Sahika inal

List of Publications by Year
in descending order

107 papers	10,024 citations	38742 50 h-index	36028 97 g-index
116 all docs	116 docs citations	116 times ranked	8629 citing authors

#	ARTICLE	IF	CITATIONS
1	Organic electrochemical transistors. Nature Reviews Materials, 2018, 3, .	48.7	1,143
2	Improving Carbon Nitride Photocatalysis by Supramolecular Preorganization of Monomers. Journal of the American Chemical Society, 2013, 135, 7118-7121.	13.7	781
3	Structural control of mixed ionic and electronic transport in conducting polymers. Nature Communications, 2016, 7, 11287.	12.8	627
4	Controlling the mode of operation of organic transistors through side-chain engineering. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12017-12022.	7.1	364
5	Fluorinated Copolymer PCPDTBT with Enhanced Open-Circuit Voltage and Reduced Recombination for Highly Efficient Polymer Solar Cells. Journal of the American Chemical Society, 2012, 134, 14932-14944.	13.7	361
6	Conjugated Polymers in Bioelectronics. Accounts of Chemical Research, 2018, 51, 1368-1376.	15.6	361
7	Benchmarking organic mixed conductors for transistors. Nature Communications, 2017, 8, 1767.	12.8	343
8	N-type organic electrochemical transistors with stability in water. Nature Communications, 2016, 7, 13066.	12.8	242
9	Rapid single-molecule detection of COVID-19 and MERS antigens via nanobody-functionalized organic electrochemical transistors. Nature Biomedical Engineering, 2021, 5, 666-677.	22.5	235
10	The Role of the Side Chain on the Performance of N-type Conjugated Polymers in Aqueous Electrolytes. Chemistry of Materials, 2018, 30, 2945-2953.	6.7	199
11	In Situ Formation of Heterojunctions in Modified Graphitic Carbon Nitride: Synthesis and Noble Metal Free Photocatalysis. Chemistry of Materials, 2014, 26, 5812-5818.	6.7	192
12	Biofuel powered glucose detection in bodily fluids with an n-type conjugated polymer. Nature Materials, 2020, 19, 456-463.	27.5	187
13	Direct metabolite detection with an n-type accumulation mode organic electrochemical transistor. Science Advances, 2018, 4, eaat0911.	10.3	183
14	Side Chain Redistribution as a Strategy to Boost Organic Electrochemical Transistor Performance and Stability. Advanced Materials, 2020, 32, e2002748.	21.0	181
15	A High Transconductance Accumulation Mode Electrochemical Transistor. Advanced Materials, 2014, 26, 7450-7455.	21.0	151
16	Influence of Water on the Performance of Organic Electrochemical Transistors. Chemistry of Materials, 2019, 31, 927-937.	6.7	140
17	Tailoring PEDOT properties for applications in bioelectronics. Materials Science and Engineering Reports, 2020, 140, 100546.	31.8	140
18	Controlling Epileptiform Activity with Organic Electronic Ion Pumps. Advanced Materials, 2015, 27, 3138-3144.	21.0	138

#	Article	IF	Citations
19	A fully inkjet-printed disposable glucose sensor on paper. Npj Flexible Electronics, 2018, 2, .	10.7	136
20	Balancing Ionic and Electronic Conduction for Highâ€Performance Organic Electrochemical Transistors. Advanced Functional Materials, 2020, 30, 1907657.	14.9	131
21	Tailoring the Electrochemical and Mechanical Properties of PEDOT:PSS Films for Bioelectronics. Macromolecular Materials and Engineering, 2017, 302, 1600497.	3.6	127
22	3D conducting polymer platforms for electrical control of protein conformation and cellular functions. Journal of Materials Chemistry B, 2015, 3, 5040-5048.	5.8	116
23	Role of the Anion on the Transport and Structure of Organic Mixed Conductors. Advanced Functional Materials, 2019, 29, 1807034.	14.9	116
24	Ionic-to-electronic coupling efficiency in PEDOT:PSS films operated in aqueous electrolytes. Journal of Materials Chemistry C, 2018, 6, 12023-12030.	5.5	108
25	Bioelectronic neural pixel: Chemical stimulation and electrical sensing at the same site. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9440-9445.	7.1	107
26	Organic Bioelectronics: From Functional Materials to Nextâ€Generation Devices and Power Sources. Advanced Materials, 2020, 32, e2001439.	21.0	101
27	A Microfluidic Ion Pump for In Vivo Drug Delivery. Advanced Materials, 2017, 29, 1701217.	21.0	97
28	Electroconductive Hydrogel Based on Functional Poly(Ethylenedioxy Thiophene). Chemistry of Materials, 2016, 28, 6080-6088.	6.7	96
29	Ethylene Glycol-Based Side Chain Length Engineering in Polythiophenes and its Impact on Organic Electrochemical Transistor Performance. Chemistry of Materials, 2020, 32, 6618-6628.	6.7	92
30	Conducting Polymer Scaffolds for Hosting and Monitoring 3D Cell Culture. Advanced Biology, 2017, 1, 1700052.	3.0	89
31	Polaron Delocalization in Donorâ€“Acceptor Polymers and its Impact on Organic Electrochemical Transistor Performance. Angewandte Chemie - International Edition, 2021, 60, 7777-7785.	13.8	84
32	Water stable molecular n-doping produces organic electrochemical transistors with high transconductance and record stability. Nature Communications, 2020, 11, 3004.	12.8	82
33	Membraneâ€Free Detection of Metal Cations with an Organic Electrochemical Transistor. Advanced Functional Materials, 2019, 29, 1904403.	14.9	80
34	Transistor in a tube: A route to three-dimensional bioelectronics. Science Advances, 2018, 4, eaat4253.	10.3	78
35	The Key Role of Side Chain Linkage in Structure Formation and Mixed Conduction of Ethylene Glycol Substituted Polythiophenes. ACS Applied Materials & Interfaces, 2020, 12, 13029-13039.	8.0	78
36	Influence of Side Chains on the n-Type Organic Electrochemical Transistor Performance. ACS Applied Materials & Interfaces, 2021, 13, 4253-4266.	8.0	76

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37	Laser-Scribed Graphene Electrodes Derived from Lignin for Biochemical Sensing. ACS Applied Nano Materials, 2020, 3, 1166-1174.	5.0	74
38	Regiochemistry-Driven Organic Electrochemical Transistor Performance Enhancement in Ethylene Glycol-Functionalized Polythiophenes. Journal of the American Chemical Society, 2021, 143, 11007-11018.	13.7	74
39	A paper-based inkjet-printed PEDOT:PSS/ZnO sol-gel hydrazine sensor. Sensors and Actuators B: Chemical, 2020, 306, 127539.	7.8	72
40	Mixed Conduction in an Nâ€Type Organic Semiconductor in the Absence of Hydrophilic Sideâ€Chains. Advanced Functional Materials, 2021, 31, 2010165.	14.9	71
41	Digital Inkjet Printing of Highâ€Efficiency Largeâ€Area Nonfullerene Organic Solar Cells. Advanced Materials Technologies, 2019, 4, 1900040.	5.8	69
42	The Effect of Alkyl Spacers on the Mixed Ionicâ€Electronic Conduction Properties of Nâ€Type Polymers. Advanced Functional Materials, 2021, 31, 2008718.	14.9	67
43	Organic electrochemical transistors based on PEDOT with different anionic polyelectrolyte dopants. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 147-151.	2.1	63
44	An Electrocorticography Device with an Integrated Microfluidic Ion Pump for Simultaneous Neural Recording and Electrophoretic Drug Delivery In Vivo. Advanced Biology, 2019, 3, e1800270.	3.0	63
45	Supported Lipid Bilayer Assembly on PEDOT:PSS Films and Transistors. Advanced Functional Materials, 2016, 26, 7304-7313.	14.9	62
46	Reversible Electrochemical Charging of n-Type Conjugated Polymer Electrodes in Aqueous Electrolytes. Journal of the American Chemical Society, 2021, 143, 14795-14805.	13.7	62
47	Solvent Engineering for Highâ€Performance nâ€Type Organic Electrochemical Transistors. Advanced Electronic Materials, 2019, 5, 1900249.	5.1	59
48	Microfluidic Integrated Organic Electrochemical Transistor with a Nanoporous Membrane for Amyloid-Î² Detection. ACS Nano, 2021, 15, 8130-8141.	14.6	59
49	SiO2/carbon nitride composite materials: The role of surfaces for enhanced photocatalysis. Catalysis Today, 2014, 225, 185-190.	4.4	56
50	High-Performance Organic Electrochemical Transistors Based on Conjugated Polyelectrolyte Copolymers. Chemistry of Materials, 2019, 31, 5286-5295.	6.7	56
51	Organic Bioelectronic Devices for Metabolite Sensing. Chemical Reviews, 2022, 122, 4581-4635.	47.7	55
52	On the Role of Contact Resistance and Electrode Modification in Organic Electrochemical Transistors. Advanced Materials, 2019, 31, e1902291.	21.0	52
53	Enzymeâ€Free Detection of Glucose with a Hybrid Conductive Gel Electrode. Advanced Materials Interfaces, 2019, 6, 1800928.	3.7	51
54	Enhancing the Charge Extraction and Stability of Perovskite Solar Cells Using Strontium Titanate (SrTiO₃) Electron Transport Layer. ACS Applied Energy Materials, 2019, 2, 8090-8097.	5.1	51

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55	The Relationship between the Electric Field-Induced Dissociation of Charge Transfer Excitons and the Photocurrent in Small Molecular/Polymeric Solar Cells. Journal of Physical Chemistry Letters, 2010, 1, 982-986.	4.6	50
56	Fully Inkjetâ€Printed, Ultrathin and Conformable Organic Photovoltaics as Power Source Based on Crossâ€Linked PEDOT:PSS Electrodes. Advanced Materials Technologies, 2020, 5, 2000226.	5.8	50
57	Muscle Fatigue Sensor Based on Ti₃C₂T_x MXene Hydrogel. Small Methods, 2021, 5, e2100819.	8.6	49
58	Autoclave Sterilization of PEDOT:PSS Electrophysiology Devices. Advanced Healthcare Materials, 2016, 5, 3094-3098.	7.6	46
59	Fully printed all-polymer tattoo/textile electronics for electromyography. Flexible and Printed Electronics, 2018, 3, 034004.	2.7	46
60	Optical study of electrochromic moving fronts for the investigation of ion transport in conducting polymers. Journal of Materials Chemistry C, 2016, 4, 3942-3947.	5.5	44
61	Polyelectrolyte Layer-by-Layer Assembly on Organic Electrochemical Transistors. ACS Applied Materials & Interfaces, 2017, 9, 10427-10434.	8.0	43
62	Ionicâ€Liquid Induced Morphology Tuning of PEDOT:PSS for Highâ€Performance Organic Electrochemical Transistors. Advanced Functional Materials, 2022, 32, .	14.9	43
63	Monitoring supported lipid bilayers with n-type organic electrochemical transistors. Materials Horizons, 2020, 7, 2348-2358.	12.2	42
64	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
65	In Situ Electrochemical Synthesis of a Conducting Polymer Composite for Multimetabolite Sensing. Advanced Materials Technologies, 2020, 5, 1900943.	5.8	39
66	A water soluble fluorescent polymer as a dual colour sensor for temperature and a specific protein. Journal of Materials Chemistry B, 2013, 1, 6373.	5.8	38
67	Improving the Compatibility of Diketopyrrolopyrrole Semiconducting Polymers for Biological Interfacing by Lysine Attachment. Chemistry of Materials, 2018, 30, 6164-6172.	6.7	37
68	An organic electrochemical transistor integrated with a molecularly selective isoporous membrane for amyloid-Î² detection. Biosensors and Bioelectronics, 2019, 143, 111561.	10.1	36
69	Convection Driven Ultrarapid Protein Detection via Nanobodyâ€Functionalized Organic Electrochemical Transistors. Advanced Materials, 2022, 34, .	21.0	36
70	Microfluidics integrated n-type organic electrochemical transistor for metabolite sensing. Sensors and Actuators B: Chemical, 2021, 329, 129251.	7.8	35
71	Controlling Electrochemically Induced Volume Changes in Conjugated Polymers by Chemical Design: from Theory to Devices. Advanced Functional Materials, 2021, 31, 2100723.	14.9	35
72	Oligoethylene Glycol Side Chains Increase Charge Generation in Organic Semiconductor Nanoparticles for Enhanced Photocatalytic Hydrogen Evolution. Advanced Materials, 2022, 34, e2105007.	21.0	33

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73	Structure-related differences in the temperature-regulated fluorescence response of LCST type polymers. Journal of Materials Chemistry C, 2013, 1, 6603.	5.5	31
74	Inkjet-printed Ti₃C₂T_x MXene electrodes for multimodal cutaneous biosensing. JPhys Materials, 2020, 3, 044004.	4.2	30
75	The effect of the donor moiety of DPP based polymers on the performance of organic electrochemical transistors. Journal of Materials Chemistry C, 2021, 9, 13338-13346.	5.5	28
76	MXene improves the stability and electrochemical performance of electropolymerized PEDOT films. APL Materials, 2020, 8, .	5.1	25
77	A Self-standing Organic Supercapacitor to Power Bioelectronic Devices. ACS Applied Energy Materials, 2020, 3, 7896-7907.	5.1	24
78	Propylene and butylene glycol: new alternatives to ethylene glycol in conjugated polymers for bioelectronic applications. Materials Horizons, 2022, 9, 973-980.	12.2	23
79	Smaller Counter Cation for Higher Transconductance in Anionic Conjugated Polyelectrolytes. Macromolecular Chemistry and Physics, 2018, 219, 1700374.	2.2	22
80	Polaron Delocalization in Donorâ€“Acceptor Polymers and its Impact on Organic Electrochemical Transistor Performance. Angewandte Chemie, 2021, 133, 7856-7864.	2.0	16
81	Integration of Organic Electrochemical Transistors with Implantable Probes. Advanced Materials Technologies, 2021, 6, 2100763.	5.8	16
82	Benchmarking the Performance of Electropolymerized Poly(3,4â€ethylenedioxythiophene) Electrodes for Neural Interfacing. Macromolecular Bioscience, 2020, 20, e2000215.	4.1	15
83	Biomembrane-based organic electronic devices for ligandâ€“receptor binding studies. Analytical and Bioanalytical Chemistry, 2020, 412, 6265-6273.	3.7	14
84	Temperatureâ€Regulated Fluorescence Characteristics of Supramolecular Assemblies Formed By a Smart Polymer and a Conjugated Polyelectrolyte. Macromolecular Chemistry and Physics, 2013, 214, 435-445.	2.2	13
85	Highly selective chromoionophores for ratiometric Na+ sensing based on an oligoethyleneglycol bridged bithiophene detection unit. Journal of Materials Chemistry C, 2019, 7, 5359-5365.	5.5	13
86	Lipid bilayer formation on organic electronic materials. Journal of Materials Chemistry C, 2018, 6, 5218-5227.	5.5	12
87	Visualizing the Solidâ€“Liquid Interface of Conjugated Copolymer Films Using Fluorescent Liposomes. ACS Applied Bio Materials, 2018, 1, 1348-1354.	4.6	12
88	Operation Mechanism of nâ€Type Organic Electronic Metabolite Sensors. Advanced Electronic Materials, 2022, 8, .	5.1	12
89	BMP-2 functionalized PEDOT:PSS-based OECTs for stem cell osteogenic differentiation monitoring. Flexible and Printed Electronics, 2019, 4, 044006.	2.7	11
90	Decoding Electrophysiological Signals with Organic Electrochemical Transistors. Macromolecular Bioscience, 2021, 21, e2100187.	4.1	11

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91	Hydroxymethyl PEDOT microstructure-based electrodes for high-performance supercapacitors. APL Materials, 2022, 10, .	5.1	11
92	Relationship of Photophysical Properties and the Device Performance of Novel Hybrid Smallâ€Molecular/Polymeric Solar Cells. Macromolecular Rapid Communications, 2009, 30, 1263-1268.	3.9	10
93	Temperature-Regulated Fluorescence and Association of an Oligo(ethyleneglycol)methacrylate-Based Copolymer with a Conjugated Polyelectrolyteâ€"The Effect of Solution Ionic Strength. Journal of Physical Chemistry B, 2013, 117, 14576-14587.	2.6	7
94	Tailoring Electropolymerized Poly(3,4â€ethylenedioxythiophene) Films for Oxygen Reduction Reaction. Advanced Materials Technologies, 2022, 7, 2100277.	5.8	7
95	Performance of PEDOTOH/PEOâ€based Supercapacitors in Agarose Gel Electrolyte. Chemistry - an Asian Journal, 2022, 17, .	3.3	3
96	Advances in bioelectronics: Materials, devices, and translational applications. APL Materials, 2021, 9, 070402.	5.1	2
97	Fast and sensitive electromechanical sensing. Nature Biomedical Engineering, 2022, 6, 223-224.	22.5	2
98	A Peculiar Binding Characterization of DNA (RNA) Nucleobases at MoOS-Based Janus Biosensor: Dissimilar Facets Role on Selectivity and Sensitivity. Biosensors, 2022, 12, 442.	4.7	2
99	Redox-active Polymers in Biofuel Cells. RSC Polymer Chemistry Series, 2020, , 332-382.	0.2	1
100	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
101	Conducting polymer scaffolds for electrical control of cellular functions (Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 3		0
102	Understanding the effect of polymer hydration on n-type organic mixed semiconductor transistors. , 0, , .		0
103	Conjugated Polymer based Electronics for Diagnostics in Physiological Media. , 0, , .		0
104	Operation mechanism of n-type organic electronic metabolite sensors. , 0, , .		0
105	Influence of side chains on the n-type organic electrochemical transistor performance. , 0, , .		0
106	Pathogen and Protein Detection using Organic Electronics. , 2022, , .		0
107	Conjugated Polymer based Electronics for Diagnostics in Physiological Media. , 2022, , .		0