

John R Lawrence

List of Publications by Year in descending order

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161
papers

10,718
citations

28190

55
h-index

35952

97
g-index

167
all docs

167
docs citations

167
times ranked

9985
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Optical sectioning of microbial biofilms. <i>Journal of Bacteriology</i> , 1991, 173, 6558-6567. | 1.0 | 735 |
| 2 | Human Health Risk Assessment (HHRA) for Environmental Development and Transfer of Antibiotic Resistance. <i>Environmental Health Perspectives</i> , 2013, 121, 993-1001. | 2.8 | 508 |
| 3 | Scanning Transmission X-Ray, Laser Scanning, and Transmission Electron Microscopy Mapping of the Exopolymeric Matrix of Microbial Biofilms. <i>Applied and Environmental Microbiology</i> , 2003, 69, 5543-5554. | 1.4 | 331 |
| 4 | Soft X-ray microscopy and spectroscopy at the molecular environmental science beamline at the Advanced Light Source. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2006, 150, 86-104. | 0.8 | 292 |
| 5 | Assessment of lectin-binding analysis for in situ detection of glycoconjugates in biofilm systems. <i>Microbiology (United Kingdom)</i> , 2001, 147, 299-313. | 0.7 | 248 |
| 6 | Precipitation of amorphous CaCO ₃ (aragonite-like) by cyanobacteria: A STXM study of the influence of EPS on the nucleation process. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 4180-4198. | 1.6 | 246 |
| 7 | In Situ Localization of <i>Azospirillum brasilense</i> in the Rhizosphere of Wheat with Fluorescently Labeled, rRNA-Targeted Oligonucleotide Probes and Scanning Confocal Laser Microscopy. <i>Applied and Environmental Microbiology</i> , 1995, 61, 1013-1019. | 1.4 | 245 |
| 8 | Ecotoxicological assessment of antibiotics: A call for improved consideration of microorganisms. <i>Environment International</i> , 2015, 85, 189-205. | 4.8 | 209 |
| 9 | Next-Generation Sequencing of Microbial Communities in the Athabasca River and Its Tributaries in Relation to Oil Sands Mining Activities. <i>Applied and Environmental Microbiology</i> , 2012, 78, 7626-7637. | 1.4 | 193 |
| 10 | Selective degradation of ibuprofen and clofibric acid in two model river biofilm systems. <i>Water Research</i> , 2001, 35, 3197-3205. | 5.3 | 191 |
| 11 | Determination of Diffusion Coefficients in Biofilms by Confocal Laser Microscopy. <i>Applied and Environmental Microbiology</i> , 1994, 60, 1166-1173. | 1.4 | 188 |
| 12 | Advanced imaging techniques for assessment of structure, composition and function in biofilm systems. <i>FEMS Microbiology Ecology</i> , 2010, 72, 1-21. | 1.3 | 187 |
| 13 | Development and structure of microbial biofilms in river water studied by confocal laser scanning microscopy. <i>FEMS Microbiology Ecology</i> , 2006, 24, 11-25. | 1.3 | 186 |
| 14 | Physiological Adaptations Involved in Alkane Assimilation at a Low Temperature by <i>Rhodococcus</i> sp. Strain Q15. <i>Applied and Environmental Microbiology</i> , 1999, 65, 2961-2968. | 1.4 | 174 |
| 15 | Phylogenetic Composition, Spatial Structure, and Dynamics of Lotic Bacterial Biofilms Investigated by Fluorescent in Situ Hybridization and Confocal Laser Scanning Microscopy. <i>Microbial Ecology</i> , 1999, 37, 225-237. | 1.4 | 169 |
| 16 | Behavior of <i>Pseudomonas fluorescens</i> within the hydrodynamic boundary layers of surface microenvironments. <i>Microbial Ecology</i> , 1987, 14, 1-14. | 1.4 | 167 |
| 17 | Confocal Laser Microscopy and Digital Image Analysis in Microbial Ecology. <i>Advances in Microbial Ecology</i> , 1992, , 1-67. | 0.1 | 158 |
| 18 | Bacterial extracellular DNA forming a defined network-like structure. <i>FEMS Microbiology Letters</i> , 2006, 262, 31-38. | 0.7 | 144 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Effect of laminar flow velocity on the kinetics of surface recolonization by Mot ⁺ and Mot ⁺ Pseudomonas fluorescens. Microbial Ecology, 1989, 18, 1-19. | 1.4 | 136 |
| 20 | Application of multiple parameter imaging for the quantification of algal, bacterial and exopolymer components of microbial biofilms. Journal of Microbiological Methods, 1998, 32, 253-261. | 0.7 | 135 |
| 21 | Speciation and Quantitative Mapping of Metal Species in Microbial Biofilms Using Scanning Transmission X-ray Microscopy. Environmental Science & Technology, 2006, 40, 1556-1565. | 4.6 | 132 |
| 22 | Microscale and Molecular Assessment of Impacts of Nickel, Nutrients, and Oxygen Level on Structure and Function of River Biofilm Communities. Applied and Environmental Microbiology, 2004, 70, 4326-4339. | 1.4 | 129 |
| 23 | Effects of selected pharmaceuticals on riverine biofilm communities. Canadian Journal of Microbiology, 2005, 51, 655-669. | 0.8 | 127 |
| 24 | Imaging of bacterial cells by fluorescence exclusion using scanning confocal laser microscopy. Journal of Microbiological Methods, 1992, 15, 249-261. | 0.7 | 125 |
| 25 | [9] Confocal laser scanning microscopy for analysis of microbial biofilms. Methods in Enzymology, 1999, 310, 131-144. | 0.4 | 118 |
| 26 | Microarray and Real-Time PCR Analyses of the Responses of High-Arctic Soil Bacteria to Hydrocarbon Pollution and Bioremediation Treatments. Applied and Environmental Microbiology, 2009, 75, 6258-6267. | 1.4 | 115 |
| 27 | The role of interactions, sessile growth, and nutrient amendments on the degradative efficiency of a microbial consortium. Canadian Journal of Microbiology, 1994, 40, 331-340. | 0.8 | 110 |
| 28 | Differentiation of <i>Methanosaeta concilii</i> and <i>Methanosarcina barkeri</i> in Anaerobic Mesophilic Granular Sludge by Fluorescent In Situ Hybridization and Confocal Scanning Laser Microscopy. Applied and Environmental Microbiology, 1999, 65, 2222-2229. | 1.4 | 110 |
| 29 | Growth kinetics of <i>Pseudomonas fluorescens</i> microcolonies within the hydrodynamic boundary layers of surface microenvironments. Microbial Ecology, 1986, 12, 299-312. | 1.4 | 103 |
| 30 | [10] Lectin-binding analysis in biofilm systems. Methods in Enzymology, 1999, 310, 145-152. | 0.4 | 103 |
| 31 | In situ evidence for microdomains in the polymer matrix of bacterial microcolonies. Canadian Journal of Microbiology, 2007, 53, 450-458. | 0.8 | 99 |
| 32 | Effects of Velocity on the Transport of Two Bacteria Through Saturated Sand. Ground Water, 1999, 37, 103-112. | 0.7 | 96 |
| 33 | Three-dimensional differentiation of photo-autotrophic biofilm constituents by multi-channel laser scanning microscopy (single-photon and two-photon excitation). Journal of Microbiological Methods, 2004, 56, 161-172. | 0.7 | 96 |
| 34 | Innovative techniques, sensors, and approaches for imaging biofilms at different scales. Trends in Microbiology, 2015, 23, 233-242. | 3.5 | 93 |
| 35 | Microbial exopolymers provide a mechanism for bioaccumulation of contaminants. Microbial Ecology, 1994, 27, 279-91. | 1.4 | 92 |
| 36 | Detachment of <i>Pseudomonas fluorescens</i> from biofilms on glass surfaces in response to nutrient stress. Microbial Ecology, 1989, 18, 199-210. | 1.4 | 91 |

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|----|---|-----|-----------|
| 37 | In situ Characterization of Biofilm Exopolymers Involved in the Accumulation of Chlorinated Organics. <i>Microbial Ecology</i> , 1998, 35, 213-223. | 1.4 | 90 |
| 38 | Impact of Seasonal Variations and Nutrient Inputs on Nitrogen Cycling and Degradation of Hexadecane by Replicated River Biofilms. <i>Applied and Environmental Microbiology</i> , 2003, 69, 5170-5177. | 1.4 | 90 |
| 39 | Microscale Evaluation of the Effects of Grazing by Invertebrates with Contrasting Feeding Modes on River Biofilm Architecture and Composition. <i>Microbial Ecology</i> , 2002, 44, 199-207. | 1.4 | 89 |
| 40 | Effect of Motility on Surface Colonization and Reproductive Success of <i>Pseudomonas fluorescens</i> in Dual-Dilution Continuous Culture and Batch Culture Systems. <i>Applied and Environmental Microbiology</i> , 1994, 60, 1421-1429. | 1.4 | 86 |
| 41 | Assessment of Fluorochromes for Two-Photon Laser Scanning Microscopy of Biofilms. <i>Applied and Environmental Microbiology</i> , 2002, 68, 901-909. | 1.4 | 85 |
| 42 | Sorption and metabolism of selected herbicides in river biofilm communities. <i>Canadian Journal of Microbiology</i> , 2001, 47, 634-641. | 0.8 | 83 |
| 43 | Analysis of spatial variability within <i>mot⁺</i> and <i>mot⁺Δ<i>flaA</i></i> <i>Pseudomonas fluorescens</i> biofilms using representative elements. <i>Biofouling</i> , 1993, 7, 339-358. | 0.8 | 82 |
| 44 | Bacteria Associated with Cysts of the Soybean Cyst Nematode (<i>Heterodera glycines</i>). <i>Applied and Environmental Microbiology</i> , 2003, 69, 607-615. | 1.4 | 82 |
| 45 | Soft X-ray spectromicroscopy of nickel sorption in a natural river biofilm. <i>Geobiology</i> , 2009, 7, 432-453. | 1.1 | 82 |
| 46 | Function of EPS. , 1999, , 171-200. | | 81 |
| 47 | A simple rotating annular reactor for replicated biofilm studies. <i>Journal of Microbiological Methods</i> , 2000, 42, 215-224. | 0.7 | 81 |
| 48 | Behavior of bacterial stream populations within the hydrodynamic boundary layers of surface microenvironments. <i>Microbial Ecology</i> , 1987, 14, 15-27. | 1.4 | 77 |
| 49 | Soft X-ray spectromicroscopy of biological and synthetic polymer systems. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2005, 144-147, 259-269. | 0.8 | 74 |
| 50 | Quantitative mapping of chlorhexidine in natural river biofilms. <i>Science of the Total Environment</i> , 2006, 369, 369-383. | 3.9 | 74 |
| 51 | Microbial communities in low permeability, high pH uranium mine tailings: characterization and potential effects. <i>Journal of Applied Microbiology</i> , 2013, 114, 1671-1686. | 1.4 | 74 |
| 52 | Relationship Between Microbial Biomass and Elemental Sulfur Oxidation in Agricultural Soils. <i>Soil Science Society of America Journal</i> , 1988, 52, 672-677. | 1.2 | 69 |
| 53 | Characterizing magnetism of individual magnetosomes by X-ray magnetic circular dichroism in a scanning transmission X-ray microscope. <i>Chemical Geology</i> , 2010, 270, 110-116. | 1.4 | 67 |
| 54 | Comparative microscale analysis of the effects of triclosan and triclocarban on the structure and function of river biofilm communities. <i>Science of the Total Environment</i> , 2009, 407, 3307-3316. | 3.9 | 63 |

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|----|---|-----|-----------|
| 55 | Do Bacterial Communities Transcend Darwinism?. <i>Advances in Microbial Ecology</i> , 1997, , 105-191. | 0.1 | 58 |
| 56 | Molecular and microscopic assessment of the effects of caffeine, acetaminophen, diclofenac, and their mixtures on river biofilm communities. <i>Environmental Toxicology and Chemistry</i> , 2012, 31, 508-517. | 2.2 | 56 |
| 57 | IMPACT OF ELEMENTAL SULFUR FERTILIZATION ON AGRICULTURAL SOILS. I. EFFECTS ON MICROBIAL BIOMASS AND ENZYME ACTIVITIES. <i>Canadian Journal of Soil Science</i> , 1988, 68, 463-473. | 0.5 | 55 |
| 58 | An evaluation of techniques for measuring periphyton metabolism in chambers. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1997, 54, 715-725. | 0.7 | 55 |
| 59 | The Role of Sorption in the Transport of <i>Klebsiella oxytoca</i> Through Saturated Silica Sand. <i>Ground Water</i> , 1997, 35, 574-584. | 0.7 | 55 |
| 60 | ZnO Nanoparticles Impose a Panmetabolic Toxic Effect Along with Strong Necrosis, Inducing Activation of the Envelope Stress Response in <i>Salmonella enterica</i> Serovar Enteritidis. <i>Antimicrobial Agents and Chemotherapy</i> , 2015, 59, 3317-3328. | 1.4 | 55 |
| 61 | <i>Proteus Mirabilis</i> Biofilm Protection Against Struvite Crystal Dissolution and its Implications in Struvite Urolithiasis. <i>Journal of Urology</i> , 1991, 146, 1138-1142. | 0.2 | 53 |
| 62 | Phosphorus Limitation of Heterotrophic Biofilms from the Fraser River, British Columbia, and the Effect of Pulp Mill Effluent. <i>Microbial Ecology</i> , 1998, 36, 121-130. | 1.4 | 52 |
| 63 | Differentiation of genes extracted from non-viable versus viable micro-organisms in environmental samples using ethidium monoazide bromide. <i>Journal of Microbiological Methods</i> , 2007, 71, 312-318. | 0.7 | 51 |
| 64 | Metatranscriptomic Analysis of the Response of River Biofilms to Pharmaceutical Products, Using Anonymous DNA Microarrays. <i>Applied and Environmental Microbiology</i> , 2010, 76, 5432-5439. | 1.4 | 50 |
| 65 | STRUCTURAL AND FUNCTIONAL RESPONSES OF RIVER BIOFILM COMMUNITIES TO THE NONSTEROIDAL ANTI-INFLAMMATORY DICLOFENAC. <i>Environmental Toxicology and Chemistry</i> , 2007, 26, 573. | 2.2 | 48 |
| 66 | Behavioral Strategies of Surface-Colonizing Bacteria. <i>Advances in Microbial Ecology</i> , 1995, , 1-75. | 0.1 | 48 |
| 67 | Morphological and biochemical changes in <i>Pseudomonas fluorescens</i> biofilms induced by sub-inhibitory exposure to antimicrobial agents. <i>Canadian Journal of Microbiology</i> , 2009, 55, 163-178. | 0.8 | 47 |
| 68 | Quantification of transient CO ₂ production in a sandy unsaturated zone. <i>Water Resources Research</i> , 1999, 35, 2189-2198. | 1.7 | 46 |
| 69 | Sub-inhibitory concentrations of different pharmaceutical products affect the meta-transcriptome of river biofilm communities cultivated in rotating annular reactors. <i>Environmental Microbiology Reports</i> , 2012, 4, 350-359. | 1.0 | 46 |
| 70 | Growth of Microorganisms on Surfaces. , 1995, , 15-45. | | 45 |
| 71 | Novel sulfur-oxidizing streamers thriving in perennial cold saline springs of the Canadian high Arctic. <i>Environmental Microbiology</i> , 2009, 11, 616-629. | 1.8 | 45 |
| 72 | Microbial production of CO ₂ in unsaturated geologic media in a mesoscale model. <i>Water Resources Research</i> , 1993, 29, 973-984. | 1.7 | 44 |

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|----|---|-----|-----------|
| 73 | Transport of bacteria through geologic media. Canadian Journal of Microbiology, 1996, 42, 410-422. | 0.8 | 44 |
| 74 | Natural attenuation of aqueous metal contamination by an algal mat. Canadian Journal of Microbiology, 1998, 44, 825-832. | 0.8 | 44 |
| 75 | Humic acid enhanced remediation of an emplaced diesel source in groundwater.. Journal of Contaminant Hydrology, 2002, 54, 249-276. | 1.6 | 44 |
| 76 | Computer-enhanced darkfield microscopy for the quantitative analysis of bacterial growth and behavior on surfaces. Journal of Microbiological Methods, 1989, 10, 123-138. | 0.7 | 43 |
| 77 | Investigation of Microbial Biofilm Structure by Laser Scanning Microscopy. Advances in Biochemical Engineering/Biotechnology, 2014, 146, 1-51. | 0.6 | 42 |
| 78 | Quantifying CO2 fluxes from soil surfaces to the atmosphere. Journal of Hydrology, 2002, 260, 1-14. | 2.3 | 39 |
| 79 | Community-Level Assessment of the Effects of the Broad-Spectrum Antimicrobial Chlorhexidine on the Outcome of River Microbial Biofilm Development. Applied and Environmental Microbiology, 2008, 74, 3541-3550. | 1.4 | 39 |
| 80 | Effect of gravity on bacterial deposition and orientation in laminar flow environments. Biofouling, 1990, 2, 335-350. | 0.8 | 38 |
| 81 | Effects of fullerene (C60), multi-wall carbon nanotubes (MWCNT), single wall carbon nanotubes (SWCNT) and hydroxyl and carboxyl modified single wall carbon nanotubes on riverine microbial communities. Environmental Science and Pollution Research, 2016, 23, 10090-10102. | 2.7 | 38 |
| 82 | Architectural adaptation and protein expression patterns of Salmonella enterica serovar Enteritidis biofilms under laminar flow conditions. International Journal of Food Microbiology, 2008, 123, 109-120. | 2.1 | 37 |
| 83 | Monitoring the fate of copper nanoparticles in river biofilms using scanning transmission X-ray microscopy (STXM). Chemical Geology, 2012, 329, 18-25. | 1.4 | 37 |
| 84 | Colonization and weathering of natural sulfide mineral assemblages by <i>Thiobacillus ferrooxidans</i> . Canadian Journal of Microbiology, 1997, 43, 178-188. | 0.8 | 36 |
| 85 | Microscopic characterization of the bacterial cell envelope of <i>Planococcus halocryophilus</i> Or1 during subzero growth at -15°C . Polar Biology, 2016, 39, 701-712. | 0.5 | 36 |
| 86 | Behavioral analysis of <i>Vibrio parahaemolyticus</i> variants in high- and low-viscosity microenvironments by use of digital image processing. Journal of Bacteriology, 1992, 174, 5732-5739. | 1.0 | 35 |
| 87 | In Situ Characterization of Extracellular Polymeric Substances (EPS) in Biofilm Systems. , 1999, , 21-47. | | 35 |
| 88 | Stable <i>Bacillus thuringiensis</i> (Bt) toxin content in interspecific F1 and backcross populations of wild <i>Brassica rapa</i> after Bt gene transfer. Molecular Ecology, 2004, 13, 237-241. | 2.0 | 35 |
| 89 | Complex organic corona formation on carbon nanotubes reduces microbial toxicity by suppressing reactive oxygen species production. Environmental Science: Nano, 2016, 3, 181-189. | 2.2 | 35 |
| 90 | Analysis of biofilm formation using 2D vs 3D digital imaging. Journal of Applied Bacteriology, 1993, 74, 52S. | 1.1 | 34 |

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|-----|--|-----|-----------|
| 91 | Effect of CNP on composition and structure of lotic biofilms as detected with lectin-specific glycoconjugates. <i>Aquatic Microbial Ecology</i> , 2005, 38, 283-294. | 0.9 | 34 |
| 92 | Biotransformation of selenium and arsenic in multi-species biofilm. <i>Environmental Chemistry</i> , 2011, 8, 543. | 0.7 | 33 |
| 93 | Cell Wall Biomolecular Composition Plays a Potential Role in the Host Type II Resistance to Fusarium Head Blight in Wheat. <i>Frontiers in Microbiology</i> , 2016, 7, 910. | 1.5 | 33 |
| 94 | <i>In situ</i> evidence for metabolic and chemical microdomains in the structured polymer matrix of bacterial microcolonies. <i>FEMS Microbiology Ecology</i> , 2016, 92, fiw183. | 1.3 | 33 |
| 95 | Galvanic sulphide oxidation as a metal-leaching mechanism and its environmental implications. <i>Geochemistry: Exploration, Environment, Analysis</i> , 2003, 3, 337-343. | 0.5 | 32 |
| 96 | Distribution and biogeochemical importance of bacterial populations in a thick clay-rich aquitard system. <i>Microbial Ecology</i> , 2000, 40, 273-291. | 1.4 | 31 |
| 97 | Environmental Biofilms as Reservoirs for Antimicrobial Resistance. <i>Frontiers in Microbiology</i> , 2021, 12, 766242. | 1.5 | 31 |
| 98 | Enumeration of sulfur-oxidizing populations in Saskatchewan agricultural soils. <i>Canadian Journal of Soil Science</i> , 1991, 71, 127-136. | 0.5 | 30 |
| 99 | Advanced Techniques for In Situ Analysis of the Biofilm Matrix (Structure, Composition, Dynamics) by Means of Laser Scanning Microscopy. <i>Methods in Molecular Biology</i> , 2014, 1147, 43-64. | 0.4 | 30 |
| 100 | Transport and Bacterial Interactions of Three Bacterial Strains in Saturated Column Experiments. <i>Environmental Science & Technology</i> , 2011, 45, 2116-2123. | 4.6 | 29 |
| 101 | Assessment of the effects of oil sands naphthenic acids on the growth and morphology of <i>Chlamydomonas reinhardtii</i> using microscopic and spectromicroscopic techniques. <i>Science of the Total Environment</i> , 2013, 442, 116-122. | 3.9 | 28 |
| 102 | Effects of Glyphosate and Two Herbicide Mixtures on Microbial Communities in Prairie Wetland Ecosystems: A Mesocosm Approach. <i>Journal of Environmental Quality</i> , 2012, 41, 732-743. | 1.0 | 26 |
| 103 | Aerobic Biofilms Grown from Athabasca Watershed Sediments Are Inhibited by Increasing Concentrations of Bituminous Compounds. <i>Applied and Environmental Microbiology</i> , 2013, 79, 7398-7412. | 1.4 | 26 |
| 104 | Feeding behaviour and grazing impacts of a <i>Euplotes</i> sp. on attached bacteria. <i>Canadian Journal of Microbiology</i> , 1998, 44, 623-629. | 0.8 | 26 |
| 105 | The Ecobiomics project: Advancing metagenomics assessment of soil health and freshwater quality in Canada. <i>Science of the Total Environment</i> , 2020, 710, 135906. | 3.9 | 25 |
| 106 | Construction and Testing of a Durable Platinum Wire Eh Electrode for In Situ Redox Measurements in the Subsurface. <i>Ground Water Monitoring and Remediation</i> , 1999, 19, 132-136. | 0.6 | 24 |
| 107 | Multispecies Biofilms Transform Selenium Oxyanions into Elemental Selenium Particles: Studies Using Combined Synchrotron X-ray Fluorescence Imaging and Scanning Transmission X-ray Microscopy. <i>Environmental Science & Technology</i> , 2016, 50, 10343-10350. | 4.6 | 24 |
| 108 | Influence of Nutrient Inputs, Hexadecane, and Temporal Variations on Denitrification and Community Composition of River Biofilms. <i>Applied and Environmental Microbiology</i> , 2006, 72, 575-584. | 1.4 | 23 |

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|-----|---|-----|-----------|
| 109 | Resilience and recovery: The effect of triclosan exposure timing during development, on the structure and function of river biofilm communities. <i>Aquatic Toxicology</i> , 2015, 161, 253-266. | 1.9 | 23 |
| 110 | Peer Reviewed: Genomics technologies for environmental science. <i>Environmental Science & Technology</i> , 2001, 35, 364A-370A. | 4.6 | 22 |
| 111 | An Assessment of a Mesocosm Approach to the Study of Microbial Respiration in a Sandy Unsaturated Zone. <i>Ground Water</i> , 2001, 39, 391-400. | 0.7 | 22 |
| 112 | Extracellular polymeric substances in microbial biofilms. , 2010, , 733-758. | | 22 |
| 113 | Molecular analysis and development of 16S rRNA oligonucleotide probes to characterize a diclofop-methyl-degrading biofilm consortium. <i>Canadian Journal of Microbiology</i> , 2000, 46, 133-142. | 0.8 | 21 |
| 114 | One-photon versus Two-photon Laser Scanning Microscopy and Digital Image Analysis of Microbial Biofilms. <i>Methods in Microbiology</i> , 2004, 34, 89-136. | 0.4 | 21 |
| 115 | Microbial interactions with naturally occurring hydrophobic sediments: Influence on sediment and associated contaminant mobility. <i>Water Research</i> , 2016, 92, 121-130. | 5.3 | 21 |
| 116 | IMPACT OF ELEMENTAL SULFUR FERTILIZATION ON AGRICULTURAL SOILS. II. EFFECTS ON SULFUR-OXIDIZING POPULATIONS AND OXIDATION RATES. <i>Canadian Journal of Soil Science</i> , 1988, 68, 475-483. | 0.5 | 20 |
| 117 | Microscale Analyses of the Formation and Nature of Microbial Biofilm Communities in River Systems. <i>Reviews in Environmental Science and Biotechnology</i> , 2003, 2, 85-97. | 3.9 | 20 |
| 118 | Microscopic and Spectroscopic Analyses of Chlorhexidine Tolerance in <i>Delftia acidovorans</i> Biofilms. <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 5673-5686. | 1.4 | 20 |
| 119 | Soft X-ray spectromicroscopy for speciation, quantitation and nanotoxicology of nanomaterials. <i>Journal of Microscopy</i> , 2016, 261, 130-147. | 0.8 | 20 |
| 120 | Design and Evaluation of a Mesoscale Model Vadose Zone and Ground-Water System. <i>Ground Water</i> , 1993, 31, 446-455. | 0.7 | 18 |
| 121 | Accumulation of short-chain fatty acids in an aquitard linked to anaerobic biodegradation of petroleum hydrocarbons. <i>Applied Geochemistry</i> , 2009, 24, 77-85. | 1.4 | 18 |
| 122 | Relationship between water quality parameters and bacterial indicators in a large prairie reservoir: Lake Diefenbaker, Saskatchewan, Canada. <i>Canadian Journal of Microbiology</i> , 2014, 60, 243-249. | 0.8 | 18 |
| 123 | SOFT X-RAY MICROSCOPY OF SOFT MATTER – HARD INFORMATION FROM TWO SOFTS. <i>Surface Review and Letters</i> , 2002, 09, 193-201. | 0.5 | 17 |
| 124 | Spatial variation in microbial community structure, richness, and diversity in an alluvial aquifer. <i>Canadian Journal of Microbiology</i> , 2012, 58, 1135-1151. | 0.8 | 16 |
| 125 | Biogeochemical activity of microbial biofilms in the water column overlying uranium mine tailings. <i>Journal of Applied Microbiology</i> , 2014, 117, 1079-1094. | 1.4 | 16 |
| 126 | Effects of erythromycin, trimethoprim and clindamycin on attached microbial communities from an effluent dominated prairie stream. <i>Ecotoxicology and Environmental Safety</i> , 2016, 132, 31-39. | 2.9 | 16 |

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|-----|--|-----|-----------|
| 127 | Most-probable-number procedure to enumerate So-oxidizing, thiosulfate producing heterotrophs in soil. <i>Soil Biology and Biochemistry</i> , 1988, 20, 577-578. | 4.2 | 15 |
| 128 | Two-Photon Imaging for Studying the Microbial Ecology of Biofilm Systems. <i>Microbes and Environments</i> , 2004, 19, 1-6. | 0.7 | 15 |
| 129 | Bacterial diversity and composition of an alkaline uranium mine tailings-water interface. <i>Journal of Microbiology</i> , 2013, 51, 558-569. | 1.3 | 14 |
| 130 | Tandem mass spectrometric identification of transformation products in degradative biofilms.. <i>Analytical Chemistry</i> , 1995, 67, 1831-1837. | 3.2 | 13 |
| 131 | Effect of pumping on the spatio-temporal distribution of microbial communities in a water well field. <i>Water Research</i> , 2012, 46, 1286-1300. | 5.3 | 13 |
| 132 | Inheritance of GFP-Bt transgenes from <i>Brassica napus</i> backcrosses with three wild <i>B. napus</i> accessions. <i>Environmental Biosafety Research</i> , 2004, 3, 45-54. | 1.1 | 12 |
| 133 | Proteomic Analyses of Chlorhexidine Tolerance Mechanisms in <i>Delftia acidovorans</i> Biofilms. <i>MSphere</i> , 2016, 1, . | 1.3 | 10 |
| 134 | Importance of the RpoE Regulon in Maintaining the Lipid Bilayer during Antimicrobial Treatment with the Polycationic Agent, Chlorhexidine. <i>Proteomics</i> , 2018, 18, 1700285. | 1.3 | 10 |
| 135 | Chemically Sensitive Tomography at 50 nm Spatial Resolution using a Soft X-ray Scanning Transmission X-Ray Microscope. <i>Microscopy and Microanalysis</i> , 2006, 12, 1412-1413. | 0.2 | 9 |
| 136 | Metatranscriptomic Insights Into the Response of River Biofilm Communities to Ionic and Nano-Zinc Oxide Exposures. <i>Frontiers in Microbiology</i> , 2020, 11, 267. | 1.5 | 8 |
| 137 | Rates of microbial elemental sulfur oxidation and ¹⁸ O and ³⁴ S isotopic fractionation under varied nutrient and temperature regimes. <i>Applied Geochemistry</i> , 2012, 27, 186-196. | 1.4 | 7 |
| 138 | Transient response of microbial communities in a water well field to application of an impressed current. <i>Water Research</i> , 2013, 47, 672-682. | 5.3 | 7 |
| 139 | Aquatic Biofilms: Development, Cultivation, Analyses, and Applications. , 0, , 4.2.3-1-4.2.3-33. | | 7 |
| 140 | Fate of the Herbicide Alachlor Exposed to Different Microbial Consortia in Aquatic Systems. <i>Water, Air, and Soil Pollution</i> , 2015, 226, 1. | 1.1 | 7 |
| 141 | <i>N,N</i>-Diethyl- ϵ -Toluamide Exposure at an Environmentally Relevant Concentration Influences River Microbial Community Development. <i>Environmental Toxicology and Chemistry</i> , 2019, 38, 2414-2425. | 2.2 | 7 |
| 142 | Laser Scanning Microscopy for Microbial Flocs and Particles. , 0, , 469-505. | | 7 |
| 143 | Transport and fate of the herbicide diclofop-methyl in a large-scale physical model. <i>Journal of Contaminant Hydrology</i> , 1995, 19, 69-83. | 1.6 | 6 |
| 144 | Controls and Rates of Acid Production in Commercial-Scale Sulfur Blocks. <i>Journal of Environmental Quality</i> , 2010, 39, 834-844. | 1.0 | 6 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 145 | Comparative responses of river biofilms at the community level to common organic solvent and herbicide exposure. <i>Environmental Science and Pollution Research</i> , 2016, 23, 4282-4293. | 2.7 | 6 |
| 146 | Visualization of the Sorption of Nickel within Exopolymer Microdomains of Bacterial Microcolonies Using Confocal and Scanning Electron Microscopy. <i>Microbes and Environments</i> , 2019, 34, 76-82. | 0.7 | 6 |
| 147 | Microscale and molecular analyses of river biofilm communities treated with microgram levels of cerium oxide nanoparticles indicate limited but significant effects. <i>Environmental Pollution</i> , 2020, 256, 113515. | 3.7 | 6 |
| 148 | Influence of nutrients, hexadecane, and temporal variations on nitrification and exopolysaccharide composition of river biofilms. <i>Canadian Journal of Microbiology</i> , 2006, 52, 786-797. | 0.8 | 5 |
| 149 | Chemically sensitive 3D imaging at sub 100 nm spatial resolution using tomography in a scanning transmission x-ray microscope. , 2006, , . | | 5 |
| 150 | Biogeochemical Importance of the Bacterial Community in Uranium Waste Deposited at Key Lake, Northern Saskatchewan. <i>Geomicrobiology Journal</i> , 2016, 33, 807-821. | 1.0 | 4 |
| 151 | Multi-Parameter Laser Imaging Reveals Complex Microscale Biofilm Matrix in a Thick (4,000 μ m) Aerobic Methanol Oxidizing Community. <i>Frontiers in Microbiology</i> , 2018, 9, 2186. | 1.5 | 4 |
| 152 | Cells in shearable and nonshearable regions of <i>Salmonella enterica</i> serovar Enteritidis biofilms are morphologically and physiologically distinct. <i>Canadian Journal of Microbiology</i> , 2009, 55, 955-966. | 0.8 | 3 |
| 153 | Impact of coal combustion waste on the microbiology of a model aquifer. <i>Water, Air, and Soil Pollution</i> , 1994, 74, 103-120. | 1.1 | 2 |
| 154 | Naturally occurring phenanthrene degrading bacteria associated with seeds of various plant species. <i>International Journal of Phytoremediation</i> , 2016, 18, 423-425. | 1.7 | 2 |
| 155 | The role of rpoS on the survival of a p-nitrophenol degrading <i>Pseudomonas putida</i> strain in planktonic and biofilm phases. <i>Canadian Journal of Microbiology</i> , 2009, 55, 1176-1186. | 0.8 | 1 |
| 156 | Water flow and storage in fractured, unsaturated sulphur blocks. <i>Canadian Geotechnical Journal</i> , 2011, 48, 810-825. | 1.4 | 1 |
| 157 | Impact of sample collection on prokaryotic and eukaryotic diversity of niche environments of the oil-sand mining impacted Athabasca River.. <i>Canadian Journal of Microbiology</i> , 2021, 67, 813-826. | 0.8 | 1 |
| 158 | Mapping Biopolymer Distributions In Microbial Communities. , 2004, , 121-142. | | 1 |
| 159 | Protocol for Laser Scanning Microscopy of Microorganisms on Hydrocarbons. <i>Springer Protocols</i> , 2014, , 29-47. | 0.1 | 0 |
| 160 | Draft Genome Sequences of Biofilm-Forming and Non-Biofilm-Forming Nontyphoidal <i>Salmonella enterica</i> Serovars. <i>Genome Announcements</i> , 2017, 5, . | 0.8 | 0 |
| 161 | Spatially Resolved Soft X-ray Spectroscopy in Scanning X-ray Microscopes. <i>Microscopy and Microanalysis</i> , 2019, 25, 254-255. | 0.2 | 0 |