HÃ¥kan Pleijel

List of Publications by Year
in descending order

139 papers	7,074 citations	57719 44 h-index	69214 77 g-index
140 all docs	140 docs citations	140 times ranked	5472 citing authors

#	Article	IF	Citations
1	Ozone risk for vegetation in the future climate of Europe based on stomatal ozone uptake calculations. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 63, 174.	0.8	40
2	Polycyclic aromatic hydrocarbon (PAH) accumulation in Quercus palustris and Pinus nigra in the urban landscape of Gothenburg, Sweden. Science of the Total Environment, 2022, 805, 150163.	3.9	14
3	Benefits of the Phytotoxic Ozone Dose (POD) index in dose-response functions for wheat yield loss. Atmospheric Environment, 2022, 268, 118797.	1.9	16
4	Yield Response of an Ensemble of Potato Crop Models to Elevated CO2 in Continental Europe. European Journal of Agronomy, 2021, 126, 126265.	1.9	6
5	Letter to the editor regarding Pleijel et al. 2019: Ozone sensitivity of wheat in different continents â€“ An addendum. Science of the Total Environment, 2021, 773, 146335.	3.9	7
6	Harvest index and remobilization of 13 elements during wheat grain filling: Experiences from ozone experiments in China and Sweden. Field Crops Research, 2021, 271, 108259.	2.3	18
7	Mercury accumulation in leaves of different plant types â€“ the significance of tissue age and specific leaf area. Biogeosciences, 2021, 18, 6313-6328.	1.3	17
8	Narrowing uncertainties in the effects of elevated CO2 on crops. Nature Food, 2020, 1, 775-782.	6.2	67
9	Ozone Induced Loss of Seed Protein Accumulation Is Larger in Soybean than in Wheat and Rice. Agronomy, 2020, 10, 357.	1.3	11
10	Ozone exposure- and flux-yield response relationships for maize. Environmental Pollution, 2019, 252, 1-7.	3.7	35
11	Effects of Elevated CO2 on Wheat Yield: Non-Linear Response and Relation to Site Productivity. Agronomy, 2019, 9, 243.	1.3	46
12	Nitrogen application is required to realize wheat yield stimulation by elevated CO₂ but will not remove the CO₂â€induced reduction in grain protein concentration. Global Change Biology, 2019, 25, 1868-1876.	4.2	30
13	Ozone impact on wheat in Europe, Asia and North America â€“ A comparison. Science of the Total Environment, 2019, 664, 908-914.	3.9	36
14	Policy design for the Anthropocene. Nature Sustainability, 2019, 2, 14-21.	11.5	176
15	Ozone pollution will compromise efforts to increase global wheat production. Global Change Biology, 2018, 24, 3560-3574.	4.2	163
16	Effects of ground surface permeability on the growth of urban linden trees. Urban Ecosystems, 2018, 21, 691-696.	1.1	16
17	A unifying explanation for variation in ozone sensitivity among woody plants. Global Change Biology, 2018, 24, 78-84.	4.2	62
18	Current surface ozone concentrations significantly decrease wheat growth, yield and quality. Science of the Total Environment, 2018, 613-614, 687-692.	3.9	80

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19	A framework for assessing urban greenery's effects and valuing its ecosystem services. Journal of Environmental Management, 2018, 205, 274-285.	3.8	60
20	Wheat yield responses to stomatal uptake of ozone: Peak vs rising background ozone conditions. Atmospheric Environment, 2018, 173, 1-5.	1.9	31
21	Ozone effects on crops and consideration in crop models. European Journal of Agronomy, 2018, 100, 19-34.	1.9	170
22	Crop quality under rising atmospheric CO2. Current Opinion in Plant Biology, 2018, 45, 262-267.	3.5	46
23	Closing the global ozone yield gap: Quantification and cobenefits for multistress tolerance. Global Change Biology, 2018, 24, 4869-4893.	4.2	163
24	Tropospheric Ozone Assessment Report: Present-day tropospheric ozone distribution and trends relevant to vegetation. Elementa, 2018, 6, .	1.1	212
25	Epidemiological analysis of ozone and nitrogen impacts on vegetation â€“ Critical evaluation and recommendations. Science of the Total Environment, 2017, 603-604, 785-792.	3.9	29
26	Influence of urban vegetation on air pollution and noise exposure â€“ A case study in Gothenburg, Sweden. Science of the Total Environment, 2017, 599-600, 1728-1739.	3.9	122
27	Fertilizer efficiency in wheat is reduced by ozone pollution. Science of the Total Environment, 2017, 607-608, 876-880.	3.9	30
28	The relationship between birch pollen, air pollution and weather types and their effect on antihistamine purchase in two Swedish cities. Aerobiologia, 2017, 33, 457-471.	0.7	31
29	Past, present and future concentrations of ground-level ozone and potential impacts on ecosystems and human health in northern Europe. Science of the Total Environment, 2017, 576, 22-35.	3.9	77
30	Carbon stocks and dynamics at different successional stages in an Afromontane tropical forest. Biogeosciences, 2017, 14, 1285-1303.	1.3	44
31	CO2-Induced Changes in Wheat Grain Composition: Meta-Analysis and Response Functions. Agronomy, 2017, 7, 32.	1.3	80
32	Photochemical smog in China: scientific challenges and implications for air-quality policies. National Science Review, 2016, 3, 401-403.	4.6	58
33	Differential effects of ozone on photosynthesis of winter wheat among cultivars depend on antioxidative enzymes rather than stomatal conductance. Science of the Total Environment, 2016, 572, 404-411.	3.9	82
34	Transpiration of urban trees and its cooling effect in a high latitude city. International Journal of Biometeorology, 2016, 60, 159-172.	1.3	138
35	A method to assess the inter-annual weather-dependent variability in air pollution concentration and deposition based on weather typing. Atmospheric Environment, 2016, 126, 200-210.	1.9	19
36	Influence of atmospheric circulation patterns on urban air quality during the winter. Atmospheric Pollution Research, 2015, 6, 278-285.	1.8	36

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37	CO2 doseâ€“response functions for wheat grain, protein and mineral yield based on FACE and open-top chamber experiments. Environmental Pollution, 2015, 198, 70-77.	3.7	32
38	Ozone effects on wheat grain quality â€“ A summary. Environmental Pollution, 2015, 197, 203-213.	3.7	87
39	Constraints to nitrogen acquisition of terrestrial plants under elevated <scp>CO</scp>₂. Global Change Biology, 2015, 21, 3152-3168.	4.2	146
40	Air pollution dynamics and the need for temporally differentiated road pricing. Transportation Research, Part A: Policy and Practice, 2015, 75, 178-195.	2.0	16
41	Variation and co-variation of PM10, particle number concentration, NOx and NO2 in the urban air â€“ Relationships with wind speed, vertical temperature gradient and weather type. Atmospheric Environment, 2015, 120, 317-327.	1.9	75
42	Have ozone effects on carbon sequestration been overestimated? A new biomass response function for wheat. Biogeosciences, 2014, 11, 4521-4528.	1.3	17
43	Declining ozone exposure of European vegetation under climate change and reduced precursor emissions. Biogeosciences, 2014, 11, 5269-5283.	1.3	27
44	Parameterization of Thermal Properties of Aging Secondary Organic Aerosol Produced by Photo-Oxidation of Selected Terpene Mixtures. Environmental Science & Technology, 2014, 48, 6168-6176.	4.6	14
45	Limited effect of urban tree vegetation on NO2 and O3 concentrations near a traffic route. Environmental Pollution, 2014, 189, 73-76.	3.7	57
46	An ozone response relationship for four Phleum pratense genotypes based on modelling of the phytotoxic ozone dose (POD). Environmental and Experimental Botany, 2013, 90, 70-77.	2.0	15
47	Surface Ozone in the Marine Environmentâ€”Horizontal Ozone Concentration Gradients in Coastal Areas. Water, Air, and Soil Pollution, 2013, 224, 1.	1.1	11
48	Effects of ozone on zinc and cadmium accumulation in wheat â€“ doseâ€“response functions and relationship with protein, grain yield, and harvest index. Ecology and Evolution, 2012, 2, 3186-3194.	0.8	8
49	Yield vs. Quality tradeâ€offs for wheat in response to carbon dioxide and ozone. Global Change Biology, 2012, 18, 596-605.	4.2	114
50	A stomatal ozone fluxâ€“response relationship to assess ozone-induced yield loss of winter wheat in subtropical China. Environmental Pollution, 2012, 164, 16-23.	3.7	85
51	Updated stomatal flux and flux-effect models for wheat for quantifying effects of ozone on grain yield, grain mass and protein yield. Environmental Pollution, 2012, 165, 147-157.	3.7	69
52	Variation in ozone exposure in the landscape of southern Sweden with consideration of topography and coastal climate. Atmospheric Environment, 2012, 47, 252-260.	1.9	18
53	Yield vs. quality trade-offs for wheat in response to carbon dioxide and ozone. Global Change Biology, 2011, , n/a-n/a.	4.2	25
54	Reduced ozone by air filtration consistently improved grain yield in wheat. Environmental Pollution, 2011, 159, 897-902.	3.7	34

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55	Urban NO2 and NO pollution in relation to the North Atlantic Oscillation NAO. Atmospheric Environment, 2011, 45, 883-888.	1.9	18
56	New stomatal flux-based critical levels for ozone effects on vegetation. Atmospheric Environment, 2011, 45, 5064-5068.	1.9	215
57	Co-Producing Policy-Relevant Science and Science-Based Policy: The Case of Regulating Ground-Level Ozone. , 2011, , 223-250.		4
58	Observations of Ground-level Ozone and NO₂in Northernmost Sweden, Including the Scandian Mountain Range. Ambio, 2009, 38, 448-451.	2.8	9
59	Yield dilution of grain Zn in wheat grown in open-top chamber experiments with elevated CO2 and O3 exposure. Journal of Cereal Science, 2009, 50, 278-282.	1.8	23
60	Characteristics of NO2 Pollution in the City of Gothenburg, South-West Swedenâ€"Relation to NO x and O3 Levels, Photochemistry and Monitoring Location. Water, Air and Soil Pollution, 2009, 9, 15-25.	0.8	11
61	Estimates of AOT ozone indices from time-integrated ozone data and hourly air temperature measurements in southwest Sweden. Environmental Pollution, 2009, 157, 3051-3058.	3.7	10
62	Editorial. Ambio, 2009, 38, 401-401.	2.8	0
63	Evidence for Impacts of Near-ambient Ozone Concentrations on Vegetation in Southern Sweden. Ambio, 2009, 38, 425-432.	2.8	7
64	Ozone Exposure and Impacts on Vegetation in the Nordic and Baltic Countries. Ambio, 2009, 38, 402-405.	2.8	13
65	Observations of temperature and air humidity during the total solar eclipse 29 March 2006 at Side, Turkey. Meteorologische Zeitschrift, 2009, 18, 107-109.	0.5	4
66	Sourceâ€"sink balance of wheat determines responsiveness of grain production to increased [CO2] and water supply. Agriculture, Ecosystems and Environment, 2008, 127, 215-222.	2.5	37
67	The open-top chamber impact on vapour pressure deficit and its consequences for stomatal ozone uptake. Atmospheric Environment, 2008, 42, 6513-6522.	1.9	37
68	The grain quality of spring wheat (Triticum aestivum L.) in relation to elevated ozone uptake and carbon dioxide exposure. European Journal of Agronomy, 2008, 28, 245-254.	1.9	65
69	Comparison of modelled and measured ozone concentrations and meteorology for a site in south-west Sweden: Implications for ozone uptake calculations. Environmental Pollution, 2008, 155, 99-111.	3.7	22
70	Concentration gradients of ozone and other trace gases in and above cereal canopies. Meteorologische Zeitschrift, 2008, 17, 187-192.	0.5	2
71	Increasing risk for negative ozone impacts on vegetation in northern Sweden. Environmental Pollution, 2007, 150, 96-106.	3.7	40
72	A synthesis of AOT40-based response functions and critical levels of ozone for agricultural and horticultural crops. Atmospheric Environment, 2007, 41, 2630-2643.	1.9	406

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73	Ozone risk assessment for agricultural crops in Europe: Further development of stomatal flux and fluxâ€“response relationships for European wheat and potato. Atmospheric Environment, 2007, 41, 3022-3040.	1.9	174
74	Impact of elevated O3 and CO2 exposure on potato (Solanum tuberosum L. cv. Bintje) tuber macronutrients (N, P, K, Mg, Ca). Agriculture, Ecosystems and Environment, 2007, 118, 55-64.	2.5	25
75	Evaluating the relationship between leaf chlorophyll concentration and SPAD-502 chlorophyll meter readings. Photosynthesis Research, 2007, 91, 37-46.	1.6	585
76	Variation in ozone concentration in relation to local climate in south-west Sweden. Water, Air, and Soil Pollution, 2006, 173, 339-354.	1.1	14
77	Changes in stomatal conductance and net photosynthesis during phenological development in spring wheat: implications for gas exchange modelling. International Journal of Biometeorology, 2006, 51, 37-48.	1.3	8
78	Differential ozone sensitivity in an old and a modern Swedish wheat cultivarâ€”grain yield and quality, leaf chlorophyll and stomatal conductance. Environmental and Experimental Botany, 2006, 56, 63-71.	2.0	121
79	Ozone concentration gradients and wind conditions in Norway spruce (Picea abies) forests in Sweden. Atmospheric Environment, 2006, 40, 1610-1618.	1.9	12
80	Economic Assessment of the Negative Impacts of Ozone on Crop Yields and Forest Production. A Case Study of the Estate Ã–stads SÃteri in Southwestern Sweden. Ambio, 2005, 34, 32-40.	2.8	25
81	Impact of rising tropospheric ozone on potato: effects on photosynthesis, growth, productivity and yield quality. Plant, Cell and Environment, 2005, 28, 982-996.	2.8	46
82	New Directions: Discussion of â€œA new generation of ozone critical levels for the protection of vegetation in Europeâ€•by Ashmore et al.. Atmospheric Environment, 2005, 39, 5213-5217.	1.9	10
83	Economic assessment of the negative impacts of ozone on crop yields and forest production. A case study of the estate Ostads SÃteri in southwestern Sweden. Ambio, 2005, 34, 32-40.	2.8	2
84	On the logarithmic relationship between NO2 concentration and the distance from a highroad. Science of the Total Environment, 2004, 332, 261-264.	3.9	41
85	Relationships between ozone exposure and yield loss in European wheat and potatoâ€”a comparison of concentration- and flux-based exposure indices. Atmospheric Environment, 2004, 38, 2259-2269.	1.9	130
86	Growth of Norway spruce (Picea abies) in relation to different ozone exposure indices: a synthesis. Atmospheric Environment, 2004, 38, 2225-2236.	1.9	18
87	Test of the short-term critical levels for acute ozone injury on plantsâ€”improvements by ozone uptake modelling and the use of an effect threshold. Atmospheric Environment, 2004, 38, 2237-2245.	1.9	26
88	Introduction for ozone deposition special issue. Atmospheric Environment, 2004, 38, 2211-2212.	1.9	9
89	New Directions: A new generation of ozone critical levels for the protection of vegetation in Europe. Atmospheric Environment, 2004, 38, 2213-2214.	1.9	63
90	Biomass reduction of juvenile birch is more strongly related to stomatal uptake of ozone than to indices based on external exposure. Atmospheric Environment, 2004, 38, 4709-4719.	1.9	58

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91	The impact of tropospheric O3 on leaf number duration and tuber yield of the potato (Solanum) Tj ETQq1 1 0.784314 rgBT /Overlock 10 483-492.	2.5	14
92	Recovery of the Epiphytic Lichen Flora Following Air Quality Improvement in South-West Sweden. Water, Air, and Soil Pollution, 2004, 154, 203-211.	1.1	25
93	Measuring and modelling leaf diffusive conductance in juvenile silver birch, Betula pendula. Trees - Structure and Function, 2004, 18, 686-695.	0.9	23
94	A cumulative ozone uptakeâ€“response relationship for the growth of Norway spruce saplings. Environmental Pollution, 2004, 128, 405-417.	3.7	19
95	Potato tuber sugars, starch and organic acids in relation to ozone exposure. Potato Research, 2003, 46, 67-79.	1.2	10
96	Four years of ozone exposure at high or low phosphorus reduced biomass in Norway spruce. Trees - Structure and Function, 2003, 17, 299-307.	0.9	22
97	Ozone uptake modelling and flux-response relationshipsâ€”an assessment of ozone-induced yield loss in spring wheat. Atmospheric Environment, 2003, 37, 475-485.	1.9	87
98	Clover as a tool for bioindication of phytotoxic ozoneâ€”5 years of experience from southern Swedenâ€”consequences for the short-term critical levels. Science of the Total Environment, 2003, 301, 205-213.	3.9	19
99	The effects of tropospheric ozone and elevated carbon dioxide on potato (Solanum tuberosum L. cv.) Tj ETQq1 1 0.784314 rgBT /Overlo	3.9	17
100	Impact of ozone and reduced water supply on the biomass accumulation of Norway spruce saplings. Environmental Pollution, 2002, 119, 237-244.	3.7	28
101	Elevated ozone (O3) alters carbohydrate metabolism during grain filling in wheat (Triticum aestivum) Tj ETQq1 1 0.784314 rgBT /Overlo	2.5	22
102	Effect of climatic conditions on tuber yield (Solanum tuberosum L.) in the European â€˜CHIPâ€™ experiments. European Journal of Agronomy, 2002, 17, 243-255.	1.9	35
103	CO2 and ozone effects on canopy development of potato crops across Europe. European Journal of Agronomy, 2002, 17, 257-272.	1.9	30
104	Stomatal conductance and ozone exposure in relation to potato tuber yieldâ€”results from the European CHIP programme. European Journal of Agronomy, 2002, 17, 303-317.	1.9	68
105	Impact of four years exposure to different levels of ozone, phosphorus and drought on chlorophyll, mineral nutrients, and stem volume of Norway spruce, Picea abies. Physiologia Plantarum, 2002, 114, 192-206.	2.6	49
106	Effects of ozone on biomass, non-structural carbohydrates and nitrogen in spring wheat with artificially manipulated source/sink ratio. Environmental and Experimental Botany, 2001, 46, 155-169.	2.0	28
107	Effects of elevated carbon dioxide, ozone and water availability on spring wheat growth and yield. Physiologia Plantarum, 2000, 108, 61-70.	2.6	39
108	Simulations of stomatal conductance and ozone uptake to Norway spruce saplings in open-top chambers. Environmental Pollution, 2000, 109, 443-451.	3.7	39

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109	An ozone fluxâ€“response relationship for wheat. Environmental Pollution, 2000, 109, 453-462.	3.7	66
110	Phenological weighting of ozone exposures in the calculation of critical levels for wheat, bean and plantain. Environmental Pollution, 2000, 109, 517-524.	3.7	41
111	Rate and duration of grain filling in relation to flag leaf senescence and grain yield in spring wheat (Triticum aestivum) exposed to different concentrations of ozone. Physiologia Plantarum, 2000, 110, 366-375.	2.6	21
112	Rate and duration of grain filling in relation to flag leaf senescence and grain yield in spring wheat (Triticum aestivum) exposed to different concentrations of ozone. Physiologia Plantarum, 2000, 110, 366-375.	2.6	73
113	Effect of CO2 enrichment on non-structural carbohydrates in leaves, stems and ears of spring wheat. Physiologia Plantarum, 1999, 107, 60-67.	2.6	10
114	Response of subterranean clover (Trifolium subterraneum) to ozone in relation to plant age and light conditions during exposure. New Phytologist, 1999, 143, 315-321.	3.5	5
115	Grain protein accumulation in relation to grain yield of spring wheat (Triticum aestivum L.) grown in open-top chambers with different concentrations of ozone, carbon dioxide and water availability. Agriculture, Ecosystems and Environment, 1999, 72, 265-270.	2.5	96
116	Ozone sensitivity, growth and flower development in Phleum genotypes of different geographic origin in the Nordic countries. Environmental and Experimental Botany, 1999, 42, 41-49.	2.0	19
117	Phenological development, leaf emergence, tillering and leaf area index, and duration of spring wheat across Europe in response to CO2 and ozone. European Journal of Agronomy, 1999, 10, 171-184.	1.9	45
118	Tropospheric ozone decreases biomass production in radish plants (Raphanus sativus) grown in rural south-west Sweden. Environmental Pollution, 1999, 106, 143-147.	3.7	18
119	Title is missing!. Water, Air, and Soil Pollution, 1998, 102, 61-74.	1.1	12
120	Growth stage dependence of the grain yield response to ozone in spring wheat (Triticum aestivum L.). Agriculture, Ecosystems and Environment, 1998, 70, 61-68.	2.5	91
121	Nitrous oxide emissions from a wheat field in response to elevated carbon dioxide concentration and open-top chamber enclosure. Environmental Pollution, 1998, 102, 167-171.	3.7	8
122	Effects of tropospheric ozone on the yield and grain protein content of spring wheat(Triticum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 1997, 47, 20-25.	0.3	5
123	Growth of 27 herbs and grasses in relation to ozone exposure and plant strategy. New Phytologist, 1997, 135, 361-367.	3.5	56
124	Ozone gradients in a spruce forest stand in relation to wind speed and time of the day. Atmospheric Environment, 1996, 30, 4077-4084.	1.9	13
125	Exposure of a grass-clover mixture to ozone in open-top chambersâ€”effects on yield, quality and botanical composition. Agriculture, Ecosystems and Environment, 1996, 59, 55-62.	2.5	18
126	Gradients of ozone at a forest site and over a field cropconsequences for the AOT40 concept of critical level. Water, Air, and Soil Pollution, 1995, 85, 2033-2038.	1.1	21

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127	Clover Sweden ? A national three-year study of the effects of tropospheric ozone on Trifolium subterraneum, L.. Water, Air, and Soil Pollution, 1995, 85, 1503-1508.	1.1	18
128	Photochemical oxidant effects on vegetation ? Response in relation to plant strategy. Water, Air, and Soil Pollution, 1995, 85, 111-122.	1.1	31
129	Clover as an indicator plant for phytotoxic ozone concentrations: visible injury in relation to species, leaf age and exposure dynamics. New Phytologist, 1995, 129, 355-365.	3.5	59
130	Exposure of spring wheat (Triticum aestivum) to ozone in open-top chambers. Effects on acyl lipid composition and chlorophyll content of flag leaves. New Phytologist, 1995, 131, 231-239.	3.5	45
131	A process-oriented explanation of the nonlinear relationship between grain yield of wheat and ozone exposure. New Phytologist, 1995, 131, 241-246.	3.5	36
132	Surface wetness enhances ozone deposition to a pasture canopy. Atmospheric Environment, 1995, 29, 3391-3393.	1.9	40
133	The Leaf Acyl Lipid Composition of Plants Exposed to Moderately Enhanced Levels of Ozone: Species, Age and Dose Dependence. , 1995, , 459-461.		1
134	Effects of air pollutant emissions from a rural motorway on Petunia and Trifolium. Science of the Total Environment, 1994, 146-147, 117-123.	3.9	17
135	Exposure of oats, Avena sativa L., to filtered and unfiltered air in open-top chambers: Effects on grain yield and quality. Environmental Pollution, 1994, 86, 129-134.	3.7	11
136	Ozone deposition to an oat crop (Avena sativa L.) grown in open-top chambers and in the ambient air. Atmospheric Environment, 1994, 28, 1971-1979.	1.9	24
137	Yield and quality of spring barley, Hordeum vulgare L., exposed to different concentrations of ozone in open-top chambers. Agriculture, Ecosystems and Environment, 1992, 38, 21-29.	2.5	18
138	Exposure of spring wheat, Triticum aestivum L., cv. Drabant, to different concentrations of ozone in open-top chambers: effects on the ultrastructure of flag leaf cells. New Phytologist, 1992, 120, 39-48.	3.5	65
139	Yield and grain quality of spring wheat (Triticum aestivum L., cv. Drabant) exposed to different concentrations of ozone in open-top chambers. Environmental Pollution, 1991, 69, 151-168.	3.7	107