

Kornelia Smalla

List of Publications by Year in descending order

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106
papers

7,396
citations

61857

43
h-index

58464

82
g-index

110
all docs

110
docs citations

110
times ranked

7264
citing authors

#	ARTICLE	IF	CITATIONS
1	Using the class 1 integron-integrase gene as a proxy for anthropogenic pollution. <i>ISME Journal</i> , 2015, 9, 1269-1279.	4.4	974
2	Unraveling the plant microbiome: looking back and future perspectives. <i>Frontiers in Microbiology</i> , 2014, 5, 148.	1.5	498
3	Fate and effects of veterinary antibiotics in soil. <i>Trends in Microbiology</i> , 2014, 22, 536-545.	3.5	439
4	Effect of the soil type on the microbiome in the rhizosphere of field-grown lettuce. <i>Frontiers in Microbiology</i> , 2014, 5, 144.	1.5	320
5	Critical knowledge gaps and research needs related to the environmental dimensions of antibiotic resistance. <i>Environment International</i> , 2018, 117, 132-138.	4.8	281
6	Piggery manure used for soil fertilization is a reservoir for transferable antibiotic resistance plasmids. <i>FEMS Microbiology Ecology</i> , 2008, 66, 25-37.	1.3	259
7	Exogenous Isolation of Antibiotic Resistance Plasmids from Piggery Manure Slurries Reveals a High Prevalence and Diversity of IncQ-Like Plasmids. <i>Applied and Environmental Microbiology</i> , 2000, 66, 4854-4862.	1.4	200
8	Fate of sulfadiazine administered to pigs and its quantitative effect on the dynamics of bacterial resistance genes in manure and manured soil. <i>Soil Biology and Biochemistry</i> , 2008, 40, 1892-1900.	4.2	190
9	Accumulation of Sulfonamide Resistance Genes in Arable Soils Due to Repeated Application of Manure Containing Sulfadiazine. <i>Applied and Environmental Microbiology</i> , 2011, 77, 2527-2530.	1.4	168
10	Significance test for comparing complex microbial community fingerprints using pairwise similarity measures. <i>Journal of Microbiological Methods</i> , 2004, 57, 187-195.	0.7	151
11	Increased Abundance and Transferability of Resistance Genes after Field Application of Manure from Sulfadiazine-Treated Pigs. <i>Applied and Environmental Microbiology</i> , 2013, 79, 1704-1711.	1.4	147
12	Dynamics of Soil Bacterial Communities in Response to Repeated Application of Manure Containing Sulfadiazine. <i>PLoS ONE</i> , 2014, 9, e92958.	1.1	132
13	Phylogenetic and functional diversity of alkane degrading bacteria associated with Italian ryegrass (<i>Lolium multiflorum</i>) and Birdsfoot trefoil (<i>Lotus corniculatus</i>) in a petroleum oil-contaminated environment. <i>Journal of Hazardous Materials</i> , 2010, 184, 523-532.	6.5	128
14	The plant microbiome and its importance for plant and human health. <i>Frontiers in Microbiology</i> , 2014, 5, 491.	1.5	128
15	Plasmid Detection, Characterization, and Ecology. <i>Microbiology Spectrum</i> , 2015, 3, PLAS-0038-2014.	1.2	128
16	Spreading antibiotic resistance through spread manure: characteristics of a novel plasmid type with low %G+C content. <i>Environmental Microbiology</i> , 2009, 11, 937-949.	1.8	125
17	Rhizosphere Communities of Genetically Modified Zeaxanthin-Accumulating Potato Plants and Their Parent Cultivar Differ Less than Those of Different Potato Cultivars. <i>Applied and Environmental Microbiology</i> , 2009, 75, 3859-3865.	1.4	122
18	Evaluation of apple replant problems based on different soil disinfection treatmentsâ€™ links to soil microbial community structure?. <i>Plant and Soil</i> , 2013, 366, 617-631.	1.8	116

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19	IncP-1 μ Plasmids are Important Vectors of Antibiotic Resistance Genes in Agricultural Systems: Diversification Driven by Class 1 Integron Gene Cassettes. <i>Frontiers in Microbiology</i> , 2012, 3, 2.	1.5	114
20	Apple Replant Disease: Causes and Mitigation Strategies. <i>Current Issues in Molecular Biology</i> , 2019, 30, 89-106.	1.0	98
21	Salmonella Establishment in Agricultural Soil and Colonization of Crop Plants Depend on Soil Type and Plant Species. <i>Frontiers in Microbiology</i> , 2019, 10, 967.	1.5	92
22	Quaternary ammonium compounds in soil: implications for antibiotic resistance development. <i>Reviews in Environmental Science and Biotechnology</i> , 2018, 17, 159-185.	3.9	82
23	Microbiome Modulation – Toward a Better Understanding of Plant Microbiome Response to Microbial Inoculants. <i>Frontiers in Microbiology</i> , 2021, 12, 650610.	1.5	78
24	Widespread dissemination of class 1 integron components in soils and related ecosystems as revealed by cultivation-independent analysis. <i>Frontiers in Microbiology</i> , 2013, 4, 420.	1.5	75
25	The Transferable Resistome of Produce. <i>MBio</i> , 2018, 9, .	1.8	74
26	Pollution from azithromycin-manufacturing promotes macrolide-resistance gene propagation and induces spatial and seasonal bacterial community shifts in receiving river sediments. <i>Environment International</i> , 2019, 123, 501-511.	4.8	74
27	Biocontrol of Bacterial Wilt Disease Through Complex Interaction Between Tomato Plant, Antagonists, the Indigenous Rhizosphere Microbiota, and <i>Ralstonia solanacearum</i> . <i>Frontiers in Microbiology</i> , 2019, 10, 2835.	1.5	72
28	Interaction of minerals, organic matter, and microorganisms during biogeochemical interface formation as shown by a series of artificial soil experiments. <i>Biology and Fertility of Soils</i> , 2017, 53, 9-22.	2.3	67
29	Soil Type Dependent Rhizosphere Competence and Biocontrol of Two Bacterial Inoculant Strains and Their Effects on the Rhizosphere Microbial Community of Field-Grown Lettuce. <i>PLoS ONE</i> , 2014, 9, e103726.	1.1	63
30	Environmental dimensions of antibiotic resistance: assessment of basic science gaps. <i>FEMS Microbiology Ecology</i> , 2018, 94, .	1.3	63
31	Antibiotic-manufacturing sites are hot-spots for the release and spread of antibiotic resistance genes and mobile genetic elements in receiving aquatic environments. <i>Environment International</i> , 2019, 130, 104735.	4.8	63
32	Shifts in Abundance and Diversity of Mobile Genetic Elements after the Introduction of Diverse Pesticides into an On-Farm Biopurification System over the Course of a Year. <i>Applied and Environmental Microbiology</i> , 2014, 80, 4012-4020.	1.4	60
33	Abundance and transferability of antibiotic resistance as related to the fate of sulfadiazine in maize rhizosphere and bulk soil. <i>FEMS Microbiology Ecology</i> , 2013, 83, 125-134.	1.3	59
34	Effects of phosphorus-mobilizing bacteria on tomato growth and soil microbial activity. <i>Plant and Soil</i> , 2018, 427, 17-37.	1.8	57
35	Degradation of Biofumigant Isothiocyanates and Allyl Glucosinolate in Soil and Their Effects on the Microbial Community Composition. <i>PLoS ONE</i> , 2015, 10, e0132931.	1.1	56
36	Rhizosphere Competence and Biocontrol Effect of <i>Pseudomonas</i> sp. RU47 Independent from Plant Species and Soil Type at the Field Scale. <i>Frontiers in Microbiology</i> , 2018, 9, 97.	1.5	53

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37	Effects of Soil Pre-Treatment with Basamid® Granules, Brassica juncea, Raphanus sativus, and Tagetes patula on Bacterial and Fungal Communities at Two Apple Replant Disease Sites. <i>Frontiers in Microbiology</i> , 2017, 8, 1604.	1.5	52
38	Isolation of novel IncA/C and IncN fluoroquinolone resistance plasmids from an antibiotic-polluted lake. <i>Journal of Antimicrobial Chemotherapy</i> , 2015, 70, 2709-2717.	1.3	51
39	Comparison of Highly and Weakly Virulent <i>Dickeya solani</i> Strains, With a View on the Pangenome and Panregulon of This Species. <i>Frontiers in Microbiology</i> , 2018, 9, 1940.	1.5	50
40	Different bacterial communities in heat and gamma irradiation treated replant disease soils revealed by 16S rRNA gene analysis – contribution to improved aboveground apple plant growth?. <i>Frontiers in Microbiology</i> , 2015, 6, 1224.	1.5	49
41	Quantification of IncP-1 Plasmid Prevalence in Environmental Samples. <i>Applied and Environmental Microbiology</i> , 2013, 79, 1410-1413.	1.4	48
42	Biocontrol of <i>Rhizoctonia solani</i> : complex interaction of biocontrol strains, pathogen and indigenous microbial community in the rhizosphere of lettuce shown by molecular methods. <i>Plant and Soil</i> , 2012, 361, 343-357.	1.8	47
43	Contaminations of organic fertilizers with antibiotic residues, resistance genes, and mobile genetic elements mirroring antibiotic use in livestock?. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 9343-9353.	1.7	46
44	Manure and Doxycycline Affect the Bacterial Community and Its Resistome in Lettuce Rhizosphere and Bulk Soil. <i>Frontiers in Microbiology</i> , 2019, 10, 725.	1.5	46
45	Effects of biofumigation using Brassica juncea and Raphanus sativus in comparison to disinfection using Basamid on apple plant growth and soil microbial communities at three field sites with replant disease. <i>Plant and Soil</i> , 2016, 406, 389-408.	1.8	45
46	Transferable antibiotic resistance plasmids from biogas plant digestates often belong to the IncP-1 α subgroup. <i>Frontiers in Microbiology</i> , 2014, 5, 765.	1.5	44
47	Effects of 100 years wastewater irrigation on resistance genes, class 1 integrons and IncP-1 plasmids in Mexican soil. <i>Frontiers in Microbiology</i> , 2015, 6, 163.	1.5	43
48	Effect of long-term organic and mineral fertilization strategies on rhizosphere microbiota assemblage and performance of lettuce. <i>Environmental Microbiology</i> , 2019, 21, 2426-2439.	1.8	42
49	High prevalence of IncP-1 plasmids and IS ₁₀₇₁ insertion sequences in on-farm biopurification systems and other pesticide-polluted environments. <i>FEMS Microbiology Ecology</i> , 2013, 86, 415-431.	1.3	41
50	The treasure inside barley seeds: microbial diversity and plant beneficial bacteria. <i>Environmental Microbiomes</i> , 2021, 16, 20.	2.2	37
51	Effects of genetically modified potatoes with increased zeaxanthin content on the abundance and diversity of rhizobacteria with in vitro antagonistic activity do not exceed natural variability among cultivars. <i>Plant and Soil</i> , 2010, 326, 437-452.	1.8	36
52	Root growth, function and rhizosphere microbiome analyses show local rather than systemic effects in apple plant response to replant disease soil. <i>PLoS ONE</i> , 2018, 13, e0204922.	1.1	35
53	<i>Salmonella</i> persistence in soil depends on reciprocal interactions with indigenous microorganisms. <i>Environmental Microbiology</i> , 2020, 22, 2639-2652.	1.8	34
54	Whole Genome Sequencing of Escherichia coli From Store-Bought Produce. <i>Frontiers in Microbiology</i> , 2019, 10, 3050.	1.5	33

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55	Rhizobium tumorigenes sp. nov., a novel plant tumorigenic bacterium isolated from cane gall tumors on thornless blackberry. Scientific Reports, 2018, 8, 9051.	1.6	32
56	Response of the bacterial community in an on-farm biopurification system, to which diverse pesticides are introduced over an agricultural season. Environmental Pollution, 2017, 229, 854-862.	3.7	31
57	Bulk soil and maize rhizosphere resistance genes, mobile genetic elements and microbial communities are differently impacted by organic and inorganic fertilization. FEMS Microbiology Ecology, 2018, 94, .	1.3	31
58	Cultivation-Independent Screening Revealed Hot Spots of IncP-1, IncP-7 and IncP-9 Plasmid Occurrence in Different Environmental Habitats. PLoS ONE, 2014, 9, e89922.	1.1	31
59	Host range diversification within the IncP-1 plasmid group. Microbiology (United Kingdom), 2013, 159, 2303-2315.	0.7	29
60	Mobile genetic elements and antibiotic resistance in mine soil amended with organic wastes. Science of the Total Environment, 2018, 621, 725-733.	3.9	27
61	Root exposure to apple replant disease soil triggers local defense response and rhizoplane microbiome dysbiosis. FEMS Microbiology Ecology, 2021, 97, .	1.3	26
62	Importance of substrate quality and clay content on microbial extracellular polymeric substances production and aggregate stability in soils. Biology and Fertility of Soils, 2022, 58, 435-457.	2.3	24
63	Long-term effects of aided phytostabilisation on microbial communities of metal-contaminated mine soil. FEMS Microbiology Ecology, 2017, 93, fiv252.	1.3	23
64	Selective transport and retention of organic matter and bacteria shapes initial pedogenesis in artificial soil - A two-layer column study. Geoderma, 2018, 325, 37-48.	2.3	23
65	Enhanced tomato plant growth in soil under reduced P supply through microbial inoculants and microbiome shifts. FEMS Microbiology Ecology, 2019, 95, .	1.3	23
66	Editorial: The Environmental Dimension of Antibiotic Resistance. FEMS Microbiology Ecology, 2020, 96, .	1.3	23
67	Tillage shapes the soil and rhizosphere microbiome of barley but not its susceptibility towards <i>Blumeria graminis</i> f. sp. <i>hordei</i> . FEMS Microbiology Ecology, 2021, 97, .	1.3	23
68	The presence of tetracycline in cow manure changes the impact of repeated manure application on soil bacterial communities. Biology and Fertility of Soils, 2016, 52, 1121-1134.	2.3	22
69	Exploring the complex response to linuron of bacterial communities from biopurification systems by means of cultivation-independent methods. FEMS Microbiology Ecology, 2016, 92, fiv157.	1.3	22
70	Persistence of Salmonella Typhimurium LT2 in Soil Enhanced after Growth in Lettuce Medium. Frontiers in Microbiology, 2017, 8, 757.	1.5	22
71	Agrobacterium rosae sp. nov., isolated from galls on different agricultural crops. Systematic and Applied Microbiology, 2018, 41, 191-197.	1.2	19
72	Exploring microbial determinants of apple replant disease (ARD): a microhabitat approach under split-root design. FEMS Microbiology Ecology, 2020, 96, .	1.3	19

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73	Soil texture-depending effects of doxycycline and streptomycin applied with manure on the bacterial community composition and resistome. <i>FEMS Microbiology Ecology</i> , 2018, 94, .	1.3	18
74	Full-scale mesophilic biogas plants using manure as C-source: bacterial community shifts along the process cause changes in the abundance of resistance genes and mobile genetic elements. <i>FEMS Microbiology Ecology</i> , 2016, 92, fiv163.	1.3	17
75	Plant Species-Dependent Increased Abundance and Diversity of IncP-1 Plasmids in the Rhizosphere: New Insights Into Their Role and Ecology. <i>Frontiers in Microbiology</i> , 2020, 11, 590776.	1.5	17
76	Impact of Long-Term Organic and Mineral Fertilization on Rhizosphere Metabolites, Rootâ€™Microbial Interactions and Plant Health of Lettuce. <i>Frontiers in Microbiology</i> , 2020, 11, 597745.	1.5	17
77	Rhizoctonia solani and Bacterial Inoculants Stimulate Root Exudation of Antifungal Compounds in Lettuce in a Soil-Type Specific Manner. <i>Agronomy</i> , 2017, 7, 44.	1.3	16
78	Analysis of the genome sequence of plant beneficial strain Pseudomonas sp. RU47. <i>Journal of Biotechnology</i> , 2018, 281, 183-192.	1.9	15
79	Transferable Extended-Spectrum Î²-Lactamase (ESBL) Plasmids in Enterobacteriaceae from Irrigation Water. <i>Microorganisms</i> , 2020, 8, 978.	1.6	15
80	Soil Mineral Composition Matters: Response of Microbial Communities to Phenanthrene and Plant Litter Addition in Long-Term Matured Artificial Soils. <i>PLoS ONE</i> , 2014, 9, e106865.	1.1	15
81	Assessing environmental drivers of microbial communities in estuarine soils of the Aconcagua River in Central Chile. <i>FEMS Microbiology Ecology</i> , 2015, 91, fiv110.	1.3	14
82	Impacts of switching tillage to no-tillage and vice versa on soil structure, enzyme activities and prokaryotic community profiles in Argentinean semi-arid soils. <i>FEMS Microbiology Ecology</i> , 2021, 97, .	1.3	14
83	Biosolids for safe land application: does wastewater treatment plant size matters when considering antibiotics, pollutants, microbiome, mobile genetic elements and associated resistance genes?. <i>Environmental Microbiology</i> , 2022, 24, 1573-1589.	1.8	14
84	Statistical test for tolerability of effects of an antifungal biocontrol strain on fungal communities in three arable soils. <i>Microbial Biotechnology</i> , 2017, 10, 434-449.	2.0	13
85	Role of Plasmids in Plant-Bacteria Interactions. <i>Current Issues in Molecular Biology</i> , 2019, 30, 17-38.	1.0	13
86	Soil amendment with sewage sludge affects soil prokaryotic community composition, mobilome and resistome. <i>FEMS Microbiology Ecology</i> , 2019, 95, .	1.3	12
87	Microbial community analysis of soils under different soybean cropping regimes in the Argentinean south-eastern Humid Pampas. <i>FEMS Microbiology Ecology</i> , 2021, 97, .	1.3	12
88	Comparable dynamics of linuron catabolic genes and IncP-1 plasmids in biopurification systems (BPSs) as a response to linuron spiking. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 4815-4825.	1.7	12
89	Characterization oftet(Y)-carrying LowGC plasmids exogenously captured from cow manure at a conventional dairy farm. <i>FEMS Microbiology Ecology</i> , 2016, 92, fiw075.	1.3	11
90	A Novel Group of Rhizobium tumorigenes-Like Agrobacteria Associated with Crown Gall Disease of Rhododendron and Blueberry. <i>Phytopathology</i> , 2019, 109, 1840-1848.	1.1	10

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91	Suppression treatment differentially influences the microbial community and the occurrence of broad host range plasmids in the rhizosphere of the model cover crop <i>Avena sativa</i> L.. PLoS ONE, 2019, 14, e0223600.	1.1	10
92	Reduced tillage, cover crops and organic amendments affect soil microbiota and improve soil health in Uruguayan vegetable farming systems. FEMS Microbiology Ecology, 2021, 97, .	1.3	10
93	Multitrophic interactions among Western Corn Rootworm, <i>Glomus intraradices</i> and microbial communities in the rhizosphere and endorhiza of maize. Frontiers in Microbiology, 2013, 4, 357.	1.5	9
94	Editorial: Special section of FEMS Microbiology Ecology on the environmental dimension of antibiotic resistance. FEMS Microbiology Ecology, 2016, 92, fiw172.	1.3	9
95	Plasmid Detection, Characterization, and Ecology. , 0, , 445-458.		9
96	PromA Plasmids Are Instrumental in the Dissemination of Linuron Catabolic Genes Between Different Genera. Frontiers in Microbiology, 2020, 11, 149.	1.5	8
97	Distinct rhizomicrobiota assemblages and plant performance in lettuce grown in soils with different agricultural management histories. FEMS Microbiology Ecology, 2021, 97, .	1.3	7
98	Potato plant spheres and to a lesser extent the soil type influence the proportion and diversity of bacterial isolates with <i>in vitro</i> antagonistic activity towards <i>Ralstonia solanacearum</i> . FEMS Microbiology Ecology, 2021, 97, .	1.3	7
99	Do drying and rewetting cycles modulate effects of sulfadiazine spiked manure in soil?. FEMS Microbiology Ecology, 2016, 92, fiw066.	1.3	6
100	<i>Pseudomonas savastanoi</i> pv. <i>mandevillae</i> pv. nov., a Clonal Pathogen Causing an Emerging, Devastating Disease of the Ornamental Plant <i>Mandevilla</i> spp.. Phytopathology, 2021, 111, 1277-1288.	1.1	5
101	Sewage sludge amendment and inoculation with plant-parasitic nematodes do not facilitate the internalization of <i>Salmonella</i> Typhimurium LT2 in lettuce plants. Food Microbiology, 2018, 71, 111-119.	2.1	4
102	Editorial: Special thematic issue on microbe-assisted crop production. FEMS Microbiology Ecology, 2016, 92, fiw167.	1.3	3
103	Editorial to the Thematic Topic "Towards a more sustainable agriculture through managing soil microbiomes" FEMS Microbiology Ecology, 2021, 97, .	1.3	3
104	Detection, Isolation, and Characterization of Plasmids in the Environment. Methods in Molecular Biology, 2020, 2075, 39-60.	0.4	3
105	Editorial overview: Ecology and industrial microbiology. Current Opinion in Microbiology, 2014, 19, v-vii.	2.3	2
106	Long-Range PCR Reveals the Genetic Cargo of IncP-1 Plasmids in the Complex Microbial Community of an On-Farm Biopurification System Treating Pesticide-Contaminated Wastewater. Applied and Environmental Microbiology, 2022, 88, AEM0164821.	1.4	1