Christoph Keel

List of Publications by Year
in descending order

95 papers	10,343 citations	36271 51 h-index	42364 92 g-index
100 all docs	100 docs citations	100 times ranked	6918 citing authors

#	Article	IF	Citations
1	REGULATION OFANTIBIOTICPRODUCTION INROOT-COLONIZINGPSEUDOMONASSPP. ANDRELEVANCE FORBIOLOGICALCONTROL OFPLANTDISEASE. Annual Review of Phytopathology, 2003, 41, 117-153.	3.5	727
2	Cyanide production by <i>Pseudomonas fluorescens</i> helps suppress black root rot of tobacco under gnotobiotic conditions. EMBO Journal, 1989, 8, 351-358.	3.5	528
3	Suppression of Root Diseases by<i>Pseudomonas fluorescens</i>CHA0: Importance of the Bacterial Secondary Metabolite 2,4-Diacetylphloroglucinol. Molecular Plant-Microbe Interactions, 1992, 5, 4.	1.4	513
4	Signaling in the Rhizosphere. Trends in Plant Science, 2016, 21, 187-198.	4.3	465
5	Global control in Pseudomonas fluorescens mediating antibiotic synthesis and suppression of black root rot of tobacco.. Proceedings of the National Academy of Sciences of the United States of America, 1992, 89, 1562-1566.	3.3	388
6	Taking the Fungal Highway:Â Mobilization of Pollutant-Degrading Bacteria by Fungi. Environmental Science & Technology, 2005, 39, 4640-4646.	4.6	367
7	Small, Stable Shuttle Vectors Based on the Minimal pVS1 Replicon for Use in Gram-Negative, Plant-Associated Bacteria. Molecular Plant-Microbe Interactions, 2000, 13, 232-237.	1.4	356
8	Biocontrol by Phenazine-1-carboxamide-Producing Pseudomonas chlororaphis PCL1391 of Tomato Root Rot Caused by Fusarium oxysporum f. sp. radicis-lycopersici. Molecular Plant-Microbe Interactions, 1998, 11, 1069-1077.	1.4	311
9	Autoinduction of 2,4-Diacetylphloroglucinol Biosynthesis in the Biocontrol Agent Pseudomonas fluorescensCHA0 and Repression by the Bacterial Metabolites Salicylate and Pyoluteorin. Journal of Bacteriology, 2000, 182, 1215-1225.	1.0	310
10	Conservation of the 2,4-diacetylphloroglucinol biosynthesis locus among fluorescent Pseudomonas strains from diverse geographic locations. Applied and Environmental Microbiology, 1996, 62, 552-563.	1.4	270
11	Genetically programmed autoinducer destruction reduces virulence gene expression and swarming motility in Pseudomonas aeruginosa PAO1 The GenBank accession number for the aiiA nucleotide sequence is AF397400. The GenBank accession numbers for the nucleotide sequences of the 16S rRNA genes of strains A23 and A24 are AF397398 and AF397399.. Microbiology (United Kingdom), 2002, 148, 923-932.	0.7	239
12	Characterisation of microbial communities colonising the hyphal surfaces of arbuscular mycorrhizal fungi. ISME Journal, 2010, 4, 752-763.	4.4	215
13	RsmY, a small regulatory RNA, is required in concert with RsmZ for GacA-dependent expression of biocontrol traits in Pseudomonas fluorescens CHA0. Molecular Microbiology, 2003, 50, 1361-1379.	1.2	199
14	Characterization of the<i>hcnABC</i>Gene Cluster Encoding Hydrogen Cyanide Synthase and Anaerobic Regulation by ANR in the Strictly Aerobic Biocontrol Agent<i>Pseudomonas fluorescens</i>CHA0. Journal of Bacteriology, 1998, 180, 3187-3196.	1.0	199
15	Influence of plant species on disease suppression by Pseudomonas fluorescens strain CHAO with enhanced antibiotic production. Plant Pathology, 1995, 44, 40-50.	1.2	191
16	Amplification of the housekeeping sigma factor in Pseudomonas fluorescens CHA0 enhances antibiotic production and improves biocontrol abilities. Journal of Bacteriology, 1995, 177, 5387-5392.	1.0	179
17	Role of Gluconic Acid Production in the Regulation of Biocontrol Traits of <i>Pseudomonas fluorescens</i> CHA0. Applied and Environmental Microbiology, 2009, 75, 4162-4174.	1.4	178
18	Cyanide production by Pseudomonas fluorescens helps suppress black root rot of tobacco under gnotobiotic conditions. EMBO Journal, 1989, 8, 351-8.	3.5	176

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19	Promise for plant pest control: root-associated pseudomonads with insecticidal activities. Frontiers in Plant Science, 2013, 4, 287.	1.7	158
20	Iron Sufficiency, a Prerequisite for the Suppression of Tobacco Black Root Rot byPseudomonas fluorescensStrain CHA0 under Gnotobiotic Conditions. Phytopathology, 1989, 79, 584.	1.1	146
21	Molecular analysis of a novel gene cluster encoding an insect toxin in plantâ€associated strains of <i>Pseudomonas fluorescens</i>. Environmental Microbiology, 2008, 10, 2368-2386.	1.8	145
22	GacS Sensor Domains Pertinent to the Regulation of Exoproduct Formation and to the Biocontrol Potential of Pseudomonas fluorescens CHA0. Molecular Plant-Microbe Interactions, 2003, 16, 634-644.	1.4	139
23	Insect pathogenicity in plant-beneficial pseudomonads: phylogenetic distribution and comparative genomics. ISME Journal, 2016, 10, 2527-2542.	4.4	127
24	The Sigma Factor AlgU (AlgT) Controls Exopolysaccharide Production and Tolerance towards Desiccation and Osmotic Stress in the Biocontrol Agent Pseudomonas fluorescens CHA0. Applied and Environmental Microbiology, 2001, 67, 5683-5693.	1.4	123
25	Predators promote defence of rhizosphere bacterial populations by selective feeding on non-toxic cheaters. ISME Journal, 2009, 3, 666-674.	4.4	122
26	Association of Hemolytic Activity of<i>Pseudomonas entomophila</i>, a Versatile Soil Bacterium, with Cyclic Lipopeptide Production. Applied and Environmental Microbiology, 2010, 76, 910-921.	1.4	121
27	Plants Respond to Pathogen Infection by Enhancing the Antifungal Gene Expression of Root-Associated Bacteria. Molecular Plant-Microbe Interactions, 2011, 24, 352-358.	1.4	109
28	Biocontrol ability of fluorescent pseudomonads genetically dissected: importance of positive feedback regulation. Current Opinion in Biotechnology, 2000, 11, 290-297.	3.3	106
29	Potential Role of Pathogen Signaling in Multitrophic Plant-Microbe Interactions Involved in Disease Protection. Applied and Environmental Microbiology, 2004, 70, 1836-1842.	1.4	103
30	Is the ability of biocontrol fluorescent pseudomonads to produce the antifungal metabolite 2,4â€diacetylphloroglucinol really synonymous with higher plant protection?. New Phytologist, 2007, 173, 861-872.	3.5	98
31	Use of green fluorescent protein-based reporters to monitor balanced production of antifungal compounds in the biocontrol agentPseudomonas fluorescensCHA0. Journal of Applied Microbiology, 2005, 99, 24-38.	1.4	94
32	Contribution of the Global Regulator Gene <i>gacA</i> to Persistence and Dissemination of <i>Pseudomonas fluorescens</i> Biocontrol Strain CHA0 Introduced into Soil Microcosms. Applied and Environmental Microbiology, 1994, 60, 2553-2560.	1.4	91
33	Importance of Preferential Flow and Soil Management in Vertical Transport of a Biocontrol Strain of Pseudomonas fluorescens in Structured Field Soil. Applied and Environmental Microbiology, 1996, 62, 33-40.	1.4	89
34	Temporally distinct accumulation of transcripts encoding enzymes of the prechorismate pathway in elicitor-treated, cultured tomato cells.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 3166-3170.	3.3	87
35	Cross Talk between 2,4-Diacetylphloroglucinol-Producing Biocontrol Pseudomonads on Wheat Roots. Applied and Environmental Microbiology, 2004, 70, 1990-1998.	1.4	87
36	Antimicrobial and Insecticidal: Cyclic Lipopeptides and Hydrogen Cyanide Produced by Plant-Beneficial Pseudomonas Strains CHA0, CMR12a, and PCL1391 Contribute to Insect Killing. Frontiers in Microbiology, 2017, 8, 100.	1.5	84

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37	Small RNA-dependent Expression of Secondary Metabolism Is Controlled by Krebs Cycle Function in Pseudomonas fluorescens. Journal of Biological Chemistry, 2009, 284, 34976-34985.	1.6	82
38	Tn5-directed cloning of pqq genes from Pseudomonas fluorescens CHA0: mutational inactivation of the genes results in overproduction of the antibiotic pyoluteorin. Applied and Environmental Microbiology, 1995, 61, 3856-3864.	1.4	82
39	Oral insecticidal activity of plantâ€associated pseudomonads. Environmental Microbiology, 2013, 15, 751-763.	1.8	80
40	T6SS contributes to gut microbiome invasion and killing of an herbivorous pest insect by plant-beneficial <i>Pseudomonas protegens</i>. ISME Journal, 2019, 13, 1318-1329.	4.4	76
41	Characterization of PhlG, a Hydrolase That Specifically Degrades the Antifungal Compound 2,4-Diacetylphloroglucinol in the Biocontrol Agent Pseudomonas fluorescens CHA0. Applied and Environmental Microbiology, 2006, 72, 418-427.	1.4	74
42	Predator-Prey Chemical Warfare Determines the Expression of Biocontrol Genes by Rhizosphere-Associated <i>Pseudomonas fluorescens</i>. Applied and Environmental Microbiology, 2010, 76, 5263-5268.	1.4	73
43	Signal transduction in plant-beneficial rhizobacteria with biocontrol properties. Antonie Van Leeuwenhoek, 2002, 81, 385-395.	0.7	72
44	Characterization of spontaneous gacS and gacA regulatory mutants of Pseudomonas fluorescens biocontrol strain CHAO. Antonie Van Leeuwenhoek, 2001, 79, 327-336.	0.7	70
45	Bacterial Subfamily of LuxR Regulators That Respond to Plant Compounds. Applied and Environmental Microbiology, 2011, 77, 4579-4588.	1.4	68
46	Dialogues of root-colonizing biocontrol pseudomonads. European Journal of Plant Pathology, 2007, 119, 311-328.	0.8	62
47	Pyrroloquinoline Quinone Biosynthesis Gene<i>pqqC</i>, a Novel Molecular Marker for Studying the Phylogeny and Diversity of Phosphate-Solubilizing Pseudomonads. Applied and Environmental Microbiology, 2011, 77, 7345-7354.	1.4	62
48	Combination of Fluorescent Reporters for Simultaneous Monitoring of Root Colonization and Antifungal Gene Expression by a Biocontrol Pseudomonad on Cereals with Flow Cytometry. Molecular Plant-Microbe Interactions, 2010, 23, 949-961.	1.4	61
49	Enhanced production of indole-3-acetic acid by a genetically modified strain of Pseudomonas fluorescens CHA0 affects root growth of cucumber, but does not improve protection of the plant against Pythium root rot. FEMS Microbiology Ecology, 1999, 28, 225-233.	1.3	58
50	Interplay between Wheat Cultivars, Biocontrol Pseudomonads, and Soil. Applied and Environmental Microbiology, 2010, 76, 6196-6204.	1.4	55
51	Predominance of Nonculturable Cells of the Biocontrol Strain Pseudomonas fluorescens CHA0 in the Surface Horizon of Large Outdoor Lysimeters. Applied and Environmental Microbiology, 1997, 63, 3776-3782.	1.4	55
52	Characterization of the surface hydrophobicity of filamentous fungi. Environmental Microbiology, 2003, 5, 85-91.	1.8	54
53	RpoN (Ïƒ54) Controls Production of Antifungal Compounds and Biocontrol Activity in Pseudomonas fluorescens CHA0. Molecular Plant-Microbe Interactions, 2005, 18, 260-272.	1.4	54
54	Full-Genome Sequence of the Plant Growth-Promoting Bacterium Pseudomonas protegens CHA0. Genome Announcements, 2014, 2, .	0.8	53

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55	Interactions between the biocontrol agent Pseudomonas fluorescens CHA0 and Thielaviopsis basicola in tobacco roots observed by immunofluorescence microscopy. Plant Pathology, 1997, 46, 62-71.	1.2	52
56	Deleterious Impact of a Virulent Bacteriophage on Survival and Biocontrol Activity of Pseudomonas fluorescens Strain CHA0 in Natural Soil. Molecular Plant-Microbe Interactions, 2002, 15, 567-576.	1.4	52
57	Heavy metal tolerant Pseudomonas protegens isolates from agricultural well water in northeastern Algeria with plant growth promoting, insecticidal and antifungal activities. European Journal of Soil Biology, 2016, 75, 38-46.	1.4	52
58	Detection of Plant-Modulated Alterations in Antifungal Gene Expression in <i>Pseudomonas fluorescens</i> CHA0 on Roots by Flow Cytometry. Applied and Environmental Microbiology, 2008, 74, 1339-1349.	1.4	51
59	Control and hostâ€dependent activation of insect toxin expression in a rootâ€associated biocontrol pseudomonad. Environmental Microbiology, 2013, 15, 736-750.	1.8	47
60	Evolutionary patchwork of an insecticidal toxin shared between plant-associated pseudomonads and the insect pathogens Photorhabdus and Xenorhabdus. BMC Genomics, 2015, 16, 609.	1.2	46
61	Spatially Restricted Immune Responses Are Required for Maintaining Root Meristematic Activity upon Detection of Bacteria. Current Biology, 2021, 31, 1012-1028.e7.	1.8	46
62	Influence of biocontrol strain Pseudomonas fluorescens CHA0 and its antibiotic overproducing derivative on the diversity of resident root colonizing pseudomonads. FEMS Microbiology Ecology, 1997, 23, 341-352.	1.3	45
63	Combined Field Inoculations of Pseudomonas Bacteria, Arbuscular Mycorrhizal Fungi, and Entomopathogenic Nematodes and their Effects on Wheat Performance. Frontiers in Plant Science, 2017, 8, 1809.	1.7	45
64	Impact of Pseudomonas fluorescens strain CHA0 and a derivative with improved biocontrol activity on the culturable resident bacterial community on cucumber roots. FEMS Microbiology Ecology, 1998, 27, 365-380.	1.3	44
65	Two Novel MvaT-Like Global Regulators Control Exoproduct Formation and Biocontrol Activity in Root-Associated Pseudomonas fluorescens CHA0. Molecular Plant-Microbe Interactions, 2006, 19, 313-329.	1.4	44
66	Plant- and Microbe-Derived Compounds Affect the Expression of Genes Encoding Antifungal Compounds in a Pseudomonad with Biocontrol Activity. Applied and Environmental Microbiology, 2011, 77, 2807-2812.	1.4	44
67	Domain Shuffling in a Sensor Protein Contributed to the Evolution of Insect Pathogenicity in Plant-Beneficial Pseudomonas protegens. PLoS Pathogens, 2014, 10, e1003964.	2.1	41
68	Transcriptome plasticity underlying plant root colonization and insect invasion by <i>Pseudomonas protegens</i>. ISME Journal, 2020, 14, 2766-2782.	4.4	38
69	Relationships between Root Pathogen Resistance, Abundance and Expression of Pseudomonas Antimicrobial Genes, and Soil Properties in Representative Swiss Agricultural Soils. Frontiers in Plant Science, 2017, 8, 427.	1.7	37
70	The global regulator GacA of Pseudomonas fluorescens CHA0 is required for suppression of root diseases in dicotyledons but not in Gramineae. Plant Pathology, 1997, 46, 80-90.	1.2	36
71	Persistence of root-colonizing <i>Pseudomonas protegens</i> in herbivorous insects throughout different developmental stages and dispersal to new host plants. ISME Journal, 2019, 13, 860-872.	4.4	35
72	Live cell dynamics of production, explosive release and killing activity of phage tail-like weapons for Pseudomonas kin exclusion. Communications Biology, 2021, 4, 87.	2.0	34

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73	Protecting maize from rootworm damage with the combined application of arbuscular mycorrhizal fungi, Pseudomonas bacteria and entomopathogenic nematodes. Scientific Reports, 2019, 9, 3127.	1.6	33
74	Persistence of a biocontrol Pseudomonas inoculant as high populations of culturable and non-culturable cells in 200-cm-deep soil profiles. Soil Biology and Biochemistry, 2012, 44, 122-129.	4.2	31
75	A look into the toolbox of multiâ€talents: insect pathogenicity determinants of plantâ€beneficial pseudomonads. Environmental Microbiology, 2016, 18, 3207-3209.	1.8	26
76	Transport of a biocontrol Pseudomonas fluorescens through 2.5-M deep outdoor lysimeters and survival in the effluent water. Soil Biology and Biochemistry, 1998, 30, 621-631.	4.2	23
77	Root-colonizing bacteria enhance the levels of (E)-Î²-caryophyllene produced by maize roots in response to rootworm feeding. Oecologia, 2018, 187, 459-468.	0.9	23
78	Functional GacS in <i>Pseudomonas</i> DSS73 prevents digestion by <i>Caenorhabditis elegans</i> and protects the nematode from killer flagellates. ISME Journal, 2009, 3, 770-779.	4.4	22
79	Impact of biocontrol strain Pseudomonas fluorescens CHA0 on rhizosphere bacteria isolated from barley (Hordeum vulgare L.) with special reference to Cytophaga-like bacteria. Journal of Applied Microbiology, 2002, 93, 1065-1074.	1.4	21
80	Pseudomonads as Biocontrol Agents of Diseases Caused by Soil-borne Pathogens. , 1995, , 137-148.		21
81	Does Wheat Genetically Modified for Disease Resistance Affect Root-Colonizing Pseudomonads and Arbuscular Mycorrhizal Fungi?. PLoS ONE, 2013, 8, e53825.	1.1	20
82	Specific surface glycan decorations enable antimicrobial peptide resistance in plantâ€beneficial pseudomonads with insectâ€pathogenic properties. Environmental Microbiology, 2016, 18, 4265-4281.	1.8	19
83	The secret life of plantâ€beneficial rhizosphere bacteria: insects as alternative hosts. Environmental Microbiology, 2022, 24, 3273-3289.	1.8	19
84	Pivotal role of O-antigenic polysaccharide display in the sensitivity against phage tail-like particles in environmental <i>Pseudomonas</i> kin competition. ISME Journal, 2022, 16, 1683-1693.	4.4	16
85	Inactivation of the Regulatory Gene algU or gacA Can Affect the Ability of Biocontrol Pseudomonas fluorescens CHA0 To Persist as Culturable Cells in Nonsterile Soil. Applied and Environmental Microbiology, 2002, 68, 2085-2088.	1.4	14
86	Biocontrol strain Pseudomonas fluorescens CHA0 and its genetically modified derivative with enhanced biocontrol capability exert comparable effects on the structure of a Sinorhizobium meliloti population in gnotobiotic systems. Biology and Fertility of Soils, 1997, 25, 240-244.	2.3	13
87	Phylogenetically closely related pseudomonads isolated from arthropods exhibit differential insectâ€killing abilities and genetic variations in insecticidal factors. Environmental Microbiology, 2021, 23, 5378-5394.	1.8	13
88	Interspecific cooperation: enhanced growth, attachment and strain-specific distribution in biofilms through<i>Azospirillum brasilense-Pseudomonas protegens</i>co-cultivation. FEMS Microbiology Letters, 2016, 363, fnw238.	0.7	11
89	Influence of biocontrol strain Pseudomonas fluorescens CHA0 and its antibiotic overproducing derivative on the diversity of resident root colonizing pseudomonads. FEMS Microbiology Ecology, 2006, 23, 341-352.	1.3	10
90	Conservation tillage and organic farming induce minor variations in Pseudomonas abundance, their antimicrobial function and soil disease resistance. FEMS Microbiology Ecology, 2018, 94, .	1.3	10

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91	Updated Genome Sequence and Annotation for the Full Genome of Pseudomonas protegens CHA0. Microbiology Resource Announcements, 2019, 8, .	0.3	5
92	Genome Sequence of the Pseudomonas protegens Phage Î¦GP100. Genome Announcements, 2018, 6, .	0.8	2
93	Draft Genome Sequence of <i>Pseudomonas</i> sp. Strain LD120, Isolated from the Marine Alga <i>Saccharina latissima</i>. Microbiology Resource Announcements, 2020, 9, .	0.3	1
94	Dialogues of root-colonizing biocontrol pseudomonads. , 2007, , 311-328.		0
95	Induction of Wheat Resistance to STB by the Endophytic Fungus and. Iranian Journal of Biotechnology, 2021, 19, e2762.	0.3	0