

Francis L De Los Reyes

List of Publications by Year in descending order

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105
papers

3,012
citations

279487

23
h-index

174990

52
g-index

108
all docs

108
docs citations

108
times ranked

3481
citing authors

#	ARTICLE	IF	CITATIONS
1	Global diversity and biogeography of bacterial communities in wastewater treatment plants. <i>Nature Microbiology</i> , 2019, 4, 1183-1195.	5.9	491
2	Wastewater-Based Epidemiology: Global Collaborative to Maximize Contributions in the Fight Against COVID-19. <i>Environmental Science & Technology</i> , 2020, 54, 7754-7757.	4.6	337
3	Anaerobic co-digestion of fat, oil, and grease (FOG): A review of gas production and process limitations. <i>Chemical Engineering Research and Design</i> , 2012, 90, 231-245.	2.7	290
4	Group-specific small-subunit rRNA hybridization probes to characterize filamentous foaming in activated sludge systems. <i>Applied and Environmental Microbiology</i> , 1997, 63, 1107-1117.	1.4	141
5	Effect of Spatial Differences in Microbial Activity, pH, and Substrate Levels on Methanogenesis Initiation in Refuse. <i>Applied and Environmental Microbiology</i> , 2011, 77, 2381-2391.	1.4	126
6	Evidence for Fat, Oil, and Grease (FOG) Deposit Formation Mechanisms in Sewer Lines. <i>Environmental Science & Technology</i> , 2011, 45, 4385-4391.	4.6	96
7	Determining the limits of anaerobic co-digestion of thickened waste activated sludge with grease interceptor waste. <i>Water Research</i> , 2013, 47, 3835-3844.	5.3	95
8	Role of filamentous microorganisms in activated sludge foaming: relationship of mycolata levels to foaming initiation and stability. <i>Water Research</i> , 2002, 36, 445-459.	5.3	94
9	Mechanisms of Fat, Oil and Grease (FOG) deposit formation in sewer lines. <i>Water Research</i> , 2013, 47, 4451-4459.	5.3	88
10	Effects of Aeration Cycles on Nitrifying Bacterial Populations and Nitrogen Removal in Intermittently Aerated Reactors. <i>Applied and Environmental Microbiology</i> , 2005, 71, 8565-8572.	1.4	81
11	SARS-CoV-2 Wastewater Surveillance for Public Health Action. <i>Emerging Infectious Diseases</i> , 2021, 27, 1-8.	2.0	73
12	Quantification of <i>Gordona amarae</i> Strains in Foaming Activated Sludge and Anaerobic Digester Systems with Oligonucleotide Hybridization Probes. <i>Applied and Environmental Microbiology</i> , 1998, 64, 2503-2512.	1.4	68
13	Quantifying filamentous microorganisms in activated sludge before, during, and after an incident of foaming by oligonucleotide probe hybridizations and antibody staining. <i>Water Research</i> , 2001, 35, 3325-3336.	5.3	55
14	Relationship of Species-Specific Filament Levels to Filamentous Bulking in Activated Sludge. <i>Applied and Environmental Microbiology</i> , 2004, 70, 2420-2428.	1.4	54
15	Development of Quantitative Real-Time PCR Assays for Detection and Quantification of Surrogate Biological Warfare Agents in Building Debris and Leachate. <i>Applied and Environmental Microbiology</i> , 2007, 73, 6557-6565.	1.4	49
16	Microbial community structure of activated sludge during aerobic granulation in an annular gap bioreactor. <i>Water Science and Technology</i> , 2006, 54, 139-146.	1.2	48
17	Aerosolization of a Human Norovirus Surrogate, Bacteriophage MS2, during Simulated Vomiting. <i>PLoS ONE</i> , 2015, 10, e0134277.	1.1	46
18	Microbial Community Structures in Foaming and Nonfoaming Full-Scale Wastewater Treatment Plants. <i>Water Environment Research</i> , 2002, 74, 437-449.	1.3	42

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19	A critical review of fat, oil, and grease (FOG) in sewer collection systems: Challenges and control. <i>Critical Reviews in Environmental Science and Technology</i> , 2017, 47, 1191-1217.	6.6	39
20	Characterization of filamentous foaming in activated sludge systems using oligonucleotide hybridization probes and antibody probes. <i>Water Science and Technology</i> , 1998, 37, 485-493.	1.2	38
21	Comparison of Bacteria and Archaea communities in municipal solid waste, individual refuse components, and leachate. <i>FEMS Microbiology Ecology</i> , 2012, 79, 465-473.	1.3	35
22	High levels of nitrifying bacteria in intermittently aerated reactors treating high ammonia wastewater. <i>FEMS Microbiology Ecology</i> , 2005, 54, 391-400.	1.3	34
23	Characterization of filamentous foaming in activated sludge systems using oligonucleotide hybridization probes and antibody probes. <i>Water Science and Technology</i> , 1998, 37, 485.	1.2	26
24	Clarifying the roles of kinetics and diffusion in activated sludge filamentous bulking. <i>Biotechnology and Bioengineering</i> , 2008, 101, 327-336.	1.7	25
25	Dynamic Modeling of Microalgae Growth and Lipid Production under Transient Light and Nitrogen Conditions. <i>Environmental Science & Technology</i> , 2019, 53, 11560-11568.	4.6	24
26	Microbial ecological succession during municipal solid waste decomposition. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 5731-5740.	1.7	23
27	Substrate uptake tests and quantitative FISH show differences in kinetic growth of bulking and non-bulking activated sludge. <i>Biotechnology and Bioengineering</i> , 2005, 92, 729-739.	1.7	20
28	Multiple approaches to assess filamentous bacterial growth in activated sludge under different carbon source conditions. <i>Journal of Applied Microbiology</i> , 2009, 106, 682-691.	1.4	20
29	Designing local solutions for emptying pit latrines in low-income urban settlements (Malawi). <i>Physics and Chemistry of the Earth</i> , 2017, 100, 336-342.	1.2	20
30	Amending anaerobic bioreactors with pyrogenic carbonaceous materials: the influence of material properties on methane generation. <i>Environmental Science: Water Research and Technology</i> , 2018, 4, 1794-1806.	1.2	20
31	Critical evaluation of solid waste sample processing for DNA-based microbial community analysis. <i>Biodegradation</i> , 2011, 22, 189-204.	1.5	19
32	Fat, oil, and grease (FOG) deposits yield higher methane than FOG in anaerobic co-digestion with waste activated sludge. <i>Journal of Environmental Management</i> , 2020, 268, 110708.	3.8	19
33	Integrating Decay, Storage, Kinetic Selection, and Filamentous Backbone Factors in a Bacterial Competition Model. <i>Water Environment Research</i> , 2005, 77, 287-296.	1.3	18
34	A methodological framework for linking bioreactor function to microbial communities and environmental conditions. <i>Current Opinion in Biotechnology</i> , 2015, 33, 112-118.	3.3	18
35	Modeling cell aggregate morphology during aerobic granulation in activated sludge processes reveals the combined effect of substrate and shear. <i>Water Research</i> , 2020, 170, 115384.	5.3	18
36	Global Water, Sanitation, and Hygiene Approaches: Anthropological Contributions and Future Directions for Engineering. <i>Environmental Engineering Science</i> , 2021, 38, 402-417.	0.8	18

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37	Impact of sampling depth on pathogen detection in pit latrines. <i>PLoS Neglected Tropical Diseases</i> , 2021, 15, e0009176.	1.3	17
38	Simultaneous oligonucleotide probe hybridization and immunostaining for in situ detection of <i>Gordona</i> species in activated sludge. <i>FEMS Microbiology Ecology</i> , 1999, 29, 129-136.	1.3	16
39	Challenges in determining causation in structure–function studies using molecular biological techniques. <i>Water Research</i> , 2010, 44, 4948-4957.	5.3	16
40	Physico–chemical Characterization of Grease Interceptors with and without Biological Product Addition. <i>Water Environment Research</i> , 2012, 84, 195-201.	1.3	16
41	Increased loading stress leads to convergence of microbial communities and high methane yields in adapted anaerobic co-digesters. <i>Water Research</i> , 2020, 169, 115155.	5.3	13
42	Identification of Nitrite-Reducing Bacteria Using Sequential mRNA Fluorescence In Situ Hybridization and Fluorescence-Assisted Cell Sorting. <i>Microbial Ecology</i> , 2012, 64, 256-267.	1.4	12
43	Interfacing phylogenetic oligonucleotide probe hybridizations with representations of microbial populations and specific growth rates in mathematical models of activated sludge processes. <i>Water Science and Technology</i> , 1999, 39, 11-20.	1.2	11
44	Power earth auger modification for waste extraction from pit latrines. <i>Journal of Water Sanitation and Hygiene for Development</i> , 2014, 4, 72-80.	0.7	10
45	Relating nitrogen concentration and light intensity to the growth and lipid accumulation of <i>Dunaliella viridis</i> in a photobioreactor. <i>Journal of Applied Phycology</i> , 2019, 31, 3397-3409.	1.5	10
46	Optimization of activated sludge designs using genetic algorithms. <i>Water Science and Technology</i> , 2002, 45, 187-198.	1.2	9
47	Impact of Storm-Water Runoff on Clogging and Fecal Bacteria Reduction in Sand Columns. <i>Journal of Environmental Engineering, ASCE</i> , 2010, 136, 1435-1441.	0.7	9
48	Microbial Contamination in Environmental Waters of Rural and Agriculturally-Dominated Landscapes Following Hurricane Florence. <i>ACS ES&T Water</i> , 2021, 1, 2012-2019.	2.3	9
49	Shifts in microbial communities in bioaugmented grease interceptors removing fat, oil, and grease (FOG). <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 7025-7035.	1.7	8
50	Characterization of pit latrines to support the design and selection of emptying tools in peri-urban Mzuzu, Malawi. <i>Journal of Water Sanitation and Hygiene for Development</i> , 2017, 7, 151-155.	0.7	8
51	The role of emptying services in provision of safely managed sanitation: A classification and quantification of the needs of LMICs. <i>Journal of Environmental Management</i> , 2021, 290, 112612.	3.8	8
52	Identification and quantification of strains in activated sludge systems using comparative rna sequence analysis and phylogenetic hybridization probes. <i>Water Science and Technology</i> , 1998, 37, 521.	1.2	7
53	Interfacing phylogenetic oligonucleotide probe hybridizations with representations of microbial populations and specific growth rates in mathematical models of activated sludge processes. <i>Water Science and Technology</i> , 1999, 39, 11.	1.2	7
54	Changes in the rRNA levels of specific microbial groups in activated sludge during sample handling and storage. <i>Letters in Applied Microbiology</i> , 2005, 41, 208-215.	1.0	7

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55	Microbial community of a volcanic mudspring in the Philippines as revealed by 16S rDNA sequence analysis and fluorescence in situ hybridization. <i>World Journal of Microbiology and Biotechnology</i> , 2011, 27, 859-867.	1.7	7
56	Trash removal methods for improved mechanical emptying of pit latrines using a screw auger. <i>Journal of Water Sanitation and Hygiene for Development</i> , 2017, 7, 85-91.	0.7	7
57	Comparing Rates of Change in SARS-CoV-2 Wastewater Load and Clinical Cases in 19 Sewersheds Across Four Major Metropolitan Areas in the United States. <i>ACS ES&T Water</i> , 2022, 2, 2233-2242.	2.3	6
58	Systems and Methods for Studying Microbial Processes and Communities in Landfills. <i>Advances in Environmental Microbiology</i> , 2019, , 129-150.	0.1	5
59	Investigating Steam Application for Reducing Foaming in Activated Sludge Systems. <i>Proceedings of the Water Environment Federation</i> , 2006, 2006, 321-330.	0.0	4
60	Transport Behavior of Surrogate Biological Warfare Agents in a Simulated Landfill: Effect of Leachate Recirculation and Water Infiltration. <i>Environmental Science & Technology</i> , 2010, 44, 8622-8628.	4.6	4
61	Effect of Penicillin on Nitrite-Oxidizing Bacteria in Activated Sludge. <i>Applied Biochemistry and Biotechnology</i> , 2012, 166, 1983-1990.	1.4	4
62	Structural integrity affects nitrogen removal activity of granules in semi-continuous reactors. <i>Biodegradation</i> , 2014, 25, 923-934.	1.5	4
63	Assessment of alternative herbicides for residential sewer root treatment and their effects on downstream treatment plant nitrification. <i>Journal of Environmental Management</i> , 2020, 258, 110058.	3.8	4
64	Chlorophyll a and non-pigmented biomass are sufficient predictors for estimating light attenuation during cultivation of <i>Dunaliella viridis</i> . <i>Algal Research</i> , 2021, 55, 102283.	2.4	4
65	Identification and quantification of <i>Gordonia amarae</i> strains in activated sludge systems using comparative rRNA sequence analysis and phylogenetic hybridization probes. <i>Water Science and Technology</i> , 1998, 37, 521-525.	1.2	4
66	System-Wide Optimization of Wastewater Treatment Plants Using Genetic Algorithms. , 2001, , 1.		3
67	MODELING THE COMPETITION BETWEEN FILAMENTS AND FLOC FORMERS: INTEGRATING DECAY RATE, STORAGE, KINETIC SELECTION, AND FILAMENTOUS BACKBONE THEORY. <i>Proceedings of the Water Environment Federation</i> , 2002, 2002, 47-58.	0.0	3
68	Steam Application to Destroy Foam-Forming Bacteria in Activated Sludge Systems. <i>Journal of Environmental Engineering, ASCE</i> , 2017, 143, .	0.7	3
69	Construction and Setup of a Bench-scale Algal Photosynthetic Bioreactor with Temperature, Light, and pH Monitoring for Kinetic Growth Tests. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	3
70	Controlling aerobic biological floc size using Couette-Taylor Bioreactors. <i>Water Research</i> , 2018, 147, 177-183.	5.3	3
71	Development of trash exclusion for mechanized pit latrine emptying. <i>Environmental Science: Water Research and Technology</i> , 2021, 7, 1714-1722.	1.2	3
72	Modified Auger for Pit Latrine Desludging in Developing Countries. <i>Procedia Engineering</i> , 2015, 107, 427-429.	1.2	2

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73	Quantifying in situ growth rate of a filamentous bacterial species in activated sludge using rRNA:rDNA ratio. FEMS Microbiology Letters, 2016, 363, fnw255.	0.7	2
74	Development of Photochemical Microsensors for Evaluating Photosynthetic Light Dose Distributions in Microalgal Photobioreactors. Environmental Science & Technology, 2018, 52, 12538-12545.	4.6	2
75	EFFECTS OF AERATION CYCLES ON POPULATIONS OF NITRIFYING BACTERIA AND NITROGEN REMOVAL IN INTERMITTENTLY-AERATED REACTORS. Proceedings of the Water Environment Federation, 2004, 2004, 776-789.	0.0	1
76	Use of Molecular Tools to Identify Microbial Communities in a Full Scale Biotrickling Filter Treating Odors from a Municipal WWTP. Proceedings of the Water Environment Federation, 2010, 2010, 855-863.	0.0	1
77	Anaerobic Co-Digestion of Grease Trap Waste. Proceedings of the Water Environment Federation, 2012, 2012, 5428-5434.	0.0	1
78	Kenaf addition has mixed effects on process performance of sequencing batch reactors treating municipal wastewater. Environmental Science: Water Research and Technology, 2018, 4, 711-720.	1.2	1
79	Enhancement of biogas yield during anaerobic digestion of Jatropha curcas seed by pretreatment and co-digestion with mango peels. Biomass Conversion and Biorefinery, 2020, , 1.	2.9	1
80	THE RELATIONSHIP OF FILAMENT LEVELS TO FOAMING IN ACTIVATED SLUDGE DETERMINED BY OLIGONUCLEOTIDE PROBE HYBRIDIZATIONS. Proceedings of the Water Environment Federation, 2000, 2000, 13-21.	0.0	0
81	Molecular Methods in Biological Systems. Water Environment Research, 2001, 73, 116-150.	1.3	0
82	CHARACTERIZATION OF FILAMENTOUS BULKING IN ACTIVATED SLUDGE USING OLIGONUCLEOTIDE HYBRIDIZATION PROBES. Proceedings of the Water Environment Federation, 2001, 2001, 708-717.	0.0	0
83	Molecular Methods in Biological Systems. Water Environment Research, 2002, 74, 71-105.	1.3	0
84	POPULATION DYNAMICS OF NITRIFYING BACTERIA IN INTERMITTENTLY-AERATED REACTORS TREATING HIGH NITROGEN WASTEWATER. Proceedings of the Water Environment Federation, 2003, 2003, 585-590.	0.0	0
85	QUANTIFYING SPECIES-SPECIFIC FILAMENTOUS BULKING THRESHOLDS USING MOLECULAR AND REACTOR STUDIES. Proceedings of the Water Environment Federation, 2003, 2003, 740-749.	0.0	0
86	Molecular Methods in Biological Systems. Water Environment Research, 2003, 75, 65-139.	1.3	0
87	OPTIMIZATION OF INTERMITTENT AERATION FOR NITROGEN REMOVAL FROM SWINE WASTEWATER. Proceedings of the Water Environment Federation, 2004, 2004, 238-245.	0.0	0
88	HEAT TREATMENT COMBINED WITH CATION ADDITION TO IMPROVE THE DEWATERABILITY OF WASTE ACTIVATED SLUDGE. Proceedings of the Water Environment Federation, 2004, 2004, 48-57.	0.0	0
89	DETERMINING GROWTH RATE, YIELD AND MAINTENANCE COEFFICIENT OF FILAMENTS AND FLOC FORMERS USING SUBSTRATE UPTAKE TESTS AND METABOLIC MODELING. Proceedings of the Water Environment Federation, 2004, 2004, 690-700.	0.0	0
90	Molecular Methods in Biological Systems. Water Environment Research, 2004, 76, 605-667.	1.3	0

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91	Molecular Methods in Biological Systems. <i>Water Environment Research</i> , 2005, 77, 718-779.	1.3	0
92	Nitrogen Removal from Anaerobically Pretreated Swine Wastewater in an Intermittent Aeration Process. , 2005, , .		0
93	WHAT DO FILAMENTS LIKE TO EAT? USING DGGE AND FISH TO TEST THE EFFECT OF CARBON SOURCE AND SEED SLUDGE ON FILAMENTOUS GROWTH IN ACTIVATED SLUDGE. <i>Proceedings of the Water Environment Federation</i> , 2005, 2005, 5890-5900.	0.0	0
94	A New Framework for Analyzing Filamentous Bulking in Activated Sludge: Roles for Kinetics and Diffusion. <i>Proceedings of the Water Environment Federation</i> , 2006, 2006, 4884-4894.	0.0	0
95	Monitoring Microbial Shifts during Activated Sludge Floc and Aerobic Granule Development. <i>Proceedings of the Water Environment Federation</i> , 2008, 2008, 4672-4678.	0.0	0
96	Quantifying the In Situ Growth Rate of a Filament and a Floc-former in Activated Sludge. <i>Proceedings of the Water Environment Federation</i> , 2008, 2008, 4660-4671.	0.0	0
97	Quantification of the Denitrification Gene nosZ in a Full Scale Wastewater Treatment Plant Using qPCR. <i>Proceedings of the Water Environment Federation</i> , 2012, 2012, 3772-3778.	0.0	0
98	Who's doing what in activated sludge: Relating microbial function to identity using a novel molecular method. <i>Proceedings of the Water Environment Federation</i> , 2012, 2012, 6927-6932.	0.0	0
99	Aerobic Granulation Can Be Induced By Shear Variability. <i>Proceedings of the Water Environment Federation</i> , 2012, 2012, 6921-6926.	0.0	0
100	Effects of Powdered Kenaf Supplementation on the Performance of Lab-Scale Activated Sludge Reactors. <i>Proceedings of the Water Environment Federation</i> , 2013, 2013, 5125-5131.	0.0	0
101	Developing Resilient Anaerobic Co-digesting Microbial Communities. <i>Proceedings of the Water Environment Federation</i> , 2013, 2013, 771-777.	0.0	0
102	Developing Resilient Anaerobic Co-digesting Microbial Communities. <i>Proceedings of the Water Environment Federation</i> , 2013, 2013, 764-770.	0.0	0
103	Measuring the Shape and Size of Activated Sludge Particles Immobilized in Agar with an Open Source Software Pipeline. <i>Journal of Visualized Experiments</i> , 2019, , .	0.2	0
104	Using 16S metagenomics to determine microbial population shifts associated with a 336% boost in methane yield during anaerobic co-digestion of grease waste. <i>Proceedings of the Water Environment Federation</i> , 2015, 2015, 6112-6118.	0.0	0
105	FLUID SHEAR VARIATION POTENTIALLY PLAYS A ROLE IN AEROBIC GRANULAR SLUDGE FORMATION. <i>Proceedings of the Water Environment Federation</i> , 2016, 2016, 5737-5744.	0.0	0