Uwe Rascher

List of Publications by Citations

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	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, 902-914	2.7	213
155	Climate extremes initiate ecosystem-regulating functions while maintaining productivity. *Journal of Ecology*, **2011**, 99, 689-702	6	205
154	Remote sensing of sun-induced fluorescence to improve modeling of diurnal courses of gross primary production (GPP). *Global Change Biology*, **2010**, 16, 171-186	11.4	198
153	Do plants remember drought? Hints towards a drought-memory in grasses. *Environmental and Experimental Botany*, **2011**, 71, 34-40	5.9	191
152	Remote sensing of solar-induced chlorophyll fluorescence (SIF) in vegetation: 50 years of progress. *Remote Sensing of Environment*, **2019**, 231, 111177-111177	13.2	190
151	Sun-induced fluorescence - a new probe of photosynthesis: First maps from the imaging spectrometer HyPlant. *Global Change Biology*, **2015**, 21, 4673-84	11.4	178
150	The FLuorescence EXplorer Mission Concept ESA's Earth Explorer 8. *IEEE Transactions on Geoscience and Remote Sensing*, **2017**, 55, 1273-1284	8.1	162
149	Red and far red Sun-induced chlorophyll fluorescence as a measure of plant photosynthesis. *Geophysical Research Letters*, **2015**, 42, 1632-1639	4.9	142
148	Systems analysis of a maize leaf developmental gradient redefines the current C4 model and provides candidates for regulation. *Plant Cell*, **2011**, 23, 4208-20	11.6	138
147	A stereo imaging system for measuring structural parameters of plant canopies. *Plant, Cell and Environment*, **2007**, 30, 1299-308	8.4	134
146	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. *New Phytologist*, **2017**, 214, 1078-1091	9.8	116
145	Scientific and technical challenges in remote sensing of plant canopy reflectance and fluorescence. *Journal of Experimental Botany*, **2009**, 60, 2987-3004	7	115
144	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	13.2	113
143	Imaging plants dynamics in heterogenic environments. *Current Opinion in Biotechnology*, **2012**, 23, 227-35	11.4	110
142	Non-invasive approaches for phenotyping of enhanced performance traits in bean. *Functional Plant Biology*, **2011**, 38, 968-983	2.7	109
141	Changing the way we think about global change research: scaling up in experimental ecosystem science. *Global Change Biology*, **2004**, 10, 393-407	11.4	109
140	Fluspect-B: A model for leaf fluorescence, reflectance and transmittance spectra. *Remote Sensing of Environment*, **2016**, 186, 596-615	13.2	109

139	Deploying four optical UAV-based sensors over grassland: challenges and limitations. *Biogeosciences*, **2015**, 12, 163-175	4.6	107
138	Early drought stress detection in cereals: simplex volume maximisation for hyperspectral image analysis. *Functional Plant Biology*, **2012**, 39, 878-890	2.7	102
137	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	13.2	100
136	HyperART: non-invasive quantification of leaf traits using hyperspectral absorption-reflectance-transmittance imaging. *Plant Methods*, **2015**, 11, 1	5.8	100
135	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	13.2	95
134	Measuring photosynthetic parameters at a distance: laser induced fluorescence transient (LIFT) method for remote measurements of photosynthesis in terrestrial vegetation. *Photosynthesis Research*, **2005**, 84, 121-9	3.7	93
133	Angular Dependency of Hyperspectral Measurements over Wheat Characterized by a Novel UAV Based Goniometer. *Remote Sensing*, **2015**, 7, 725-746	5	85
132	A Novel UAV-Based Ultra-Light Weight Spectrometer for Field Spectroscopy. *IEEE Sensors Journal*, **2014**, 14, 62-67	4	80
131	Specim IQ: Evaluation of a New, Miniaturized Handheld Hyperspectral Camera and Its Application for Plant Phenotyping and Disease Detection. *Sensors*, **2018**, 18,	3.8	79
130	Functional characteristics of corticolous lichens in the understory of a tropical lowland rain forest. *New Phytologist*, **2006**, 172, 679-95	9.8	78
129	Dynamics of photosynthesis in fluctuating light. *Current Opinion in Plant Biology*, **2006**, 9, 671-8	9.9	71
128	Sun-induced chlorophyll fluorescence from high-resolution imaging spectroscopy data to quantify spatio-temporal patterns of photosynthetic function in crop canopies. *Plant, Cell and Environment*, **2016**, 39, 1500-12	8.4	69
127	Monitoring and Modeling the Terrestrial System from Pores to Catchments: The Transregional Collaborative Research Center on Patterns in the Soil-Vegetation-Atmosphere System. *Bulletin of the American Meteorological Society*, **2015**, 96, 1765-1787	6.1	68
126	Satellite Remote Sensing-Based In-Season Diagnosis of Rice Nitrogen Status in Northeast China. *Remote Sensing*, **2015**, 7, 10646-10667	5	68
125	Downscaling of solar-induced chlorophyll fluorescence from canopy level to photosystem level using a random forest model. *Remote Sensing of Environment*, **2019**, 231, 110772	13.2	67
124	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	13.2	64
123	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*, **2005**, 56, 461-8	7	62
122	Observation of plant-pathogen interaction by simultaneous hyperspectral imaging reflection and transmission measurements. *Functional Plant Biology*, **2016**, 44, 23-34	2.7	61

121	Vascularization, high-volume solution flow, and localized roles for enzymes of sucrose metabolism during tumorigenesis by Agrobacterium tumefaciens. *Plant Physiology*, **2003**, 133, 1024-37	6.6	61
120	A model and measurement comparison of diurnal cycles of sun-induced chlorophyll fluorescence of crops. *Remote Sensing of Environment*, **2016**, 186, 663-677	13.2	61
119	The leaf angle distribution of natural plant populations: assessing the canopy with a novel software tool. *Plant Methods*, **2015**, 11, 11	5.8	59
118	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	5.8	59
117	Plant chlorophyll fluorescence: active and passive measurements at canopy and leaf scales with different nitrogen treatments. *Journal of Experimental Botany*, **2016**, 67, 275-86	7	58
116	Assessing photosynthetic efficiency in an experimental mangrove canopy using remote sensing and chlorophyll fluorescence. *Trees - Structure and Function*, **2006**, 20, 9-15	2.6	54
115	Measuring the dynamic photosynthome. *Annals of Botany*, **2018**, 122, 207-220	4.1	53
114	Priority effects of time of arrival of plant functional groups override sowing interval or density effects: a grassland experiment. *PLoS ONE*, **2014**, 9, e86906	3.7	52
113	Linking photosynthesis and sun-induced fluorescence at sub-daily to seasonal scales. *Remote Sensing of Environment*, **2018**, 219, 247-258	13.2	52
112	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	5	47
111	Vegetation□Climate Interactions among Native and Invasive Species in Hawaiian Rainforest. *Ecosystems*, **2006**, 9, 1106-1117	3.9	46
110	Photosynthetic field capacity of cyanobacteria of a tropical inselberg of the Guiana Highlands. *European Journal of Phycology*, **2003**, 38, 247-256	2.2	46
109	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	11.4	44
108	Quantifying Lodging Percentage and Lodging Severity Using a UAV-Based Canopy Height Model Combined with an Objective Threshold Approach. *Remote Sensing*, **2019**, 11, 515	5	43
107	Analysis of Airborne Optical and Thermal Imagery for Detection of Water Stress Symptoms. *Remote Sensing*, **2018**, 10, 1139	5	43
106	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	5.6	42
105	Remote sensing of plant-water relations: An overview and future perspectives. *Journal of Plant Physiology*, **2018**, 227, 3-19	3.6	41
104	Phenotyping: New Windows into the Plant for Breeders. *Annual Review of Plant Biology*, **2020**, 71, 689-712	20.7	40

103	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	9.9	40
102	Comparison of Sun-Induced Chlorophyll Fluorescence Estimates Obtained from Four Portable Field Spectroradiometers. *Remote Sensing*, **2016**, 8, 122	5	39
101	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	6.2	39
100	Leaf and canopy photosynthesis of a chlorophyll deficient soybean mutant. *Plant, Cell and Environment*, **2018**, 41, 1427-1437	8.4	38
99	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	5	37
98	Phenological analysis of unmanned aerial vehicle based time series of barley imagery with high temporal resolution. *Precision Agriculture*, **2018**, 19, 134-146	5.6	37
97	Monitoring Spatio-temporal Dynamics of Photosynthesis with a Portable Hyperspectral Imaging System. *Photogrammetric Engineering and Remote Sensing*, **2007**, 73, 45-56	1.6	37
96	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, 1-24	2.7	35
95	Using reflectance to explain vegetation biochemical and structural effects on sun-induced chlorophyll fluorescence. *Remote Sensing of Environment*, **2019**, 231, 110996	13.2	35
94	Sun-Induced Chlorophyll Fluorescence III: Benchmarking Retrieval Methods and Sensor Characteristics for Proximal Sensing. *Remote Sensing*, **2019**, 11, 962	5	34
93	Vertical gradient in soil temperature stimulates development and increases biomass accumulation in barley. *Plant, Cell and Environment*, **2012**, 35, 884-92	8.4	34
92	Combining Sun-Induced Chlorophyll Fluorescence and Photochemical Reflectance Index Improves Diurnal Modeling of Gross Primary Productivity. *Remote Sensing*, **2016**, 8, 574	5	31
91	Multiangular Observation of Canopy Sun-Induced Chlorophyll Fluorescence by Combining Imaging Spectroscopy and Stereoscopy. *Remote Sensing*, **2017**, 9, 415	5	30
90	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	11.4	30
89	The High-Performance Airborne Imaging Spectrometer HyPlant—From Raw Images to Top-of-Canopy Reflectance and Fluorescence Products: Introduction of an Automatized Processing Chain. *Remote Sensing*, **2019**, 11, 2760	5	30
88	Multi-Scale Evaluation of Drone-Based Multispectral Surface Reflectance and Vegetation Indices in Operational Conditions. *Remote Sensing*, **2020**, 12, 514	5	29
87	Annual variation of the steady-state chlorophyll fluorescence emission of evergreen plants in temperate zone. *Functional Plant Biology*, **2008**, 35, 63-76	2.7	29
86	Exploring the physiological information of Sun-induced chlorophyll fluorescence through radiative transfer model inversion. *Remote Sensing of Environment*, **2018**, 215, 97-108	13.2	26

85	. *IEEE Sensors Journal*, **2015**, 15, 4603-4611	4	26
84	Transitions in photosynthetic parameters of midvein and interveinal regions of leaves and their importance during leaf growth and development. *Plant Biology*, **2004**, 6, 184-91	3.7	26
83	Understanding Soil and Plant Interaction by Combining Ground-Based Quantitative Electromagnetic Induction and Airborne Hyperspectral Data. *Geophysical Research Letters*, **2018**, 45, 7571-7579	4.9	25
82	Sowing different mixtures in dry acidic grassland produced priority effects of varying strength. *Acta Oecologica*, **2013**, 53, 110-116	1.7	25
81	Maximum fluorescence and electron transport kinetics determined by light-induced fluorescence transients (LIFT) for photosynthesis phenotyping. *Photosynthesis Research*, **2019**, 140, 221-233	3.7	25
80	Variability of sun-induced chlorophyll fluorescence according to stand age-related processes in a managed loblolly pine forest. *Global Change Biology*, **2018**, 24, 2980-2996	11.4	24
79	The 2013 FLEX□US Airborne Campaign at the Parker Tract Loblolly Pine Plantation in North Carolina, USA. *Remote Sensing*, **2017**, 9, 612	5	24
78	Field Observations with Laser-Induced Fluorescence Transient (LIFT) Method in Barley and Sugar Beet. *Agriculture (Switzerland)*, **2014**, 4, 159-169	3	24
77	Daily and seasonal dynamics of remotely sensed photosynthetic efficiency in tree canopies. *Tree Physiology*, **2014**, 34, 674-85	4.2	22
76	Temperature profiles for the expression of endogenous rhythmicity and arrhythmicity of CO2 exchange in the CAM plant Kalancho□daigremontiana can be shifted by slow temperature changes. *Planta*, **1998**, 207, 76-82	4.7	22
75	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	1.9	22
74	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	13.2	18
73	Chlorophyll a fluorescence illuminates a path connecting plant molecular biology to Earth-system science. *Nature Plants*, **2021**, 7, 998-1009	11.5	18
72	FLEX □Fluorescence Explorer: A Remote Sensing Approach to Quantify Spatio-Temporal Variations of Photosynthetic Efficiency from Space **2008**, 1387-1390		18
71	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	5	17
70	A Spectral Fitting Algorithm to Retrieve the Fluorescence Spectrum from Canopy Radiance. *Remote Sensing*, **2019**, 11, 1840	5	17
69	Distributed feedback diode laser spectrometer at 2.7 microm for sensitive, spatially resolved H2O vapor detection. *Applied Optics*, **2009**, 48, B172-82	0.2	17
68	Unsupervised domain adaptation for early detection of drought stress in hyperspectral images. *ISPRS Journal of Photogrammetry and Remote Sensing*, **2017**, 131, 65-76	11.8	16

67	Non-Invasive Spectral Phenotyping Methods can Improve and Accelerate Cercospora Disease Scoring in Sugar Beet Breeding. *Agriculture (Switzerland)*, **2014**, 4, 147-158	3	16
66	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	2.3	16
65	Priority effects caused by plant order of arrival affect below-ground productivity. *Journal of Ecology*, **2018**, 106, 774-780	6	15
64	Hyplant-Derived Sun-Induced Fluorescence—A New Opportunity to Disentangle Complex Vegetation Signals from Diverse Vegetation Types. *Remote Sensing*, **2019**, 11, 1691	5	14
63	NIRVP: A robust structural proxy for sun-induced chlorophyll fluorescence and photosynthesis across scales. *Remote Sensing of Environment*, **2022**, 268, 112763	13.2	14
62	Diurnal dynamics of nonphotochemical quenching in Arabidopsis npq mutants assessed by solar-induced fluorescence and reflectance measurements in the field. *New Phytologist*, **2021**, 229, 2104-2119	9.8	14
61	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, 249-60	3.7	13
60	Altered physiological function, not structure, drives increased radiation-use efficiency of soybean grown at elevated CO2. *Photosynthesis Research*, **2010**, 105, 15-25	3.7	13
59	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, 223-34	3.7	13
58	Nitrogen and Phosphorus effect on Sun-Induced Fluorescence and Gross Primary Productivity in Mediterranean Grassland. *Remote Sensing*, **2019**, 11, 2562	5	13
57	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	5	13
56	Genotype Specific Photosynthesis x Environment Interactions Captured by Automated Fluorescence Canopy Scans Over Two Fluctuating Growing Seasons. *Frontiers in Plant Science*, **2019**, 10, 1482	6.2	12
55	Comparison of multi- and hyperspectral imaging data of leaf rust infected wheat plants **2005**,		12
54	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	0.8	12
53	Field Phenotyping **2017**, 53-81		12
52	The Cassava Source-Sink project: opportunities and challenges for crop improvement by metabolic engineering. *Plant Journal*, **2020**, 103, 1655-1665	6.9	11
51	Magnetic resonance imaging of sugar beet taproots in soil reveals growth reduction and morphological changes during foliar Cercospora beticola infestation. *Journal of Experimental Botany*, **2015**, 66, 5543-53	7	11
50	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, 484-91	8.4	11

49	Dynamics of sun-induced chlorophyll fluorescence and reflectance to detect stress-induced variations in canopy photosynthesis. *Plant, Cell and Environment*, **2020**, 43, 1637-1654	8.4	10
48	Simplex Distributions for Embedding Data Matrices over Time **2012**,		10
47	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	4.2	10
46	Sun□nduced fluorescence heterogeneity as a measure of functional diversity. *Remote Sensing of Environment*, **2020**, 247, 111934	13.2	9
45	The "Kluge-L□tge 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, 167-74	3.7	9
44	Non-invasive Phenotyping Methodologies Enable the Accurate Characterization of Growth and Performance of Shoots and Roots **2014**, 173-206		9
43	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	13.2	8
42	Diurnal Dynamics of Wheat Evapotranspiration Derived from Ground-Based Thermal Imagery. *Remote Sensing*, **2014**, 6, 9775-9801	5	7
41	Remote chlorophyll fluorescence measurements with the laser-induced fluorescence transient approach. *Methods in Molecular Biology*, **2012**, 918, 51-9	1.4	7
40	Non-invasive measurement of frog skin reflectivity in high spatial resolution using a dual hyperspectral approach. *PLoS ONE*, **2013**, 8, e73234	3.7	7
39	Heatwave breaks down the linearity between sun-induced fluorescence and gross primary production.. *New Phytologist*, **2021**,	9.8	6
38	ON THE DERIVATION OF CROP HEIGHTS FROM MULTITEMPORAL UAV BASED IMAGERY. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*,IV-2/W5, 95-102		6
37	Quantitative Estimation of Leaf Heat Transfer Coefficients by Active Thermography at Varying Boundary Layer Conditions. *Frontiers in Plant Science*, **2019**, 10, 1684	6.2	6
36	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	5	6
35	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	6.2	5
34	Combining near-infrared radiance of vegetation and fluorescence spectroscopy to detect effects of abiotic changes and stresses. *Remote Sensing of Environment*, **2022**, 270, 112856	13.2	5
33	CloudRoots: integration of advanced instrumental techniques and process modelling of sub-hourly and sub-kilometre land□tmosphere interactions. *Biogeosciences*, **2020**, 17, 4375-4404	4.6	5
32	Characterization of wheat genotypes for drought tolerance and water use efficiency. *Scientia Agricola*, **2021**, 78,	2.5	5

31	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	6.5	5
30	A First Assessment of the 2018 European Drought Impact on Ecosystem Evapotranspiration. *Remote Sensing*, **2021**, 13, 16	5	4
29	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	5	4
28	High-throughput field phenotyping reveals genetic variation in photosynthetic traits in durum wheat under drought. *Plant, Cell and Environment*, **2021**, 44, 2858-2878	8.4	4
27	**2013**,		3
26	Evaluation of gross primary production (GPP) variability over several ecosystems in Switzerland using sun-induced chlorophyll fluorescence derived from APEX data **2012**,		3
25	Bridging the Gap Between Remote Sensing and Plant Phenotyping-Challenges and Opportunities for the Next Generation of Sustainable Agriculture. *Frontiers in Plant Science*, **2021**, 12, 749374	6.2	3
24	Estimating near-infrared reflectance of vegetation from hyperspectral data. *Remote Sensing of Environment*, **2021**, 267, 112723	13.2	3
23	Detection of Anomalous Grapevine Berries Using All-Convolutional Autoencoders **2019**,		3
22	Field Phenotyping and an Example of Proximal Sensing of Photosynthesis Under Elevated CO2 **2018**,		3
21	A new spatially scanning 2.7 μm 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	1.9	2
20	Very high spectral resolution imaging spectroscopy: The Fluorescence Explorer (FLEX) mission **2016** ,		2
19	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*,XLII-2/W13, 649-655	2.5	2
18	Towards predicting photosynthetic efficiency and biomass gain in crop genotypes over a field season. *Plant Physiology*, **2021**,	6.6	2
17	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	13.2	2
16	Sensing of Photosynthetic Activity of Crops **2010**, 87-99		2
15	Synergistic Use of Multispectral Data and Crop Growth Modelling for Spatial and Temporal Evapotranspiration Estimations. *Remote Sensing*, **2021**, 13, 2138	5	2
14	A low-cost automated growth chamber system for continuous measurements of gas exchange at canopy scale in dynamic conditions. *Plant Methods*, **2021**, 17, 69	5.8	2

13	**2018**,		2
12	Retrieval of Crop Variables from Proximal Multispectral UAV Image Data Using PROSAIL in Maize Canopy. *Remote Sensing*, **2022**, 14, 1247	5	2
11	Sustainability Performance through Technology Adoption: A Case Study of Land Leveling in a Paddy Field. *Agronomy*, **2020**, 10, 1681	3.6	1
10	Quantitative global mapping of terrestrial vegetation photosynthesis: The Fluorescence Explorer (FLEX) mission **2017**,		1
9	Automatic Differentiation of Damaged and Unharmed Grapes Using RGB Images and Convolutional Neural Networks. *Lecture Notes in Computer Science*, **2020**, 347-359	0.9	1
8	Deep Phenotyping of Early Plant Response to Abiotic Stress Using Non-invasive Approaches in Barley **2013**, 317-326		1
7	**2018**,		1
6	Hyperspectral imaging for high-throughput vitality monitoring in ornamental plant production. *Scientia Horticulturae*, **2022**, 291, 110546	4.1	1
5	Remote Monitoring of Photosynthetic Efficiency Using Laser Induced Fluorescence Transient (LIFT) Technique **2008**, 1539-1543		1
4	Evaluation of the benefits of combined reflection and transmission hyperspectral imaging data through disease detection and quantification in plant-pathogen interactions. *Journal of Plant Diseases and Protection*,1	1.5	0
3	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	7.3	0
2	Towards consistent assessments of in situ radiometric measurements for the validation of fluorescence satellite missions. *Remote Sensing of Environment*, **2022**, 274, 112984	13.2	0
1	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	5.8	0