# RÃ³isÃ-n M Owens

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1368094/publications.pdf

Version: 2024-02-01

| | | | |
|---|---|---|---|
| 117 papers | 7,929 citations | 66343 42 h-index | 51608 86 g-index |
| 123 all docs | 123 docs citations | 123 times ranked | 6494 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Biomembranes in bioelectronic sensing. Trends in Biotechnology, 2022, 40, 107-123. | 9.3 | 12 |
| 2 | Biostack: Nontoxic Metabolite Detection from Live Tissue. Advanced Science, 2022, 9, e2101711. | 11.2 | 8 |
| 3 | Impedance sensing of antibiotic interactions with a pathogenic E. coli outer membrane supported bilayer. Biosensors and Bioelectronics, 2022, 204, 114045. | 10.1 | 6 |
| 4 | Organic Bioelectronics for In Vitro Systems. Chemical Reviews, 2022, 122, 4700-4790. | 47.7 | 49 |
| 5 | Understanding electrochemical properties of supported lipid bilayers interfaced with organic electronic devices. Journal of Materials Chemistry C, 2022, 10, 8050-8060. | 5.5 | 20 |
| 6 | The Role of Longâ€Alkylâ€Group Spacers in Glycolated Copolymers for Highâ€Performance Organic Electrochemical Transistors. Advanced Materials, 2022, 34, e2202574. | 21.0 | 21 |
| 7 | Investigation of Hostâ€“Microbeâ€“Parasite Interactions in an In Vitro 3D Model of the Vertebrate Gut. Advanced Biology, 2022, 6, . | 2.5 | 6 |
| 8 | Nanoscale Features of Tunable Bacterial Outer Membrane Models Revealed by Correlative Microscopy. Langmuir, 2022, 38, 8773-8782. | 3.5 | 7 |
| 9 | 3D Bioelectronic Model of the Human Intestine. Advanced Biology, 2021, 5, 2000306. | 2.5 | 28 |
| 10 | Advances in modelling the human microbiomeâ€“gutâ€“brain axis in vitro. Biochemical Society Transactions, 2021, 49, 187-201. | 3.4 | 25 |
| 11 | Advances in microfluidic in vitro systems for neurological disease modeling. Journal of Neuroscience Research, 2021, 99, 1276-1307. | 2.9 | 56 |
| 12 | Microfluidics and materials for smart water monitoring: A review. Analytica Chimica Acta, 2021, 1186, 338392. | 5.4 | 30 |
| 13 | Measuring cellular contraction: Current progress and a future in bioelectronics. APL Materials, 2021, 9, . | 5.1 | 9 |
| 14 | In Vitro Models for Studying Respiratory Hostâ€“Pathogen Interactions. Advanced Biology, 2021, 5, e2000624. | 2.5 | 16 |
| 15 | An electroactive and thermo-responsive material for the capture and release of cells. Biosensors and Bioelectronics, 2021, 191, 113405. | 10.1 | 4 |
| 16 | Functional Infectious Nanoparticle Detector: Finding Viruses by Detecting Their Host Entry Functions Using Organic Bioelectronic Devices. ACS Nano, 2021, 15, 18142-18152. | 14.6 | 19 |
| 17 | Electrolyte-gated transistors for enhanced performance bioelectronics. Nature Reviews Methods Primers, 2021, 1, . | 21.2 | 172 |
| 18 | Detection of Ganglioside-Specific Toxin Binding with Biomembrane-Based Bioelectronic Sensors. ACS Applied Bio Materials, 2021, 4, 7942-7950. | 4.6 | 7 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Dual Mode Sensing of Binding and Blocking of Cancer Exosomes to Biomimetic Human Primary Stem Cell Surfaces. ACS Biomaterials Science and Engineering, 2021, , . | 5.2 | 1 |
| 20 | Organic Transistors Incorporating Lipid Monolayers for Drug Interaction Studies. Advanced Materials Technologies, 2020, 5, 1900680. | 5.8 | 17 |
| 21 | A highly sensitive molecular structural probe applied to in situ biosensing of metabolites using PEDOT:PSS. Biotechnology and Bioengineering, 2020, 117, 291-299. | 3.3 | 26 |
| 22 | Materials for blood brain barrier modeling in vitro. Materials Science and Engineering Reports, 2020, 140, 100522. | 31.8 | 51 |
| 23 | Building Scaffolds for Tubular Tissue Engineering. Frontiers in Bioengineering and Biotechnology, 2020, 8, 589960. | 4.1 | 29 |
| 24 | Self-Assembly of Mammalian-Cell Membranes on Bioelectronic Devices with Functional Transmembrane Proteins. Langmuir, 2020, 36, 7325-7331. | 3.5 | 36 |
| 25 | Optical and Electronic Ion Channel Monitoring from Native Human Membranes. ACS Nano, 2020, 14, 12538-12545. | 14.6 | 51 |
| 26 | Small molecule additive for low-power accumulation mode organic electrochemical transistors. Journal of Materials Chemistry C, 2020, 8, 8846-8855. | 5.5 | 14 |
| 27 | Monitoring supported lipid bilayers with n-type organic electrochemical transistors. Materials Horizons, 2020, 7, 2348-2358. | 12.2 | 42 |
| 28 | Tailoring PEDOT properties for applications in bioelectronics. Materials Science and Engineering Reports, 2020, 140, 100546. | 31.8 | 140 |
| 29 | Biomimetic and electroactive 3D scaffolds for human neural crest-derived stem cell expansion and osteogenic differentiation. MRS Communications, 2020, 10, 179-187. | 1.8 | 19 |
| 30 | Synthesis and characterisation of biocompatible organicâ€“inorganic coreâ€“shell nanocomposite particles based on ureasils. Journal of Materials Chemistry B, 2020, 8, 4908-4916. | 5.8 | 6 |
| 31 | Facile Generation of Biomimetic-Supported Lipid Bilayers on Conducting Polymer Surfaces for Membrane Biosensing. ACS Applied Materials & Interfaces, 2019, 11, 43799-43810. | 8.0 | 41 |
| 32 | 3D Hybrid Scaffolds Based on PEDOT:PSS/MWCNT Composites. Frontiers in Chemistry, 2019, 7, 363. | 3.6 | 39 |
| 33 | Organic Bioelectronics: Effect of E Cigarette Emissions on Tracheal Cells Monitored at the Airâ€“Liquid Interface Using an Organic Electrochemical Transistor (Adv. Biosys. 3/2019). Advanced Biology, 2019, 3, 1970034. | 3.0 | 0 |
| 34 | 3D Biointerfaces: Electron Microscopy for 3D Scaffoldsâ€“Cell Biointerface Characterization (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 | 3.0 | 1 |
| 35 | BMP-2 functionalized PEDOT:PSS-based OECTs for stem cell osteogenic differentiation monitoring. Flexible and Printed Electronics, 2019, 4, 044006. | 2.7 | 11 |
| 36 | Effect of E Cigarette Emissions on Tracheal Cells Monitored at the Airâ€“Liquid Interface Using an Organic Electrochemical Transistor. Advanced Biology, 2019, 3, e1800249. | 3.0 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Electron Microscopy for 3D Scaffoldsâ€“Cell Biointerface Characterization. Advanced Biology, 2019, 3, e1800103. | 3.0 | 21 |
| 38 | A planar impedance sensor for 3D spheroids. Lab on A Chip, 2018, 18, 933-943. | 6.0 | 30 |
| 39 | Organic electrochemical transistors. Nature Reviews Materials, 2018, 3, . | 48.7 | 1,143 |
| 40 | Organic Electronics for Point-of-Care Metabolite Monitoring. Trends in Biotechnology, 2018, 36, 45-59. | 9.3 | 104 |
| 41 | Neurospheres on Patterned PEDOT:PSS Microelectrode Arrays Enhance Electrophysiology Recordings. Advanced Biology, 2018, 2, 1700164. | 3.0 | 26 |
| 42 | Organic Electronic Devices as Multi-Modal Transducers of Cellular Activity. Proceedings (mdpi), 2018, 2, 1102. | 0.2 | 0 |
| 43 | Transistor in a tube: A route to three-dimensional bioelectronics. Science Advances, 2018, 4, eaat4253. | 10.3 | 78 |
| 44 | Direct metabolite detection with an n-type accumulation mode organic electrochemical transistor. Science Advances, 2018, 4, eaat0911. | 10.3 | 183 |
| 45 | Conducting Polymer Scaffolds Based on Poly(3,4-ethylenedioxythiophene) and Xanthan Gum for Live-Cell Monitoring. ACS Omega, 2018, 3, 7424-7431. | 3.5 | 55 |
| 46 | Biomimetic Electronic Devices for Measuring Bacterial Membrane Disruption. Advanced Materials, 2018, 30, e1803130. | 21.0 | 43 |
| 47 | Lactate Detection in Tumor Cell Cultures Using Organic Transistor Circuits. Advanced Materials, 2017, 29, 1605744. | 21.0 | 123 |
| 48 | Polyelectrolyte Layer-by-Layer Assembly on Organic Electrochemical Transistors. ACS Applied Materials & Interfaces, 2017, 9, 10427-10434. | 8.0 | 43 |
| 49 | A Microfluidic Ion Pump for In Vivo Drug Delivery. Advanced Materials, 2017, 29, 1701217. | 21.0 | 97 |
| 50 | Conducting Polymer Scaffolds for Hosting and Monitoring 3D Cell Culture. Advanced Biology, 2017, 1, 1700052. | 3.0 | 89 |
| 51 | PEDOT:PSS microelectrode arrays for hippocampal cell culture electrophysiological recordings. MRS Communications, 2017, 7, 259-265. | 1.8 | 34 |
| 52 | Saccharomyces boulardii CNCM I-745 Restores intestinal Barrier Integrity by Regulation of E-cadherin Recycling. Journal of Crohn's and Colitis, 2017, 11, 999-1010. | 1.3 | 36 |
| 53 | A (bio) materials approach to three-dimensional cell biology. MRS Communications, 2017, 7, 287-288. | 1.8 | 5 |
| 54 | Organic transistor platform with integrated microfluidics for in-line multi-parametric in vitro cell monitoring. Microsystems and Nanoengineering, 2017, 3, 17028. | 7.0 | 79 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Laser Patterning of Selfâ€Assembled Monolayers on PEDOT:PSS Films for Controlled Cell Adhesion. Advanced Materials Interfaces, 2017, 4, 1700191. | 3.7 | 28 |
| 56 | Referenceless pH Sensor using Organic Electrochemical Transistors. Advanced Materials Technologies, 2017, 2, 1600141. | 5.8 | 72 |
| 57 | Catalytically enhanced organic transistors for in vitro toxicology monitoring through hydrogel entrapment of enzymes. Journal of Applied Polymer Science, 2017, 134, . | 2.6 | 35 |
| 58 | Sa1422 Saccharomyces boulardii CNCM I-745 Strengthen Intestinal Epithelial Barrier Through Action on E-Cadherin-Catenin Complex. Gastroenterology, 2016, 150, S311. | 1.3 | 0 |
| 59 | Supported Lipid Bilayer Assembly on PEDOT:PSS Films and Transistors. Advanced Functional Materials, 2016, 26, 7304-7313. | 14.9 | 62 |
| 60 | Autoclave Sterilization of PEDOT:PSS Electrophysiology Devices. Advanced Healthcare Materials, 2016, 5, 3094-3098. | 7.6 | 46 |
| 61 | Organic Transistor Arrays Integrated with Fingerâ€Powered Microfluidics for Multianalyte Saliva Testing. Advanced Healthcare Materials, 2016, 5, 2295-2302. | 7.6 | 164 |
| 62 | Conducting polymer scaffolds for electrical control of cellular functions (Conference) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td (Pres | | 0 |
| 63 | Early Detection of NephrotoxicityIn VitroUsing a Transparent Conducting Polymer Device. Applied in Vitro Toxicology, 2016, 2, 17-25. | 1.1 | 7 |
| 64 | Biofunctionalization of polydioxythiophene derivatives for biomedical applications. Journal of Materials Chemistry B, 2016, 4, 4952-4968. | 5.8 | 74 |
| 65 | Nanostructured conducting polymers for stiffness controlled cell adhesion. Nanotechnology, 2016, 27, 074001. | 2.6 | 15 |
| 66 | Screen-printed organic electrochemical transistors for metabolite sensing. MRS Communications, 2015, 5, 507-511. | 1.8 | 47 |
| 67 | Using white noise to gate organic transistors for dynamic monitoring of cultured cell layers. Scientific Reports, 2015, 5, 11613. | 3.3 | 32 |
| 68 | Optimization of a Planar Allâ€Polymer Transistor for Characterization of Barrier Tissue. ChemPhysChem, 2015, 16, 1210-1216. | 2.1 | 24 |
| 69 | High-performance transistors for bioelectronics through tuning of channel thickness. Science Advances, 2015, 1, e1400251. | 10.3 | 501 |
| 70 | Electrochemistry provides a simple way to monitor Pseudomonas aeruginosa metabolites. , 2015, 2015, 7522-5. | | 8 |
| 71 | Detection of fibronectin conformational changes in the extracellular matrix of live cells using plasmonic nanoplates. Journal of Materials Chemistry B, 2015, 3, 9140-9147. | 5.8 | 12 |
| 72 | The organic electrochemical transistor for biological applications. Journal of Applied Polymer Science, 2015, 132, . | 2.6 | 262 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Monitoring of cell layer coverage and differentiation with the organic electrochemical transistor. Journal of Materials Chemistry B, 2015, 3, 5971-5977. | 5.8 | 60 |
| 74 | Organic electrochemical transistors for cell-based impedance sensing. Applied Physics Letters, 2015, 106, . | 3.3 | 96 |
| 75 | Fully printed metabolite sensor using organic electrochemical transistor. Proceedings of SPIE, 2015, , . | 0.8 | 4 |
| 76 | Research Update: Electrical monitoring of cysts using organic electrochemical transistors. APL Materials, 2015, 3, . | 5.1 | 9 |
| 77 | Large area CMOS bio-pixel array for compact high sensitive multiplex biosensing. Lab on A Chip, 2015, 15, 877-881. | 6.0 | 10 |
| 78 | Organic electrochemical transistors as impedance biosensors. MRS Communications, 2014, 4, 189-194. | 1.8 | 37 |
| 79 | Ionic Liquid Gelâ€Assisted Electrodes for Longâ€Term Cutaneous Recordings. Advanced Healthcare Materials, 2014, 3, 1377-1380. | 7.6 | 83 |
| 80 | Dynamic Monitoring of Salmonella typhimurium Infection of Polarized Epithelia Using Organic Transistors. Advanced Healthcare Materials, 2014, 3, 1053-1060. | 7.6 | 57 |
| 81 | Conducting polymer thin films as substrates for cell cultures. Materials Research Society Symposia Proceedings, 2014, 1624, 1. | 0.1 | 0 |
| 82 | The Rise of Organic Bioelectronics. Chemistry of Materials, 2014, 26, 679-685. | 6.7 | 579 |
| 83 | Probing the specific ion effects of biocompatible hydrated choline ionic liquids on lactate oxidase biofunctionality in sensor applications. Physical Chemistry Chemical Physics, 2014, 16, 1841-1849. | 2.8 | 29 |
| 84 | A facile biofunctionalisation route for solution processable conducting polymer devices. Journal of Materials Chemistry B, 2014, 2, 2537-2545. | 5.8 | 63 |
| 85 | Combined Optical and Electronic Sensing of Epithelial Cells Using Planar Organic Transistors. Advanced Materials, 2014, 26, 7083-7090. | 21.0 | 78 |
| 86 | Sensing of Barrier Tissue Disruption with an Organic Electrochemical Transistor. Journal of Visualized Experiments, 2014, , e51102. | 0.3 | 3 |
| 87 | PEDOT:gelatin composites mediate brain endothelial cell adhesion. Journal of Materials Chemistry B, 2013, 1, 3860. | 5.8 | 52 |
| 88 | High transconductance organic electrochemical transistors. Nature Communications, 2013, 4, 2133. | 12.8 | 612 |
| 89 | Validation of the organic electrochemical transistor for in vitro toxicology. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 4381-4390. | 2.4 | 31 |
| 90 | Organic bioelectronics â€" Novel applications in biomedicine. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 4283-4285. | 2.4 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Sensing of EGTA Mediated Barrier Tissue Disruption with an Organic Transistor. Biosensors, 2013, 3, 44-57. | 4.7 | 43 |
| 92 | Surface enhanced biodetection on a CMOS biosensor chip. Proceedings of SPIE, 2012, , . | 0.8 | 0 |
| 93 | Organic electrochemical transistor incorporating an ionogel as a solid state electrolyte for lactate sensing. Journal of Materials Chemistry, 2012, 22, 4440. | 6.7 | 248 |
| 94 | Measurement of Barrier Tissue Integrity with an Organic Electrochemical Transistor. Advanced Materials, 2012, 24, 5919-5923. | 21.0 | 152 |
| 95 | PEDOT:TOS with PEG: a biofunctional surface with improved electronic characteristics. Journal of Materials Chemistry, 2012, 22, 19498. | 6.7 | 42 |
| 96 | Complex Structure of Engineered Modular Domains Defining Molecular Interaction between ICAM-1 and Integrin LFA-1. PLoS ONE, 2012, 7, e44124. | 2.5 | 3 |
| 97 | Electrochemical transistors with ionic liquids for enzymatic sensing. Proceedings of SPIE, 2011, , . | 0.8 | 1 |
| 98 | Wearable electrochemical sensors for monitoring performance athletes. Proceedings of SPIE, 2011, , . | 0.8 | 15 |
| 99 | Engineering of Single Ig Superfamily Domain of Intercellular Adhesion Molecule 1 (ICAM-1) for Native Fold and Function. Journal of Biological Chemistry, 2010, 285, 15906-15915. | 3.4 | 12 |
| 100 | Organic Electronics at the Interface with Biology. MRS Bulletin, 2010, 35, 449-456. | 3.5 | 265 |
| 101 | Electrochemical transistors with ionic liquids for enzymatic sensing. Chemical Communications, 2010, 46, 7972. | 4.1 | 110 |
| 102 | Real-time quantitation of viral replication and inhibitor potency using a label-free optical biosensor. Journal of Receptor and Signal Transduction Research, 2009, 29, 195-201. | 2.5 | 17 |
| 103 | All-Plastic Electrochemical Transistor for Glucose Sensing Using a Ferrocene Mediator. Sensors, 2009, 9, 9896-9902. | 3.8 | 104 |
| 104 | Transposition into Replicating DNA Occurs through Interaction with the Processivity Factor. Cell, 2009, 138, 685-695. | 28.9 | 64 |
| 105 | Integration of a surface-directed microfluidic system with an organic electrochemical transistor array for multi-analyte biosensors. Lab on A Chip, 2009, 9, 704-708. | 6.0 | 74 |
| 106 | Simple glucose sensors with micromolar sensitivity based on organic electrochemical transistors. Sensors and Actuators B: Chemical, 2007, 123, 374-378. | 7.8 | 134 |
| 107 | Structural characterization of phosphatidyl-myo-inositol mannosides from Mycobacterium bovis bacillus calmette guÃ©rin by multiple-stage quadrupole ion-trap mass spectrometry with electrospray ionization. I. PIMs and lyso-PIMs. Journal of the American Society for Mass Spectrometry, 2007, 18, 466-478. | 2.8 | 48 |
| 108 | Structural characterization of phosphatidyl-myo-inositol mannosides from Mycobacterium bovis bacillus calmette gÃºerin by multiple-stage quadrupole ion-trap mass spectrometry with electrospray ionization. II. Monoacyl- and diacyl-PIMs. Journal of the American Society for Mass Spectrometry, 2007, 18, 479-492. | 2.8 | 52 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | M. tuberculosis Rv2252 encodes a diacylglycerol kinase involved in the biosynthesis of phosphatidylinositol mannosides (PIMs). Molecular Microbiology, 2006, 60, 1152-1163. | 2.5 | 17 |
| 110 | Kinetics of phosphatidylinositol-3-phosphate acquisition differ between IgG bead-containing phagosomes and Mycobacterium tuberculosis-containing phagosomes. Cellular Microbiology, 2005, 7, 1627-1634. | 2.1 | 32 |
| 111 | A dedicated translation factor controls the synthesis of the global regulator Fis. EMBO Journal, 2004, 23, 3375-3385. | 7.8 | 46 |
| 112 | Copurification of the Lac Repressor with Polyhistidine-Tagged Proteins in Immobilized Metal Affinity Chromatography. Protein Expression and Purification, 2001, 21, 352-360. | 1.3 | 7 |
| 113 | The effect of homolog distribution on sodium alcohol sulfate solution viscosity. JAOCS, Journal of the American Oil Chemists' Society, 1978, 55, 300-302. | 1.9 | 1 |
| 114 | Stereochemistry of the Cycloaddition of Singlet Excited Î²-Substituted Styrenes to Olefins. Canadian Journal of Chemistry, 1972, 50, 1984-1986. | 1.1 | 7 |
| 115 | Monomolecular films of phenolic esters. Journal of Colloid and Interface Science, 1969, 29, 692-695. | 9.4 | 2 |
| 116 | The world is not flat: 3D cell biology integrated with 3D conducting polymer devices. , 0, , . | | 0 |
| 117 | 3D conducting polymer scaffold devices for Organ-on-chip applications. , 0, , . | | 0 |