

Carolina Escobar

List of Publications by Year in descending order

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61
papers

3,381
citations

159358

30
h-index

149479

56
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all docs

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docs citations

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times ranked

3301
citing authors

#	ARTICLE	IF	CITATIONS
1	Photosynthetic electron transport regulates the expression of cytosolic ascorbate peroxidase genes in <i>Arabidopsis</i> during excess light stress.. <i>Plant Cell</i> , 1997, 9, 627-640.	3.1	579
2	Biological Control of Plant-Parasitic Nematodes by Filamentous Fungi Inducers of Resistance: <i>Trichoderma</i> , Mycorrhizal and Endophytic Fungi. <i>Frontiers in Microbiology</i> , 2020, 11, 992.	1.5	229
3	Contribution of glutathione to the control of cellular redox homeostasis under toxic metal and metalloid stress. <i>Journal of Experimental Botany</i> , 2015, 66, 2901-2911.	2.4	217
4	Early transcriptomic events in microdissected <i>Arabidopsis</i> nematode-induced giant cells. <i>Plant Journal</i> , 2010, 61, 698-712.	2.8	216
5	Are diverse signalling pathways integrated in the regulation of <i>Arabidopsis</i> antioxidant defence gene expression in response to excess excitation energy?. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2000, 355, 1531-1540.	1.8	132
6	Over-expression of the oat arginine decarboxylase cDNA in transgenic rice (<i>Oryza sativa</i> L.) affects normal development patterns in vitro and results in putrescine accumulation in transgenic plants. <i>Theoretical and Applied Genetics</i> , 1998, 97, 246-254.	1.8	129
7	Differential alterations of antioxidant defenses as bioindicators of mercury and cadmium toxicity in alfalfa. <i>Chemosphere</i> , 2009, 77, 946-954.	4.2	110
8	Distinct and conserved transcriptomic changes during nematode-induced giant cell development in tomato compared with <i>Arabidopsis</i> : a functional role for gene repression. <i>New Phytologist</i> , 2013, 197, 1276-1290.	3.5	98
9	Anatomical Alterations in Plant Tissues Induced by Plant-Parasitic Nematodes. <i>Frontiers in Plant Science</i> , 2017, 8, 1987.	1.7	93
10	Early transcriptional responses to mercury: a role for ethylene in mercury-induced stress. <i>New Phytologist</i> , 2014, 201, 116-130.	3.5	87
11	Differentially expressed small RNA's in <i>Arabidopsis</i> galls formed by <i>Meloidogyne javanica</i> : a functional role for miR390 and its TAS-derived tasiRNA's. <i>New Phytologist</i> , 2016, 209, 1625-1640.	3.5	86
12	Glutathione is a key antioxidant metabolite to cope with mercury and cadmium stress. <i>Plant and Soil</i> , 2014, 377, 369-381.	1.8	84
13	<i>CCS52</i> and <i>DEL1</i> genes are key components of the endocycle in nematode-induced feeding sites. <i>Plant Journal</i> , 2012, 72, 185-198.	2.8	75
14	Overview of Root-Knot Nematodes and Giant Cells. <i>Advances in Botanical Research</i> , 2015, 73, 1-32.	0.5	72
15	Characterization of microRNAs from <i>Arabidopsis</i> galls highlights a role for miR159 in the plant response to the root-knot nematode <i>Meloidogyne incognita</i> . <i>New Phytologist</i> , 2017, 216, 882-896.	3.5	71
16	Two closely related members of <i>Arabidopsis</i> lipoxygenases (<i>LOXs</i>), <i>LOX3</i> and <i>LOX4</i> , reveal distinct functions in response to plant-parasitic nematode infection. <i>Molecular Plant Pathology</i> , 2014, 15, 319-332.	2.0	64
17	A role for <i>LATERAL ORGAN BOUNDARIES DOMAIN 16</i> during the interaction <i>Arabidopsis</i> <i>Meloidogyne</i> spp. provides a molecular link between lateral root and root-knot nematode feeding site development. <i>New Phytologist</i> , 2014, 203, 632-645.	3.5	61
18	Altered sucrose synthase and invertase expression affects the local and systemic sugar metabolism of nematode-infected <i>Arabidopsis thaliana</i> plants. <i>Journal of Experimental Botany</i> , 2014, 65, 201-212.	2.4	52

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19	Role of hydrogen peroxide and the redox state of ascorbate in the induction of antioxidant enzymes in pea leaves under excess light stress. <i>Functional Plant Biology</i> , 2004, 31, 359.	1.1	48
20	Root-Knot and Cyst Nematodes Activate Procambium-Associated Genes in Arabidopsis Roots. <i>Frontiers in Plant Science</i> , 2017, 8, 1195.	1.7	46
21	Evaluation of different RNA extraction methods for small quantities of plant tissue: Combined effects of reagent type and homogenization procedure on RNA quality-integrity and yield. <i>Physiologia Plantarum</i> , 2006, 128, 1-7.	2.6	43
22	Root-knot nematodes induce gall formation by recruiting developmental pathways of post-embryonic organogenesis and regeneration to promote transient pluripotency. <i>New Phytologist</i> , 2020, 227, 200-215.	3.5	41
23	Isolation of RNA from laser-capture-microdissected giant cells at early differentiation stages suitable for differential transcriptome analysis. <i>Molecular Plant Pathology</i> , 2009, 10, 523-535.	2.0	39
24	<sc>NEMATIC</sc>: a simple and versatile tool for the <i>in silico</i> analysis of plant-nematode interactions. <i>Molecular Plant Pathology</i> , 2014, 15, 627-636.	2.0	38
25	Arabidopsis <i>HIPP27</i> is a host susceptibility gene for the beet cyst nematode <i>Heterodera schachtii</i>. <i>Molecular Plant Pathology</i> , 2018, 19, 1917-1928.	2.0	38
26	A role for the gene regulatory module <i>microRNA172/TARGET OF EARLY ACTIVATION TAGGED 1/FLOWERING LOCUS T</i> (<mi>sc>RNA</sc>172/<sc>TOE</sc>1/<sc>FT</sc>) in the feeding sites induced by <i>Meloidogyne javanica</i> in <i>Arabidopsis thaliana</i>. <i>New Phytologist</i> , 2018, 217, 813-827.	3.5	38
27	Induction of the Hahsp17.7G4 Promoter by Root-Knot Nematodes: Involvement of Heat-Shock Elements in Promoter Activity in Giant Cells. <i>Molecular Plant-Microbe Interactions</i> , 2003, 16, 1062-1068.	1.4	37
28	Specific stress responses to cadmium, arsenic and mercury appear in the metallophyte <i>Silene vulgaris</i> when grown hydroponically. <i>RSC Advances</i> , 2013, 3, 4736.	1.7	37
29	Isolation of the LEMMI9 Gene and Promoter Analysis During a Compatible Plant-Nematode Interaction. <i>Molecular Plant-Microbe Interactions</i> , 1999, 12, 440-449.	1.4	35
30	A Phenotyping Method of Giant Cells from Root-Knot Nematode Feeding Sites by Confocal Microscopy Highlights a Role for CHITINASE-LIKE 1 in Arabidopsis. <i>International Journal of Molecular Sciences</i> , 2018, 19, 429.	1.8	33
31	Phenotyping nematode feeding sites: three-dimensional reconstruction and volumetric measurements of giant cells induced by root-knot nematodes in Arabidopsis. <i>New Phytologist</i> , 2015, 206, 868-880.	3.5	32
32	Transcriptomic signatures of transfer cells in early developing nematode feeding cells of Arabidopsis focused on auxin and ethylene signaling. <i>Frontiers in Plant Science</i> , 2014, 5, 107.	1.7	31
33	The role of glutathione in mercury tolerance resembles its function under cadmium stress in Arabidopsis. <i>Metallomics</i> , 2014, 6, 356.	1.0	31
34	Distinct heat-shock element arrangements that mediate the heat shock, but not the late-embryogenesis induction of small heat-shock proteins, correlate with promoter activation in root-knot nematode feeding cells. <i>Plant Molecular Biology</i> , 2008, 66, 151-164.	2.0	30
35	The Use of Biochar for Plant Pathogen Control. <i>Phytopathology</i> , 2021, 111, 1490-1499.	1.1	27
36	Are plant endogenous factors like ethylene modulators of the early oxidative stress induced by mercury?. <i>Frontiers in Environmental Science</i> , 2014, 2, .	1.5	25

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37	Silenced retrotransposons are major rasiRNAs targets in Arabidopsis galls induced by <i>Meloidogyne javanica</i> . <i>Molecular Plant Pathology</i> , 2018, 19, 2431-2445.	2.0	25
38	Transcriptomic and Proteomic Analysis of the Plant Response to Nematode Infection. , 2011, , 157-173.		23
39	Long-Term In Vitro System for Maintenance and Amplification of Root-Knot Nematodes in <i>Cucumis sativus</i> Roots. <i>Frontiers in Plant Science</i> , 2016, 7, 124.	1.7	22
40	Antioxidant enzyme induction in pea plants under high irradiance. <i>Biologia Plantarum</i> , 2006, 50, 395-399.	1.9	20
41	Molecular Transducers from Roots Are Triggered in Arabidopsis Leaves by Root-Knot Nematodes for Successful Feeding Site Formation: A Conserved Post-Embryogenic De novo Organogenesis Program?. <i>Frontiers in Plant Science</i> , 2017, 8, 875.	1.7	18
42	Developmental Pathways Mediated by Hormones in Nematode Feeding Sites. <i>Advances in Botanical Research</i> , 2015, 73, 167-188.	0.5	16
43	Laser Microdissection of Cells and Isolation of High-Quality RNA After Cryosectioning. <i>Methods in Molecular Biology</i> , 2012, 883, 87-95.	0.4	15
44	Genes co-regulated with LBD16 in nematode feeding sites inferred from in silico analysis show similarities to regulatory circuits mediated by the auxin/cytokinin balance in Arabidopsis. <i>Plant Signaling and Behavior</i> , 2015, 10, e990825.	1.2	15
45	A Reliable Protocol for In situ microRNAs Detection in Feeding Sites Induced by Root-Knot Nematodes. <i>Frontiers in Plant Science</i> , 2016, 7, 966.	1.7	15
46	A Standardized Method to Assess Infection Rates of Root-Knot and Cyst Nematodes in Arabidopsis thaliana Mutants with Alterations in Root Development Related to Auxin and Cytokinin Signaling. <i>Methods in Molecular Biology</i> , 2017, 1569, 73-81.	0.4	14
47	The Role of Programmed Cell Death Regulator LSD1 in Nematode-Induced Syncytium Formation. <i>Frontiers in Plant Science</i> , 2018, 9, 314.	1.7	14
48	Transient expression of Arabidopsis thaliana ascorbate peroxidase 3 in Nicotiana benthamiana plants infected with recombinant potato virus X. <i>Plant Cell Reports</i> , 2003, 21, 699-704.	2.8	12
49	Non-coding RNAs in the interaction between rice and Meloidogyne graminicola. <i>BMC Genomics</i> , 2021, 22, 560.	1.2	12
50	Heavy Metal Perception in a Microscale Environment: A Model System Using High Doses of Pollutants. , 2012, , 23-39.		9
51	Glucosinolates as an effective tool in plant-parasitic nematodes control: Exploiting natural plant defenses. <i>Applied Soil Ecology</i> , 2022, 176, 104497.	2.1	9
52	Novel expression patterns of phosphatidylinositol 3-hydroxy kinase in nodulated Medicago spp. plants. <i>Journal of Experimental Botany</i> , 2004, 55, 957-959.	2.4	6
53	The Power of Omics to Identify Plant Susceptibility Factors and to Study Resistance to Root-knot Nematodes. <i>Current Issues in Molecular Biology</i> , 2016, 19, 53-72.	1.0	6
54	sRNAs involved in the regulation of plant developmental processes are altered during the root-knot nematode interaction for feeding site formation. <i>European Journal of Plant Pathology</i> , 2018, 152, 945-955.	0.8	5

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55	A role for <i>ALF4</i> during gall and giant cell development in the biotic interaction between <i>Arabidopsis</i> and <i>Meloidogyne</i> spp.. <i>Physiologia Plantarum</i> , 2019, 165, 17-28.	2.6	5
56	Activation of geminivirus Ψ -sense promoters in roots is restricted to nematode feeding sites. <i>Molecular Plant Pathology</i> , 2010, 11, 409-417.	2.0	4
57	The Power of Omics to Identify Plant Susceptibility Factors and to Study Resistance to Root-knot Nematodes. <i>Current Issues in Molecular Biology</i> , 2016, , .	1.0	4
58	Belowground Defence Strategies Against Sedentary Nematodes. <i>Signaling and Communication in Plants</i> , 2016, , 221-251.	0.5	2
59	All in One High Quality Genomic DNA and Total RNA Extraction From Nematode Induced Galls for High Throughput Sequencing Purposes. <i>Frontiers in Plant Science</i> , 2019, 10, 657.	1.7	2
60	Compatible interactions between plants and endoparasitic nematodes – A follow-up of ABR volume 73: Plant nematode interactions – A view on compatible interrelationships. <i>Advances in Botanical Research</i> , 2021, , 237-248.	0.5	1
61	Laser Microdissection of Cells and Isolation of High-Quality RNA After Cryosectioning. <i>Methods in Molecular Biology</i> , 2021, 2170, 35-43.	0.4	1