

Carmen Arena

List of Publications by Year in descending order

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107
papers

2,482
citations

201674

27
h-index

254184

43
g-index

111
all docs

111
docs citations

111
times ranked

2591
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of <i>Ecklonia maxima</i> seaweed extract on yield, mineral composition, gas exchange, and leaf anatomy of zucchini squash grown under saline conditions. <i>Journal of Applied Phycology</i> , 2017, 29, 459-470.	2.8	153
2	Effects of sparsely and densely ionizing radiation on plants. <i>Radiation and Environmental Biophysics</i> , 2011, 50, 1-19.	1.4	126
3	The effect of light quality on growth, photosynthesis, leaf anatomy and volatile isoprenoids of a monoterpene-emitting herbaceous species (<i>Solanum lycopersicum</i> L.) and an isoprene-emitting tree (<i>Platanus orientalis</i> L.). <i>Environmental and Experimental Botany</i> , 2016, 130, 122-132.	4.2	85
4	Space radiation effects on plant and mammalian cells. <i>Acta Astronautica</i> , 2014, 104, 419-431.	3.2	78
5	Morpho-anatomical, physiological and biochemical adaptive responses to saline water of <i>Bougainvillea spectabilis</i> Willd. trained to different canopy shapes. <i>Agricultural Water Management</i> , 2019, 212, 12-22.	5.6	78
6	Organic matter, nutrient content and biological activity in burned and unburned soils of a Mediterranean maquis area of southern Italy. <i>International Journal of Wildland Fire</i> , 2005, 14, 365.	2.4	76
7	The Use of a Plant-Based Biostimulant Improves Plant Performances and Fruit Quality in Tomato Plants Grown at Elevated Temperatures. <i>Agronomy</i> , 2020, 10, 363.	3.0	75
8	The role of monochromatic red and blue light in tomato early photomorphogenesis and photosynthetic traits. <i>Environmental and Experimental Botany</i> , 2020, 179, 104195.	4.2	74
9	Ultrastructural, protein and photosynthetic alterations induced by Pb and Cd in <i>Cynara cardunculus</i> L., and its potential for phytoremediation. <i>Ecotoxicology and Environmental Safety</i> , 2017, 145, 83-89.	6.0	67
10	Temperature response of photosynthesis, excitation energy dissipation and alternative electron sinks to carbon assimilation in <i>Beta vulgaris</i> L.. <i>Environmental and Experimental Botany</i> , 2006, 55, 248-257.	4.2	60
11	Performance of three cardoon cultivars in an industrial heavy metal-contaminated soil: Effects on morphology, cytology and photosynthesis. <i>Journal of Hazardous Materials</i> , 2018, 351, 131-137.	12.4	59
12	Overall plant responses to Cd and Pb metal stress in maize: Growth pattern, ultrastructure, and photosynthetic activity. <i>Environmental Science and Pollution Research</i> , 2019, 26, 1781-1790.	5.3	58
13	Growth alteration and leaf biochemical responses in <i>Phaseolus vulgaris</i> exposed to different doses of ionising radiation. <i>Plant Biology</i> , 2014, 16, 194-202.	3.8	47
14	An assessment of the influence of the urban environment on collembolan communities in soils using taxonomy- and trait-based approaches. <i>Applied Soil Ecology</i> , 2014, 78, 48-56.	4.3	47
15	Leaf Anatomy and Photochemical Behaviour of <i>Solanum lycopersicum</i> L. Plants from Seeds Irradiated with Low-LET Ionising Radiation. <i>Scientific World Journal</i> , The, 2014, 2014, 1-13.	2.1	45
16	Changes in Leaf Anatomical Traits Enhanced Photosynthetic Activity of Soybean Grown in Hydroponics with Plant Growth-Promoting Microorganisms. <i>Frontiers in Plant Science</i> , 2017, 8, 674.	3.6	42
17	Vapour pressure deficit: The hidden driver behind plant morphofunctional traits in controlled environments. <i>Annals of Applied Biology</i> , 2019, 175, 313-325.	2.5	41
18	Anatomy and photochemical behaviour of Mediterranean <i>Cistus incanus</i> winter leaves under natural outdoor and warmer indoor conditions. <i>Botany</i> , 2011, 89, 677-688.	1.0	39

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19	Effects of four food dyes on development of three model species, <i>Cucumis sativus</i> , <i>Artemia salina</i> and <i>Danio rerio</i> : Assessment of potential risk for the environment. <i>Environmental Pollution</i> , 2019, 253, 1126-1135.	7.5	39
20	Suitability of <i>Solanum lycopersicum</i> L. "Microtom"™ for growth in Bioregenerative Life Support Systems: exploring the effect of high-LET ionising radiation on photosynthesis, leaf structure and fruit traits. <i>Plant Biology</i> , 2019, 21, 615-626.	3.8	39
21	Impact of the invasive tree black locust on soil properties of Mediterranean stone pine-helm oak forests. <i>Plant and Soil</i> , 2013, 372, 473-486.	3.7	36
22	Comparative Studies on Different Citrus Cultivars: A Reevaluation of Waste Mandarin Components. <i>Antioxidants</i> , 2020, 9, 517.	5.1	36
23	Paraheliotropism in <i>Robinia pseudoacacia</i> L.: an efficient strategy to optimise photosynthetic performance under natural environmental conditions. <i>Plant Biology</i> , 2008, 10, 194-201.	3.8	33
24	Implication of vitality, seasonality and specific leaf area on PAH uptake in moss and lichen transplanted in bags. <i>Ecological Indicators</i> , 2020, 108, 105727.	6.3	32
25	Anatomical alterations of <i>Pithecolobium haseolus vulgare</i> L. mature leaves irradiated with X-rays. <i>Plant Biology</i> , 2014, 16, 187-193.	3.8	31
26	Eco-physiological response to water stress of drought-tolerant and drought-sensitive tomato genotypes. <i>Plant Biosystems</i> , 2016, 150, 682-691.	1.6	30
27	Light quality shapes morpho-functional traits and pigment content of green and red leaf cultivars of <i>Atriplex hortensis</i> . <i>Scientia Horticulturae</i> , 2019, 246, 942-950.	3.6	29
28	Photosynthesis and photoprotective strategies in <i>Laurus nobilis</i> L. and <i>Quercus ilex</i> L. under summer drought and winter cold. <i>Plant Biosystems</i> , 2008, 142, 472-479.	1.6	28
29	Biochemical, Physiological and Anatomical Mechanisms of Adaptation of <i>Callistemon citrinus</i> and <i>Viburnum lucidum</i> to NaCl and CaCl ₂ Salinization. <i>Frontiers in Plant Science</i> , 2019, 10, 742.	3.6	28
30	Spatial and temporal variations of the inherent and apparent optical properties in a shallow coastal lake. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2005, 80, 161-177.	3.8	27
31	Assessment of Eco-Physiological Performance of <i>Quercus ilex</i> L. Leaves in Urban Area by an Integrated Approach. <i>Water, Air, and Soil Pollution</i> , 2014, 225, 1.	2.4	27
32	Response of <i>Phaseolus vulgaris</i> L. plants to low-LET ionizing radiation: Growth and oxidative stress. <i>Acta Astronautica</i> , 2013, 91, 107-114.	3.2	26
33	Growth and gas exchange response to water shortage of a maize crop on different soil types. <i>Acta Physiologiae Plantarum</i> , 2009, 31, 331-341.	2.1	24
34	Seasonal changes in photosynthetic activity and photochemical efficiency of the Mediterranean shrub <i>Phillyrea angustifolia</i> L. <i>Plant Biosystems</i> , 2012, 146, 443-450.	1.6	24
35	Metal compartmentalization in different biomass portions of <i>Helianthus annuus</i> L. and <i>Sorghum bicolor</i> L. grown in an agricultural field inside an urban fabric. <i>Applied Soil Ecology</i> , 2017, 121, 118-126.	4.3	24
36	Growth, photosynthetic activity and tuber quality of two potato cultivars in controlled environment as affected by light source. <i>Plant Biosystems</i> , 2019, 153, 725-735.	1.6	24

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37	Biology and crop production in Space environments: Challenges and opportunities. <i>Life Sciences in Space Research</i> , 2021, 29, 30-37.	2.3	24
38	Antioxidant Properties of Pulp, Peel and Seeds of Phlegrean Mandarin (<i>Citrus reticulata</i> Blanco) at Different Stages of Fruit Ripening. <i>Antioxidants</i> , 2022, 11, 187.	5.1	24
39	Gas exchange and leaf metabolism of irrigated maize at different growth stages. <i>Plant Biosystems</i> , 2011, 145, 485-494.	1.6	23
40	Eco-Physiological Screening of Different Tomato Genotypes in Response to High Temperatures: A Combined Field-to-Laboratory Approach. <i>Plants</i> , 2020, 9, 508.	3.5	23
41	Leaf morpho-anatomical traits in <i>Vigna radiata</i> L. affect plant photosynthetic acclimation to changing vapor pressure deficit. <i>Environmental and Experimental Botany</i> , 2021, 186, 104453.	4.2	22
42	Physiological, biochemical and molecular responses to water stress and rehydration in Mediterranean adapted tomato landraces. <i>Plant Biology</i> , 2018, 20, 995-1004.	3.8	21
43	Effects of water stress on gas exchange of field grown <i>Zea mays</i> L. in Southern Italy: an analysis at canopy and leaf level. <i>Acta Physiologiae Plantarum</i> , 2007, 29, 317-326.	2.1	20
44	Photosynthesis and mineralogy of <i>Jania rubens</i> at low pH/high pCO ₂ : A future perspective. <i>Science of the Total Environment</i> , 2018, 628-629, 375-383.	8.0	20
45	Functional and Structural Leaf Plasticity Determine Photosynthetic Performances during Drought Stress and Recovery in Two <i>Platanus orientalis</i> Populations from Contrasting Habitats. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3912.	4.1	20
46	Effects of different light quality and biofertilizers on structural and physiological traits of spinach plants. <i>Photosynthetica</i> , 2020, 58, 932-943.	1.7	20
47	High Light Intensity from Blue-Red LEDs Enhance Photosynthetic Performance, Plant Growth, and Optical Properties of Red Lettuce in Controlled Environment. <i>Horticulturae</i> , 2022, 8, 114.	2.8	20
48	Characterization and role of poly(ADP-ribosyl)ation in the Mediterranean species <i>Cistus incanus</i> L. under different temperature conditions. <i>Plant Physiology and Biochemistry</i> , 2011, 49, 435-440.	5.8	19
49	Eco-physiological and Antioxidant Responses of Holm Oak (<i>Quercus ilex</i> L.) Leaves to Cd and Pb. <i>Water, Air, and Soil Pollution</i> , 2017, 228, 1.	2.4	19
50	Heavy metal accumulation in leaves affects physiological performance and litter quality of <i>Quercus ilex</i> L.. <i>Journal of Plant Nutrition and Soil Science</i> , 2013, 176, 776-784.	1.9	16
51	Anatomy, photochemical activity, and DNA polymorphism in leaves of dwarf tomato irradiated with X-rays. <i>Biologia Plantarum</i> , 2017, 61, 305-314.	1.9	16
52	Physiological responses of a population of <i>Sargassum vulgare</i> (Phaeophyceae) to high pCO ₂ /low pH: implications for its long-term distribution. <i>Science of the Total Environment</i> , 2017, 576, 917-925.	8.0	16
53	The role of light quality of photoperiodic lighting on photosynthesis, flowering and metabolic profiling in <i>Ranunculus asiaticus</i> L.. <i>Physiologia Plantarum</i> , 2020, 170, 187-201.	5.2	16
54	The Interplay between Light Quality and Biostimulant Application Affects the Antioxidant Capacity and Photosynthetic Traits of Soybean (<i>Glycine max</i> L. Merrill). <i>Plants</i> , 2021, 10, 861.	3.5	16

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55	The Ageing Process Affects the Antioxidant Defences and the Poly (ADPribose)ation Activity in <i>Cistus Incanus</i> L. Leaves. <i>Antioxidants</i> , 2019, 8, 528.	5.1	15
56	Suitability of two types of organic wastes for the growth of sclerophyllous shrubs on limestone debris: A mesocosm trial. <i>Science of the Total Environment</i> , 2010, 408, 1508-1514.	8.0	14
57	Winter and summer leaves of <i>Cistus incanus</i> : differences in leaf morphofunctional traits, photosynthetic energy partitioning, and poly(ADP-ribose) polymerase (PARP) activity. <i>Botany</i> , 2013, 91, 805-813.	1.0	14
58	Dust accumulation due to anthropogenic impact induces anatomical and photochemical changes in leaves of <i>Centranthus ruber</i> growing on the slope of the Vesuvius volcano. <i>Plant Biology</i> , 2020, 22, 93-102.	3.8	14
59	Long-term response of <i>Dictyota dichotoma</i> var. <i>intricata</i> (C. Agardh) Greville (Phaeophyceae) to ocean acidification: Insights from high pCO ₂ vents. <i>Science of the Total Environment</i> , 2020, 731, 138896.	8.0	13
60	Effect of light quality and ionising radiation on morphological and nutraceutical traits of sprouts for astronauts' diet. <i>Acta Astronautica</i> , 2021, 185, 188-197.	3.2	13
61	Modelling the components of the vertical attenuation of ultraviolet radiation in a wetland lake ecosystem. <i>Ecological Modelling</i> , 2005, 186, 43-54.	2.5	12
62	Photosynthesis in <i>Ranunculus asiaticus</i> L.: The Influence of the Hybrid and the Preparation Procedure of Tuberous Roots. <i>Frontiers in Plant Science</i> , 2019, 10, 241.	3.6	12
63	Light response of photosynthesis and stomatal conductance of rose leaves in the canopy profile: the effect of lighting on the adaxial and the abaxial sides. <i>Functional Plant Biology</i> , 2020, 47, 639.	2.1	12
64	Physiological and structural adjustments of two ecotypes of <i>Platanus orientalis</i> L. from different habitats in response to drought and re-watering. , 2018, 6, coy073.		11
65	Photo-Protective Mechanisms and the Role of Poly (ADP-Ribose) Polymerase Activity in a Facultative CAM Plant Exposed to Long-Term Water Deprivation. <i>Plants</i> , 2020, 9, 1192.	3.5	11
66	Photosynthetic response of <i>Quercus ilex</i> L. plants grown on compost and exposed to increasing photon flux densities and elevated CO ₂ . <i>Photosynthetica</i> , 2005, 43, 615-619.	1.7	10
67	Ecophysiological response of <i>Jania rubens</i> (Corallinaceae) to ocean acidification. <i>Rendiconti Lincei</i> , 2018, 29, 543-546.	2.2	10
68	Light and Low Relative Humidity Increase Antioxidants Content in Mung Bean (<i>Vigna radiata</i> L.) Sprouts. <i>Plants</i> , 2020, 9, 1093.	3.5	10
69	Light Fertilization Affects Growth and Photosynthesis in Mung Bean (<i>Vigna radiata</i>) Plants. <i>Journal of Environmental Accounting and Management</i> , 2018, 6, 295-304.	0.5	9
70	Comparative Analysis of the Effect of Carbon- and Titanium-Ions Irradiation on Morpho-Anatomical and Biochemical Traits of <i>Dolichos melanophthalmus</i> DC. Seedlings Aimed to Space Exploration. <i>Plants</i> , 2021, 10, 2272.	3.5	9
71	The efficient physiological strategy of a novel tomato genotype to adapt to chronic combined water and heat stress. <i>Plant Biology</i> , 2022, 24, 62-74.	3.8	9
72	Influence of irradiance on photosynthesis and PSII photochemical efficiency in maize during short-term exposure at high CO ₂ concentration. <i>Photosynthetica</i> , 2011, 49, 267-274.	1.7	8

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73	Effects of 3,4-dimethylpyrazole phosphate-added nitrogen fertilizers on crop growth and N ₂ O emissions in Southern Italy. <i>Plant, Soil and Environment</i> , 2013, 59, 517-523.	2.2	8
74	Water regime affects soil N ₂ O emission and tomato yield grown under different types of fertilisers. <i>Italian Journal of Agronomy</i> , 0, , 74-79.	1.0	8
75	Full light and soil drought constrain plant growth in Mediterranean cliffs: the case of <i>Primula palinuri</i> Petagna. <i>Plant Biosystems</i> , 2018, 152, 863-872.	1.6	8
76	Counteracting the Negative Effects of Copper Limitations Through the Biostimulatory Action of a Tropical Plant Extract in Grapevine Under Pedo-Climatic Constraints. <i>Frontiers in Environmental Science</i> , 2021, 9, .	3.3	8
77	Facing metal stress by multiple strategies: morphophysiological responses of cardoon (<i>Cynara</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 10 37616-37626.	5.3	8
78	Cross-correlations of Biogenic Volatile Organic Compounds (BVOC) emissions typify different phenological stages and stressful events in a Mediterranean Sorghum plantation. <i>Agricultural and Forest Meteorology</i> , 2021, 303, 108380.	4.8	8
79	Effects of heat stress on gas exchange and photosystem II (PSII) photochemical activity of <i>Phillyrea angustifolia</i> exposed to elevated CO ₂ and subsaturating irradiance. <i>Botany</i> , 2008, 86, 435-441.	1.0	7
80	Light Spectral Composition Influences Structural and Eco-Physiological Traits of <i>Solanum lycopersicum</i> L. cv. "Microtom" in Response to High-LET Ionizing Radiation. <i>Plants</i> , 2021, 10, 1752.	3.5	7
81	Morphological and physiological modifications of <i>Cistus salvifolius</i> L. winter leaves in response to the rise in winter temperatures. <i>Plant Biosystems</i> , 2014, 148, 1093-1101.	1.6	6
82	Chilling-induced reduction of photosynthesis is mitigated by exposure to elevated CO ₂ concentrations. <i>Photosynthetica</i> , 2018, 56, 1259-1267.	1.7	6
83	Effects of the Fertilizer Added with DMPP on Soil Nitrous Oxide Emissions and Microbial Functional Diversity. <i>Agriculture (Switzerland)</i> , 2021, 11, 12.	3.1	6
84	Manipulation of light quality is an effective tool to regulate photosynthetic capacity and fruit antioxidant properties of <i>Solanum lycopersicum</i> L. cv. "Microtom" in a controlled environment. <i>PeerJ</i> , 0, 10, e13677.	2.0	6
85	Relationships between <i>Quercus ilex</i> L. litter characteristics and soil microarthropod community in an urban environment at different climatic conditions. <i>Applied Soil Ecology</i> , 2016, 99, 98-109.	4.3	5
86	Effects of NaCl and CaCl ₂ Salinization on Morpho-Anatomical and Physiological Traits of Potted <i>Callistemon citrinus</i> Plants. <i>Forests</i> , 2021, 12, 1666.	2.1	5
87	Different Relationship Between Electron Transport and CO ₂ Assimilation in two <i>Zea mays</i> Cultivars as Influenced by Increasing Irradiance. <i>Photosynthetica</i> , 2003, 41, 489-495.	1.7	4
88	Ecosystem carbon fluxes of a ryegrass and clover fodder crop in a Mediterranean environment. <i>Photosynthetica</i> , 2011, 49, .	1.7	4
89	The Modulation of Water, Nitrogen, and Phosphorous Supply for Growth Optimization of the Evergreen Shrubs <i>Ammopiptanthus mongolicus</i> for Revegetation Purpose. <i>Frontiers in Plant Science</i> , 2021, 12, 766523.	3.6	4
90	Commercial Red Food Dyes Preparations Modulate the Oxidative State in Three Model Organisms (<i>Cucumis sativus</i> , <i>Artemia salina</i> , and <i>Danio rerio</i>). <i>Environments - MDPI</i> , 2022, 9, 63.	3.3	4

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91	Light Quality Modulates Photosynthesis and Antioxidant Properties of <i>B. vulgaris</i> L. Plants from Seeds Irradiated with High-Energy Heavy Ions: Implications for Cultivation in Space. <i>Plants</i> , 2022, 11, 1816.	3.5	4
92	Light spectral composition affects metabolic response and flowering in non-vernalized <i>Ranunculus asiaticus</i> L.. <i>Environmental and Experimental Botany</i> , 2021, 192, 104649.	4.2	3
93	Changes in Morpho-Anatomical and Eco-Physiological Responses of <i>Viburnum tinus</i> L. var <i>lucidum</i> as Modulated by Sodium Chloride and Calcium Chloride Salinization. <i>Horticulturae</i> , 2022, 8, 119.	2.8	3
94	How Leaf Vein and Stomata Traits Are Related with Photosynthetic Efficiency in Falanghina Grapevine in Different Pedoclimatic Conditions. <i>Plants</i> , 2022, 11, 1507.	3.5	3
95	Comparative Toxicity of Vegan Red, E124, and E120 Food Dyes on Three Rapidly Proliferating Model Systems. <i>Environments - MDPI</i> , 2022, 9, 89.	3.3	3
96	Editorial: Higher Plants, Algae and Cyanobacteria in Space Environments. <i>Frontiers in Plant Science</i> , 2021, 12, 629014.	3.6	2
97	Biogenic Volatile Organic Compounds (BVOCs) exchanges over <i>Sorghum bicolor</i> L. during a whole growing season in the Southern Europe. , 2019, , .		1
98	Aerated Buffalo Slurry Improves Spinach Plant Growth and Mitigates CO ₂ and N ₂ O Emissions from Soil. <i>Agriculture (Switzerland)</i> , 2021, 11, 758.	3.1	1
99	The influence of the hybrid and the duration of vernalization of tuberous roots on photosynthesis and flowering in <i>Ranunculus asiaticus</i> L.. <i>Acta Horticulturae</i> , 2020, , 493-500.	0.2	1
100	Paraheliotropism in <i>Robinia pseudoacacia</i> Plants: An Efficient Means to Cope with Photoinhibition. , 2008, , 1403-1406.		1
101	Anatomy and eco-physiology of leaves and twigs of <i>Cistus incanus</i> L.: Adaptive strategies to the environmental constraints of the Mediterranean ecosystems. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2008, 150, S172.	1.8	0
102	Effects of Nitrogen and/or Sulphur Deprivation on the Regulation of Photosynthesis in Barley Seedlings. , 2008, , 1603-1606.		0
103	Photosynthetic Adaptive Strategies in Evergreen and Semi-Deciduous Species of Mediterranean Maquis During Winter. , 0, , .		0
104	Relationships Among Plant Traits, Soil Characteristics and Olive Oil Properties in Different <i>Olea europaea</i> L. Cultivars. <i>Journal of Nutritional Ecology and Food Research</i> , 2016, 3, 59-66.	0.1	0
105	Environmental Quality and Management. <i>Journal of Environmental Accounting and Management</i> , 2018, 6, 291-294.	0.5	0
106	Photosynthesis in <i>Ranunculus asiaticus</i> L.: characterization in two Mediterranean hybrids under fluorescent white light. <i>Acta Horticulturae</i> , 2020, , 163-168.	0.2	0
107	Effects of a simulated heat wave on growth and photosynthesis of <i>Quercus ilex</i> L. and <i>Arbutus unedo</i> L. seedlings. <i>Acta Horticulturae</i> , 2022, , 725-732.	0.2	0