

Carolina Escobar

List of Publications by Year in descending order

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61
papers

3,381
citations

159585
30
h-index

149698
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all docs

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docs citations

63
times ranked

3301
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#	ARTICLE	IF	CITATIONS
1	Photosynthetic electron transport regulates the expression of cytosolic ascorbate peroxidase genes in Arabidopsis during excess light stress.. Plant Cell, 1997, 9, 627-640.	6.6	579
2	Biological Control of Plant-Parasitic Nematodes by Filamentous Fungi Inducers of Resistance: Trichoderma, Mycorrhizal and Endophytic Fungi. Frontiers in Microbiology, 2020, 11, 992.	3.5	229
3	Contribution of glutathione to the control of cellular redox homeostasis under toxic metal and metalloid stress. Journal of Experimental Botany, 2015, 66, 2901-2911.	4.8	217
4	Early transcriptomic events in microdissected Arabidopsis nematode-induced giant cells. Plant Journal, 2010, 61, 698-712.	5.7	216
5	Are diverse signalling pathways integrated in the regulation of Arabidopsis antioxidant defence gene expression in response to excess excitation energy?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2000, 355, 1531-1540.	4.0	132
6	Over-expression of the oat arginine decarboxylase cDNA in transgenic rice (Oryza sativa L.) affects normal development patterns in vitro and results in putrescine accumulation in transgenic plants. Theoretical and Applied Genetics, 1998, 97, 246-254.	3.6	129
7	Differential alterations of antioxidant defenses as bioindicators of mercury and cadmium toxicity in alfalfa. Chemosphere, 2009, 77, 946-954.	8.2	110
8	Distinct and conserved transcriptomic changes during nematode-induced giant cell development in tomato compared with Arabidopsis: a functional role for gene repression. New Phytologist, 2013, 197, 1276-1290.	7.3	98
9	Anatomical Alterations in Plant Tissues Induced by Plant-Parasitic Nematodes. Frontiers in Plant Science, 2017, 8, 1987.	3.6	93
10	Early transcriptional responses to mercury: a role for ethylene in mercury-induced stress. New Phytologist, 2014, 201, 116-130.	7.3	87
11	Differentially expressed small RNA's in Arabidopsis galls formed by <i>Meloidogyne javanica</i> : a functional role for miR390 and its TAS-derived tasiRNA's. New Phytologist, 2016, 209, 1625-1640.	7.3	86
12	Glutathione is a key antioxidant metabolite to cope with mercury and cadmium stress. Plant and Soil, 2014, 377, 369-381.	3.7	84
13	<i>CCS52</i> and <i>DEL1</i> genes are key components of the endocycle in nematode-induced feeding sites. Plant Journal, 2012, 72, 185-198.	5.7	75
14	Overview of Root-Knot Nematodes and Giant Cells. Advances in Botanical Research, 2015, 73, 1-32.	1.1	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> . New Phytologist, 2017, 216, 882-896.	7.3	71
16	Two closely related members of <i>Arabidopsis</i> lipoxygenases (<i>LOX3</i> and <i>LOX4</i>), reveal distinct functions in response to plant-parasitic nematode infection. Molecular Plant Pathology, 2014, 15, 319-332.	4.2	64
17	A role for <i>LATERAL ORGAN BOUNDARIES</i> and <i>DOMAIN16</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. New Phytologist, 2014, 203, 632-645.	7.3	61
18	Altered sucrose synthase and invertase expression affects the local and systemic sugar metabolism of nematode-infected Arabidopsis thaliana plants. Journal of Experimental Botany, 2014, 65, 201-212.	4.8	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.	2.1	48
20	Root-Knot and Cyst Nematodes Activate Procambium-Associated Genes in Arabidopsis Roots. <i>Frontiers in Plant Science</i> , 2017, 8, 1195.	3.6	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.	5.2	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.	7.3	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.	4.2	39
24	<scp>NEMATIC</scp>: 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.	4.2	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.	4.2	38
26	A role for the gene regulatory module <i>microRNA172/TARGET OF EARLY ACTIVATION TAGGED 1/FLOWERING LOCUS T</i> (<i>mi<scp>RNA</scp>172</i><scp>TOE</scp>1</i><scp>FT</scp></i>) in the feeding sites induced by <i>Meloidogyne javanica</i> in <i>Arabidopsis thaliana</i>. <i>New Phytologist</i> , 2018, 217, 813-827.	7.3	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.	2.6	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.	3.6	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.	2.6	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.	4.1	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.	7.3	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.	3.6	31
33	The role of glutathione in mercury tolerance resembles its function under cadmium stress in Arabidopsis. <i>Metallomics</i> , 2014, 6, 356.	2.4	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.	3.9	30
35	The Use of Biochar for Plant Pathogen Control. <i>Phytopathology</i> , 2021, 111, 1490-1499.	2.2	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, .	3.3	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.	4.2	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.	3.6	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.	3.6	18
42	Developmental Pathways Mediated by Hormones in Nematode Feeding Sites. <i>Advances in Botanical Research</i> , 2015, 73, 167-188.	1.1	16
43	Laser Microdissection of Cells and Isolation of High-Quality RNA After Cryosectioning. <i>Methods in Molecular Biology</i> , 2012, 883, 87-95.	0.9	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.	2.4	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.	3.6	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.	0.9	14
47	The Role of Programmed Cell Death Regulator LSD1 in Nematode-Induced Syncytium Formation. <i>Frontiers in Plant Science</i> , 2018, 9, 314.	3.6	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.	5.6	12
49	Non-coding RNAs in the interaction between rice and Meloidogyne graminicola. <i>BMC Genomics</i> , 2021, 22, 560.	2.8	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.	4.3	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.	4.8	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.	2.4	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.	1.7	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.	5.2	5
56	Activation of geminivirus <i>V</i> sense promoters in roots is restricted to nematode feeding sites. <i>Molecular Plant Pathology</i> , 2010, 11, 409-417.	4.2	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, , .	2.4	4
58	Belowground Defence Strategies Against Sedentary Nematodes. <i>Signaling and Communication in Plants</i> , 2016, , 221-251.	0.7	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.	3.6	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.	1.1	1
61	Laser Microdissection of Cells and Isolation of High-Quality RNA After Cryosectioning. <i>Methods in Molecular Biology</i> , 2021, 2170, 35-43.	0.9	1