Peng Cai

List of Publications by Year
in descending order

124 papers	5,764 citations	57758 44 h-index	91884 69 g-index
127 all docs	127 docs citations	127 times ranked	5777 citing authors

#	Article	IF	Citations
1	An invisible workforce in soil: The neglected role of soil biofilms in conjugative transfer of antibiotic resistance genes. Critical Reviews in Environmental Science and Technology, 2022, 52, 2720-2748.	12.8	14
2	Zooming in to acquire micro-reaction: Application of microfluidics on soil microbiome. Soil Ecology Letters, 2022, 4, 213-223.	4.5	3
3	Warming and humidification mediated changes of DOM composition in an Alfisol. Science of the Total Environment, 2022, 805, 150198.	8.0	11
4	Influence of surface coatings on the adhesion of Shewanella oneidensis MR-1 to hematite. Journal of Colloid and Interface Science, 2022, 608, 2955-2963.	9.4	9
5	Functional group diversity for the adsorption of lead(Pb) to bacterial cells and extracellular polymeric substances. Environmental Pollution, 2022, 295, 118651.	7.5	18
6	Size-dependent visible-light-enhanced Cr(VI) bioreduction by hematite nanoparticles. Chemosphere, 2022, 295, 133633.	8.2	7
7	Humic acids restrict the transformation and the stabilization of Cd by iron (hydr)oxides. Journal of Hazardous Materials, 2022, 430, 128365.	12.4	25
8	A Polysaccharide Biosynthesis Locus in Vibrio parahaemolyticus Important for Biofilm Formation Has Homologs Widely Distributed in Aquatic Bacteria Mainly from <i>Gammaproteobacteria</i>. MSystems, 2022, 7, e0122621.	3.8	10
9	Microbial formation and stabilisation of soil organic carbon is regulated by carbon substrate identity and mineral composition. Geoderma, 2022, 414, 115762.	5.1	11
10	Effects of hematite on the dissemination of antibiotic resistance in pathogens and underlying mechanisms. Journal of Hazardous Materials, 2022, 431, 128537.	12.4	5
11	Insights into conjugative transfer of antibiotic resistance genes affected by soil minerals. European Journal of Soil Science, 2021, 72, 1143-1153.	3.9	14
12	Soil phyllosilicate and iron oxide inhibit the quorum sensing of Chromobacterium violaceum. Soil Ecology Letters, 2021, 3, 22-31.	4.5	3
13	The role of interfacial reactions in controlling the distribution of Cd within goethiteâˆ'humic acidâˆ'bacteria composites. Journal of Hazardous Materials, 2021, 405, 124081.	12.4	20
14	Quantitative analysis of the surficial and adhesion properties of the Gram-negative bacterial species Comamonas testosteroni modulated by c-di-GMP. Colloids and Surfaces B: Biointerfaces, 2021, 198, 111497.	5.0	9
15	The initial inoculation ratio regulates bacterial coculture interactions and metabolic capacity. ISME Journal, 2021, 15, 29-40.	9.8	44
16	Whole-Cell Microbial Bioreporter for Soil Contaminants Detection. Frontiers in Bioengineering and Biotechnology, 2021, 9, 622994.	4.1	20
17	Increased particle size of goethite enhances the antibacterial effect on human pathogen Escherichia coli O157:H7: A Raman spectroscopic study. Journal of Hazardous Materials, 2021, 405, 124174.	12.4	8
18	Selective retention of extracellular polymeric substances induced by adsorption to and coprecipitation with ferrihydrite. Geochimica Et Cosmochimica Acta, 2021, 299, 15-34.	3.9	27

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19	Effects of long-term fertilization on calcium-associated soil organic carbon: Implications for C sequestration in agricultural soils. Science of the Total Environment, 2021, 772, 145037.	8.0	30
20	Special Issue on Soil Pollution, Control, and Remediation. Soil Ecology Letters, 2021, 3, 167-168.	4.5	4
21	Divergent bacterial transformation exerted by soil minerals. Science of the Total Environment, 2021, 784, 147173.	8.0	5
22	ggVennDiagram: An Intuitive, Easy-to-Use, and Highly Customizable R Package to Generate Venn Diagram. Frontiers in Genetics, 2021, 12, 706907.	2.3	134
23	Emergent transcriptional adaption facilitates convergent succession within a synthetic community. ISME Communications, 2021, 1, .	4.2	8
24	Mechanistic investigation and modeling of Cd immobilization by iron (hydr)oxide-humic acid coprecipitates. Journal of Hazardous Materials, 2021, 420, 126603.	12.4	19
25	Recent advances in mitigating membrane biofouling using carbon-based materials. Journal of Hazardous Materials, 2020, 382, 120976.	12.4	67
26	Interspecific interactions in dual-species biofilms of soil bacteria: effects of fertilization practices. Journal of Soils and Sediments, 2020, 20, 1494-1501.	3.0	6
27	Outer Membrane <i>c</i> -Type Cytochromes OmcA and MtrC Play Distinct Roles in Enhancing the Attachment of <i>Shewanella oneidensis</i> MR-1 Cells to Goethite. Applied and Environmental Microbiology, 2020, 86, .	3.1	36
28	The attachment process and physiological properties of Escherichia coli O157:H7 on quartz. BMC Microbiology, 2020, 20, 355.	3.3	3
29	The exopolysaccharideâ€“eDNA interaction modulates 3D architecture of Bacillus subtilis biofilm. BMC Microbiology, 2020, 20, 115.	3.3	56
30	Characterization of Cu distribution in clay-sized soil aggregates by NanoSIMS and micro-XRF. Chemosphere, 2020, 249, 126143.	8.2	18
31	Towards a better understanding of Pseudomonas putida biofilm formation in the presence of ZnO nanoparticles (NPs): Role of NP concentration. Environment International, 2020, 137, 105485.	10.0	49
32	Response to Letter to the Editorâ€”â€œSoil biofilmsâ€ Misleading description of the spatial distribution of microbial biomass in soils. Soil Ecology Letters, 2020, 2, 6-7.	4.5	0
33	Divergent Influence to a Pathogen Invader by Resident Bacteria with Different Social Interactions. Microbial Ecology, 2019, 77, 76-86.	2.8	9
34	Heavy metal behaviour at mineral-organo interfaces: Mechanisms, modelling and influence factors. Environment International, 2019, 131, 104995.	10.0	123
35	Soil biofilms: microbial interactions, challenges, and advanced techniques for ex-situ characterization. Soil Ecology Letters, 2019, 1, 85-93.	4.5	62
36	Soil biofilm formation enhances microbial community diversity and metabolic activity. Environment International, 2019, 132, 105116.	10.0	80

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37	Extraction of extracellular polymeric substances (EPS) from red soils (Ultisols). Soil Biology and Biochemistry, 2019, 135, 283-285.	8.8	28
38	Bio-organic stabilizing agent shows promising prospect for the stabilization of cadmium in contaminated farmland soil. Environmental Science and Pollution Research, 2019, 26, 23399-23406.	5.3	19
39	Size-Dependent Bacterial Toxicity of Hematite Particles. Environmental Science & Technology, 2019, 53, 8147-8156.	10.0	46
40	Impact of metal oxide nanoparticles on in vitro DNA amplification. PeerJ, 2019, 7, e7228.	2.0	12
41	Pb sorption on montmorillonite-bacteria composites: A combination study by XAFS, ITC and SCM. Chemosphere, 2018, 200, 427-436.	8.2	37
42	Distribution and mobility of exogenous copper as influenced by aging and components interactions in three Chinese soils. Environmental Science and Pollution Research, 2018, 25, 10771-10781.	5.3	10
43	Metabolism, survival, and gene expression of<i>Pseudomonas putida</i>to hematite nanoparticles mediated by surface-bound humic acid. Environmental Science: Nano, 2018, 5, 682-695.	4.3	26
44	Modeling of Cd adsorption to goethite-bacteria composites. Chemosphere, 2018, 193, 943-950.	8.2	31
45	Aging shapes the distribution of copper in soil aggregate size fractions. Environmental Pollution, 2018, 233, 569-576.	7.5	38
46	Organic matter facilitates the binding of Pb to iron oxides in a subtropical contaminated soil. Environmental Science and Pollution Research, 2018, 25, 32130-32139.	5.3	22
47	Impact of soil clay minerals on growth, biofilm formation, and virulence gene expression of Escherichia coli O157:H7. Environmental Pollution, 2018, 243, 953-960.	7.5	41
48	Binding to type I collagen is essential for the infectivity of<i>Vibrio parahaemolyticus</i>to host cells. Cellular Microbiology, 2018, 20, e12856.	2.1	9
49	EPS adsorption to goethite: Molecular level adsorption mechanisms using 2D correlation spectroscopy. Chemical Geology, 2018, 494, 127-135.	3.3	30
50	Recent advances in microbial electrochemical system for soil bioremediation. Chemosphere, 2018, 211, 156-163.	8.2	56
51	Towards a better understanding of the aggregation mechanisms of iron (hydr)oxide nanoparticles interacting with extracellular polymeric substances: Role of pH and electrolyte solution. Science of the Total Environment, 2018, 645, 372-379.	8.0	22
52	Role of pH and ionic strength in the aggregation of TiO 2 nanoparticles in the presence of extracellular polymeric substances from Bacillus subtilis. Environmental Pollution, 2017, 228, 35-42.	7.5	66
53	Bacillus subtilis biofilm development in the presence of soil clay minerals and iron oxides. Npj Biofilms and Microbiomes, 2017, 3, 4.	6.4	83
54	Survival of Escherichia coli O157:H7 in various soil particles: importance of the attached bacterial phenotype. Biology and Fertility of Soils, 2017, 53, 209-219.	4.3	17

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55	Effects of humic acid on the interactions between zinc oxide nanoparticles and bacterial biofilms. Environmental Pollution, 2017, 231, 1104-1111.	7.5	39
56	Surface complexation modeling of Cu(II) sorption to montmorilloniteâ€"bacteria composites. Science of the Total Environment, 2017, 607-608, 1408-1418.	8.0	25
57	Metal-free inactivation of E. coli O157:H7 by fullerene/C3N4 hybrid under visible light irradiation. Ecotoxicology and Environmental Safety, 2017, 136, 40-45.	6.0	38
58	Influence of bacterial extracellular polymeric substances on the sorption of Zn on Î³-alumina: A combination of FTIR and EXAFS studies. Environmental Pollution, 2017, 220, 997-1004.	7.5	10
59	Molecular investigation on the binding of Cd(II) by the binary mixtures of montmorillonite with two bacterial species. Environmental Pollution, 2017, 229, 871-878.	7.5	40
60	Surface complexation modeling of Cd(II) sorption to montmorillonite, bacteria, and their composite. Biogeosciences, 2016, 13, 5557-5566.	3.3	21
61	Cd(II) Sorption on Montmorillonite-Humic acid-Bacteria Composites. Scientific Reports, 2016, 6, 19499.	3.3	49
62	Microbial communities play important roles in modulating paddy soil fertility. Scientific Reports, 2016, 6, 20326.	3.3	63
63	Competitive adsorption of Pb and Cd on bacteriaâ€"montmorillonite composite. Environmental Pollution, 2016, 218, 168-175.	7.5	71
64	Influence of extracellular polymeric substances on the aggregation kinetics of TiO2 nanoparticles. Water Research, 2016, 104, 381-388.	11.3	77
65	Cadmium adsorption on bacteriaâ€"mineral mixtures: effect of naturally occurring ligands. European Journal of Soil Science, 2016, 67, 641-649.	3.9	22
66	Efficient Photocatalytic Disinfection of Escherichia coli O157:H7 using C70-TiO2 Hybrid under Visible Light Irradiation. Scientific Reports, 2016, 6, 25702.	3.3	45
67	Interactions of EPS with soil minerals: A combination study by ITC and CLSM. Colloids and Surfaces B: Biointerfaces, 2016, 138, 10-16.	5.0	64
68	Atomic force microscopy measurements of bacterial adhesion and biofilm formation onto clay-sized particles. Scientific Reports, 2015, 5, 16857.	3.3	122
69	Effects of humic acid on adhesion of Bacillus subtilis to phyllosilicates and goethite. Chemical Geology, 2015, 416, 19-27.	3.3	29
70	Bacterial cell surface properties: Role of loosely bound extracellular polymeric substances (LB-EPS). Colloids and Surfaces B: Biointerfaces, 2015, 128, 600-607.	5.0	74
71	Relative Attachment Behaviors of Pathogenic and Nonpathogenic<i>Escherichia coli</i>to Soil Particles: Influence of Soil Physicochemical Properties. Geomicrobiology Journal, 2015, 32, 594-601.	2.0	5
72	Fullerene C₇₀â€"TiO₂ hybrids with enhanced photocatalytic activity under visible light irradiation. Journal of Materials Chemistry A, 2015, 3, 21090-21098.	10.3	38

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73	Contrasting effects of extracellular polymeric substances on the surface characteristics of bacterial pathogens and cell attachment to soil particles. Chemical Geology, 2015, 410, 79-88.	3.3	21
74	Streptococcus suis sorption on agricultural soils: Role of soil physico-chemical properties. Chemosphere, 2015, 119, 52-58.	8.2	12
75	Soil Colloids and Minerals Modulate Metabolic Activity of<i>Pseudomonas putida</i>Measured Using Microcalorimetry. Geomicrobiology Journal, 2014, 31, 590-596.	2.0	46
76	Effects of Solution Chemistry on Bacterial Adhesion with Phyllosilicates and Goethite Explained by the Extended DLVO Theory. Geomicrobiology Journal, 2014, 31, 419-430.	2.0	21
77	Interfacial interaction between methyl parathion-degrading bacteria and minerals is important in biodegradation. Biodegradation, 2014, 25, 1-9.	3.0	22
78	In situ ATR-FTIR study on the adhesion of Pseudomonas putida to Red soil colloids. Journal of Soils and Sediments, 2014, 14, 504-514.	3.0	29
79	Biodegradation of methyl parathion in the presence of goethite: The effect of Pseudomonas sp. Z1 adhesion. International Biodeterioration and Biodegradation, 2014, 86, 294-299.	3.9	9
80	Adhesion of Pseudomonas putida onto kaolinite at different growth phases. Chemical Geology, 2014, 390, 1-8.	3.3	39
81	Biosorption mechanisms of Cu(II) by extracellular polymeric substances from Bacillus subtilis. Chemical Geology, 2014, 386, 143-151.	3.3	54
82	Combined Application of Rice Straw and Fungus<i>Penicillium Chrysogenum</i>to Remediate Heavy-Metal-Contaminated Soil. Soil and Sediment Contamination, 2014, 23, 328-338.	1.9	13
83	Estimation of enzymatic, microbial, and chemical properties in Brown soil by microcalorimetry. Journal of Thermal Analysis and Calorimetry, 2014, 116, 969-988.	3.6	17
84	Adhesion of bacterial pathogens to soil colloidal particles: Influences of cell type, natural organic matter, and solution chemistry. Water Research, 2014, 53, 35-46.	11.3	84
85	The effect of extracellular polymeric substances on the adhesion of bacteria to clay minerals and goethite. Chemical Geology, 2013, 360-361, 118-125.	3.3	60
86	Deposition and Survival of <i>Escherichia coli</i> O157:H7 on Clay Minerals in a Parallel Plate Flow System. Environmental Science & Technology, 2013, 47, 1896-1903.	10.0	97
87	Oxidative Enzymes, the Ultimate Regulator: Implications for Factors Affecting Their Efficiency. Journal of Environmental Quality, 2013, 42, 1779-1790.	2.0	21
88	Influence of Feedstock and Pyrolysis Temperature of Biochar Amendments on Transport of <i>Escherichia coli</i> in Saturated and Unsaturated Soil. Environmental Science & Technology, 2012, 46, 8097-8105.	10.0	104
89	Reactions between bacterial exopolymers and goethite: AÂcombined macroscopic and spectroscopic investigation. Water Research, 2012, 46, 5613-5620.	11.3	99
90	Sorption of <i>Streptococcus suis</i> on various soil particles from an Alfisol and effects on pathogen metabolic activity. European Journal of Soil Science, 2012, 63, 558-564.	3.9	18

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91	Interactions of pathogens Escherichia coli and Streptococcus suis with clay minerals. Applied Clay Science, 2012, 69, 37-42.	5.2	46
92	Initial adhesion of <i>Bacillus subtilis</i> on soil minerals as related to their surface properties. European Journal of Soil Science, 2012, 63, 457-466.	3.9	78
93	Adsorption of Pseudomonas putida on soil particle size fractions: effects of solution chemistry and organic matter. Journal of Soils and Sediments, 2012, 12, 143-149.	3.0	37
94	Influence of extracellular polymeric substances (EPS) on Cd adsorption by bacteria. Environmental Pollution, 2011, 159, 1369-1374.	7.5	181
95	Role of extracellular polymeric substances in Cu(II) adsorption on Bacillus subtilis and Pseudomonas putida. Bioresource Technology, 2011, 102, 1137-1141.	9.6	116
96	Effects of low-molecular-weight organic ligands and phosphate on adsorption of Pseudomonas putida by clay minerals and iron oxide. Colloids and Surfaces B: Biointerfaces, 2011, 82, 147-151.	5.0	46
97	Preferential adsorption of extracellular polymeric substances from bacteria on clay minerals and iron oxide. Colloids and Surfaces B: Biointerfaces, 2011, 83, 122-127.	5.0	164
98	Bioavailability of methyl parathion adsorbed on clay minerals and iron oxide. Journal of Hazardous Materials, 2011, 185, 1032-1036.	12.4	15
99	Binding characteristics of copper and cadmium by cyanobacterium Spirulina platensis. Journal of Hazardous Materials, 2011, 190, 810-815.	12.4	95
100	Effects of Temperature, pH and Salt Concentrations on the Adsorption of<i>Bacillus subtilis</i>on Soil Clay Minerals Investigated by Microcalorimetry. Geomicrobiology Journal, 2011, 28, 686-691.	2.0	26
101	Fractionation of copper and cadmium and their binding with soil organic matter in a contaminated soil amended with organic materials. Journal of Soils and Sediments, 2010, 10, 973-982.	3.0	133
102	Microcalorimetric and potentiometric titration studies on the adsorption of copper by P. putida and B. thuringiensis and their composites with minerals. Journal of Hazardous Materials, 2010, 181, 1031-1038.	12.4	59
103	Pseudomonas putida adhesion to goethite: Studied by equilibrium adsorption, SEM, FTIR and ITC. Colloids and Surfaces B: Biointerfaces, 2010, 80, 79-85.	5.0	71
104	Microcalorimetric and potentiometric titration studies on the adsorption of copper by extracellular polymeric substances (EPS), minerals and their composites. Bioresource Technology, 2010, 101, 5774-5779.	9.6	110
105	Poultry Manure Compost Alleviates the Phytotoxicity of Soil Cadmium: Influence on Growth of Pakchoi (Brassica chinensis L.). Pedosphere, 2010, 20, 63-70.	4.0	79
106	Role of bacteria in the adsorption and binding of DNA on soil colloids and minerals. Colloids and Surfaces B: Biointerfaces, 2009, 69, 26-30.	5.0	19
107	Conformation, activity and proteolytic stability of acid phosphatase on clay minerals and soil colloids from an Alfisol. Colloids and Surfaces B: Biointerfaces, 2009, 74, 279-283.	5.0	18
108	Microcalorimetric assessment of microbial activity in long-term fertilization experimental soils of Southern China. FEMS Microbiology Ecology, 2009, 70, 186-195.	2.7	27

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109	Immobilization and phytotoxicity of Cd in contaminated soil amended with chicken manure compost. Journal of Hazardous Materials, 2009, 163, 563-567.	12.4	214
110	Impact of cell wall structure on the behavior of bacterial cells in the binding of copper and cadmium. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 347, 50-55.	4.7	60
111	Adsorption and biodegradation of carbaryl on montmorillonite, kaolinite and goethite. Applied Clay Science, 2009, 46, 102-108.	5.2	64
112	Interaction of Pseudomonas putida with kaolinite and montmorillonite: A combination study by equilibrium adsorption, ITC, SEM and FTIR. Colloids and Surfaces B: Biointerfaces, 2008, 64, 49-55.	5.0	146
113	Binding and degradation of DNA on montmorillonite coated by hydroxyl aluminum species. Colloids and Surfaces B: Biointerfaces, 2008, 62, 299-306.	5.0	37
114	Isothermal Microcalorimetry: A Review of Applications in Soil and Environmental Sciences. Pedosphere, 2007, 17, 137-145.	4.0	42
115	Adsorption and Insecticidal Activity of Toxin from Bacillus thuringiensis on Rectorite. Pedosphere, 2007, 17, 513-521.	4.0	11
116	Effects of low-molecular-weight organic ligands and phosphate on DNA adsorption by soil colloids and minerals. Colloids and Surfaces B: Biointerfaces, 2007, 54, 53-59.	5.0	44
117	Adsorption of Pseudomonas putida on clay minerals and iron oxide. Colloids and Surfaces B: Biointerfaces, 2007, 54, 217-221.	5.0	162
118	Soil colloids-bound plasmid DNA: Effect on transformation of E. coli and resistance to DNase I degradation. Soil Biology and Biochemistry, 2007, 39, 1007-1013.	8.8	31
119	Amplification of plasmid DNA bound on soil colloidal particles and clay minerals by the polymerase chain reaction. Journal of Environmental Sciences, 2007, 19, 1326-1329.	6.1	7
120	Interactions of DNA with Clay Minerals and Soil Colloidal Particles and Protection against Degradation by DNase. Environmental Science & Technology, 2006, 40, 2971-2976.	10.0	151
121	Microcalorimetric studies of the effects of MgCl2 concentrations and pH on the adsorption of DNA on montmorillonite, kaolinite and goethite. Applied Clay Science, 2006, 32, 147-152.	5.2	61
122	Microcalorimetric studies on the adsorption of DNA by soil colloidal particles. Colloids and Surfaces B: Biointerfaces, 2006, 49, 49-54.	5.0	39
123	Adsorption of DNA on clay minerals and various colloidal particles from an Alfisol. Soil Biology and Biochemistry, 2006, 38, 471-476.	8.8	157
124	Adsorption, desorption and activities of acid phosphatase on various colloidal particles from an Ultisol. Colloids and Surfaces B: Biointerfaces, 2005, 45, 209-214.	5.0	54