spatio-Temporal Variations of Photosynthetic Efficiency from Space. , 2008, , 1387-1390.		19
106	Hyplant-Derived Sun-Induced Fluorescenceâ€"A New Opportunity to Disentangle Complex Vegetation Signals from Diverse Vegetation Types. Remote Sensing, 2019, 11, 1691.	1.8	18
107	Responses of a Plant Circadian Rhythm to Thermoperiodic Perturbations with Asymmetric Temporal Patterns and the Rate of Temperature Change. Biological Rhythm Research, 2002, 33, 151-170.	0.4	16
108	Diel leaf growth cycles in Clusia spp. are related to changes between C₃ photosynthesis and crassulacean acid metabolism during development and during water stress. Plant, Cell and Environment, 2008, 31, 484-491.	2.8	16

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109	Monitoring rhizospheric pH, oxygen, and organic acid dynamics in two short-time flooded plant species. Journal of Plant Nutrition and Soil Science, 2012, 175, 761-768.	1.1	16
110	Magnetic resonance imaging of sugar beet taproots in soil reveals growth reduction and morphological changes during foliarCercospora beticolainfestation. Journal of Experimental Botany, 2015, 66, 5543-5553.	2.4	16
111	Characterization of wheat genotypes for drought tolerance and water use efficiency. Scientia Agricola, 2021, 78, .	0.6	16
112	Field Phenotyping. , 2017, , 53-81.		16
113	Retrieval of Crop Variables from Proximal Multispectral UAV Image Data Using PROSAIL in Maize Canopy. Remote Sensing, 2022, 14, 1247.	1.8	16
114	Comparison of multi- and hyperspectral imaging data of leaf rust infected wheat plants. , 2005, , .		14
115	E-photosynthesis: a comprehensive modeling approach to understand chlorophyll fluorescence transients and other complex dynamic features of photosynthesis in fluctuating light. Photosynthesis Research, 2007, 93, 223-234.	1.6	14
116	The SARSense Campaign: Air- and Space-Borne C- and L-Band SAR for the Analysis of Soil and Plant Parameters in Agriculture. Remote Sensing, 2021, 13, 825.	1.8	14
117	Toward predicting photosynthetic efficiency and biomass gain in crop genotypes over a field season. Plant Physiology, 2022, 188, 301-317.	2.3	14
118	Altered physiological function, not structure, drives increased radiation-use efficiency of soybean grown at elevated CO2. Photosynthesis Research, 2010, 105, 15-25.	1.6	13
119	Herbivory of wild Manduca sexta causes fast down-regulation of photosynthetic efficiency in Datura wrightii: an early signaling cascade visualized by chlorophyll fluorescence. Photosynthesis Research, 2012, 113, 249-260.	1.6	13
120	Simplex Distributions for Embedding Data Matrices over Time. , 2012, , .		13
121	Non-invasive Phenotyping Methodologies Enable the Accurate Characterization of Growth and Performance of Shoots and Roots. , 2014, , 173-206.		13
122	CloudRoots: integration of advanced instrumental techniques and process modelling of sub-hourly and sub-kilometre landâ€“atmosphere interactions. Biogeosciences, 2020, 17, 4375-4404.	1.3	13
123	Towards consistent assessments of in situ radiometric measurements for the validation of fluorescence satellite missions. Remote Sensing of Environment, 2022, 274, 112984.	4.6	13
124	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. Plant and Soil, 2011, 344, 111-129.	1.8	12
125	Highâ€throughput field phenotyping reveals genetic variation in photosynthetic traits in durum wheat under drought. Plant, Cell and Environment, 2021, 44, 2858-2878.	2.8	12
126	A First Assessment of the 2018 European Drought Impact on Ecosystem Evapotranspiration. Remote Sensing, 2021, 13, 16.	1.8	12

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127	Can Vegetation Indices Serve as Proxies for Potential Sun-Induced Fluorescence (SIF)? A Fuzzy Simulation Approach on Airborne Imaging Spectroscopy Data. Remote Sensing, 2021, 13, 2545.	1.8	10
128	The "Kluge-LÃ¼ttge 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. Plant Biology, 2006, 8, 167-174.	1.8	9
129	Remote Chlorophyll Fluorescence Measurements with the Laser-Induced Fluorescence Transient Approach. Methods in Molecular Biology, 2012, 918, 51-59.	0.4	9
130	Functional Diversity of Photosynthetic Light Use of 16 Vascular Epiphyte Species Under Fluctuating Irradiance in the Canopy of a Giant Virola michelii (Myristicaceae) Tree in the Tropical Lowland Forest of French Guyana. Frontiers in Plant Science, 2011, 2, 117.	1.7	9
131	Quantitative Estimation of Leaf Heat Transfer Coefficients by Active Thermography at Varying Boundary Layer Conditions. Frontiers in Plant Science, 2019, 10, 1684.	1.7	9
132	Hyperspectral imaging for high-throughput vitality monitoring in ornamental plant production. Scientia Horticulturae, 2022, 291, 110546.	1.7	9
133	Diurnal Dynamics of Wheat Evapotranspiration Derived from Ground-Based Thermal Imagery. Remote Sensing, 2014, 6, 9775-9801.	1.8	8
134	ON THE DERIVATION OF CROP HEIGHTS FROM MULTITEMPORAL UAV BASED IMAGERY. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, IV-2/W5, 95-102.	0.0	8
135	Synergistic Use of Multispectral Data and Crop Growth Modelling for Spatial and Temporal Evapotranspiration Estimations. Remote Sensing, 2021, 13, 2138.	1.8	7
136	A low-cost automated growth chamber system for continuous measurements of gas exchange at canopy scale in dynamic conditions. Plant Methods, 2021, 17, 69.	1.9	7
137	Sensing of Photosynthetic Activity of Crops. , 2010, , 87-99.		7
138	Non-Invasive Measurement of Frog Skin Reflectivity in High Spatial Resolution Using a Dual Hyperspectral Approach. PLoS ONE, 2013, 8, e73234.	1.1	7
139	Estimating rice nitrogen status with satellite remote sensing in Northeast China. , 2013, , .		5
140	Fluorescence ratio and photochemical reflectance index as a proxy for photosynthetic quantum efficiency of photosystem II along a phosphorus gradient. Agricultural and Forest Meteorology, 2022, 322, 109019.	1.9	5
141	Sustainability Performance through Technology Adoption: A Case Study of Land Leveling in a Paddy Field. Agronomy, 2020, 10, 1681.	1.3	4
142	Physiological changes in soybean cultivated with soil remineralizer in the Cerrado under variable water regimes. Pesquisa Agropecuaria Brasileira, 0, 56, .	0.9	4
143	The potential of spatial aggregation to extract remotely sensed sun-induced fluorescence (SIF) of small-sized experimental plots for applications in crop phenotyping. International Journal of Applied Earth Observation and Geoinformation, 2021, 104, 102565.	1.4	4
144	Comparison of a UAV- and an airborne-based system to acquire far-red sun-induced chlorophyll fluorescence measurements over structurally different crops. Agricultural and Forest Meteorology, 2022, 323, 109081.	1.9	4

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145	Evaluation of gross primary production (GPP) variability over several ecosystems in Switzerland using sun-induced chlorophyll fluorescence derived from APEX data. , 2012, , .		3
146	Very high spectral resolution imaging spectroscopy: The Fluorescence Explorer (FLEX) mission. , 2016, , .		3
147	Sun Induced Fluorescence Calibration and Validation for Field Phenotyping. , 2018, , .		3
148	Field Phenotyping and an Example of Proximal Sensing of Photosynthesis Under Elevated CO<inf>2</inf>. , 2018, , .		3
149	Detection of Anomalous Grapevine Berries Using All-Convolutional Autoencoders. , 2019, , .		3
150	Remote Monitoring of Photosynthetic Efficiency Using Laser Induced Fluorescence Transient (LIFT) Technique. , 2008, , 1539-1543.		3
151	Spatio-spectral deconvolution for high resolution spectral imaging with an application to the estimation of sun-induced fluorescence. Remote Sensing of Environment, 2021, 267, 112718.	4.6	3
152	Evaluation of the benefits of combined reflection and transmission hyperspectral imaging data through disease detection and quantification in plantâ€“pathogen interactions. Journal of Plant Diseases and Protection, 2022, 129, 505-520.	1.6	3
153	A new spatially scanning 2.7ÂÂµm laser hygrometer and new small-scale wind tunnel for direct analysis of the H2O boundary layer structure at single plant leaves. Applied Physics B: Lasers and Optics, 2015, 118, 11-21.	1.1	2
154	Red and Far-Red Fluorescence Emission Retrieval from Airborne High-Resolution Spectra Collected by the Hyplant-Fluo Sensor. , 2018, , .		2
155	QUANTIFYING LODGING PERCENTAGE, LODGING DEVELOPMENT AND LODGING SEVERITY USING A UAV-BASED CANOPY HEIGHT MODEL. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-2/W13, 649-655.	0.2	2
156	Quantitative global mapping of terrestrial vegetation photosynthesis: The Fluorescence Explorer (FLEX) mission. , 2017, , .		1
157	â€œDeep Phenotypingâ€•of Early Plant Response to Abiotic Stress Using Non-invasive Approaches in Barley. , 2013, , 317-326.		1
158	Automatic Differentiation of Damaged and Unharmed Grapes Using RGB Images and Convolutional Neural Networks. Lecture Notes in Computer Science, 2020, , 347-359.	1.0	1
159	Sarsense: A C- and L-Band SAR Rehearsal Campaign in Germany in Preparation for ROSE-L. , 2020, , .		1
160	Airborne based spectroscopy to measure sun-induced chlorophyll fluorescence. , 2014, , .		0
161	Back Cover Image. Plant, Cell and Environment, 2021, 44, .	2.8	0
162	Beyond APAR and NPQ: Factors Coupling and Decoupling SIF and GPP Across Scales. , 2021, , .		0

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163	Response of Bean (Phaseolus vulgaris L.) to Elevated $[mathbf{CO_{2}}]$ in Yield, Biomass and Chlorophyll Fluorescence. , 2021, , .		0