Carl-Otto Ottosen

List of Publications by Year in Descending Order

86 papers	2,198 citations	27 h-index	44 g-index
90 ext. papers	2,893 ext. citations	4.2 avg, IF	5.35 L-index

#	Paper	IF	Citations
86	Elevated CO Improves the Physiology but Not the Final Yield in Spring Wheat Genotypes Subjected to Heat and Drought Stress During Anthesis.. *Frontiers in Plant Science*, **2022**, 13, 824476	6.2	3
85	Phenotyping to dissect the biostimulant action of a protein hydrolysate in tomato plants under combined abiotic stress.. *Plant Physiology and Biochemistry*, **2022**, 179, 32-43	5.4	2
84	Crop exposure to heat stress: responses in physiological, biochemical, and molecular levels **2022**, 43-57		
83	Elevated CO concentration increases photosynthetic sensitivity to nitrogen supply of sorghum in a genotype-dependent manner. *Plant Physiology and Biochemistry*, **2021**, 168, 202-210	5.4	0
82	The effect of individual and combined drought and heat stress under elevated CO on physiological responses in spring wheat genotypes. *Plant Physiology and Biochemistry*, **2021**, 162, 301-314	5.4	4
81	Whole-Genome Sequence of Synthesized Allopolyploids in Reveals Insights into the Genome Evolution of Allopolyploidization. *Advanced Science*, **2021**, 8, 2004222	13.6	9
80	Investigating Combined Drought- and Heat Stress Effects in Wheat under Controlled Conditions by Dynamic Image-Based Phenotyping. *Agronomy*, **2021**, 11, 364	3.6	8
79	Effects of high temperature during anthesis and grain filling on physiological characteristics of winter wheat cultivars. *Journal of Agronomy and Crop Science*, **2021**, 207, 823-832	3.9	8
78	Incorporating cultivar-specific stomatal traits into stomatal conductance models improves the estimation of evapotranspiration enhancing greenhouse climate management. *Biosystems Engineering*, **2021**, 208, 131-151	4.8	4
77	Effects of UV radiation on transcript and metabolite accumulation are dependent on monochromatic light background in cucumber. *Physiologia Plantarum*, **2021**, 173, 750-761	4.6	1
76	Intermittent moisture supply induces drought priming responses in some heat-tolerant chickpea genotypes. *Crop Science*, **2020**, 60, 2527-2542	2.4	6
75	Genotype-dependent responses of chickpea to high temperature and moderately increased light. *Plant Physiology and Biochemistry*, **2020**, 154, 353-359	5.4	2
74	Interactive effects of elevated CO concentration and combined heat and drought stress on tomato photosynthesis. *BMC Plant Biology*, **2020**, 20, 260	5.3	18
73	Unique miRNAs and their targets in tomato leaf responding to combined drought and heat stress. *BMC Plant Biology*, **2020**, 20, 107	5.3	17
72	Combined high light and heat stress induced complex response in tomato with better leaf cooling after heat priming. *Plant Physiology and Biochemistry*, **2020**, 151, 1-9	5.4	15
71	High Throughput Sequencing of circRNAs in Tomato Leaves Responding to Multiple Stresses of Drought and Heat. *Horticultural Plant Journal*, **2020**, 6, 34-38	4.3	6
70	Genotypic and phenotypic differences in fresh weight partitioning of cut rose stems: implications for water loss. *Acta Physiologiae Plantarum*, **2020**, 42, 1	2.6	16

69	Using artificial lighting based on electricity price without a negative impact on growth, visual quality or stomatal closing response in Passiflora. *Scientia Horticulturae*, **2020**, 267, 109354	4.1	23
68	Stress tolerant traits and root proliferation of Aspalathus linearis (Burm.f.) R. Dahlgren grown under differing moisture regimes and exposed to drought. *South African Journal of Botany*, **2020**, 131, 342-350	2.9	1
67	Effect of temperature on plant growth and stress tolerant traits in rooibos in the Western Cape, South Africa. *Scientia Horticulturae*, **2020**, 263, 109137	4.1	3
66	Inherent trait differences explain wheat cultivar responses to climate factor interactions: New insights for more robust crop modelling. *Global Change Biology*, **2020**, 26, 5965-5978	11.4	1
65	The Alleviation of Photosynthetic Damage in Tomato under Drought and Cold Stress by High CO and Melatonin. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	3
64	Drought priming effects on alleviating the photosynthetic limitations of wheat cultivars (Triticum aestivum L.) with contrasting tolerance to abiotic stresses. *Journal of Agronomy and Crop Science*, **2020**, 206, 651-664	3.9	5
63	Spectral Composition of Light Affects Sensitivity to UV-B and Photoinhibition in Cucumber. *Frontiers in Plant Science*, **2020**, 11, 610011	6.2	10
62	Physiological analysis and transcriptome sequencing reveal the effects of combined cold and drought on tomato leaf. *BMC Plant Biology*, **2019**, 19, 377	5.3	27
61	Oxidative damage and antioxidant mechanism in tomatoes responding to drought and heat stress. *Acta Physiologiae Plantarum*, **2019**, 41, 1	2.6	26
60	Chlorophyll fluorescence and carbohydrate concentration as field selection traits for heat tolerant chickpea genotypes. *Plant Physiology and Biochemistry*, **2019**, 141, 172-182	5.4	18
59	The Phenotyping Dilemma-The Challenges of a Diversified Phenotyping Community. *Frontiers in Plant Science*, **2019**, 10, 163	6.2	13
58	Physiological response of tomatoes at drought, heat and their combination followed by recovery. *Physiologia Plantarum*, **2019**, 165, 144-154	4.6	36
57	DynaGrow: Next Generation Software for Multi-Objective and Energy Cost-Efficient Control of Supplemental Light in Greenhouses. *Studies in Computational Intelligence*, **2019**, 25-44	0.8	2
56	Stomatal anatomy and closing ability is affected by supplementary light intensity in rose (Rosa hybrida L.). *Zahradnictvi (Prague, Czech Republic: 1992)*, **2019**, 46, 81-89	1.1	20
55	Allopolyploidization in Cucumis contributes to delayed leaf maturation with repression of redundant homoeologous genes. *Plant Journal*, **2018**, 94, 393-404	6.9	10
54	Phenotyping of faba beans (Vicia faba L.) under cold and heat stresses using chlorophyll fluorescence. *Euphytica*, **2018**, 214, 1	2.1	34
53	Evaluation of temperature stress tolerance in cultivated and wild tomatoes using photosynthesis and chlorophyll fluorescence. *Horticulture Environment and Biotechnology*, **2018**, 59, 499-509	2	21
52	Phenotyping from lab to field - tomato lines screened for heat stress using F/F maintain high fruit yield during thermal stress in the field. *Functional Plant Biology*, **2018**, 46, 44-55	2.7	37

51	Heat priming effects on anthesis heat stress in wheat cultivars (Triticum aestivum L.) with contrasting tolerance to heat stress. *Plant Physiology and Biochemistry*, **2018**, 132, 213-221	5.4	14
50	Physiological Response to Heat Stress During Seedling and Anthesis Stage in Tomato Genotypes Differing in Heat Tolerance. *Journal of Agronomy and Crop Science*, **2017**, 203, 68-80	3.9	46
49	Drought stress had a predominant effect over heat stress on three tomato cultivars subjected to combined stress. *BMC Plant Biology*, **2017**, 17, 24	5.3	149
48	Differential effects of elevated air humidity on stomatal closing ability of Kalanchoë blossfeldiana between the C 3 and CAM states. *Environmental and Experimental Botany*, **2017**, 143, 115-124	5.9	14
47	Temperature Variation under Continuous Light Restores Tomato Leaf Photosynthesis and Maintains the Diurnal Pattern in Stomatal Conductance. *Frontiers in Plant Science*, **2017**, 8, 1602	6.2	17
46	QTLs and Potential Candidate Genes for Heat Stress Tolerance Identified from the Mapping Populations Specifically Segregating for / in Wheat. *Frontiers in Plant Science*, **2017**, 8, 1668	6.2	43
45	Effects of HPS and LED lighting on cucumber leaf photosynthesis, light quality penetration and temperature in the canopy, plant morphology and yield. *Agricultural and Food Science*, **2017**, 26,	2	27
44	Improving stomatal functioning at elevated growth air humidity: A review. *Journal of Plant Physiology*, **2016**, 207, 51-60	3.6	50
43	Antitranspirant compounds alleviate the mild-desiccation-induced reduction of vase life in cut roses. *Postharvest Biology and Technology*, **2016**, 117, 110-117	6.2	25
42	Evaluation of genotypic variation during leaf development in four Cucumis genotypes and their response to high light conditions. *Environmental and Experimental Botany*, **2016**, 124, 100-109	5.9	7
41	DynaGrow Multi-Objective Optimization for Energy Cost-efficient Control of Supplemental Light in Greenhouses **2016**,		8
40	A coupled model of leaf photosynthesis, stomatal conductance, and leaf energy balance for chrysanthemum (Dendranthema grandiflora). *Computers and Electronics in Agriculture*, **2016**, 123, 264-274	6.5	18
39	Wheat cultivars selected for high Fv /Fm under heat stress maintain high photosynthesis, total chlorophyll, stomatal conductance, transpiration and dry matter. *Physiologia Plantarum*, **2015**, 153, 284-98	4.6	158
38	Predawn and high intensity application of supplemental blue light decreases the quantum yield of PSII and enhances the amount of phenolic acids, flavonoids, and pigments in Lactuca sativa. *Frontiers in Plant Science*, **2015**, 6, 19	6.2	73
37	Recovery of tomato (Solanum lycopersicum L.) leaves from continuous light induced injury. *Journal of Plant Physiology*, **2015**, 185, 24-30	3.6	4
36	Daily temperature drop prevents inhibition of photosynthesis in tomato plants under continuous light. *Photosynthetica*, **2015**, 53, 389-394	2.2	13
35	Using the quantum yields of photosystem II and the rate of net photosynthesis to monitor high irradiance and temperature stress in chrysanthemum (Dendranthema grandiflora). *Plant Physiology and Biochemistry*, **2015**, 90, 14-22	5.4	23
34	Pore size regulates operating stomatal conductance, while stomatal densities drive the partitioning of conductance between leaf sides. *Annals of Botany*, **2015**, 115, 555-65	4.1	76

33	Spectral effects of LEDs on chlorophyll fluorescence and pigmentation in Phalaenopsis 'Vivien' and 'Purple Star'. *Physiologia Plantarum*, **2015**, 154, 314-27	4.6	33
32	3D Laser Triangulation for Plant Phenotyping in Challenging Environments. *Sensors*, **2015**, 15, 13533-47	3.8	48
31	Continuous light increases growth, daily carbon gain, antioxidants, and alters carbohydrate metabolism in a cultivated and a wild tomato species. *Frontiers in Plant Science*, **2015**, 6, 522	6.2	33
30	Interspecific hybridization in Cucumis leads to the divergence of phenotypes in response to low light and extended photoperiods. *Frontiers in Plant Science*, **2015**, 6, 802	6.2	9
29	Spectral Effects of Artificial Light on Plant Physiology and Secondary Metabolism: A Review. *Hortscience: A Publication of the American Society for Hortcultural Science*, **2015**, 50, 1128-1135	2.4	148
28	Screening and validation of tomato genotypes under heat stress using Fv/Fm to reveal the physiological mechanism of heat tolerance. *Environmental and Experimental Botany*, **2015**, 118, 1-11	5.9	88
27	Genotypic response of detached leaves versus intact plants for chlorophyll fluorescence parameters under high temperature stress in wheat. *Journal of Plant Physiology*, **2014**, 171, 576-86	3.6	34
26	Spectral effects of supplementary lighting on the secondary metabolites in roses, chrysanthemums, and campanulas. *Journal of Plant Physiology*, **2014**, 171, 1491-9	3.6	82
25	Heat stress and recovery of photosystem II efficiency in wheat (Triticum aestivum L.) cultivars acclimated to different growth temperatures. *Environmental and Experimental Botany*, **2014**, 99, 1-8	5.9	45
24	Photoperiodic variations induce shifts in the leaf metabolic profile of Chrysanthemum morifolium. *Functional Plant Biology*, **2014**, 41, 1310-1322	2.7	6
23	Threshold response of stomatal closing ability to leaf abscisic acid concentration during growth. *Journal of Experimental Botany*, **2014**, 65, 4361-70	7	49
22	Smaller stomata require less severe leaf drying to close: a case study in Rosa hydrida. *Journal of Plant Physiology*, **2013**, 170, 1309-16	3.6	61
21	Foliar abscisic acid content underlies genotypic variation in stomatal responsiveness after growth at high relative air humidity. *Annals of Botany*, **2013**, 112, 1857-67	4.1	41
20	The Alleviating Effect of Elevated CO2 on Heat Stress Susceptibility of Two Wheat (Triticum aestivum L.) Cultivars. *Journal of Agronomy and Crop Science*, **2013**, 199, 340-350	3.9	47
19	High temperature stress monitoring and detection using chlorophyll a fluorescence and infrared thermography in chrysanthemum (Dendranthema grandiflora). *Plant Physiology and Biochemistry*, **2013**, 67, 87-94	5.4	40
18	The effect of temperature on photosynthetic induction under fluctuating light in Chrysanthemum morifolium. *Acta Physiologiae Plantarum*, **2013**, 35, 1179-1188	2.6	7
17	Phenotyping of wheat cultivars for heat tolerance using chlorophyll a fluorescence. *Functional Plant Biology*, **2012**, 39, 936-947	2.7	69
16	Timing growth and development of Campanula by daily light integral and supplemental light level in a cost-efficient light control system. *Scientia Horticulturae*, **2012**, 143, 189-196	4.1	19

15	Simulation of leaf photosynthesis of C3 plants under fluctuating light and different temperatures. *Acta Physiologiae Plantarum*, **2012**, 34, 2319-2329	2.6	4
14	Rapid adjustment in chrysanthemum carbohydrate turnover and growth activity to a change in time-of-day application of light and daylength. *Functional Plant Biology*, **2012**, 39, 639-649	2.7	8
13	Cost-efficient light control for production of two campanula species. *Scientia Horticulturae*, **2011**, 129, 825-831	4.1	21
12	Automatic identification of crop and weed species with chlorophyll fluorescence induction curves. *Precision Agriculture*, **2011**, 12, 546-563	5.6	21
11	Growth of Chrysanthemum in Response to Supplemental Light Provided by Irregular Light Breaks during the Night. *Journal of the American Society for Horticultural Science*, **2011**, 136, 3-9	2.3	15
10	Canopy Photosynthesis and Time-of-day Application of Supplemental Light. *Hortscience: A Publication of the American Society for Hortcultural Science*, **2009**, 44, 1284-1290	2.4	10
9	Effect of a Dynamic Climate on Energy Consumption and Production of Hibiscus rosa-sinensis L. in Greenhouses. *Hortscience: A Publication of the American Society for Hortcultural Science*, **2006**, 41, 384-388	2.4	9
8	Effects of air humidity and K:Ca ratio on growth, morphology, flowering and keeping quality of pot roses. *Scientia Horticulturae*, **2001**, 90, 131-141	4.1	15
7	Effects of root restriction on the growth and physiology of cucumber plants. *Physiologia Plantarum*, **1999**, 105, 434-441	4.6	38
6	Response to Phosphorus Availability during Vegetative and Reproductive Growth of Chrysanthemum: I. Whole-plant Carbon Dioxide Exchange. *Journal of the American Society for Horticultural Science*, **1998**, 123, 215-222	2.3	13
5	Net Photosynthesis of Schefflera arboricola Hayata Clones at Different CO2 Concentration and Photosynthetic Flux Densities. *Acta Agriculturae Scandinavica - Section B Soil and Plant Science*, **1994**, 44, 248-250	1.1	
4	Oxygen evolution in clones of Ficus benjamina L. grown in different environmental conditions. *Scientia Horticulturae*, **1991**, 48, 311-318	4.1	
3	Growth Versus Net Photosynthesis in Clones of Ficus benjamina. *Hortscience: A Publication of the American Society for Hortcultural Science*, **1990**, 25, 956-957	2.4	3
2	Male Bumblebees (Bombus hortorum L.) as Pollinators of Lonicera periclymenum L. in N.E.-Zealand, Denmark. *Flora: Morphology, Distribution, Functional Ecology of Plants*, **1987**, 179, 155-161	1.9	1
1	Pollination Ecology of Lonicercu periclymenum L. in NE.-Zealand, Denmark: Floral Development, Nectar Production and Insect Visits. *Flora: Morphology, Distribution, Functional Ecology of Plants*, **1986**, 178, 271-279	1.9	3