Klaus-J Appenroth

List of Publications by Year
in descending order

68 papers	2,478 citations	186265 28 h-index	223800 46 g-index
74 all docs	74 docs citations	74 times ranked	1641 citing authors

#	Article	IF	Citations
1	Nutritional value of duckweeds (Lemnaceae) as human food. Food Chemistry, 2017, 217, 266-273.	8.2	192
2	Growth rate based doseâ€"response relationships and EC-values of ten heavy metals using the duckweed growth inhibition test (ISO 20079) with Lemna minor L. clone St. Journal of Plant Physiology, 2007, 164, 1656-1664.	3.5	150
3	Return of the Lemnaceae: duckweed as a model plant system in the genomics and postgenomics era. Plant Cell, 2021, 33, 3207-3234.	6.6	111
4	Nutritional Value of the Duckweed Species of the Genus Wolffia (Lemnaceae) as Human Food. Frontiers in Chemistry, 2018, 6, 483.	3.6	102
5	Definition of â€œHeavy Metalsâ€•and Their Role in Biological Systems. Soil Biology, 2010, , 19-29.	0.8	98
6	Light Regulation of Nitrate Reductase in Higher Plants: Which Photoreceptors are Involved?. Plant Biology, 2001, 3, 455-465.	3.8	80
7	What are â€œheavy metalsâ€•in Plant Sciences?. Acta Physiologiae Plantarum, 2010, 32, 615-619.	2.1	77
8	Phytotoxicity of cobalt ions on the duckweed Lemna minor â€" Morphology, ion uptake, and starch accumulation. Chemosphere, 2015, 131, 149-156.	8.2	75
9	Genetic structure of the genus Lemna L. (Lemnaceae) as revealed by amplified fragment length polymorphism. Planta, 2010, 232, 609-619.	3.2	66
10	How fast can angiosperms grow? Species and clonal diversity of growth rates in the genus Wolffia (Lemnaceae). Acta Physiologiae Plantarum, 2015, 37, 1.	2.1	65
11	Low genetic variation is associated with low mutation rate in the giant duckweed. Nature Communications, 2019, 10, 1243.	12.8	65
12	Generating a highâ€confidence reference genome map of the Greater Duckweed by integration of cytogenomic, optical mapping, and Oxford Nanopore technologies. Plant Journal, 2018, 96, 670-684.	5.7	64
13	Natural variance in salt tolerance and induction of starch accumulation in duckweeds. Planta, 2015, 241, 1395-1404.	3.2	61
14	Duckweed (Lemnaceae): Its Molecular Taxonomy. Frontiers in Sustainable Food Systems, 2019, 3, .	3.9	61
15	Multiple Effects of Chromate on Spirodela polyrhiza: Electron Microscopy and Biochemical Investigations. Plant Biology, 2003, 5, 315-323.	3.8	60
16	Genome and time-of-day transcriptome of <i>Wolffia australiana</i> link morphological minimization with gene loss and less growth control. Genome Research, 2021, 31, 225-238.	5.5	56
17	Genetic characterization and barcoding of taxa in the genus Wolffia Horkel ex Schleid. (Lemnaceae) as revealed by two plastidic markers and amplified fragment length polymorphism (AFLP). Planta, 2013, 237, 1-13.	3.2	49
18	Species distribution, genetic diversity and barcoding in the duckweed family (Lemnaceae). Hydrobiologia, 2015, 743, 75-87.	2.0	46

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19	A taxonomic revision of <i>Lemna</i> sect. <i>Uninerves</i> (Lemnaceae). Taxon, 2020, 69, 56-66.	0.7	46
20	The clonal dependence of turion formation in the duckweed <i>Spirodela polyrhiza</i>â€"an ecogeographical approach. Physiologia Plantarum, 2014, 150, 46-54.	5.2	41
21	The duckweed Wolffia microscopica: A unique aquatic monocot. Flora: Morphology, Distribution, Functional Ecology of Plants, 2015, 210, 31-39.	1.2	40
22	The mapâ€based genome sequence of <i><scp>S</scp>pirodela polyrhiza</i> aligned with its chromosomes, a reference for karyotype evolution. New Phytologist, 2016, 209, 354-363.	7.3	40
23	Genetic characterization and barcoding of taxa in the genera Landoltia and Spirodela (Lemnaceae) by three plastidic markers and amplified fragment length polymorphism (AFLP). Hydrobiologia, 2015, 749, 169-182.	2.0	39
24	Key to the determination of taxa of Lemnaceae: an update. Nordic Journal of Botany, 2020, 38, .	0.5	35
25	Duckweed Species Genotyping and Interspecific Hybrid Discovery by Tubulin-Based Polymorphism Fingerprinting. Frontiers in Plant Science, 2021, 12, 625670.	3.6	33
26	Tomato seed germination: regulation of different response modes by phytochrome B2 and phytochrome A. Plant, Cell and Environment, 2006, 29, 701-709.	5.7	31
27	Modification of chromate toxicity by sulphate in duckweeds (Lemnaceae). Aquatic Toxicology, 2008, 89, 167-171.	4.0	31
28	Turion formation in<i>Spirodela polyrhiza</i>: The environmental signals that induce the developmental process in nature. Physiologia Plantarum, 2010, 138, 312-320.	5.2	31
29	Co-action of temperature and phosphate in inducing turion formation in Spirodela polyrhiza (Great) Tj ETQq1 1 0.784314 rgBT /Overl	5.7	29
30	Phytochrome and post-translational regulation of nitrate reductase in higher plants. Plant Science, 2000, 159, 51-56.	3.6	27
31	Induction of frond abscission by metals and other toxic compounds in Lemna minor. Aquatic Toxicology, 2011, 101, 261-265.	4.0	27
32	Flower induction, microscope-aided cross-pollination, and seed production in the duckweed Lemna gibba with discovery of a male-sterile clone. Scientific Reports, 2017, 7, 3047.	3.3	23
33	Light-induced Starch Degradation in Non-dormant Turions of Spirodela polyrhizaÂ¶. Photochemistry and Photobiology, 2001, 73, 77.	2.5	22
34	Light-Induced Degradation of Starch Granules in Turions of Spirodela polyrhiza Studied by Electron Microscopy. Plant and Cell Physiology, 2011, 52, 384-391.	3.1	22
35	Duckweed for Human Nutrition: No Cytotoxic and No Anti-Proliferative Effects on Human Cell Lines. Plant Foods for Human Nutrition, 2019, 74, 223-224.	3.2	22
36	Differential localization of flavonoid glucosides in an aquatic plant implicates different functions under abiotic stress. Plant, Cell and Environment, 2021, 44, 900-914.	5.7	22

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37	Lightâ€induced degradation of storage starch in turions of <i>Spirodela polyrhiza</i> depends on nitrate. Plant, Cell and Environment, 2008, 31, 1460-1469.	5.7	21
38	Phytochrome-regulated Starch Degradation in Germinating Turions of Spirodela polyrhiza. Photochemistry and Photobiology, 1997, 66, 124-127.	2.5	20
39	Association of Î±-amylase and the R1 protein with starch granules precedes the initiation of net starch degradation in turions of Spirodela polyrhiza. Physiologia Plantarum, 2002, 114, 2-12.	5.2	20
40	Light Induces Phosphorylation of Glucan Water Dikinase, Which Precedes Starch Degradation in Turions of the Duckweed Spirodela polyrhiza. Plant Physiology, 2004, 135, 121-128.	4.8	20
41	Photophysiology of turion germination in Spirodela polyrhiza (L.) schleiden. XI. Structural changes during red light induced responses. Journal of Plant Physiology, 1993, 141, 583-588.	3.5	18
42	Influence of Light Intensity and Spectrum on Duckweed Growth and Proteins in a Small-Scale, Re-Circulating Indoor Vertical Farm. Plants, 2022, 11, 1010.	3.5	18
43	Influence of Nickel on the Life Cycle of the Duckweed Spirodela polyrhiza (L.) Schleiden. Journal of Plant Physiology, 1993, 142, 208-213.	3.5	16
44	Lemnaceae and Orontiaceae Are Phylogenetically and Morphologically Distinct from Araceae. Plants, 2021, 10, 2639.	3.5	16
45	Accumulation of starch in duckweeds (Lemnaceae), potential energy plants. Physiology and Molecular Biology of Plants, 2021, 27, 2621-2633.	3.1	15
46	Interlaboratory Validation of Toxicity Testing Using the Duckweed Lemna minor Root-Regrowth Test. Biology, 2022, 11, 37.	2.8	13
47	Clonal Differences in the Formation of Turions are Independent of the Specific Turion-inducing Signal inSpirodela polyrhiza(Great Duckweed). Plant Biology, 2002, 4, 688-693.	3.8	12
48	No photoperiodoc control of the formation of turions in eight clones ofSpirodela polyrhiza. Journal of Plant Physiology, 2003, 160, 1329-1334.	3.5	12
49	Influence of salinity and high temperature on turion formation in the duckweed Spirodela polyrhiza. Aquatic Botany, 2012, 97, 69-72.	1.6	11
50	Lowâ€molecular weight carbohydrates modulate dormancy and are required for postâ€germination growth in turions of <i>Spirodela polyrhiza</i>. Plant Biology, 2013, 15, 284-291.	3.8	11
51	Mobilization of storage materials during light-induced germination of tomato (Solanum) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	5.8	11
52	Ion antagonism in phytochrome-mediated calcium-dependent germination of turions of Spirodela polyrhiza (L.) Schleiden. Planta, 1999, 208, 583-587.	3.2	10
53	The binding of Î±-amylase to starch plays a decisive role in the initiation of storage starch degradation in turions of Spirodela polyrhiza. Physiologia Plantarum, 2006, 129, 334-341.	5.2	10
54	Fingerprinting by amplified fragment length polymorphism (AFLP) and barcoding by three plastidic markers in the genus Wolffiella Hegelm. Plant Systematics and Evolution, 2018, 304, 373-386.	0.9	8

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55	Regulation of transcript level and nitrite reductase activity by phytochrome and nitrate in turions of Spirodela polyrhiza. Physiologia Plantarum, 1995, 93, 272-278.	5.2	7
56	Cytosolic and chloroplastic NADP-dependent isocitrate dehydrogenases in Spirodela polyrhiza. I. Regulation of activity by metabolitesin vitro. Journal of Plant Physiology, 2002, 159, 231-237.	3.5	7
57	Clonal diversity amongst island populations of alien, invasive Lemna minuta kunth. Biological Invasions, 2021, 23, 2649.	2.4	7
58	Regulation of transcript level and nitrite reductase activity by phytochrome and nitrate in turions of Spirodela polyrhiza. Physiologia Plantarum, 1995, 93, 272-278.	5.2	6
59	Different Regulation of Î²-amylase and Starch Phosphorylase by Light in Dormant and Non-Dormant Turions of Spirodela polyrhiza. Journal of Plant Physiology, 1999, 154, 37-45.	3.5	6
60	Cytosolic and chloroplastic NADP-dependent isocitrate dehydrogenases in Spirodela polyrhiza . II. Regulation of enzyme capacity. Journal of Plant Physiology, 2002, 159, 239-244.	3.5	4
61	Are NADP-dependent isocitrate dehydrogenases and ferredoxin-dependent glutamate synthase co-regulated by the same photoreceptors?. Planta, 2004, 218, 775-783.	3.2	4
62	Intraspecific Diversity in Aquatic Ecosystems: Comparison between Spirodela polyrhiza and Lemna minor in Natural Populations of Duckweed. Plants, 2022, 11, 968.	3.5	4
63	Wasserlinsen als Nutzpflanzen. Biologie in Unserer Zeit, 2012, 42, 181-187.	0.2	3
64	Light-induced Starch Degradation in Non-dormant Turions of Spirodela polyrhizaÂ¶. Photochemistry and Photobiology, 2007, 73, 77-82.	2.5	2
65	Letter to original article by Kaplan etÂal. 2018 - Protein bioavailability of Wolffia globosa duckweed, a novel aquatic plant, A randomized controlled trial. Clinical Nutrition, 2019, 38, 2463.	5.0	1
66	Editorial: Duckweed: Biological Chemistry and Applications. Frontiers in Sustainable Food Systems, 2020, 4, .	3.9	1
67	Light-induced Germination and Endogenous Ion Currents in Turions of Spirodela polyrhiza. Journal of Plant Physiology, 2000, 156, 684-688.	3.5	0
68	Microbial Symbionts of Aquatic Plants. Soil Biology, 2021, , 229-240.	0.8	0