

Lutgarde Raskin

List of Publications by Year in descending order

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107
papers

9,234
citations

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docs citations

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9207
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | A New Planning and Design Paradigm to Achieve Sustainable Resource Recovery from Wastewater. <i>Environmental Science & Technology</i> , 2009, 43, 6126-6130. | 10.0 | 412 |
| 2 | Diversity and dynamics of microbial communities in engineered environments and their implications for process stability. <i>Current Opinion in Biotechnology</i> , 2003, 14, 270-276. | 6.6 | 379 |
| 3 | Perspectives on anaerobic membrane bioreactor treatment of domestic wastewater: A critical review. <i>Bioresource Technology</i> , 2012, 122, 149-159. | 9.6 | 378 |
| 4 | Microbial ecology of drinking water distribution systems. <i>Current Opinion in Biotechnology</i> , 2006, 17, 297-302. | 6.6 | 372 |
| 5 | PCR Biases Distort Bacterial and Archaeal Community Structure in Pyrosequencing Datasets. <i>PLoS ONE</i> , 2012, 7, e43093. | 2.5 | 366 |
| 6 | Bacterial Community Structure in the Drinking Water Microbiome Is Governed by Filtration Processes. <i>Environmental Science & Technology</i> , 2012, 46, 8851-8859. | 10.0 | 366 |
| 7 | Common principles and best practices for engineering microbiomes. <i>Nature Reviews Microbiology</i> , 2019, 17, 725-741. | 28.6 | 324 |
| 8 | Methanogenic population dynamics during start-up of anaerobic digesters treating municipal solid waste and biosolids. <i>Biotechnology and Bioengineering</i> , 1998, 57, 342-355. | 3.3 | 302 |
| 9 | Flexible Community Structure Correlates with Stable Community Function in Methanogenic Bioreactor Communities Perturbed by Glucose. <i>Applied and Environmental Microbiology</i> , 2000, 66, 4058-4067. | 3.1 | 302 |
| 10 | Anaerobic codigestion of municipal solid waste and biosolids under various mixing conditionsâ€”I: digester performance. <i>Water Research</i> , 2001, 35, 1804-1816. | 11.3 | 299 |
| 11 | Anaerobic codigestion of municipal solid waste and biosolids under various mixing conditionsâ€”II: microbial population dynamics. <i>Water Research</i> , 2001, 35, 1817-1827. | 11.3 | 268 |
| 12 | Psychrophilic anaerobic membrane bioreactor treatment of domestic wastewater. <i>Water Research</i> , 2013, 47, 1655-1665. | 11.3 | 249 |
| 13 | 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, 5972-5981. | 10.0 | 239 |
| 14 | Metagenomic Evidence for the Presence of Comammox <i>Nitrospira</i> -Like Bacteria in a Drinking Water System. <i>MSphere</i> , 2016, 1, . | 2.9 | 229 |
| 15 | Methanogenic population dynamics during startup of a full-scale anaerobic sequencing batch reactor treating swine waste. <i>Water Research</i> , 2002, 36, 4648-4654. | 11.3 | 221 |
| 16 | Biological strategies for enhanced hydrolysis of lignocellulosic biomass during anaerobic digestion: Current status and future perspectives. <i>Bioresource Technology</i> , 2017, 245, 1245-1257. | 9.6 | 206 |
| 17 | Anaerobic co-digestion: Current status and perspectives. <i>Bioresource Technology</i> , 2021, 330, 125001. | 9.6 | 200 |
| 18 | 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, 10799-10812. | 10.0 | 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. <i>Biotechnology and Bioengineering</i> , 2004, 87, 823-834. | 3.3 | 160 |
| 20 | Spatial-Temporal Survey and Occupancy-Abundance Modeling To Predict Bacterial Community Dynamics in the Drinking Water Microbiome. <i>MBio</i> , 2014, 5, e01135-14. | 4.1 | 160 |
| 21 | Methanogenic population dynamics and performance of an anaerobic membrane bioreactor (AnMBR) treating swine manure under high shear conditions. <i>Water Research</i> , 2007, 41, 134-144. | 11.3 | 150 |
| 22 | Differential Resistance of Drinking Water Bacterial Populations to Monochloramine Disinfection.. <i>Environmental Science & Technology</i> , 2014, 48, 4038-4047. | 10.0 | 143 |
| 23 | 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. | 2.7 | 122 |
| 24 | Intermittent micro-aeration: New strategy to control volatile fatty acid accumulation in high organic loading anaerobic digestion. <i>Water Research</i> , 2019, 166, 115080. | 11.3 | 122 |
| 25 | Characterization of microbial communities in anaerobic bioreactors using molecular probes. <i>Antonie Van Leeuwenhoek</i> , 1995, 68, 297-308. | 1.7 | 114 |
| 26 | Antimicrobial Use and Resistance in Swine Waste Treatment Systems. <i>Applied and Environmental Microbiology</i> , 2006, 72, 7813-7820. | 3.1 | 111 |
| 27 | Influence of the Antibiotic Erythromycin on Anaerobic Treatment of a Pharmaceutical Wastewater. <i>Environmental Science & Technology</i> , 2006, 40, 3971-3977. | 10.0 | 110 |
| 28 | Prospects for Biological Nitrogen Removal from Anaerobic Effluents during Mainstream Wastewater Treatment. <i>Environmental Science and Technology Letters</i> , 2015, 2, 234-244. | 8.7 | 105 |
| 29 | Improving anaerobic digestion via direct interspecies electron transfer requires development of suitable characterization methods. <i>Current Opinion in Biotechnology</i> , 2019, 57, 183-190. | 6.6 | 100 |
| 30 | 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, 4095-4107. | 3.1 | 99 |
| 31 | 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. | 11.3 | 94 |
| 32 | 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. | 2.7 | 94 |
| 33 | Quantification of Syntrophic Fatty Acid- β -Oxidizing Bacteria in a Mesophilic Biogas Reactor by Oligonucleotide Probe Hybridization. <i>Applied and Environmental Microbiology</i> , 1999, 65, 4767-4774. | 3.1 | 81 |
| 34 | Monitoring Precursor 16S rRNAs of <i>Acinetobacter</i> spp. in Activated Sludge Wastewater Treatment Systems. <i>Applied and Environmental Microbiology</i> , 2000, 66, 2154-2165. | 3.1 | 77 |
| 35 | 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. | 11.3 | 71 |
| 36 | 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. | 3.1 | 68 |

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|----|--|------|-----------|
| 37 | Considerations for reducing food system energy demand while scaling up urban agriculture. <i>Environmental Research Letters</i> , 2017, 12, 125004. | 5.2 | 63 |
| 38 | Simultaneous removal of nitrate and arsenic from drinking water sources utilizing a fixed-bed bioreactor system. <i>Water Research</i> , 2010, 44, 4958-4969. | 11.3 | 62 |
| 39 | Membrane biofilm development improves <scp>COD</scp> removal in anaerobic membrane bioreactor wastewater treatment. <i>Microbial Biotechnology</i> , 2015, 8, 883-894. | 4.2 | 61 |
| 40 | Effect of the presence of the antimicrobial tylosin in swine waste on anaerobic treatment. <i>Water Research</i> , 2008, 42, 2377-2384. | 11.3 | 60 |
| 41 | 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, 7473-7481. | 3.1 | 60 |
| 42 | Quantification of parameters influencing methane generation due to biodegradation of municipal solid waste in landfills and laboratory experiments. <i>Waste Management</i> , 2016, 55, 276-287. | 7.4 | 60 |
| 43 | Long-term analysis of a full-scale activated sludge wastewater treatment system exhibiting seasonal biological foaming. <i>Water Research</i> , 2006, 40, 990-1008. | 11.3 | 57 |
| 44 | A High-Throughput Approach for Identification of Nontuberculous Mycobacteria in Drinking Water Reveals Relationship between Water Age and <i>Mycobacterium avium</i>. <i>MBio</i> , 2018, 9, . | 4.1 | 54 |
| 45 | Diverse manganese(II)-oxidizing bacteria are prevalent in drinking water systems. <i>Environmental Microbiology Reports</i> , 2017, 9, 120-128. | 2.4 | 52 |
| 46 | A stability assessment tool for anaerobic codigestion. <i>Water Research</i> , 2017, 112, 19-28. | 11.3 | 48 |
| 47 | An Environmental Science and Engineering Framework for Combating Antimicrobial Resistance. <i>Environmental Engineering Science</i> , 2018, 35, 1005-1011. | 1.6 | 47 |
| 48 | Anaerobic co-digestion of various organic wastes: Kinetic modeling and synergistic impact evaluation. <i>Bioresource Technology</i> , 2022, 343, 126063. | 9.6 | 47 |
| 49 | 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. | 2.7 | 46 |
| 50 | Inhibitory effects of the macrolide antimicrobial tylosin on anaerobic treatment. <i>Biotechnology and Bioengineering</i> , 2008, 101, 73-82. | 3.3 | 46 |
| 51 | Microbial diversity and dynamics in multi- and single-compartment anaerobic bioreactors processing sulfate-rich waste streams. <i>Environmental Microbiology</i> , 2007, 9, 93-106. | 3.8 | 45 |
| 52 | UV Disinfection of Human Norovirus: Evaluating Infectivity Using a Genome-Wide PCR-Based Approach. <i>Environmental Science & Technology</i> , 2020, 54, 2851-2858. | 10.0 | 44 |
| 53 | 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, 184-190. | 7.4 | 43 |
| 54 | Microbial Community Structures in Foaming and Nonfoaming Full-Scale Wastewater Treatment Plants. <i>Water Environment Research</i> , 2002, 74, 437-449. | 2.7 | 42 |

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|----|--|------|-----------|
| 55 | Evaluating the cement stabilization of arsenic-bearing iron wastes from drinking water treatment. <i>Journal of Hazardous Materials</i> , 2015, 300, 522-529. | 12.4 | 42 |
| 56 | Anaerobic microbial community response to methanogenic inhibitors 2-bromoethanesulfonate and propynoic acid. <i>MicrobiologyOpen</i> , 2016, 5, 537-550. | 3.0 | 42 |
| 57 | Effects of Swine Manure on Macrolide, Lincosamide, and Streptogramin B Antimicrobial Resistance in Soils. <i>Applied and Environmental Microbiology</i> , 2010, 76, 2218-2224. | 3.1 | 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. <i>Environmental Science & Technology</i> , 2019, 53, 2405-2415. | 10.0 | 37 |
| 59 | The sensitivity of fixed-bed biological perchlorate removal to changes in operating conditions and water quality characteristics. <i>Water Research</i> , 2003, 37, 206-214. | 11.3 | 36 |
| 60 | Nontuberculous mycobacteria in drinking water systems – the challenges of characterization and risk mitigation. <i>Current Opinion in Biotechnology</i> , 2019, 57, 127-136. | 6.6 | 36 |
| 61 | 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. | 11.3 | 34 |
| 62 | Automated Image Analysis for Quantitative Fluorescence In Situ Hybridization with Environmental Samples. <i>Applied and Environmental Microbiology</i> , 2007, 73, 2956-2962. | 3.1 | 32 |
| 63 | Microbial Community Structure and Activity in a Compartmentalized, Anaerobic Bioreactor. <i>Water Environment Research</i> , 2002, 74, 450-461. | 2.7 | 31 |
| 64 | <i>Mycobacterium avium</i> Infections of <i>Acanthamoeba</i> Strains: Host Strain Variability, Grazing-Acquired Infections, and Altered Dynamics of Inactivation with Monochloramine. <i>Applied and Environmental Microbiology</i> , 2010, 76, 6685-6688. | 3.1 | 29 |
| 65 | Culture-Independent Identification of Nontuberculous Mycobacteria in Cystic Fibrosis Respiratory Samples. <i>PLoS ONE</i> , 2016, 11, e0153876. | 2.5 | 29 |
| 66 | Humidity and Deposition Solution Play a Critical Role in Virus Inactivation by Heat Treatment of N95 Respirators. <i>MSphere</i> , 2020, 5, . | 2.9 | 28 |
| 67 | Carbohydrate storage in anaerobic sequencing batch reactors. <i>Water Research</i> , 2007, 41, 4721-4729. | 11.3 | 27 |
| 68 | Predictive Modeling of Virus Inactivation by UV. <i>Environmental Science & Technology</i> , 2021, 55, 3322-3332. | 10.0 | 27 |
| 69 | Populations related to <i>Alkanindiges</i> , a novel genus containing obligate alkane degraders, are implicated in biological foaming in activated sludge systems. <i>Environmental Microbiology</i> , 2007, 9, 1898-1912. | 3.8 | 26 |
| 70 | A dynamic and complex monochloramine stress response in <i>Escherichia coli</i> revealed by transcriptome analysis. <i>Water Research</i> , 2013, 47, 4978-4985. | 11.3 | 26 |
| 71 | Anaerobic Disposal of Arsenic-Bearing Wastes Results in Low Microbially Mediated Arsenic Volatilization. <i>Environmental Science & Technology</i> , 2016, 50, 10951-10959. | 10.0 | 26 |
| 72 | Biofilms in Full-Scale Drinking Water Ozone Contactors Contribute Viable Bacteria to Ozonated Water. <i>Environmental Science & Technology</i> , 2018, 52, 2618-2628. | 10.0 | 26 |

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|----|---|------|-----------|
| 73 | Validation of N95 Filtering Facepiece Respirator Decontamination Methods Available at a Large University Hospital. <i>Open Forum Infectious Diseases</i> , 2021, 8, ofaa610. | 0.9 | 26 |
| 74 | Effect of Growth Conditions on Inactivation of <i>Escherichia coli</i> with Monochloramine. <i>Environmental Science & Technology</i> , 2009, 43, 884-889. | 10.0 | 23 |
| 75 | Effect of backwashing on perchlorate removal in fixed bed biofilm reactors. <i>Water Research</i> , 2007, 41, 1949-1959. | 11.3 | 22 |
| 76 | Macrolide Resistance in Microorganisms at Antimicrobial-Free Swine Farms. <i>Applied and Environmental Microbiology</i> , 2009, 75, 5814-5820. | 3.1 | 22 |
| 77 | 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. | 7.6 | 22 |
| 78 | 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, 3425-3434. | 11.3 | 21 |
| 79 | Inactivation of <i>Mycobacterium avium</i> with Monochloramine. <i>Environmental Science & Technology</i> , 2008, 42, 8051-8056. | 10.0 | 21 |
| 80 | Tenets of a holistic approach to drinking water-associated pathogen research, management, and communication. <i>Water Research</i> , 2022, 211, 117997. | 11.3 | 21 |
| 81 | Comparative transcriptomics of the response of <i>Escherichia coli</i> to the disinfectant monochloramine and to growth conditions inducing monochloramine resistance. <i>Water Research</i> , 2010, 44, 4924-4931. | 11.3 | 19 |
| 82 | Optimization of Arsenic Removal Water Treatment System through Characterization of Terminal Electron Accepting Processes. <i>Environmental Science & Technology</i> , 2012, 46, 11702-11709. | 10.0 | 19 |
| 83 | 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. | 2.4 | 18 |
| 84 | Metagenomic Quantification of Genes with Internal Standards. <i>MBio</i> , 2021, 12, . | 4.1 | 18 |
| 85 | 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. | 3.3 | 17 |
| 86 | Integrating Environmental Dimensions of "One Health" to Combat Antimicrobial Resistance: Essential Research Needs. <i>Environmental Science & Technology</i> , 2022, 56, 14871-14874. | 10.0 | 16 |
| 87 | 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, 815-827. | 3.6 | 15 |
| 88 | Vinegar-amended anaerobic biosand filter for the removal of arsenic and nitrate from groundwater. <i>Journal of Environmental Management</i> , 2016, 171, 21-28. | 7.8 | 14 |
| 89 | A snapshot of the global drinking water virome: Diversity and metabolic potential vary with residual disinfectant use. <i>Water Research</i> , 2022, 218, 118484. | 11.3 | 14 |
| 90 | Probabilistic Models to Describe the Dynamics of Migrating Microbial Communities. <i>PLoS ONE</i> , 2015, 10, e0117221. | 2.5 | 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. | 7.6 | 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. | 7.6 | 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. | 11.3 | 9 |
| 94 | Tetracycline, sulfadimethoxine, and antibiotic resistance gene dynamics during anaerobic digestion of dairy manure. Journal of Environmental Quality, 2021, 50, 694-705. | 2.0 | 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. | 2.7 | 9 |
| 96 | Recirculating Anaerobic Dynamic Membrane Bioreactor Treatment of Municipal Wastewater. ACS ES&T Engineering, 2022, 2, 842-852. | 7.6 | 9 |
| 97 | Retrospective Analysis of Nontuberculous Mycobacterial Infection and Monochloramine Disinfection of Municipal Drinking Water in Michigan. MSphere, 2019, 4, . | 2.9 | 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. | 2.4 | 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. | 6.6 | 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. | 2.4 | 6 |
| 101 | Carbohydrate-Based Electron Donor for Biological Nitrate and Perchlorate Removal From Drinking Water. Journal - American Water Works Association, 2015, 107, E674. | 0.3 | 5 |
| 102 | Simultaneous oligonucleotide probe hybridization and immunostaining for in situ detection of Gordona species in activated sludge. FEMS Microbiology Ecology, 1999, 29, 129-136. | 2.7 | 4 |
| 103 | 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. | 2.5 | 4 |
| 104 | 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. | 2.4 | 1 |
| 105 | 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 |
| 106 | EFFECTS OF THE VETERINARY ANTIMICROBIAL TYLOSIN ON ANAEROBIC DIGESTION. Proceedings of the Water Environment Federation, 2008, 2008, 7517-7523. | 0.0 | 0 |
| 107 | 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 |