

Lutgarde Raskin

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103
papers

7,033
citations

42
h-index

83
g-index

113
ext. papers

8,113
ext. citations

8.1
avg, IF

6.13
L-index

#	Paper	IF	Citations
103	A new planning and design paradigm to achieve sustainable resource recovery from wastewater. <i>Environmental Science & Technology</i> , 2009 , 43, 6126-30	10.3	335
102	Diversity and dynamics of microbial communities in engineered environments and their implications for process stability. <i>Current Opinion in Biotechnology</i> , 2003 , 14, 270-6	11.4	327
101	Microbial ecology of drinking water distribution systems. <i>Current Opinion in Biotechnology</i> , 2006 , 17, 297-302	11.4	323
100	Perspectives on anaerobic membrane bioreactor treatment of domestic wastewater: a critical review. <i>Bioresource Technology</i> , 2012 , 122, 149-59	11	317
99	Bacterial community structure in the drinking water microbiome is governed by filtration processes. <i>Environmental Science & Technology</i> , 2012 , 46, 8851-9	10.3	297
98	PCR biases distort bacterial and archaeal community structure in pyrosequencing datasets. <i>PLoS ONE</i> , 2012 , 7, e43093	3.7	295
97	Flexible community structure correlates with stable community function in methanogenic bioreactor communities perturbed by glucose. <i>Applied and Environmental Microbiology</i> , 2000 , 66, 4058-67 ^{4.8}	4.8	277
96	Methanogenic population dynamics during start-up of anaerobic digesters treating municipal solid waste and biosolids. <i>Biotechnology and Bioengineering</i> , 1998 , 57, 342-55	4.9	260
95	Anaerobic codigestion of municipal solid waste and biosolids under various mixing conditions--I. Digester performance. <i>Water Research</i> , 2001 , 35, 1804-16	12.5	248
94	Anaerobic codigestion of municipal solid waste and biosolids under various mixing conditions--II: Microbial population dynamics. <i>Water Research</i> , 2001 , 35, 1817-27	12.5	241
93	Psychrophilic anaerobic membrane bioreactor treatment of domestic wastewater. <i>Water Research</i> , 2013 , 47, 1655-65	12.5	213
92	Methanogenic population dynamics during startup of a full-scale anaerobic sequencing batch reactor treating swine waste. <i>Water Research</i> , 2002 , 36, 4648-54	12.5	198
91	Navigating wastewater energy recovery strategies: a life cycle comparison of anaerobic membrane bioreactor and conventional treatment systems with anaerobic digestion. <i>Environmental Science & Technology</i> , 2014 , 48, 5972-81	10.3	180
90	Microbial population dynamics during start-up and overload conditions of anaerobic digesters treating municipal solid waste and sewage sludge. <i>Biotechnology and Bioengineering</i> , 2004 , 87, 823-34	4.9	152
89	Metagenomic Evidence for the Presence of Comammox Nitrospira-Like Bacteria in a Drinking Water System. <i>MSphere</i> , 2016 , 1,	5	146
88	Common principles and best practices for engineering microbiomes. <i>Nature Reviews Microbiology</i> , 2019 , 17, 725-741	22.2	144
87	Methanogenic population dynamics and performance of an anaerobic membrane bioreactor (AnMBR) treating swine manure under high shear conditions. <i>Water Research</i> , 2007 , 41, 134-44	12.5	132

86	Biological strategies for enhanced hydrolysis of lignocellulosic biomass during anaerobic digestion: Current status and future perspectives. <i>Bioresource Technology</i> , 2017 , 245, 1245-1257	11	130
85	Arsenic waste management: a critical review of testing and disposal of arsenic-bearing solid wastes generated during arsenic removal from drinking water. <i>Environmental Science & Technology</i> , 2013 , 47, 10799-812	10.3	125
84	Spatial-temporal survey and occupancy-abundance modeling to predict bacterial community dynamics in the drinking water microbiome. <i>MBio</i> , 2014 , 5, e01135-14	7.8	124
83	Differential resistance of drinking water bacterial populations to monochloramine disinfection. <i>Environmental Science & Technology</i> , 2014 , 48, 4038-47	10.3	112
82	Microbial community structure in gastrointestinal tracts of domestic animals: comparative analyses using rRNA-targeted oligonucleotide probes. <i>FEMS Microbiology Ecology</i> , 2006 , 22, 281-294	4.3	99
81	Characterization of microbial communities in anaerobic bioreactors using molecular probes. <i>Antonie Van Leeuwenhoek</i> , 1995 , 68, 297-308	2.1	97
80	Influence of the antibiotic erythromycin on anaerobic treatment of a pharmaceutical wastewater. <i>Environmental Science & Technology</i> , 2006 , 40, 3971-7	10.3	95
79	Antimicrobial use and resistance in swine waste treatment systems. <i>Applied and Environmental Microbiology</i> , 2006 , 72, 7813-20	4.8	86
78	Role of filamentous microorganisms in activated sludge foaming: relationship of mycolata levels to foaming initiation and stability. <i>Water Research</i> , 2002 , 36, 445-59	12.5	86
77	Metatranscriptome of an anaerobic benzene-degrading, nitrate-reducing enrichment culture reveals involvement of carboxylation in benzene ring activation. <i>Applied and Environmental Microbiology</i> , 2014 , 80, 4095-107	4.8	83
76	Prospects for Biological Nitrogen Removal from Anaerobic Effluents during Mainstream Wastewater Treatment. <i>Environmental Science and Technology Letters</i> , 2015 , 2, 234-244	11	77
75	Quantification of syntrophic fatty acid-beta-oxidizing bacteria in a mesophilic biogas reactor by oligonucleotide probe hybridization. <i>Applied and Environmental Microbiology</i> , 1999 , 65, 4767-74	4.8	76
74	Ammonia-oxidizing archaea and nitrite-oxidizing nitrospiras in the biofilter of a shrimp recirculating aquaculture system. <i>FEMS Microbiology Ecology</i> , 2013 , 83, 17-25	4.3	72
73	Monitoring precursor 16S rRNAs of <i>Acinetobacter</i> spp. in activated sludge wastewater treatment systems. <i>Applied and Environmental Microbiology</i> , 2000 , 66, 2154-65	4.8	70
72	Improving anaerobic digestion via direct interspecies electron transfer requires development of suitable characterization methods. <i>Current Opinion in Biotechnology</i> , 2019 , 57, 183-190	11.4	64
71	Intermittent micro-aeration: New strategy to control volatile fatty acid accumulation in high organic loading anaerobic digestion. <i>Water Research</i> , 2019 , 166, 115080	12.5	61
70	Quantification of <i>Gordonia amarae</i> strains in foaming activated sludge and anaerobic digester systems with oligonucleotide hybridization probes. <i>Applied and Environmental Microbiology</i> , 1998 , 64, 2503-12	4.8	61
69	Simultaneous removal of nitrate and arsenic from drinking water sources utilizing a fixed-bed bioreactor system. <i>Water Research</i> , 2010 , 44, 4958-69	12.5	55

68	Effect of the presence of the antimicrobial tylosin in swine waste on anaerobic treatment. <i>Water Research</i> , 2008 , 42, 2377-84	12.5	51
67	Changes in the structure and function of microbial communities in drinking water treatment bioreactors upon addition of phosphorus. <i>Applied and Environmental Microbiology</i> , 2010 , 76, 7473-81	4.8	50
66	Long-term analysis of a full-scale activated sludge wastewater treatment system exhibiting seasonal biological foaming. <i>Water Research</i> , 2006 , 40, 990-1008	12.5	49
65	Anaerobic co-digestion: Current status and perspectives. <i>Bioresource Technology</i> , 2021 , 330, 125001	11	49
64	Membrane biofilm development improves COD removal in anaerobic membrane bioreactor wastewater treatment. <i>Microbial Biotechnology</i> , 2015 , 8, 883-94	6.3	44
63	Microbial diversity and dynamics in multi- and single-compartment anaerobic bioreactors processing sulfate-rich waste streams. <i>Environmental Microbiology</i> , 2007 , 9, 93-106	5.2	42
62	Inhibitory effects of the macrolide antimicrobial tylosin on anaerobic treatment. <i>Biotechnology and Bioengineering</i> , 2008 , 101, 73-82	4.9	42
61	Quantification of parameters influencing methane generation due to biodegradation of municipal solid waste in landfills and laboratory experiments. <i>Waste Management</i> , 2016 , 55, 276-87	8.6	40
60	Microbial community structures in foaming and nonfoaming full-scale wastewater treatment plants. <i>Water Environment Research</i> , 2002 , 74, 437-49	2.8	39
59	Presence of macrolide-lincosamide-streptogramin B and tetracycline antimicrobials in swine waste treatment processes and amended soil. <i>Water Environment Research</i> , 2005 , 77, 57-62	2.8	38
58	A stability assessment tool for anaerobic codigestion. <i>Water Research</i> , 2017 , 112, 19-28	12.5	36
57	Considerations for reducing food system energy demand while scaling up urban agriculture. <i>Environmental Research Letters</i> , 2017 , 12, 125004	6.2	36
56	Effects of Swine manure on macrolide, lincosamide, and streptogramin B antimicrobial resistance in soils. <i>Applied and Environmental Microbiology</i> , 2010 , 76, 2218-24	4.8	36
55	A High-Throughput Approach for Identification of Nontuberculous Mycobacteria in Drinking Water Reveals Relationship between Water Age and. <i>MBio</i> , 2018 , 9,	7.8	35
54	The sensitivity of fixed-bed biological perchlorate removal to changes in operating conditions and water quality characteristics. <i>Water Research</i> , 2003 , 37, 206-14	12.5	35
53	Evaluating the cement stabilization of arsenic-bearing iron wastes from drinking water treatment. <i>Journal of Hazardous Materials</i> , 2015 , 300, 522-529	12.8	33
52	Diverse manganese(II)-oxidizing bacteria are prevalent in drinking water systems. <i>Environmental Microbiology Reports</i> , 2017 , 9, 120-128	3.7	30
51	Archaeal community structure in leachate and solid waste is correlated to methane generation and volume reduction during biodegradation of municipal solid waste. <i>Waste Management</i> , 2015 , 36, 184-90	8.6	29

50	Automated image analysis for quantitative fluorescence in situ hybridization with environmental samples. <i>Applied and Environmental Microbiology</i> , 2007 , 73, 2956-62	4.8	29
49	An Environmental Science and Engineering Framework for Combating Antimicrobial Resistance. <i>Environmental Engineering Science</i> , 2018 , 35, 1005-1011	2	29
48	Anaerobic microbial community response to methanogenic inhibitors 2-bromoethanesulfonate and propynoic acid. <i>MicrobiologyOpen</i> , 2016 , 5, 537-50	3.4	28
47	Mycobacterium avium infections of Acanthamoeba strains: host strain variability, grazing-acquired infections, and altered dynamics of inactivation with monochloramine. <i>Applied and Environmental Microbiology</i> , 2010 , 76, 6685-8	4.8	28
46	Trends in Antimicrobial Resistance Genes in Manure Blend Pits and Long-Term Storage Across Dairy Farms with Comparisons to Antimicrobial Usage and Residual Concentrations. <i>Environmental Science & Technology</i> , 2019 , 53, 2405-2415	10.3	24
45	Microbial community structure and activity in a compartmentalized, anaerobic bioreactor. <i>Water Environment Research</i> , 2002 , 74, 450-61	2.8	23
44	UV Disinfection of Human Norovirus: Evaluating Infectivity Using a Genome-Wide PCR-Based Approach. <i>Environmental Science & Technology</i> , 2020 , 54, 2851-2858	10.3	22
43	Populations related to Alkanindiges, a novel genus containing obligate alkane degraders, are implicated in biological foaming in activated sludge systems. <i>Environmental Microbiology</i> , 2007 , 9, 1898-912	5.2	22
42	Carbohydrate storage in anaerobic sequencing batch reactors. <i>Water Research</i> , 2007 , 41, 4721-9	12.5	22
41	A dynamic and complex monochloramine stress response in Escherichia coli revealed by transcriptome analysis. <i>Water Research</i> , 2013 , 47, 4978-85	12.5	21
40	Macrolide resistance in microorganisms at antimicrobial-free Swine farms. <i>Applied and Environmental Microbiology</i> , 2009 , 75, 5814-20	4.8	21
39	Effect of growth conditions on inactivation of Escherichia coli with monochloramine. <i>Environmental Science & Technology</i> , 2009 , 43, 884-9	10.3	21
38	Synergistic association between cytochrome bd-encoded Proteiniphilum and reactive oxygen species (ROS)-scavenging methanogens in microaerobic-anaerobic digestion of lignocellulosic biomass. <i>Water Research</i> , 2021 , 190, 116721	12.5	21
37	Effect of backwashing on perchlorate removal in fixed bed biofilm reactors. <i>Water Research</i> , 2007 , 41, 1949-59	12.5	20
36	Evaluation of arsenic field test kits for drinking water: Recommendations for improvement and implications for arsenic affected regions such as Bangladesh. <i>Water Research</i> , 2020 , 170, 115325	12.5	20
35	Culture-Independent Identification of Nontuberculous Mycobacteria in Cystic Fibrosis Respiratory Samples. <i>PLoS ONE</i> , 2016 , 11, e0153876	3.7	20
34	Anaerobic Disposal of Arsenic-Bearing Wastes Results in Low Microbially Mediated Arsenic Volatilization. <i>Environmental Science & Technology</i> , 2016 , 50, 10951-10959	10.3	20
33	Biofilms in Full-Scale Drinking Water Ozone Contactors Contribute Viable Bacteria to Ozonated Water. <i>Environmental Science & Technology</i> , 2018 , 52, 2618-2628	10.3	19

32	Chemisorption of oxygen onto activated carbon can enhance the stability of biological perchlorate reduction in fixed bed biofilm reactors. <i>Water Research</i> , 2008 , 42, 3425-34	12.5	19
31	Comparative transcriptomics of the response of Escherichia coli to the disinfectant monochloramine and to growth conditions inducing monochloramine resistance. <i>Water Research</i> , 2010 , 44, 4924-31	12.5	18
30	Inactivation of Mycobacterium avium with monochloramine. <i>Environmental Science & Technology</i> , 2008 , 42, 8051-6	10.3	18
29	Optimization of arsenic removal water treatment system through characterization of terminal electron accepting processes. <i>Environmental Science & Technology</i> , 2012 , 46, 11702-9	10.3	17
28	Humidity and Deposition Solution Play a Critical Role in Virus Inactivation by Heat Treatment of N95 Respirators. <i>MSphere</i> , 2020 , 5,	5	16
27	Validation of N95 Filtering Facepiece Respirator Decontamination Methods Available at a Large University Hospital. <i>Open Forum Infectious Diseases</i> , 2021 , 8, ofaa610	1	14
26	Nontuberculous mycobacteria in drinking water systems - the challenges of characterization and risk mitigation. <i>Current Opinion in Biotechnology</i> , 2019 , 57, 127-136	11.4	13
25	Backwash intensity and frequency impact the microbial community structure and function in a fixed-bed biofilm reactor. <i>Applied Microbiology and Biotechnology</i> , 2012 , 96, 815-27	5.7	13
24	Effects of the antimicrobial tylosin on the microbial community structure of an anaerobic sequencing batch reactor. <i>Biotechnology and Bioengineering</i> , 2011 , 108, 296-305	4.9	12
23	Vinegar-amended anaerobic biosand filter for the removal of arsenic and nitrate from groundwater. <i>Journal of Environmental Management</i> , 2016 , 171, 21-28	7.9	11
22	Probabilistic models to describe the dynamics of migrating microbial communities. <i>PLoS ONE</i> , 2015 , 10, e0117221	3.7	10
21	Validation of N95 filtering facepiece respirator decontamination methods available at a large university hospital		10
20	Effect of air-assisted backwashing on the performance of an anaerobic fixed-bed bioreactor that simultaneously removes nitrate and arsenic from drinking water sources. <i>Water Research</i> , 2012 , 46, 1309-17	12.5	9
19	Emerging investigator series: bacterial opportunistic pathogen gene markers in municipal drinking water are associated with distribution system and household plumbing characteristics. <i>Environmental Science: Water Research and Technology</i> , 2020 , 6, 3032-3043	4.2	8
18	Retrospective Analysis of Nontuberculous Mycobacterial Infection and Monochloramine Disinfection of Municipal Drinking Water in Michigan. <i>MSphere</i> , 2019 , 4,	5	7
17	Metagenomic Quantification of Genes with Internal Standards. <i>MBio</i> , 2021 , 12,	7.8	7
16	Anaerobic co-digestion of various organic wastes: Kinetic modeling and synergistic impact evaluation. <i>Bioresour Technol</i> , 2022 , 343, 126063	11	6
15	Predictive Modeling of Virus Inactivation by UV. <i>Environmental Science & Technology</i> , 2021 , 55, 3322-3332	13.3	6

14	Anaerobic Dynamic Membrane Bioreactor Development to Facilitate Organic Waste Conversion to Medium-Chain Carboxylic Acids and Their Downstream Recovery. <i>ACS ES&T Engineering</i> , 2022 , 2, 169-180		4
13	Identification and quantification of <i>Gordona 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	2.2	4
12	Evaluation of electron donors for biological perchlorate removal highlights the importance of diverse perchlorate-reducing populations. <i>Environmental Science: Water Research and Technology</i> , 2016 , 2, 1049-1063	4.2	4
11	Tenets of a holistic approach to drinking water-associated pathogen research, management, and communication.. <i>Water Research</i> , 2021 , 211, 117997	12.5	3
10	Humidity and deposition solution play a critical role in virus inactivation by heat treatment on N95 respirators		3
9	Understanding the Anaerobic Digestibility of Lignocellulosic Substrates Using Rumen Content as a Cosubstrate and an Inoculum. <i>ACS ES&T Engineering</i> , 2021 , 1, 424-435		3
8	Carbohydrate-Based Electron Donor for Biological Nitrate and Perchlorate Removal From Drinking Water. <i>Journal - American Water Works Association</i> , 2015 , 107, E674-E684	0.5	2
7	Tetracycline, sulfadimethoxine, and antibiotic resistance gene dynamics during anaerobic digestion of dairy manure. <i>Journal of Environmental Quality</i> , 2021 , 50, 694-705	3-4	2
6	Fate of influent microbial populations during medium chain carboxylic acid recovery from brewery and pre-fermented food waste streams. <i>Environmental Science: Water Research and Technology</i> , 2022 , 8, 257-269	4.2	1
5	Nutrient Removal from Mainstream Anaerobic Processes using a Membrane Biofilm Reactor and a Granular Sludge Sequencing Batch Reactor. <i>Proceedings of the Water Environment Federation</i> , 2015 , 2015, 1266-1273		1
4	A snapshot of the global drinking water virome: Diversity and metabolic potential vary with residual disinfectant use.. <i>Water Research</i> , 2022 , 218, 118484	12.5	1
3	Nutrient Removal from Mainstream Anaerobic Effluents: Linking Biofilm Modeling to Experimental Design. <i>Proceedings of the Water Environment Federation</i> , 2014 , 2014, 6057-6060		
2	EFFECTS OF THE VETERINARY ANTIMICROBIAL TYLOSIN ON ANAEROBIC DIGESTION. <i>Proceedings of the Water Environment Federation</i> , 2008 , 2008, 7517-7523		
1	Impact of service line replacement on lead, cadmium, and other drinking water quality parameters in Flint, Michigan. <i>Environmental Science: Water Research and Technology</i> , 2021 , 7, 797-808	4.2	