Lutgarde Raskin

List of Publications by Year
in descending order

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106 papers	9,234 citations	53751 45 h-index	43868 91 g-index
115 all docs	115 docs citations	115 times ranked	9207 citing authors

#	Article	IF	Citations
1	A New Planning and Design Paradigm to Achieve Sustainable Resource Recovery from Wastewater. Environmental Science & Technology, 2009, 43, 6126-6130.	4.6	412
2	Diversity and dynamics of microbial communities in engineered environments and their implications for process stability. Current Opinion in Biotechnology, 2003, 14, 270-276.	3.3	379
3	Perspectives on anaerobic membrane bioreactor treatment of domestic wastewater: A critical review. Bioresource Technology, 2012, 122, 149-159.	4.8	378
4	Microbial ecology of drinking water distribution systems. Current Opinion in Biotechnology, 2006, 17, 297-302.	3.3	372
5	PCR Biases Distort Bacterial and Archaeal Community Structure in Pyrosequencing Datasets. PLoS ONE, 2012, 7, e43093.	1.1	366
6	Bacterial Community Structure in the Drinking Water Microbiome Is Governed by Filtration Processes. Environmental Science & Technology, 2012, 46, 8851-8859.	4.6	366
7	Common principles and best practices for engineering microbiomes. Nature Reviews Microbiology, 2019, 17, 725-741.	13.6	324
8	Methanogenic population dynamics during start-up of anaerobic digesters treating municipal solid waste and biosolids. , 1998, 57, 342-355.		302
9	Flexible Community Structure Correlates with Stable Community Function in Methanogenic Bioreactor Communities Perturbed by Glucose. Applied and Environmental Microbiology, 2000, 66, 4058-4067.	1.4	302
10	Anaerobic codigestion of municipal solid waste and biosolids under various mixing conditionsâ€”I. digester performance. Water Research, 2001, 35, 1804-1816.	5.3	299
11	Anaerobic codigestion of municipal solid waste and biosolids under various mixing conditionsâ€”II: microbial population dynamics. Water Research, 2001, 35, 1817-1827.	5.3	268
12	Psychrophilic anaerobic membrane bioreactor treatment of domestic wastewater. Water Research, 2013, 47, 1655-1665.	5.3	249
13	Navigating Wastewater Energy Recovery Strategies: A Life Cycle Comparison of Anaerobic Membrane Bioreactor and Conventional Treatment Systems with Anaerobic Digestion. Environmental Science & Technology, 2014, 48, 5972-5981.	4.6	239
14	Metagenomic Evidence for the Presence of Comammox Nitrospira -Like Bacteria in a Drinking Water System. MSphere, 2016, 1, .	1.3	229
15	Methanogenic population dynamics during startup of a full-scale anaerobic sequencing batch reactor treating swine waste. Water Research, 2002, 36, 4648-4654.	5.3	221
16	Biological strategies for enhanced hydrolysis of lignocellulosic biomass during anaerobic digestion: Current status and future perspectives. Bioresource Technology, 2017, 245, 1245-1257.	4.8	206
17	Anaerobic co-digestion: Current status and perspectives. Bioresource Technology, 2021, 330, 125001.	4.8	200
18	Arsenic Waste Management: A Critical Review of Testing and Disposal of Arsenic-Bearing Solid Wastes Generated during Arsenic Removal from Drinking Water. Environmental Science & Technology, 2013, 47, 10799-10812.	4.6	170

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19	Microbial population dynamics during start-up and overload conditions of anaerobic digesters treating municipal solid waste and sewage sludge. Biotechnology and Bioengineering, 2004, 87, 823-834.	1.7	160
20	Spatial-Temporal Survey and Occupancy-Abundance Modeling To Predict Bacterial Community Dynamics in the Drinking Water Microbiome. MBio, 2014, 5, e01135-14.	1.8	160
21	Methanogenic population dynamics and performance of an anaerobic membrane bioreactor (AnMBR) treating swine manure under high shear conditions. Water Research, 2007, 41, 134-144.	5.3	150
22	Differential Resistance of Drinking Water Bacterial Populations to Monochloramine Disinfection.. Environmental Science & Technology, 2014, 48, 4038-4047.	4.6	143
23	Microbial community structure in gastrointestinal tracts of domestic animals: comparative analyses using rRNA-targeted oligonucleotide probes. FEMS Microbiology Ecology, 2006, 22, 281-294.	1.3	122
24	Intermittent micro-aeration: New strategy to control volatile fatty acid accumulation in high organic loading anaerobic digestion. Water Research, 2019, 166, 115080.	5.3	122
25	Characterization of microbial communities in anaerobic bioreactors using molecular probes. Antonie Van Leeuwenhoek, 1995, 68, 297-308.	0.7	114
26	Antimicrobial Use and Resistance in Swine Waste Treatment Systems. Applied and Environmental Microbiology, 2006, 72, 7813-7820.	1.4	111
27	Influence of the Antibiotic Erythromycin on Anaerobic Treatment of a Pharmaceutical Wastewater. Environmental Science & Technology, 2006, 40, 3971-3977.	4.6	110
28	Prospects for Biological Nitrogen Removal from Anaerobic Effluents during Mainstream Wastewater Treatment. Environmental Science and Technology Letters, 2015, 2, 234-244.	3.9	105
29	Improving anaerobic digestion via direct interspecies electron transfer requires development of suitable characterization methods. Current Opinion in Biotechnology, 2019, 57, 183-190.	3.3	100
30	Metatranscriptome of an Anaerobic Benzene-Degrading, Nitrate-Reducing Enrichment Culture Reveals Involvement of Carboxylation in Benzene Ring Activation. Applied and Environmental Microbiology, 2014, 80, 4095-4107.	1.4	99
31	Role of filamentous microorganisms in activated sludge foaming: relationship of mycolata levels to foaming initiation and stability. Water Research, 2002, 36, 445-459.	5.3	94
32	Ammonia-oxidizing archaea and nitrite-oxidizing nitrospiras in the biofilter of a shrimp recirculating aquaculture system. FEMS Microbiology Ecology, 2013, 83, 17-25.	1.3	94
33	Quantification of Syntrophic Fatty Acid-Î²-Oxidizing Bacteria in a Mesophilic Biogas Reactor by Oligonucleotide Probe Hybridization. Applied and Environmental Microbiology, 1999, 65, 4767-4774.	1.4	81
34	Monitoring Precursor 16S rRNAs of Acinetobacter spp. in Activated Sludge Wastewater Treatment Systems. Applied and Environmental Microbiology, 2000, 66, 2154-2165.	1.4	77
35	Synergistic association between cytochrome bd-encoded Proteiniphilum and reactive oxygen species (ROS)-scavenging methanogens in microaerobic-anaerobic digestion of lignocellulosic biomass. Water Research, 2021, 190, 116721.	5.3	71
36	Quantification of Gordona amarae Strains in Foaming Activated Sludge and Anaerobic Digester Systems with Oligonucleotide Hybridization Probes. Applied and Environmental Microbiology, 1998, 64, 2503-2512.	1.4	68

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37	Considerations for reducing food system energy demand while scaling up urban agriculture. Environmental Research Letters, 2017, 12, 125004.	2.2	63
38	Simultaneous removal of nitrate and arsenic from drinking water sources utilizing a fixed-bed bioreactor system. Water Research, 2010, 44, 4958-4969.	5.3	62
39	Membrane biofilm development improves <scp>COD</scp> removal in anaerobic membrane bioreactor wastewater treatment. Microbial Biotechnology, 2015, 8, 883-894.	2.0	61
40	Effect of the presence of the antimicrobial tylosin in swine waste on anaerobic treatment. Water Research, 2008, 42, 2377-2384.	5.3	60
41	Changes in the Structure and Function of Microbial Communities in Drinking Water Treatment Bioreactors upon Addition of Phosphorus. Applied and Environmental Microbiology, 2010, 76, 7473-7481.	1.4	60
42	Quantification of parameters influencing methane generation due to biodegradation of municipal solid waste in landfills and laboratory experiments. Waste Management, 2016, 55, 276-287.	3.7	60
43	Long-term analysis of a full-scale activated sludge wastewater treatment system exhibiting seasonal biological foaming. Water Research, 2006, 40, 990-1008.	5.3	57
44	A High-Throughput Approach for Identification of Nontuberculous Mycobacteria in Drinking Water Reveals Relationship between Water Age and Mycobacterium avium. MBio, 2018, 9, .	1.8	54
45	Diverse manganese(II)â€oxidizing bacteria are prevalent in drinking water systems. Environmental Microbiology Reports, 2017, 9, 120-128.	1.0	52
46	A stability assessment tool for anaerobic codigestion. Water Research, 2017, 112, 19-28.	5.3	48
47	An Environmental Science and Engineering Framework for Combating Antimicrobial Resistance. Environmental Engineering Science, 2018, 35, 1005-1011.	0.8	47
48	Anaerobic co-digestion of various organic wastes: Kinetic modeling and synergistic impact evaluation. Bioresource Technology, 2022, 343, 126063.	4.8	47
49	Presence of Macrolide-Lincosamide-Streptogramin B and Tetracycline Antimicrobials in Swine Waste Treatment Processes and Amended Soil. Water Environment Research, 2005, 77, 57-62.	1.3	46
50	Inhibitory effects of the macrolide antimicrobial tylosin on anaerobic treatment. Biotechnology and Bioengineering, 2008, 101, 73-82.	1.7	46
51	Microbial diversity and dynamics in multi- and single-compartment anaerobic bioreactors processing sulfate-rich waste streams. Environmental Microbiology, 2007, 9, 93-106.	1.8	45
52	UV Disinfection of Human Norovirus: Evaluating Infectivity Using a Genome-Wide PCR-Based Approach. Environmental Science & Technology, 2020, 54, 2851-2858.	4.6	44
53	Archaeal community structure in leachate and solid waste is correlated to methane generation and volume reduction during biodegradation of municipal solid waste. Waste Management, 2015, 36, 184-190.	3.7	43
54	Microbial Community Structures in Foaming and Nonfoaming Full-Scale Wastewater Treatment Plants. Water Environment Research, 2002, 74, 437-449.	1.3	42

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55	Evaluating the cement stabilization of arsenic-bearing iron wastes from drinking water treatment. Journal of Hazardous Materials, 2015, 300, 522-529.	6.5	42
56	Anaerobic microbial community response to methanogenic inhibitors 2â€bromoethanesulfonate and propynoic acid. MicrobiologyOpen, 2016, 5, 537-550.	1.2	42
57	Effects of Swine Manure on Macrolide, Lincosamide, and Streptogramin B Antimicrobial Resistance in Soils. Applied and Environmental Microbiology, 2010, 76, 2218-2224.	1.4	37
58	Trends in Antimicrobial Resistance Genes in Manure Blend Pits and Long-Term Storage Across Dairy Farms with Comparisons to Antimicrobial Usage and Residual Concentrations. Environmental Science & Technology, 2019, 53, 2405-2415.	4.6	37
59	The sensitivity of fixed-bed biological perchlorate removal to changes in operating conditions and water quality characteristics. Water Research, 2003, 37, 206-214.	5.3	36
60	Nontuberculous mycobacteria in drinking water systems â€“ the challenges of characterization and risk mitigation. Current Opinion in Biotechnology, 2019, 57, 127-136.	3.3	36
61	Evaluation of arsenic field test kits for drinking water: Recommendations for improvement and implications for arsenic affected regions such as Bangladesh. Water Research, 2020, 170, 115325.	5.3	34
62	Automated Image Analysis for Quantitative Fluorescence In Situ Hybridization with Environmental Samples. Applied and Environmental Microbiology, 2007, 73, 2956-2962.	1.4	32
63	Microbial Community Structure and Activity in a Compartmentalized, Anaerobic Bioreactor. Water Environment Research, 2002, 74, 450-461.	1.3	31
64	Mycobacterium avium Infections of Acanthamoeba Strains: Host Strain Variability, Grazing-Acquired Infections, and Altered Dynamics of Inactivation with Monochloramine. Applied and Environmental Microbiology, 2010, 76, 6685-6688.	1.4	29
65	Culture-Independent Identification of Nontuberculous Mycobacteria in Cystic Fibrosis Respiratory Samples. PLoS ONE, 2016, 11, e0153876.	1.1	29
66	Humidity and Deposition Solution Play a Critical Role in Virus Inactivation by Heat Treatment of N95 Respirators. MSphere, 2020, 5, .	1.3	28
67	Carbohydrate storage in anaerobic sequencing batch reactors. Water Research, 2007, 41, 4721-4729.	5.3	27
68	Predictive Modeling of Virus Inactivation by UV. Environmental Science & Technology, 2021, 55, 3322-3332.	4.6	27
69	Populations related to Alkanindiges, a novel genus containing obligate alkane degraders, are implicated in biological foaming in activated sludge systems. Environmental Microbiology, 2007, 9, 1898-1912.	1.8	26
70	A dynamic and complex monochloramine stress response in Escherichia coli revealed by transcriptome analysis. Water Research, 2013, 47, 4978-4985.	5.3	26
71	Anaerobic Disposal of Arsenic-Bearing Wastes Results in Low Microbially Mediated Arsenic Volatilization. Environmental Science & Technology, 2016, 50, 10951-10959.	4.6	26
72	Biofilms in Full-Scale Drinking Water Ozone Contactors Contribute Viable Bacteria to Ozonated Water. Environmental Science & Technology, 2018, 52, 2618-2628.	4.6	26

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73	Validation of N95 Filtering Facepiece Respirator Decontamination Methods Available at a Large University Hospital. Open Forum Infectious Diseases, 2021, 8, ofaa610.	0.4	26
74	Effect of Growth Conditions on Inactivation of Escherichia coli with Monochloramine. Environmental Science & Technology, 2009, 43, 884-889.	4.6	23
75	Effect of backwashing on perchlorate removal in fixed bed biofilm reactors. Water Research, 2007, 41, 1949-1959.	5.3	22
76	Macrolide Resistance in Microorganisms at Antimicrobial-Free Swine Farms. Applied and Environmental Microbiology, 2009, 75, 5814-5820.	1.4	22
77	Understanding the Anaerobic Digestibility of Lignocellulosic Substrates Using Rumen Content as a Cosubstrate and an Inoculum. ACS ES&T Engineering, 2021, 1, 424-435.	3.7	22
78	Chemisorption of oxygen onto activated carbon can enhance the stability of biological perchlorate reduction in fixed bed biofilm reactors. Water Research, 2008, 42, 3425-3434.	5.3	21
79	Inactivation of Mycobacterium avium with Monochloramine. Environmental Science & Technology, 2008, 42, 8051-8056.	4.6	21
80	Tenets of a holistic approach to drinking water-associated pathogen research, management, and communication. Water Research, 2022, 211, 117997.	5.3	21
81	Comparative transcriptomics of the response of Escherichia coli to the disinfectant monochloramine and to growth conditions inducing monochloramine resistance. Water Research, 2010, 44, 4924-4931.	5.3	19
82	Optimization of Arsenic Removal Water Treatment System through Characterization of Terminal Electron Accepting Processes. Environmental Science & Technology, 2012, 46, 11702-11709.	4.6	19
83	Emerging investigator series: bacterial opportunistic pathogen gene markers in municipal drinking water are associated with distribution system and household plumbing characteristics. Environmental Science: Water Research and Technology, 2020, 6, 3032-3043.	1.2	18
84	Metagenomic Quantification of Genes with Internal Standards. MBio, 2021, 12, .	1.8	18
85	Effects of the antimicrobial tylosin on the microbial community structure of an anaerobic sequencing batch reactor. Biotechnology and Bioengineering, 2011, 108, 296-305.	1.7	17
86	Integrating Environmental Dimensions of â€œOne Healthâ€•to Combat Antimicrobial Resistance: Essential Research Needs. Environmental Science & Technology, 2022, 56, 14871-14874.	4.6	16
87	Backwash intensity and frequency impact the microbial community structure and function in a fixed-bed biofilm reactor. Applied Microbiology and Biotechnology, 2012, 96, 815-827.	1.7	15
88	Vinegar-amended anaerobic biosand filter for the removal of arsenic and nitrate from groundwater. Journal of Environmental Management, 2016, 171, 21-28.	3.8	14
89	A snapshot of the global drinking water virome: Diversity and metabolic potential vary with residual disinfectant use. Water Research, 2022, 218, 118484.	5.3	14
90	Probabilistic Models to Describe the Dynamics of Migrating Microbial Communities. PLoS ONE, 2015, 10, e0117221.	1.1	13

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91	Wireless Sensors for Measuring Drinking Water Quality in Building Plumbing: Deployments and Insights from Continuous and Intermittent Water Supply Systems. ACS ES&T Engineering, 2022, 2, 423-433.	3.7	11
92	Anaerobic Dynamic Membrane Bioreactor Development to Facilitate Organic Waste Conversion to Medium-Chain Carboxylic Acids and Their Downstream Recovery. ACS ES&T Engineering, 2022, 2, 169-180.	3.7	11
93	Effect of air-assisted backwashing on the performance of an anaerobic fixed-bed bioreactor that simultaneously removes nitrate and arsenic from drinking water sources. Water Research, 2012, 46, 1309-1317.	5.3	9
94	Tetracycline, sulfadimethoxine, and antibiotic resistance gene dynamics during anaerobic digestion of dairy manure. Journal of Environmental Quality, 2021, 50, 694-705.	1.0	9
95	Microbial community structure in gastrointestinal tracts of domestic animals: comparative analyses using rRNA-targeted oligonucleotide probes. FEMS Microbiology Ecology, 1997, 22, 281-294.	1.3	9
96	Recirculating Anaerobic Dynamic Membrane Bioreactor Treatment of Municipal Wastewater. ACS ES&T Engineering, 2022, 2, 842-852.	3.7	9
97	Retrospective Analysis of Nontuberculous Mycobacterial Infection and Monochloramine Disinfection of Municipal Drinking Water in Michigan. MSphere, 2019, 4, .	1.3	8
98	Evaluation of electron donors for biological perchlorate removal highlights the importance of diverse perchlorate-reducing populations. Environmental Science: Water Research and Technology, 2016, 2, 1049-1063.	1.2	7
99	Editorial overview: Integrating biotechnology and microbial ecology in urban water infrastructure through a microbiome continuum viewpoint. Current Opinion in Biotechnology, 2019, 57, iii-vi.	3.3	6
100	Fate of influent microbial populations during medium chain carboxylic acid recovery from brewery and pre-fermented food waste streams. Environmental Science: Water Research and Technology, 2022, 8, 257-269.	1.2	6
101	Carbohydrateâ€Based Electron Donor for Biological Nitrate and Perchlorate Removal From Drinking Water. Journal - American Water Works Association, 2015, 107, E674.	0.2	5
102	Identification and quantification of Gordona amarae strains in activated sludge systems using comparative rRNA sequence analysis and phylogenetic hybridization probes. Water Science and Technology, 1998, 37, 521-525.	1.2	4
103	Impact of service line replacement on lead, cadmium, and other drinking water quality parameters in Flint, Michigan. Environmental Science: Water Research and Technology, 2021, 7, 797-808.	1.2	1
104	Nutrient Removal from Mainstream Anaerobic Processes using a Membrane Biofilm Reactor and a Granular Sludge Sequencing Batch Reactor. Proceedings of the Water Environment Federation, 2015, 2015, 1266-1273.	0.0	1
105	EFFECTS OF THE VETERINARY ANTIMICROBIAL TYLOSIN ON ANAEROBIC DIGESTION. Proceedings of the Water Environment Federation, 2008, 2008, 7517-7523.	0.0	0
106	Nutrient Removal from Mainstream Anaerobic Effluents: Linking Biofilm Modeling to Experimental Design. Proceedings of the Water Environment Federation, 2014, 2014, 6057-6060.	0.0	0