

Anthony V Palumbo

List of Publications by Year in descending order

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106
papers

7,795
citations

71102

41
h-index

53230

85
g-index

109
all docs

109
docs citations

109
times ranked

8144
citing authors

#	ARTICLE	IF	CITATIONS
1	The Genetic Basis for Bacterial Mercury Methylation. <i>Science</i> , 2013, 339, 1332-1335.	12.6	778
2	Spatial and Resource Factors Influencing High Microbial Diversity in Soil. <i>Applied and Environmental Microbiology</i> , 2002, 68, 326-334.	3.1	599
3	Trichloroethylene Biodegradation by a Methane-Oxidizing Bacterium. <i>Applied and Environmental Microbiology</i> , 1988, 54, 951-956.	3.1	356
4	Evaluation of PCR-Generated Chimeras, Mutations, and Heteroduplexes with 16S rRNA Gene-Based Cloning. <i>Applied and Environmental Microbiology</i> , 2001, 67, 880-887.	3.1	355
5	Global prevalence and distribution of genes and microorganisms involved in mercury methylation. <i>Science Advances</i> , 2015, 1, e1500675.	10.3	355
6	Simultaneous Recovery of RNA and DNA from Soils and Sediments. <i>Applied and Environmental Microbiology</i> , 2001, 67, 4495-4503.	3.1	341
7	Sulfate-Reducing Bacterium <i>Desulfovibrio desulfuricans</i> ND132 as a Model for Understanding Bacterial Mercury Methylation. <i>Applied and Environmental Microbiology</i> , 2011, 77, 3938-3951.	3.1	252
8	Biogeochemical Dynamics in Zero-Valent Iron Columns: Implications for Permeable Reactive Barriers. <i>Environmental Science & Technology</i> , 1999, 33, 2170-2177.	10.0	250
9	Soil Aggregate Microbial Communities: Towards Understanding Microbiome Interactions at Biologically Relevant Scales. <i>Applied and Environmental Microbiology</i> , 2019, 85, .	3.1	233
10	Host genetic and environmental effects on mouse intestinal microbiota. <i>ISME Journal</i> , 2012, 6, 2033-2044.	9.8	206
11	Role of Nutrient Cycling and Herbivory in Regulating Periphyton Communities in Laboratory Streams. <i>Ecology</i> , 1991, 72, 966-982.	3.2	180
12	Molecular Diversity of Denitrifying Genes in Continental Margin Sediments within the Oxygen-Deficient Zone off the Pacific Coast of Mexico. <i>Applied and Environmental Microbiology</i> , 2003, 69, 3549-3560.	3.1	179
13	Transcriptomic and metabolomic profiling of <i>Zymomonas mobilis</i> during aerobic and anaerobic fermentations. <i>BMC Genomics</i> , 2009, 10, 34.	2.8	138
14	Mercury and Other Heavy Metals Influence Bacterial Community Structure in Contaminated Tennessee Streams. <i>Applied and Environmental Microbiology</i> , 2011, 77, 302-311.	3.1	137
15	Denitrifying Bacteria Isolated from Terrestrial Subsurface Sediments Exposed to Mixed-Waste Contamination. <i>Applied and Environmental Microbiology</i> , 2010, 76, 3244-3254.	3.1	136
16	Microbial Diversity and Heterogeneity in Sandy Subsurface Soils. <i>Applied and Environmental Microbiology</i> , 2004, 70, 1723-1734.	3.1	134
17	Mobility of natural organic matter in a study aquifer. <i>Environmental Science & Technology</i> , 1993, 27, 667-676.	10.0	123
18	Molecular characterization and diversity of thermophilic iron-reducing enrichment cultures from deep subsurface environments. <i>Journal of Applied Microbiology</i> , 2001, 90, 96-105.	3.1	111

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19	Determining the Reliability of Measuring Mercury Cycling Gene Abundance with Correlations with Mercury and Methylmercury Concentrations. <i>Environmental Science & Technology</i> , 2019, 53, 8649-8663.	10.0	99
20	Functional Diversity and Electron Donor Dependence of Microbial Populations Capable of U(VI) Reduction in Radionuclide-Contaminated Subsurface Sediments. <i>Applied and Environmental Microbiology</i> , 2008, 74, 3159-3170.	3.1	97
21	Laser-induced breakdown spectroscopy for the environmental determination of total carbon and nitrogen in soils. <i>Applied Optics</i> , 2003, 42, 2072.	2.1	91
22	Size of Suspended Bacterial Cells and Association of Heterotrophic Activity with Size Fractions of Particles in Estuarine and Coastal Waters. <i>Applied and Environmental Microbiology</i> , 1984, 48, 157-164.	3.1	90
23	Metabolomics and microarrays for improved understanding of phenotypic characteristics controlled by both genomics and environmental constraints. <i>Current Opinion in Biotechnology</i> , 2002, 13, 20-24.	6.6	86
24	Colloid transport through fractured and unfractured laboratory sand columns. <i>Journal of Contaminant Hydrology</i> , 1992, 9, 289-303.	3.3	83
25	Effect of Stream Acidification on Periphyton Composition, Chlorophyll, and Productivity. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1986, 43, 1846-1858.	1.4	82
26	Functional Gene Array-Based Analysis of Microbial Community Structure in Groundwaters with a Gradient of Contaminant Levels. <i>Environmental Science & Technology</i> , 2009, 43, 3529-3534.	10.0	80
27	Effects of Acidification on Leaf Decomposition in Streams. <i>Journal of the North American Benthological Society</i> , 1987, 6, 147-158.	3.1	76
28	Isolation and Physiology of Bacteria from Contaminated Subsurface Sediments. <i>Applied and Environmental Microbiology</i> , 2010, 76, 7413-7419.	3.1	76
29	Development and Validation of Broad-Range Qualitative and Clade-Specific Quantitative Molecular Probes for Assessing Mercury Methylation in the Environment. <i>Applied and Environmental Microbiology</i> , 2016, 82, 6068-6078.	3.1	73
30	Structural and functional diversity of soil bacterial and fungal communities following woody plant encroachment in the southern Great Plains. <i>Soil Biology and Biochemistry</i> , 2010, 42, 1816-1824.	8.8	72
31	Bacterial phylogenetic diversity and a novel candidate division of two humid region, sandy surface soils. <i>Soil Biology and Biochemistry</i> , 2003, 35, 915-924.	8.8	64
32	Genome Sequences for Six <i>Rhodanobacter</i> Strains, Isolated from Soils and the Terrestrial Subsurface, with Variable Denitrification Capabilities. <i>Journal of Bacteriology</i> , 2012, 194, 4461-4462.	2.2	62
33	Extraction with DMSO to simultaneously measure periphyton photosynthesis, chlorophyll, and ATP1,2. <i>Limnology and Oceanography</i> , 1987, 32, 464-471.	3.1	59
34	Snapshot of iron response in <i>Shewanella oneidensis</i> by gene network reconstruction. <i>BMC Genomics</i> , 2009, 10, 131.	2.8	56
35	Complete Genome Sequence and Updated Annotation of <i>Desulfovibrio alaskensis</i> G20. <i>Journal of Bacteriology</i> , 2011, 193, 4268-4269.	2.2	56
36	Characterization of the <i>Shewanella oneidensis</i> Fur gene: roles in iron and acid tolerance response. <i>BMC Genomics</i> , 2008, 9, S11.	2.8	55

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37	Resilience of Lotic Ecosystems to a Light-Elimination Disturbance. <i>Ecology</i> , 1991, 72, 1299-1313.	3.2	52
38	Influence of Nutrients and Grazing on the Response of Stream Periphyton Communities to a Scour Disturbance. <i>Journal of the North American Benthological Society</i> , 1991, 10, 127-142.	3.1	52
39	Characterization of Archaeal Community in Contaminated and Uncontaminated Surface Stream Sediments. <i>Microbial Ecology</i> , 2010, 60, 784-795.	2.8	51
40	Coupling of Functional Gene Diversity and Geochemical Data from Environmental Samples. <i>Applied and Environmental Microbiology</i> , 2004, 70, 6525-6534.	3.1	48
41	Distribution of suspended bacteria in the Newport River estuary, North Carolina. <i>Estuarine and Coastal Marine Science</i> , 1978, 7, 521-529.	0.9	45
42	Effects of nutrient dosing on subsurface methanotrophic populations and trichloroethylene degradation. <i>Journal of Industrial Microbiology and Biotechnology</i> , 1997, 18, 204-212.	3.0	43
43	Microbial Community Succession during Lactate Amendment and Electron Acceptor Limitation Reveals a Predominance of Metal-Reducing <i>Pelosinus</i> spp. <i>Applied and Environmental Microbiology</i> , 2012, 78, 2082-2091.	3.1	42
44	Genome Sequence of the Mercury-Methylating Strain <i>Desulfovibrio desulfuricans</i> ND132. <i>Journal of Bacteriology</i> , 2011, 193, 2078-2079.	2.2	41
45	Bioluminescent reporter bacteria detect contaminants in soil samples. <i>Applied Biochemistry and Biotechnology</i> , 1994, 45-46, 731-740.	2.9	40
46	Complete Genome Sequence of the Cellulolytic Thermophile <i>Caldicellulosiruptor obsidiansis</i> OB47. <i>Journal of Bacteriology</i> , 2010, 192, 6099-6100.	2.2	39
47	Distribution of suspended bacteria in neritic waters south of Long Island during stratified conditions. <i>Limnology and Oceanography</i> , 1979, 24, 697-705.	3.1	38
48	Microbial Community Changes in Response to Ethanol or Methanol Amendments for U(VI) Reduction. <i>Applied and Environmental Microbiology</i> , 2010, 76, 5728-5735.	3.1	38
49	Carbon Amendments Alter Microbial Community Structure and Net Mercury Methylation Potential in Sediments. <i>Applied and Environmental Microbiology</i> , 2018, 84, .	3.1	38
50	Resistance of Lotic Ecosystems to a Light Elimination Disturbance: A Laboratory Stream Study. <i>Oikos</i> , 1990, 58, 80.	2.7	36
51	Establishment and metabolic analysis of a model microbial community for understanding trophic and electron accepting interactions of subsurface anaerobic environments. <i>BMC Microbiology</i> , 2010, 10, 149.	3.3	36
52	Hexavalent Chromium Reduction under Fermentative Conditions with Lactate Stimulated Native Microbial Communities. <i>PLoS ONE</i> , 2013, 8, e83909.	2.5	36
53	Grain size and depth constraints on microbial variability in coastal plain subsurface sediments. <i>Geomicrobiology Journal</i> , 1998, 15, 171-185.	2.0	35
54	Relationships between stream acidity and bacteria, macroinvertebrates, and fish: a comparison of north temperate and south temperate mountain streams, USA. <i>Hydrobiologia</i> , 1992, 239, 7-24.	2.0	34

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55	Metal reduction at cold temperatures by <i>Shewanella</i> isolates from various marine environments. <i>Aquatic Microbial Ecology</i> , 2005, 38, 81-91.	1.8	34
56	Microbial Communities on Leaf Material Protected from Macroinvertebrate Grazing in Acidic and Circumneutral Streams. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1987, 44, 1064-1070.	1.4	33
57	Introduction of a plasmid-encoded <i>phoA</i> gene for constitutive overproduction of alkaline phosphatase in three subsurface <i>Pseudomonas</i> isolates. <i>FEMS Microbiology Ecology</i> , 2002, 41, 115-123.	2.7	33
58	Bacterial Communities in Acidic and Circumneutral Streams. <i>Applied and Environmental Microbiology</i> , 1987, 53, 337-344.	3.1	29
59	Methanotrophic TCE Biodegradation in a Multi-Stage Bioreactor. <i>Environmental Science & Technology</i> , 1995, 29, 2073-2082.	10.0	26
60	Donor-Dependent Extent of Uranium Reduction for Bioremediation of Contaminated Sediment Microcosms. <i>Journal of Environmental Quality</i> , 2009, 38, 53-60.	2.0	26
61	Characterization of the Deltaproteobacteria in contaminated and uncontaminated stream sediments and identification of potential mercury methylators. <i>Aquatic Microbial Ecology</i> , 2012, 66, 271-282.	1.8	26
62	Acid-base chemistry of high-elevation streams in the great smoky mountains. <i>Water, Air, and Soil Pollution</i> , 1994, 72, 331-356.	2.4	25
63	The effect of media composition on EDTA degradation by <i>Agrobacterium</i> sp.. <i>Applied Biochemistry and Biotechnology</i> , 1994, 45-46, 811-822.	2.9	24
64	Draft Genome Sequences for Two Metal-Reducing <i>Pelosinus fermentans</i> Strains Isolated from a Cr(VI)-Contaminated Site and for Type Strain R7. <i>Journal of Bacteriology</i> , 2012, 194, 5147-5148.	2.2	24
65	Draft Genome Sequence for <i>Microbacterium laevaniformans</i> Strain OR221, a Bacterium Tolerant to Metals, Nitrate, and Low pH. <i>Journal of Bacteriology</i> , 2012, 194, 3279-3280.	2.2	24
66	Elemental Analysis of Environmental and Biological Samples Using Laser-Induced Breakdown Spectroscopy and Pulsed Raman Spectroscopy. <i>Journal of Dispersion Science and Technology</i> , 2005, 25, 687-694.	2.4	23
67	Application of Nonlinear Analysis Methods for Identifying Relationships Between Microbial Community Structure and Groundwater Geochemistry. <i>Microbial Ecology</i> , 2006, 51, 177-188.	2.8	23
68	Bacterial sensitivity to UV light as a model for ionizing radiation resistance. <i>Journal of Microbiological Methods</i> , 1993, 18, 127-136.	1.6	22
69	Influence of media on measurement of bacterial populations in the subsurface. <i>Applied Biochemistry and Biotechnology</i> , 1996, 57-58, 905-914.	2.9	22
70	Efficient utilization of dissolved free amino acids by suspended marine bacteria. <i>Journal of Experimental Marine Biology and Ecology</i> , 1983, 69, 257-266.	1.5	21
71	Biological consequences of hydrographic and atmospheric advection within the Gulf Loop Intrusion. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1984, 31, 1101-1120.	1.5	21
72	Iron reduction by psychrotrophic enrichment cultures. <i>FEMS Microbiology Ecology</i> , 1999, 30, 367-371.	2.7	21

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73	Biogeochemical cycling constraints on stream ecosystem recovery. <i>Environmental Management</i> , 1990, 14, 685-697.	2.7	20
74	Lotic Ecosystem Response to a Chlorine Disturbance. , 1992, 2, 341-355.		20
75	Adhesion of Spores of <i>Bacillus thuringiensis</i> on a Planar Surface. <i>Environmental Science & Technology</i> , 2010, 44, 290-296.	10.0	20
76	Community Analysis of Plant Biomass-Degrading Microorganisms from Obsidian Pool, Yellowstone National Park. <i>Microbial Ecology</i> , 2015, 69, 333-345.	2.8	20
77	A Microbe Associated with Sleep Revealed by a Novel Systems Genetic Analysis of the Microbiome in Collaborative Cross Mice. <i>Genetics</i> , 2020, 214, 719-733.	2.9	20
78	Linking Specific Heterotrophic Bacterial Populations to Bioreduction of Uranium and Nitrate in Contaminated Subsurface Sediments by Using Stable Isotope Probing. <i>Applied and Environmental Microbiology</i> , 2011, 77, 8197-8200.	3.1	19
79	Micron-pore-sized metallic filter tube membranes for filtration of particulates and water purification. <i>Journal of Microbiological Methods</i> , 2008, 74, 10-16.	1.6	17
80	Changes in northern Gulf of Mexico sediment bacterial and archaeal communities exposed to hypoxia. <i>Geobiology</i> , 2015, 13, 478-493.	2.4	16
81	Potential for microbial growth in arid subsurface sediments. <i>Applied Biochemistry and Biotechnology</i> , 1994, 45-46, 823-834.	2.9	15
82	Temporal Dynamics of In-Field Bioreactor Populations Reflect the Groundwater System and Respond Predictably to Perturbation. <i>Environmental Science & Technology</i> , 2017, 51, 2879-2889.	10.0	15
83	Spatial and temporal variations of microbial properties at different scales in shallow subsurface sediments. <i>Applied Biochemistry and Biotechnology</i> , 1997, 63-65, 797-808.	2.9	14
84	Genome Sequence of the Mercury-Methylating and Pleomorphic <i>Desulfovibrio africanus</i> Strain Walvis Bay. <i>Journal of Bacteriology</i> , 2011, 193, 4037-4038.	2.2	14
85	Role of Morphological Growth State and Gene Expression in <i>Desulfovibrio africanus</i> Strain Walvis Bay Mercury Methylation. <i>Environmental Science & Technology</i> , 2012, 46, 4926-4932.	10.0	14
86	Comparing metal leaching and toxicity from high pH, low pH, and high ammonia fly ash. <i>Fuel</i> , 2007, 86, 1623-1630.	6.4	13
87	Gene Expression Correlates with Process Rates Quantified for Sulfate- and Fe(III)-Reducing Bacteria in U(VI)-Contaminated Sediments. <i>Frontiers in Microbiology</i> , 2012, 3, 280.	3.5	13
88	Draft Genome Sequence for <i>Ralstonia</i> sp. Strain OR214, a Bacterium with Potential for Bioremediation. <i>Genome Announcements</i> , 2013, 1, .	0.8	12
89	Sequencing Intractable DNA to Close Microbial Genomes. <i>PLoS ONE</i> , 2012, 7, e41295.	2.5	11
90	Draft Genome Sequence for <i>Caulobacter</i> sp. Strain OR37, a Bacterium Tolerant to Heavy Metals. <i>Genome Announcements</i> , 2013, 1, .	0.8	11

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91	The impact of biotechnological advances on the future of <sc>US</sc> bioenergy. <i>Biofuels, Bioproducts and Biorefining</i> , 2015, 9, 454-467.	3.7	11
92	Biodegradation of NTA and <i>m-cresol</i> in coastal environments. <i>Environmental Toxicology and Chemistry</i> , 1988, 7, 573-585.	4.3	10
93	Alternative method for rapidly screening microbial isolates for their potential to degrade volatile contaminants. <i>Journal of Industrial Microbiology</i> , 1994, 13, 361-366.	0.9	10
94	Multiphase, Microdispersion Reactor for the Continuous Production of Methane Gas Hydrate. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 6448-6452.	3.7	10
95	An Intermediate-Scale Lysimeter Facility for Subsurface Bioremediation Research. <i>Bioremediation Journal</i> , 2000, 4, 69-79.	2.0	9
96	Laboratory studies identify a colloidal groundwater tracer: implications for bioremediation. <i>FEMS Microbiology Letters</i> , 2006, 148, 131-135.	1.8	7
97	Application of Emerging Tools and Techniques for Measuring Carbon and Microbial Communities in Reclaimed Mine Soils. <i>Environmental Management</i> , 2004, 33, S518.	2.7	6
98	Methanol Suppression of Trichloroethylene Degradation by <i>Methylosinus trichosporium</i> (OB3b) and Methane-Oxidizing Mixed Cultures. <i>Applied Biochemistry and Biotechnology</i> , 1991, 28-29, 887-899.	2.9	5
99	Confidence intervals of similarity values determined for cloned SSU rRNA genes from environmental samples. <i>Journal of Microbiological Methods</i> , 2006, 65, 144-152.	1.6	5
100	Controlled microfluidic production of alginate beads for in situ encapsulation of microbes. , 2009, , .		5
101	Phylogenetic Characterization of a Mixed Microbial Community Capable of Degrading Carbon Tetrachloride. <i>Applied Biochemistry and Biotechnology</i> , 1999, 80, 243-254.	2.9	4
102	Scanning Surface Potential Microscopy of Spores on Planar Surfaces. <i>Microscopy and Microanalysis</i> , 2009, 15, 1132-1133.	0.4	1
103	Microbial Population and Degradation Activity Changes Monitored During a Chlorinated Solvent Biovent Demonstration. <i>Ground Water Monitoring and Remediation</i> , 2004, 24, 102-110.	0.8	1
104	BIODEGRADATION OF NTA AND <i>m-CRESOL</i> IN COASTAL ENVIRONMENTS. <i>Environmental Toxicology and Chemistry</i> , 1988, 7, 573.	4.3	1
105	Biotransformations and biodegradation in extreme environments. <i>Progress in Industrial Microbiology</i> , 2002, , 549-571.	0.0	0
106	Spatial and Temporal Variations of Microbial Properties at Different Scales in Shallow Subsurface Sediments. , 1997, , 797-808.		0