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List of Publications by Year
in descending order

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129 papers	4,408 citations	117625 34 h-index	128289 60 g-index
130 all docs	130 docs citations	130 times ranked	5585 citing authors

#	Article	IF	Citations
1	A metaâ€analysis of the interactive effects of UV and drought on plants. Plant, Cell and Environment, 2022, 45, 41-54.	5.7	21
2	Interactive effects of nitrogen, UV and PAR on barley morphology and biochemistry are associated with the leaf C:N balance. Plant Physiology and Biochemistry, 2022, 172, 111-124.	5.8	7
3	Changes in forest nitrogen cycling across deposition gradient revealed by Î´15N in tree rings. Environmental Pollution, 2022, 304, 119104.	7.5	5
4	Combining NDVI, PRI and the quantum yield of solar-induced fluorescence improves estimations of carbon fluxes in deciduous and evergreen forests. Science of the Total Environment, 2022, 829, 154681.	8.0	9
5	A meta-analysis of the effects of UV radiation on the plant carotenoid pool. Plant Physiology and Biochemistry, 2022, 183, 36-45.	5.8	8
6	Measuring root exudate metabolites in holm oak (Quercus ilex) under drought and recovery. , 2022, , 17-28.		0
7	Temporal Changes in Ozone Concentrations and Their Impact on Vegetation. Atmosphere, 2021, 12, 82.	2.3	57
8	Non-pooled oak (Quercus spp.) stable isotopes reveal enhanced climate sensitivity compared to ring widths. Climate Research, 2021, 83, 27-41.	1.1	7
9	The dendroclimatic value of oak stable isotopes. Dendrochronologia, 2021, 65, 125804.	2.2	7
10	Recent European drought extremes beyond Common Era background variability. Nature Geoscience, 2021, 14, 190-196.	12.9	183
11	Metabolome-Wide, Phylogenetically Controlled Comparison Indicates Higher Phenolic Diversity in Tropical Tree Species. Plants, 2021, 10, 554.	3.5	1
12	Stable Isotopes in Tree Rings of Pinus heldreichii Can Indicate Climate Variability over the Eastern Mediterranean Region. Forests, 2021, 12, 350.	2.1	7
13	Light and CO2 Modulate the Accumulation and Localization of Phenolic Compounds in Barley Leaves. Antioxidants, 2021, 10, 385.	5.1	11
14	Dissolved and gaseous nitrogen losses in forests controlled by soil nutrient stoichiometry. Environmental Research Letters, 2021, 16, 064025.	5.2	9
15	Genotype and soil substrate effects on the wood quality of poplar grown in a reclaimed lignite-mining area. Journal of Environmental Management, 2021, 285, 112146.	7.8	1
16	Warming affects soil metabolome: The case study of Icelandic grasslands. European Journal of Soil Biology, 2021, 105, 103317.	3.2	4
17	Disentangling climate from soil nutrient effects on plant biomass production using a multispecies phytometer. Ecosphere, 2021, 12, e03719.	2.2	5
18	Ecometabolomics of plantâ€“herbivore and plantâ€“fungi interactions: a synthesis study. Ecosphere, 2021, 12, e03736.	2.2	12

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19	Implications of mistletoe parasitism for the host metabolome: A new plant identity in the forest canopy. Plant, Cell and Environment, 2021, 44, 3655-3666.	5.7	8
20	Environmental Effects on Normalized Gross Primary Productivity in Beech and Norway Spruce Forests. Atmosphere, 2021, 12, 1128.	2.3	2
21	Tree Species and Epiphyte Taxa Determine the â€œMetabolomic nicheâ€•of Canopy Suspended Soils in a Species-Rich Lowland Tropical Rainforest. Metabolites, 2021, 11, 718.	2.9	2
22	Diffuse solar radiation and canopy photosynthesis in a changing environment. Agricultural and Forest Meteorology, 2021, 311, 108684.	4.8	66
23	Interactive Effect of Elevated CO2 and Reduced Summer Precipitation on Photosynthesis is Species-Specific: The Case Study with Soil-Planted Norway Spruce and Sessile Oak in a Mountainous Forest Plot. Forests, 2021, 12, 42.	2.1	8
24	Barley Genotypes Vary in Stomatal Responsiveness to Light and CO2 Conditions. Plants, 2021, 10, 2533.	3.5	4
25	Improving Nitrogen Status Estimation in Malting Barley Based on Hyperspectral Reflectance and Artificial Neural Networks. Agronomy, 2021, 11, 2592.	3.0	5
26	The Influence of Ozone on Net Ecosystem Production of a Ryegrassâ€“Clover Mixture under Field Conditions. Atmosphere, 2021, 12, 1629.	2.3	13
27	Combined Effect of Altitude, Season and Light on the Accumulation of Extractable Terpenes in Norway Spruce Needles. Forests, 2021, 12, 1737.	2.1	5
28	The handbook for standardized field and laboratory measurements in terrestrial climate change experiments and observational studies (ClimEx). Methods in Ecology and Evolution, 2020, 11, 22-37.	5.2	68
29	Could Global Intensification of Nitrogen Fertilisation Increase Immunogenic Proteins and Favour the Spread of Coeliac Pathology?. Foods, 2020, 9, 1602.	4.3	9
30	The impact of drought on total ozone flux in a mountain Norway spruce forest. Journal of Forest Science, 2020, 66, 280-278.	1.1	12
31	31P-NMR Metabolomics Revealed Species-Specific Use of Phosphorous in Trees of a French Guiana Rainforest. Molecules, 2020, 25, 3960.	3.8	7
32	Ecometabolomics for a Better Understanding of Plant Responses and Acclimation to Abiotic Factors Linked to Global Change. Metabolites, 2020, 10, 239.	2.9	39
33	Different â€œmetabolomic nichesâ€•of the highly diverse tree species of the French Guiana rainforests. Scientific Reports, 2020, 10, 6937.	3.3	16
34	No Age Trends in Oak Stable Isotopes. Paleoceanography and Paleoclimatology, 2020, 35, e2019PA003831.	2.9	21
35	The transgenerational effects of solar short-UV radiation differed in two accessions of Vicia faba L. from contrasting UV environments. Journal of Plant Physiology, 2020, 248, 153145.	3.5	6
36	Application of organic carbon affects mineral nitrogen uptake by winter wheat and leaching in subsoil: Proximal sensing as a tool for agronomic practice. Science of the Total Environment, 2020, 717, 137058.	8.0	18

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37	Correction of PRI for carotenoid pigment pools improves photosynthesis estimation across different irradiance and temperature conditions. Remote Sensing of Environment, 2020, 244, 111834.	11.0	15
38	A millennium-long â€˜Blue Ringâ€™ chronology from the Spanish Pyrenees reveals severe ephemeral summer cooling after volcanic eruptions. Environmental Research Letters, 2020, 15, 124016.	5.2	18
39	Induction of phenolic compounds by UV and PAR is modulated by leaf ontogeny and barley genotype. Plant Physiology and Biochemistry, 2019, 134, 81-93.	5.8	17
40	Ultraviolet radiation modulates C:N stoichiometry and biomass allocation in Fagus sylvatica saplings cultivated under elevated CO2 concentration. Plant Physiology and Biochemistry, 2019, 134, 103-112.	5.8	13
41	Distinct Morphological, Physiological, and Biochemical Responses to Light Quality in Barley Leaves and Roots. Frontiers in Plant Science, 2019, 10, 1026.	3.6	50
42	Temperature alters susceptibility of Picea abies seedlings to airborne pollutants: The case of CdO nanoparticles. Environmental Pollution, 2019, 253, 646-654.	7.5	8
43	Seasonal dynamics of stem N2O exchange follow the physiological activity of boreal trees. Nature Communications, 2019, 10, 4989.	12.8	36
44	Ozone flux and ozone deposition in a mountain spruce forest are modulated by sky conditions. Science of the Total Environment, 2019, 672, 296-304.	8.0	22
45	Distinct seasonal dynamics of responses to elevated CO 2 in two understorey grass species differing in shadeâ€tolerance. Ecology and Evolution, 2019, 9, 13663-13677.	1.9	6
46	Interactive effects of ultraviolet radiation and elevated CO2 concentration on photosynthetic characteristics of European beech saplings during the vegetation season. Plant Physiology and Biochemistry, 2019, 134, 20-30.	5.8	13
47	We Are What We Eat: A Stoichiometric and Ecometabolomic Study of Caterpillars Feeding on Two Pine Subspecies of Pinus sylvestris. International Journal of Molecular Sciences, 2019, 20, 59.	4.1	10
48	Editorial: Interactive effects of UV-B radiation in a complex environment. Plant Physiology and Biochemistry, 2019, 134, 1-8.	5.8	35
49	Low temperature induced modulation of photosynthetic induction in non-acclimated and cold-acclimated Arabidopsis thaliana: chlorophyll a fluorescence and gas-exchange measurements. Photosynthesis Research, 2019, 139, 123-143.	2.9	25
50	Coping with iron limitation: a metabolomic study of SynechocystisÂsp. PCC 6803. Acta Physiologiae Plantarum, 2018, 40, 1.	2.1	7
51	Combined effects of drought and high temperature on photosynthetic characteristics in four winter wheat genotypes. Field Crops Research, 2018, 223, 137-149.	5.1	57
52	Interactive effects of high temperature and drought stress during stem elongation, anthesis and early grain filling on the yield formation and photosynthesis of winter wheat. Field Crops Research, 2018, 221, 182-195.	5.1	98
53	Combining soil and treeâ€stem flux measurements and soil gas profiles to understand CH₄ pathways in Fagus sylvatica forests. Journal of Plant Nutrition and Soil Science, 2018, 181, 31-35.	1.9	51
54	Restoration of Vegetation in Relation to Soil Properties of Spoil Heap Heavily Contaminated with Heavy Metals. Water, Air, and Soil Pollution, 2018, 229, 392.	2.4	34

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55	Potential of Photochemical Reflectance Index for Indicating Photochemistry and Light Use Efficiency in Leaves of European Beech and Norway Spruce Trees. Remote Sensing, 2018, 10, 1202.	4.0	38
56	Root exudate metabolomes change under drought and show limited capacity for recovery. Scientific Reports, 2018, 8, 12696.	3.3	231
57	Prediction of ozone effects on net ecosystem production of Norway spruce forest. IForest, 2018, 11, 743-750.	1.4	16
58	Distinct growth and physiological responses of Arabidopsis thaliana natural accessions to drought stress and their detection using spectral reflectance and thermal imaging. Functional Plant Biology, 2017, 44, 312.	2.1	11
59	Cryptogamic stem covers may contribute to nitrous oxide consumption by mature beech trees. Scientific Reports, 2017, 7, 13243.	3.3	17
60	Environmental plasticity of Pinot noir grapevine leaves: A transâ€European study of morphological and biochemical changes along a 1,500â€km latitudinal climatic gradient. Plant, Cell and Environment, 2017, 40, 2790-2805.	5.7	34
61	Close and distant: Contrasting the metabolism of two closely related subspecies of Scots pine under the effects of folivory and summer drought. Ecology and Evolution, 2017, 7, 8976-8988.	1.9	20
62	Comparison of different approaches of radiation use efficiency of biomass formation estimation in Mountain Norway spruce. Trees - Structure and Function, 2017, 31, 325-337.	1.9	20
63	Fluxes of biogenic volatile organic compounds above temperate Norway spruce forest of the Czech Republic. Agricultural and Forest Meteorology, 2017, 232, 500-513.	4.8	31
64	Impact of Soil Warming on the Plant Metabolome of Icelandic Grasslands. Metabolites, 2017, 7, 44.	2.9	12
65	Application of Raman spectroscopy to analyse lignin/cellulose ratio in Norway spruce tree rings. Beskydy, 2017, 10, 41-48.	0.2	9
66	Long-term fertilization determines different metabolomic profiles and responses in saplings of three rainforest tree species with different adult canopy position. PLoS ONE, 2017, 12, e0177030.	2.5	11
67	Are the metabolomic responses to folivory of closely related plant species linked to macroevolutionary and plantâ€“folivore coevolutionary processes?. Ecology and Evolution, 2016, 6, 4372-4386.	1.9	15
68	Similar local, but different systemic, metabolomic responses of closely related pine subspecies to folivory by caterpillars of the processionary moth. Plant Biology, 2016, 18, 484-494.	3.8	18
69	Chlorophyll a fluorescence, under half of the adaptive growth-irradiance, for high-throughput sensing of leaf-water deficit in Arabidopsis thaliana accessions. Plant Methods, 2016, 12, 46.	4.3	26
70	Pinus sylvestris as a missing source of nitrous oxide and methane in boreal forest. Scientific Reports, 2016, 6, 23410.	3.3	99
71	Enhanced thermal stability of the thylakoid membranes from spruce. A comparison with selected angiosperms. Photosynthesis Research, 2016, 130, 357-371.	2.9	7
72	Shoot-level terpenoids emission in Norway spruce (Picea abies) under natural field and manipulated laboratory conditions. Plant Physiology and Biochemistry, 2016, 108, 530-538.	5.8	18

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73	Topsoil depth substantially influences the responses to drought of the foliar metabolomes of Mediterranean forests. Perspectives in Plant Ecology, Evolution and Systematics, 2016, 21, 41-54.	2.7	30
74	Changes of primary and secondary metabolites in barley plants exposed to CdO nanoparticles. Environmental Pollution, 2016, 218, 207-218.	7.5	107
75	Environmental Factors Correlated with the Metabolite Profile of Vitis vinifera cv. Pinot Noir Berry Skins along a European Latitudinal Gradient. Journal of Agricultural and Food Chemistry, 2016, 64, 8722-8734.	5.2	52
76	Wet effluent diffusion denuder: The tool for determination of monoterpenes in forest. Talanta, 2016, 153, 260-267.	5.5	4
77	Photosynthetic response of mountain grassland species to drought stress is affected by UV-induced accumulation of epidermal flavonols. Beskydy, 2016, 9, 31-40.	0.2	4
78	Morphological, biochemical and physiological traits of upper and lower canopy leaves of European beech tend to converge with increasing altitude. Tree Physiology, 2015, 35, 47-60.	3.1	35
79	Ultraviolet radiation research: from the field to the laboratory and back. Plant, Cell and Environment, 2015, 38, 853-855.	5.7	15
80	Warming differentially influences the effects of drought on stoichiometry and metabolomics in shoots and roots. New Phytologist, 2015, 207, 591-603.	7.3	109
81	Ultraviolet and photosynthetically active radiation can both induce photoprotective capacity allowing barley to overcome high radiation stress. Plant Physiology and Biochemistry, 2015, 93, 74-83.	5.8	67
82	Does long-term cultivation of saplings under elevated CO2 concentration influence their photosynthetic response to temperature?. Annals of Botany, 2015, 116, 929-939.	2.9	24
83	Reâ€interpreting plant morphological responses to <scp>UV</scp>â€<scp>B</scp> radiation. Plant, Cell and Environment, 2015, 38, 856-866.	5.7	222
84	Effect of the relative time of emergence on the growth allometry of Galium aparine in competition with Triticum aestivum. Weed Biology and Management, 2014, 14, 262-270.	1.4	1
85	Drought enhances folivory by shifting foliar metabolomes in <scp>Q</scp>uercus ilex trees. New Phytologist, 2014, 202, 874-885.	7.3	81
86	Impact of elevated CO2 concentration on dynamics of leaf photosynthesis in Fagus sylvatica is modulated by sky conditions. Environmental Pollution, 2014, 185, 271-280.	7.5	39
87	Opposite metabolic responses of shoots and roots to drought. Scientific Reports, 2014, 4, 6829.	3.3	170
88	Response of green reflectance continuum removal index to the xanthophyll de-epoxidation cycle in Norway spruce needles. Journal of Experimental Botany, 2013, 64, 1817-1827.	4.8	47
89	<scp>C₄</scp> plants use fluctuating light less efficiently than do <scp>C₃</scp> plants: a study of growth, photosynthesis and carbon isotope discrimination. Physiologia Plantarum, 2013, 149, 528-539.	5.2	53
90	Reflectance continuum removal spectral index tracking the xanthophyll cycle photoprotective reactions in Norway spruce needles. Functional Plant Biology, 2012, 39, 987.	2.1	39

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91	The impact of long-term CO2 enrichment on sun and shade needles of Norway spruce (Picea abies): Photosynthetic performance, needle anatomy and phenolics accumulation. Plant Science, 2012, 188-189, 60-70.	3.6	15
92	Effect of season, needle age and elevated CO2 concentration on photosynthesis and Rubisco acclimation in Picea abies. Plant Physiology and Biochemistry, 2012, 58, 135-141.	5.8	35
93	Effect of Elevated Carbon Dioxide Concentration on Carbon Assimilation under Fluctuating Light. Journal of Environmental Quality, 2012, 41, 1931-1938.	2.0	14
94	Relation of Chlorophyll Fluorescence Sensitive Reflectance Ratios to Carbon Flux Measurements of Montanne Grassland and Norway Spruce Forest Ecosystems in the Temperate Zone. Scientific World Journal, The, 2012, 2012, 1-13.	2.1	2
95	Impact of clear and cloudy sky conditions on the vertical distribution of photosynthetic CO₂ uptake within a spruce canopy. Functional Ecology, 2012, 26, 46-55.	3.6	124
96	Interactive effects of PAR and UV radiation on the physiology, morphology and leaf optical properties of two barley varieties. Environmental and Experimental Botany, 2012, 75, 52-64.	4.2	73
97	The influence of climate change on stomatal ozone flux to a mountain Norway spruce forest. Environmental Pollution, 2012, 169, 267-273.	7.5	11
98	Seasonal changes of Rubisco content and activity in Fagus sylvatica and Picea abies affected by elevated CO2 concentration. Chemical Papers, 2012, 66, .	2.2	3
99	Ozone flux over a Norway spruce forest and correlation with net ecosystem production. Environmental Pollution, 2011, 159, 1024-1034.	7.5	34
100	Soil [N] modulates soil C cycling in CO₂â€fumigated tree stands: a metaâ€analysis. Plant, Cell and Environment, 2010, 33, 2001-2011.	5.7	65
101	Acclimation of Norway spruce photosynthetic apparatus to the combined effect of high irradiance and temperature. Journal of Plant Physiology, 2010, 167, 597-605.	3.5	10
102	Blue radiation stimulates photosynthetic induction in Fagus sylvatica L.. Photosynthetica, 2009, 47, .	1.7	18
103	Photosynthetic induction in broadleaved Fagus sylvatica and coniferous Picea abies cultivated under ambient and elevated CO2 concentrations. Plant Science, 2009, 177, 123-130.	3.6	29
104	Near-distance imaging spectroscopy investigating chlorophyll fluorescence and photosynthetic activity of grassland in the daily course. Functional Plant Biology, 2009, 36, 1006.	2.1	13
105	Annual variation of the steady-state chlorophyll fluorescence emission of evergreen plants in temperate zone. Functional Plant Biology, 2008, 35, 63.	2.1	29
106	Comparison of photosynthetic induction and transient limitations during the induction phase in young and mature leaves from three poplar clones. Tree Physiology, 2008, 28, 1189-1197.	3.1	43
107	Induction of photosynthesis and importance of limitations during the induction phase in sun and shade leaves of five ecologically contrasting tree species from the temperate zone. Tree Physiology, 2007, 27, 1207-1215.	3.1	70
108	Differences in pigment composition, photosynthetic rates and chlorophyll fluorescence images of sun and shade leaves of four tree species. Plant Physiology and Biochemistry, 2007, 45, 577-588.	5.8	261

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109	Ecophysiological controls over the net ecosystem exchange of mountain spruce stand. Comparison of the response in direct vs. diffuse solar radiation. Global Change Biology, 2007, 13, 157-168.	9.5	196
110	Diurnal regulation of ribulose-1,5-bisphosphate carboxylase/oxygenase activity and its content in Norway spruce needles. Photosynthetica, 2007, 45, 334-339.	1.7	5
111	Temperature dependences of carbon assimilation processes in four dominant species from mountain grassland ecosystem. Photosynthetica, 2007, 45, 392-399.	1.7	14
112	Photosynthesis and growth response of Calamagrostis arundinacea and C. villosa to enhanced UV-B radiation. Photosynthetica, 2006, 44, 215-220.	1.7	24
113	Long-term effect of elevated CO₂ on spatial differentiation of ribulose-1,5-bisphosphate carboxylase/oxygenase activity in Norway spruce canopy. Photosynthetica, 2005, 43, 211-216.	1.7	11
114	Diurnal dynamics of photosynthetic parameters of Norway spruce trees cultivated under ambient and elevated CO2: the reasons of midday depression in CO2 assimilation. Plant Science, 2005, 168, 1371-1381.	3.6	45
115	Preliminary estimation of bryophyte biomass and carbon pool from three contrasting different vegetation types. Cereal Research Communications, 2005, 33, 267-270.	1.6	2
116	Effect of Norway Spruce Planting Density on Shoot Morphological Parameters. Biologia Plantarum, 2004, 48, 137-139.	1.9	6
117	Variability of catechin and 4-hydroxyacetophenone distribution in Norway spruce needles in relation to their position, age, and growing conditions. Environmental Pollution, 2004, 131, 55-59.	7.5	8
118	Control Mechanisms of Photosynthetic Capacity Under Elevated CO₂ Concentration: Evidence from Three Experiments with Norway Spruce Trees. Photosynthetica, 2003, 41, 69-75.	1.7	12
119	Physiological Impacts of Elevated CO₂ Concentration Ranging from Molecular to Whole Plant Responses. Photosynthetica, 2003, 41, 9-20.	1.7	129
120	Response of Photosynthetic Apparatus of Spring Barley (Hordeum vulgare L.) to Combined Effect of Elevated CO₂ Concentration and Different Growth Irradiance. Photosynthetica, 2003, 41, 209-219.	1.7	15
121	Acclimation of Two Distinct Plant Species, Spring Barley and Norway Spruce, to Combined Effect of Various Irradiance and CO₂ Concentration During Cultivation in Controlled Environment. Photosynthetica, 2003, 41, 513-523.	1.7	22
122	Characterization of acclimation of Hordeum vulgare to high irradiation based on different responses of photosynthetic activity and pigment composition. Photosynthesis Research, 2002, 72, 71-83.	2.9	29
123	Photosynthetic Assimilation of Sun versus Shade Norway Spruce [Picea abies (L.) Karst] Needles Under the Long-Term Impact of Elevated CO₂ Concentration. Photosynthetica, 2002, 40, 259-267.	1.7	17
124	Different Responses of Norway Spruce Needles from Shaded and Exposed Crown Layers to the Prolonged Exposure to Elevated CO₂ Studied by Various Chlorophyll a Fluorescence Techniques. Photosynthetica, 2001, 39, 369-376.	1.7	13
125	Glass Domes with Adjustable Windows: A Novel Technique for Exposing Juvenile Forest Stands to Elevated CO₂ Concentration. Photosynthetica, 2001, 39, 395-401.	1.7	43
126	Chlorophyll a Fluorescence Response of Norway Spruce Needles to the Long-Term Effect of Elevated CO₂ in Relation to Their Position Within the Canopy. Photosynthetica, 2001, 39, 437-445.	1.7	7

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127	Seasonal Changes of Selected Parameters of CO2 Fixation Biochemistry of Norway Spruce Under the Long-Term Impact of Elevated CO2. Photosynthetica, 1999, 36, 533-545.	1.7	21
128	Single-Turnover Flashes to Saturate the Q_A Reduction in a Leaf were Generated by the Light-Emitting Diodes from a Double Modulation Kinetic Chlorophyll Fluorometer. Photosynthetica, 1999, 37, 201-207.	1.7	8
129	Chloroplastic Carbon Dioxide Concentration in Norway Spruce (Picea Abies [L.] Karst.) needles relates to the position within the crown. Photosynthetica, 1998, 35, 561-571.	1.7	21