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List of Publications by Year
in descending order

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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	Organic electrochemical transistors. Nature Reviews Materials, 2018, 3, .	48.7	1,143
2	High transconductance organic electrochemical transistors. Nature Communications, 2013, 4, 2133.	12.8	612
3	The Rise of Organic Bioelectronics. Chemistry of Materials, 2014, 26, 679-685.	6.7	579
4	High-performance transistors for bioelectronics through tuning of channel thickness. Science Advances, 2015, 1, e1400251.	10.3	501
5	Organic Electronics at the Interface with Biology. MRS Bulletin, 2010, 35, 449-456.	3.5	265
6	The organic electrochemical transistor for biological applications. Journal of Applied Polymer Science, 2015, 132, .	2.6	262
7	Organic electrochemical transistor incorporating an ionogel as a solid state electrolyte for lactate sensing. Journal of Materials Chemistry, 2012, 22, 4440.	6.7	248
8	Direct metabolite detection with an n-type accumulation mode organic electrochemical transistor. Science Advances, 2018, 4, eaat0911.	10.3	183
9	Electrolyte-gated transistors for enhanced performance bioelectronics. Nature Reviews Methods Primers, 2021, 1, .	21.2	172
10	Organic Transistor Arrays Integrated with Fingerâ€Powered Microfluidics for Multianalyte Saliva Testing. Advanced Healthcare Materials, 2016, 5, 2295-2302.	7.6	164
11	Measurement of Barrier Tissue Integrity with an Organic Electrochemical Transistor. Advanced Materials, 2012, 24, 5919-5923.	21.0	152
12	Tailoring PEDOT properties for applications in bioelectronics. Materials Science and Engineering Reports, 2020, 140, 100546.	31.8	140
13	Simple glucose sensors with micromolar sensitivity based on organic electrochemical transistors. Sensors and Actuators B: Chemical, 2007, 123, 374-378.	7.8	134
14	Lactate Detection in Tumor Cell Cultures Using Organic Transistor Circuits. Advanced Materials, 2017, 29, 1605744.	21.0	123
15	Electrochemical transistors with ionic liquids for enzymatic sensing. Chemical Communications, 2010, 46, 7972.	4.1	110
16	All-Plastic Electrochemical Transistor for Glucose Sensing Using a Ferrocene Mediator. Sensors, 2009, 9, 9896-9902.	3.8	104
17	Organic Electronics for Point-of-Care Metabolite Monitoring. Trends in Biotechnology, 2018, 36, 45-59.	9.3	104
18	A Microfluidic Ion Pump for In Vivo Drug Delivery. Advanced Materials, 2017, 29, 1701217.	21.0	97

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19	Organic electrochemical transistors for cell-based impedance sensing. Applied Physics Letters, 2015, 106, .	3.3	96
20	Conducting Polymer Scaffolds for Hosting and Monitoring 3D Cell Culture. Advanced Biology, 2017, 1, 1700052.	3.0	89
21	Ionic Liquid Gelâ€Assisted Electrodes for Longâ€Term Cutaneous Recordings. Advanced Healthcare Materials, 2014, 3, 1377-1380.	7.6	83
22	Organic transistor platform with integrated microfluidics for in-line multi-parametric in vitro cell monitoring. Microsystems and Nanoengineering, 2017, 3, 17028.	7.0	79
23	Combined Optical and Electronic Sensing of Epithelial Cells Using Planar Organic Transistors. Advanced Materials, 2014, 26, 7083-7090.	21.0	78
24	Transistor in a tube: A route to three-dimensional bioelectronics. Science Advances, 2018, 4, eaat4253.	10.3	78
25	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
26	Biofunctionalization of polydioxythiophene derivatives for biomedical applications. Journal of Materials Chemistry B, 2016, 4, 4952-4968.	5.8	74
27	Referenceless pH Sensor using Organic Electrochemical Transistors. Advanced Materials Technologies, 2017, 2, 1600141.	5.8	72
28	Transposition into Replicating DNA Occurs through Interaction with the Processivity Factor. Cell, 2009, 138, 685-695.	28.9	64
29	A facile biofunctionalisation route for solution processable conducting polymer devices. Journal of Materials Chemistry B, 2014, 2, 2537-2545.	5.8	63
30	Supported Lipid Bilayer Assembly on PEDOT:PSS Films and Transistors. Advanced Functional Materials, 2016, 26, 7304-7313.	14.9	62
31	Monitoring of cell layer coverage and differentiation with the organic electrochemical transistor. Journal of Materials Chemistry B, 2015, 3, 5971-5977.	5.8	60
32	Dynamic Monitoring of Salmonella typhimurium Infection of Polarized Epithelia Using Organic Transistors. Advanced Healthcare Materials, 2014, 3, 1053-1060.	7.6	57
33	Advances in microfluidic in vitro systems for neurological disease modeling. Journal of Neuroscience Research, 2021, 99, 1276-1307.	2.9	56
34	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
35	Structural characterization of phosphatidyl-myo-inositol mannosides from Mycobacterium bovis bacillus calmette gÃªrin 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
36	PEDOT:gelatin composites mediate brain endothelial cell adhesion. Journal of Materials Chemistry B, 2013, 1, 3860.	5.8	52

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37	Materials for blood brain barrier modeling in vitro. Materials Science and Engineering Reports, 2020, 140, 100522.	31.8	51
38	Optical and Electronic Ion Channel Monitoring from Native Human Membranes. ACS Nano, 2020, 14, 12538-12545.	14.6	51
39	Organic Bioelectronics for In Vitro Systems. Chemical Reviews, 2022, 122, 4700-4790.	47.7	49
40	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
41	Screen-printed organic electrochemical transistors for metabolite sensing. MRS Communications, 2015, 5, 507-511.	1.8	47
42	A dedicated translation factor controls the synthesis of the global regulator Fis. EMBO Journal, 2004, 23, 3375-3385.	7.8	46
43	Autoclave Sterilization of PEDOT:PSS Electrophysiology Devices. Advanced Healthcare Materials, 2016, 5, 3094-3098.	7.6	46
44	Sensing of EGTA Mediated Barrier Tissue Disruption with an Organic Transistor. Biosensors, 2013, 3, 44-57.	4.7	43
45	Polyelectrolyte Layer-by-Layer Assembly on Organic Electrochemical Transistors. ACS Applied Materials & Interfaces, 2017, 9, 10427-10434.	8.0	43
46	Biomimetic Electronic Devices for Measuring Bacterial Membrane Disruption. Advanced Materials, 2018, 30, e1803130.	21.0	43
47	PEDOT:TOS with PEG: a biofunctional surface with improved electronic characteristics. Journal of Materials Chemistry, 2012, 22, 19498.	6.7	42
48	Monitoring supported lipid bilayers with n-type organic electrochemical transistors. Materials Horizons, 2020, 7, 2348-2358.	12.2	42
49	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
50	3D Hybrid Scaffolds Based on PEDOT:PSS/MWCNT Composites. Frontiers in Chemistry, 2019, 7, 363.	3.6	39
51	Organic electrochemical transistors as impedance biosensors. MRS Communications, 2014, 4, 189-194.	1.8	37
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	Self-Assembly of Mammalian-Cell Membranes on Bioelectronic Devices with Functional Transmembrane Proteins. Langmuir, 2020, 36, 7325-7331.	3.5	36
54	Catalytically enhanced organic transistors for in vitro toxicology monitoring through hydrogel entrapment of enzymes. Journal of Applied Polymer Science, 2017, 134, .	2.6	35

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55	PEDOT:PSS microelectrode arrays for hippocampal cell culture electrophysiological recordings. MRS Communications, 2017, 7, 259-265.	1.8	34
56	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
57	Using white noise to gate organic transistors for dynamic monitoring of cultured cell layers. Scientific Reports, 2015, 5, 11613.	3.3	32
58	Validation of the organic electrochemical transistor for in vitro toxicology. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 4381-4390.	2.4	31
59	A planar impedance sensor for 3D spheroids. Lab on A Chip, 2018, 18, 933-943.	6.0	30
60	Microfluidics and materials for smart water monitoring: A review. Analytica Chimica Acta, 2021, 1186, 338392.	5.4	30
61	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
62	Building Scaffolds for Tubular Tissue Engineering. Frontiers in Bioengineering and Biotechnology, 2020, 8, 589960.	4.1	29
63	Laser Patterning of Selfâ€Assembled Monolayers on PEDOT:PSS Films for Controlled Cell Adhesion. Advanced Materials Interfaces, 2017, 4, 1700191.	3.7	28
64	3D Bioelectronic Model of the Human Intestine. Advanced Biology, 2021, 5, 2000306.	2.5	28
65	Neurospheres on Patterned PEDOT:PSS Microelectrode Arrays Enhance Electrophysiology Recordings. Advanced Biology, 2018, 2, 1700164.	3.0	26
66	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
67	Advances in modelling the human microbiomeâ€“gutâ€“brain axis in vitro. Biochemical Society Transactions, 2021, 49, 187-201.	3.4	25
68	Optimization of a Planar Allâ€Polymer Transistor for Characterization of Barrier Tissue. ChemPhysChem, 2015, 16, 1210-1216.	2.1	24
69	Electron Microscopy for 3D Scaffoldsâ€“Cell Biointerface Characterization. Advanced Biology, 2019, 3, e1800103.	3.0	21
70	The Role of Longâ€Alkylâ€Group Spacers in Glycolated Copolymers for Highâ€Performance Organic Electrochemical Transistors. Advanced Materials, 2022, 34, e2202574.	21.0	21
71	Understanding electrochemical properties of supported lipid bilayers interfaced with organic electronic devices. Journal of Materials Chemistry C, 2022, 10, 8050-8060.	5.5	20
72	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

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73	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
74	M. tuberculosis Rv2252 encodes a diacylglycerol kinase involved in the biosynthesis of phosphatidylinositol mannosides (PIMs). Molecular Microbiology, 2006, 60, 1152-1163.	2.5	17
75	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
76	Organic Transistors Incorporating Lipid Monolayers for Drug Interaction Studies. Advanced Materials Technologies, 2020, 5, 1900680.	5.8	17
77	In Vitro Models for Studying Respiratory Hostâ€“Pathogen Interactions. Advanced Biology, 2021, 5, e2000624.	2.5	16
78	Wearable electrochemical sensors for monitoring performance athletes. Proceedings of SPIE, 2011, , .	0.8	15
79	Nanostructured conducting polymers for stiffness controlled cell adhesion. Nanotechnology, 2016, 27, 074001.	2.6	15
80	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
81	Small molecule additive for low-power accumulation mode organic electrochemical transistors. Journal of Materials Chemistry C, 2020, 8, 8846-8855.	5.5	14
82	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
83	Organic bioelectronics â€” Novel applications in biomedicine. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 4283-4285.	2.4	12
84	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
85	Biomembranes in bioelectronic sensing. Trends in Biotechnology, 2022, 40, 107-123.	9.3	12
86	BMP-2 functionalized PEDOT:PSS-based OECTs for stem cell osteogenic differentiation monitoring. Flexible and Printed Electronics, 2019, 4, 044006.	2.7	11
87	Large area CMOS bio-pixel array for compact high sensitive multiplex biosensing. Lab on A Chip, 2015, 15, 877-881.	6.0	10
88	Research Update: Electrical monitoring of cysts using organic electrochemical transistors. APL Materials, 2015, 3, .	5.1	9
89	Measuring cellular contraction: Current progress and a future in bioelectronics. APL Materials, 2021, 9, .	5.1	9
90	Electrochemistry provides a simple way to monitor Pseudomonas aeruginosa metabolites. , 2015, 2015, 7522-5.		8

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91	Biostack: Nontoxic Metabolite Detection from Live Tissue. Advanced Science, 2022, 9, e2101711.	11.2	8
92	Stereochemistry of the Cycloaddition of Singlet Excited Î²-Substituted Styrenes to Olefins. Canadian Journal of Chemistry, 1972, 50, 1984-1986.	1.1	7
93	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
94	Early Detection of NephrotoxicityIn VitroUsing a Transparent Conducting Polymer Device. Applied in Vitro Toxicology, 2016, 2, 17-25.	1.1	7
95	Detection of Ganglioside-Specific Toxin Binding with Biomembrane-Based Bioelectronic Sensors. ACS Applied Bio Materials, 2021, 4, 7942-7950.	4.6	7
96	Nanoscale Features of Tunable Bacterial Outer Membrane Models Revealed by Correlative Microscopy. Langmuir, 2022, 38, 8773-8782.	3.5	7
97	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
98	Impedance sensing of antibiotic interactions with a pathogenic E. coli outer membrane supported bilayer. Biosensors and Bioelectronics, 2022, 204, 114045.	10.1	6
99	Investigation of Hostâ€“Microbeâ€“Parasite Interactions in an In Vitro 3D Model of the Vertebrate Gut. Advanced Biology, 2022, 6, .	2.5	6
100	A (bio) materials approach to three-dimensional cell biology. MRS Communications, 2017, 7, 287-288.	1.8	5
101	Fully printed metabolite sensor using organic electrochemical transistor. Proceedings of SPIE, 2015, , .	0.8	4
102	An electroactive and thermo-responsive material for the capture and release of cells. Biosensors and Bioelectronics, 2021, 191, 113405.	10.1	4
103	Complex Structure of Engineered Modular Domains Defining Molecular Interaction between ICAM-1 and Integrin LFA-1. PLoS ONE, 2012, 7, e44124.	2.5	3
104	Sensing of Barrier Tissue Disruption with an Organic Electrochemical Transistor. Journal of Visualized Experiments, 2014, , e51102.	0.3	3
105	Monomolecular films of phenolic esters. Journal of Colloid and Interface Science, 1969, 29, 692-695.	9.4	2
106	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
107	Electrochemical transistors with ionic liquids for enzymatic sensing. Proceedings of SPIE, 2011, , .	0.8	1
108	3D Biointerfaces: Electron Microscopy for 3D Scaffoldsâ€“Cell Biointerface Characterization (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.0	1

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109	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
110	Surface enhanced biodetection on a CMOS biosensor chip. Proceedings of SPIE, 2012, , .	0.8	0
111	Conducting polymer thin films as substrates for cell cultures. Materials Research Society Symposia Proceedings, 2014, 1624, 1.	0.1	0
112	Sa1422 Saccharomyces boulardii CNCM I-745 Strengthen Intestinal Epithelial Barrier Through Action on E-Cadherin-Catenin Complex. Gastroenterology, 2016, 150, S311.	1.3	0
113	Conducting polymer scaffolds for electrical control of cellular functions (Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 5		0
114	Organic Electronic Devices as Multi-Modal Transducers of Cellular Activity. Proceedings (mdpi), 2018, 2, 1102.	0.2	0
115	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
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