# Robert J Mitchell

List of Publications by Year
in descending order



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|---|---|---|---|
| 74 papers | 2,262 citations | 185998 28 h-index | 243296 44 g-index |
| 75 all docs | 75 docs citations | 75 times ranked | 2533 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The Future of Butyric Acid in Industry. Scientific World Journal, The, 2012, 2012, 1-10. | 0.8 | 146 |
| 2 | A cell array biosensor for environmental toxicity analysis. Biosensors and Bioelectronics, 2005, 21, 500-507. | 5.3 | 138 |
| 3 | The dual probiotic and antibiotic nature of Bdellovibrio bacteriovorus. BMB Reports, 2012, 45, 71-78. | 1.1 | 123 |
| 4 | Violacein: Properties and Production of a Versatile Bacterial Pigment. BioMed Research International, 2015, 2015, 1-8. | 0.9 | 116 |
| 5 | A biosensor for the detection of gas toxicity using a recombinant bioluminescent bacterium. Biosensors and Bioelectronics, 2000, 15, 23-30. | 5.3 | 97 |
| 6 | Whole-Cell-Based Biosensors for Environmental Biomonitoring and Application. Advances in Biochemical Engineering/Biotechnology, 2004, 87, 269-305. | 0.6 | 87 |
| 7 | An Escherichia coli biosensor capable of detecting both genotoxic and oxidative damage. Applied Microbiology and Biotechnology, 2004, 64, 46-52. | 1.7 | 69 |
| 8 | Bdellovibrio bacteriovorus Inhibits Staphylococcus aureus Biofilm Formation and Invasion into Human Epithelial Cells. Scientific Reports, 2014, 4, 3811. | 1.6 | 67 |
| 9 | The art of reporter proteins in science: past, present and future applications. BMB Reports, 2010, 43, 451-460. | 1.1 | 67 |
| 10 | Environmentally friendly pretreatment of plant biomass by planetary and attrition milling. Bioresource Technology, 2013, 144, 50-56. | 4.8 | 55 |
| 11 | High-level production of violacein by the newly isolated Duganella violaceinigra str. NI28 and its impact on Staphylococcus aureus. Scientific Reports, 2015, 5, 15598. | 1.6 | 54 |
| 12 | Chromobacterium violaceum delivers violacein, a hydrophobic antibiotic, to other microbes in membrane vesicles. Environmental Microbiology, 2020, 22, 705-713. | 1.8 | 53 |
| 13 | Co-culturing a novel Bacillus strain with Clostridium tyrobutyricum ATCC 25755 to produce butyric acid from sucrose. Biotechnology for Biofuels, 2013, 6, 35. | 6.2 | 50 |
| 14 | Investigating the Responses of Human Epithelial Cells to Predatory Bacteria. Scientific Reports, 2016, 6, 33485. | 1.6 | 47 |
| 15 | Continuous hydrogen and butyric acid fermentation by immobilized Clostridium tyrobutyricum ATCC 25755: Effects of the glucose concentration and hydraulic retention time. Bioresource Technology, 2009, 100, 5352-5355. | 4.8 | 45 |
| 16 | Construction and characterization of novel dual stress-responsive bacterial biosensors. Biosensors and Bioelectronics, 2004, 19, 977-985. | 5.3 | 44 |
| 17 | Combined Application of Bacterial Predation and Violacein to Kill Polymicrobial Pathogenic Communities. Scientific Reports, 2017, 7, 14415. | 1.6 | 43 |
| 18 | Bdellovibrio bacteriovorus HD100, a predator of Gram-negative bacteria, benefits energetically from Staphylococcus aureus biofilms without predation. ISME Journal, 2018, 12, 2090-2095. | 4.4 | 42 |

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|---|---|---|---|
| 19 | Biotechnological Activities and Applications of Bacterial Pigments Violacein and Prodigiosin. Journal of Biological Engineering, 2021, 15, 10. | 2.0 | 42 |
| 20 | Indole negatively impacts predation by <scp>B</scp>dellovibrio bacteriovorus and its release from the bdelloplast. Environmental Microbiology, 2015, 17, 1009-1022. | 1.8 | 39 |
| 21 | Aqueous Two-Phase System-Derived Biofilms for Bacterial Interaction Studies. Biomacromolecules, 2012, 13, 2655-2661. | 2.6 | 36 |
| 22 | Application of bacterial predation to mitigate recombinant bacterial populations and their DNA. Soil Biology and Biochemistry, 2013, 57, 427-435. | 4.2 | 36 |
| 23 | Micropatterning bacterial suspensions using aqueous two phase systems. Analyst, The, 2010, 135, 2848. | 1.7 | 33 |
| 24 | Staphylococcus aureusextracellular vesicles (EVs): surface-binding antagonists of biofilm formation. Molecular BioSystems, 2017, 13, 2704-2714. | 2.9 | 33 |
| 25 | Productive Chemical Interaction between a Bacterial Microcolony Couple Is Enhanced by Periodic Relocation. Journal of the American Chemical Society, 2013, 135, 2242-2247. | 6.6 | 31 |
| 26 | Patterning Bacterial Communities on Epithelial Cells. PLoS ONE, 2013, 8, e67165. | 1.1 | 31 |
| 27 | Synthetic biology for biofuels: Building designer microbes from the scratch. Biotechnology and Bioprocess Engineering, 2010, 15, 11-21. | 1.4 | 29 |
| 28 | Cyanide Production by Chromobacterium piscinae Shields It from Bdellovibrio bacteriovorus HD100 Predation. MBio, 2017, 8, . | 1.8 | 28 |
| 29 | Biological activities of lignin hydrolysate-related compounds. BMB Reports, 2012, 45, 265-274. | 1.1 | 28 |
| 30 | Characterization and optimization of two methods in the immobilization of 12 bioluminescent strains. Biosensors and Bioelectronics, 2006, 22, 192-199. | 5.3 | 27 |
| 31 | Combined application of bacterial predation and carbon dioxide aerosols to effectively remove biofilms. Biofouling, 2012, 28, 671-680. | 0.8 | 26 |
| 32 | Assessing the effects of bacterial predation on membrane biofouling. Water Research, 2013, 47, 6024-6032. | 5.3 | 26 |
| 33 | Analysis of Clostridium beijerinckii NCIMB 8052â€™s transcriptional response to ferulic acid and its application to enhance the strain tolerance. Biotechnology for Biofuels, 2015, 8, 68. | 6.2 | 26 |
| 34 | Microbial linguistics: perspectives and applications of microbial cell-to-cell communication. BMB Reports, 2011, 44, 1-10. | 1.1 | 24 |
| 35 | Identification of Escherichia coli biomarkers responsive to various lignin-hydrolysate compounds. Bioresource Technology, 2012, 114, 450-456. | 4.8 | 23 |
| 36 | Serum albumin and osmolality inhibit Bdellovibrio bacteriovorus predation in human serum. Scientific Reports, 2017, 7, 5896. | 1.6 | 23 |

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|---|---|---|---|
| 37 | The production of biofuels from carbonated beverages. Applied Energy, 2012, 100, 47-51. | 5.1 | 22 |
| 38 | Sensitivity of predatory bacteria to different surfactants and their application to check bacterial predation. Applied Microbiology and Biotechnology, 2019, 103, 8169-8178. | 1.7 | 20 |
| 39 | Viscosity has dichotomous effects on Bdellovibrio bacteriovorus HD100 predation. Environmental Microbiology, 2019, 21, 4675-4684. | 1.8 | 20 |
| 40 | Construction and Evaluation of <I>nagR-nagAa::lux</I> Fusion Strains in Biosensing for Salicylic Acid Derivatives. Applied Biochemistry and Biotechnology, 2005, 120, 183-198. | 1.4 | 19 |
| 41 | Attack-Phase Bdellovibrio bacteriovorus Responses to Extracellular Nutrients Are Analogous to Those Seen During Late Intraperiplasmic Growth. Microbial Ecology, 2017, 74, 937-946. | 1.4 | 19 |
| 42 | Concentric liquid reactors for chemical synthesis and separation. Nature, 2020, 586, 57-63. | 13.7 | 19 |
| 43 | A microfluidic concentrator array for quantitative predation assays of predatory microbes. Lab on A Chip, 2011, 11, 2916. | 3.1 | 18 |
| 44 | Shedding Light on Microbial Predatorâ€“Prey Population Dynamics Using a Quantitative Bioluminescence Assay. Microbial Ecology, 2014, 67, 167-176. | 1.4 | 17 |
| 45 | Violacein and bacterial predation: promising alternatives for priority multidrug resistant human pathogens. Future Microbiology, 2017, 12, 835-838. | 1.0 | 16 |
| 46 | Sensing of plant hydrolysate-related phenolics with an aaeXAB::luxCDABE bioreporter strain of Escherichia coli. Bioresource Technology, 2013, 127, 429-434. | 4.8 | 15 |
| 47 | Feasibility of a facile butanol bioproduction using planetary mill pretreatment. Bioresource Technology, 2016, 199, 283-287. | 4.8 | 15 |
| 48 | The Cytotoxic Necrotizing Factor of Yersinia pseudotuberculosis (CNFy) is Carried on Extracellular Membrane Vesicles to Host Cells. Scientific Reports, 2018, 8, 14186. | 1.6 | 15 |
| 49 | Antimicrobial PEGtides: A Modular Poly(ethylene glycol)-Based Peptidomimetic Approach to Combat Bacteria. ACS Nano, 2021, 15, 9143-9153. | 7.3 | 15 |
| 50 | Detection of toxic lignin hydrolysate-related compounds using an inaA::luxCDABE fusion strain. Journal of Biotechnology, 2012, 157, 598-604. | 1.9 | 12 |
| 51 | Serum complement enhances the responses of genotoxin- and oxidative stress-sensitive Escherichia coli bioreporters. Biosensors and Bioelectronics, 2013, 46, 175-182. | 5.3 | 12 |
| 52 | Diffusible Signaling Factor, a Quorum-Sensing Molecule, Interferes with and Is Toxic Towards Bdellovibrio bacteriovorus 109J. Microbial Ecology, 2021, 81, 347-356. | 1.4 | 12 |
| 53 | Predation of colistin- and carbapenem-resistant bacterial pathogenic populations and their antibiotic resistance genes in simulated microgravity. Microbiological Research, 2022, 255, 126941. | 2.5 | 12 |
| 54 | Detection and classification of oxidative damaging stresses using recombinant bioluminescent bacteria harboring sodAâ^·, pqiâ^·, and katGâ^·luxCDABE fusions. Enzyme and Microbial Technology, 2004, 35, 540-544. | 1.6 | 11 |

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|---|---|---|---|
| 55 | Enhancement of the multi-channel continuous monitoring system through the use of Xenorhabdus luminescens lux fusions. Biosensors and Bioelectronics, 2004, 20, 475-481. | 5.3 | 11 |
| 56 | Toxicity evaluation of e-juice and its soluble aerosols generated by electronic cigarettes using recombinant bioluminescent bacteria responsive to specific cellular damages. Biosensors and Bioelectronics, 2017, 90, 53-60. | 5.3 | 10 |
| 57 | Effects of Carbon Dioxide Aerosols on the Viability of Escherichia coli during Biofilm Dispersal. Scientific Reports, 2015, 5, 13766. | 1.6 | 8 |
| 58 | Chemical-specific continuous biomonitoring using a recombinant bioluminescent bacterium DNT5 (nagR-nagAa::luxCDABE). Journal of Biotechnology, 2007, 131, 330-334. | 1.9 | 6 |
| 59 | Pretreatment with alum or powdered activated carbon reduces bacterial predation-associated irreversible fouling of membranes. Biofouling, 2014, 30, 1225-1233. | 0.8 | 6 |
| 60 | Enhanced microbial fuel cell (MFC) power outputs through Membrane Permeabilization using a branched polyethyleneimine. Biosensors and Bioelectronics, 2020, 170, 112623. | 5.3 | 6 |
| 61 | Loss of the lipopolysaccharide (LPS) inner core increases the electrocompetence of Escherichia coli. Applied Microbiology and Biotechnology, 2020, 104, 7427-7435. | 1.7 | 6 |
| 62 | Use of Resazurin To Rapidly Enumerate Bdellovibrio and Like Organisms and Evaluate Their Activities. Microbiology Spectrum, 2022, 10, . | 1.2 | 6 |
| 63 | Alkali Extraction to Detoxify Rice Husk-Derived Silica and Increase Its Biocompatibility. ACS Sustainable Chemistry and Engineering, 2022, 10, 7811-7817. | 3.2 | 6 |
| 64 | Consumption of Oleic Acid During Matriphagy in Free-Living Nematodes Alleviates the Toxic Effects of the Bacterial Metabolite Violacein. Scientific Reports, 2020, 10, 8087. | 1.6 | 4 |
| 65 | The Kiss of Death: Serratia marcescens Antibacterial Activities against Staphylococcus aureus Requires Both de novo Prodigiosin Synthesis and Direct Contact. Microbiology Spectrum, 2022, 10, e0060722. | 1.2 | 4 |
| 66 | Detection of furfural and 5-hydroxymethylfurfural with a yhcN::luxCDABE bioreporter strain. International Journal of Hydrogen Energy, 2013, 38, 15738-15743. | 3.8 | 3 |
| 67 | Compounds affecting predation by and viability of predatory bacteria. Applied Microbiology and Biotechnology, 2020, 104, 3705-3713. | 1.7 | 3 |
| 68 | Enhanced sensitivity and responses to viologens from a wholeâ€cell bacterial bioreporter treated with branched polyethyleneimines. Journal of Applied Microbiology, 2017, 123, 1478-1487. | 1.4 | 2 |
| 69 | Environmental and Biotic Factors Impacting the Activities of Bdellovibrio bacteriovorus. , 2020, , 155-172. | | 2 |
| 70 | Isolation and characterization of antifungal violacein producing bacterium Collimonas sp. DEC-B5. Korean Journal of Microbiology, 2016, 52, 212-219. | 0.2 | 2 |
| 71 | Use of protein stability to develop dual luciferase toxicity bioreporter strains. Biotechnology and Bioprocess Engineering, 2011, 16, 1254-1261. | 1.4 | 1 |
| 72 | Aqueous Two-Phase System Technology for Patterning Bacterial Communities and Biofilms. Methods in Molecular Biology, 2014, 1147, 23-32. | 0.4 | 1 |

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|---|---|---|---|
| 73 | Improved Sugar Production by Optimizing Planetary Mill Pretreatment and Enzyme Hydrolysis Process. BioMed Research International, 2015, 2015, 1-5. | 0.9 | 0 |
| 74 | Perspectives on the use of transcriptomics to advance biofuels. AIMS Bioengineering, 2015, 2, 487-506. | 0.6 | 0 |