

Benoît Piro

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8557513/publications.pdf>

Version: 2024-02-01

69
papers

3,067
citations

159585

30
h-index

161849

54
g-index

69
all docs

69
docs citations

69
times ranked

4171
citing authors

#	ARTICLE	IF	CITATIONS
1	A Water-Gate Organic Field-Effect Transistor. <i>Advanced Materials</i> , 2010, 22, 2565-2569.	21.0	265
2	Modified Electrodes Used for Electrochemical Detection of Metal Ions in Environmental Analysis. <i>Biosensors</i> , 2015, 5, 241-275.	4.7	264
3	Advances in organic transistor-based biosensors: from organic electrochemical transistors to electrolyte-gated organic field-effect transistors. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 1813-1826.	3.7	247
4	Detection of Glutamate and Acetylcholine with Organic Electrochemical Transistors Based on Conducting Polymer/Platinum Nanoparticle Composites. <i>Advanced Materials</i> , 2014, 26, 5658-5664.	21.0	142
5	DNA detection with a water-gated organic field-effect transistor. <i>Organic Electronics</i> , 2012, 13, 1-6.	2.6	127
6	Electrolytic Gated Organic Field-Effect Transistors for Application in Biosensors – A Review. <i>Electronics (Switzerland)</i> , 2016, 5, 9.	3.1	119
7	Electrochemical determination of tetracycline using AuNP-coated molecularly imprinted overoxidized polypyrrole sensing interface. <i>Electrochimica Acta</i> , 2018, 270, 535-542.	5.2	107
8	Inkjet-Printing: A New Fabrication Technology for Organic Transistors. <i>Advanced Materials Technologies</i> , 2017, 2, 1700063.	5.8	106
9	Tuning the threshold voltage in electrolyte-gated organic field-effect transistors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 8394-8399.	7.1	94
10	Anodic oxidation of 5-amino-1,4-naphthoquinone (ANQ) and synthesis of a conducting polymer (PANQ). <i>Synthetic Metals</i> , 1998, 92, 197-205.	3.9	80
11	Label-free electrochemical detection of prostate-specific antigen based on nucleic acid aptamer. <i>Biosensors and Bioelectronics</i> , 2015, 68, 49-54.	10.1	76
12	Poly(5-amino-1,4-naphthoquinone), a Novel Lithium-Inserting Electroactive Polymer with High Specific Charge. <i>Journal of the Electrochemical Society</i> , 1999, 146, 2393-2396.	2.9	75
13	Recent Advances in Electrochemical Immunosensors. <i>Sensors</i> , 2017, 17, 794.	3.8	69
14	Electroactive Poly(aromatic amine) Films for Iron Protection in Sulfate Medium. <i>Journal of the Electrochemical Society</i> , 2001, 148, B121.	2.9	64
15	Use of poly(3-hexylthiophene)/poly(methyl methacrylate) (P3HT/PMMA) blends to improve the performance of water-gated organic field-effect transistors. <i>Organic Electronics</i> , 2011, 12, 1253-1257.	2.6	56
16	Nanometric Layers for Direct, Signal-On, Selective, and Sensitive Electrochemical Detection of Oligonucleotides Hybridization. <i>Journal of the American Chemical Society</i> , 2008, 130, 15752-15753.	18.7	52
17	On the mode of operation in electrolyte-gated thin film transistors based on different substituted polythiophenes. <i>Organic Electronics</i> , 2014, 15, 2420-2427.	2.6	52
18	DNA Electrochemical Sensor Based on Conducting Polymer: Dependence of the "Signal-On" Detection on the Probe Sequence Localization. <i>Analytical Chemistry</i> , 2005, 77, 3351-3356.	6.5	51

#	ARTICLE	IF	CITATIONS
19	Ionic Liquids as Environmentally Benign Electrolytes for High-Performance Supercapacitors. <i>Global Challenges</i> , 2019, 3, 1800023.	3.6	50
20	E-assay concept: Detection of bisphenol A with a label-free electrochemical competitive immunoassay. <i>Biosensors and Bioelectronics</i> , 2014, 53, 214-219.	10.1	47
21	Comparison of Electrochemical Immunosensors and Aptasensors for Detection of Small Organic Molecules in Environment, Food Safety, Clinical and Public Security. <i>Biosensors</i> , 2016, 6, 7.	4.7	45
22	Copolythiophene-based water-gated organic field-effect transistors for biosensing. <i>Journal of Materials Chemistry B</i> , 2013, 1, 2090.	5.8	41
23	Peptide-modified electrolyte-gated organic field effect transistor. Application to Cu ²⁺ detection. <i>Biosensors and Bioelectronics</i> , 2019, 127, 118-125.	10.1	36
24	Challenges, Prospects, and Emerging Applications of Inkjet-Printed Electronics: A Chemist's Point of View. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	35
25	Molecular Dynamics Simulation of a RNA Aptasensor. <i>Journal of Physical Chemistry B</i> , 2017, 121, 4071-4080.	2.6	34
26	Grafting of a peptide probe for Prostate-Specific Antigen detection using diazonium electroreduction and click chemistry. <i>Biosensors and Bioelectronics</i> , 2016, 81, 131-137.	10.1	33
27	Triggering the Electrolyte-Gated Organic Field-Effect Transistor output characteristics through gate functionalization using diazonium chemistry: Application to biodetection of 2,4-dichlorophenoxyacetic acid. <i>Biosensors and Bioelectronics</i> , 2018, 113, 32-38.	10.1	33
28	Cyclic voltammetry, square wave voltammetry, electrochemical impedance spectroscopy and colorimetric method for hydrogen peroxide detection based on chitosan/silver nanocomposite. <i>Arabian Journal of Chemistry</i> , 2018, 11, 453-459.	4.9	33
29	Novel nanoscale Yb-MOF used as highly efficient electrode for simultaneous detection of heavy metal ions. <i>Journal of Materials Science</i> , 2021, 56, 8172-8185.	3.7	32
30	In-situ electrochemically deposited Fe ₃ O ₄ nanoparticles onto graphene nanosheets as amperometric amplifier for electrochemical biosensing applications. <i>Sensors and Actuators B: Chemical</i> , 2019, 283, 52-60.	7.8	31
31	Switchable Hydrogel-Gated Organic Field-Effect Transistors. <i>Langmuir</i> , 2018, 34, 3686-3693.	3.5	30
32	Hydroxynaphthoquinone Ultrathin Films Obtained by Diazonium Electroreduction: Toward Design of Biosensitive Electroactive Interfaces. <i>Analytical Chemistry</i> , 2010, 82, 3523-3530.	6.5	29
33	Functionalization of single-walled carbon nanotubes for direct and selective electrochemical detection of DNA. <i>Analyst</i> , 2011, 136, 1023-1028.	3.5	29
34	Fabrication and Use of Organic Electrochemical Transistors for Sensing of Metabolites in Aqueous Media. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 928.	2.5	29
35	Versatile transduction scheme based on electrolyte-gated organic field-effect transistor used as immunoassay readout system. <i>Biosensors and Bioelectronics</i> , 2017, 92, 215-220.	10.1	27
36	Enzyme-less electrochemical displacement heterogeneous immunosensor for diclofenac detection. <i>Biosensors and Bioelectronics</i> , 2017, 97, 246-252.	10.1	27

#	ARTICLE	IF	CITATIONS
37	Recent Advances in Skin Chemical Sensors. <i>Sensors</i> , 2019, 19, 4376.	3.8	26
38	One-Step Electrosynthesis of Poly(1,5-diaminonaphthalene)/Graphene Nanocomposite as Platform for Lead Detection in Water. <i>Electroanalysis</i> , 2016, 28, 1907-1913.	2.9	22
39	Recent trends in application of nanomaterials for the development of electrochemical microRNA biosensors. <i>Mikrochimica Acta</i> , 2021, 188, 128.	5.0	22
40	Sensors Made of Natural Renewable Materials: Efficiency, Recyclability or Biodegradability? The Green Electronics. <i>Sensors</i> , 2020, 20, 5898.	3.8	21
41	General approach for electrochemical detection of persistent pharmaceutical micropollutants: Application to acetaminophen. <i>Biosensors and Bioelectronics</i> , 2015, 72, 205-210.	10.1	20
42	Simultaneous Electroreduction of Different Diazonium Salts for Direct Electrochemical DNA Biosensor Development. <i>Electrochimica Acta</i> , 2014, 140, 49-58.	5.2	19
43	Direct, reagentless electrochemical detection of the BIR3 domain of X-linked inhibitor of apoptosis protein using a peptide-based conducting polymer sensor. <i>Biosensors and Bioelectronics</i> , 2014, 61, 57-62.	10.1	18
44	Sensitive and Selective Detection of Multiple Metal Ions Using Amino Acids Modified Glassy Carbon Electrodes. <i>Journal of the Electrochemical Society</i> , 2018, 165, B67-B73.	2.9	18
45	An innovative strategy for direct electrochemical detection of microRNA biomarkers. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 1241-1244.	3.7	17
46	Silver nanoparticles on graphene quantum dots as nanozyme for efficient H_2O_2 reduction in a glucose biosensor. <i>Materials Research Express</i> , 2019, 6, 115403.	1.6	17
47	Electrolyte-gated organic field-effect transistors (EGOFETs) as complementary tools to electrochemistry for the study of surface processes. <i>Electrochemistry Communications</i> , 2019, 98, 43-46.	4.7	16
48	Development of a Selective Electrochemical Sensing Platform for the Simultaneous Detection of Tl^{+} , Cu^{2+} , Hg^{2+} , and Zn^{2+} Ions. <i>Journal of the Electrochemical Society</i> , 2018, 165, B399-B406.	2.9	15
49	A DNA hydrogel gated organic field effect transistor. <i>Organic Electronics</i> , 2019, 75, 105402.	2.6	15
50	Label-Free Electrochemical Immunoaffinity Sensor Based on Impedimetric Method for Pesticide Detection. <i>Electroanalysis</i> , 2013, 25, 664-670.	2.9	14
51	Fabrication of a quinone containing layer on gold nanoparticles directed to a label-free and reagentless electrochemical miRNA sensor. <i>Analytical Methods</i> , 2017, 9, 2696-2702.	2.7	14
52	Transistors for Chemical Monitoring of Living Cells. <i>Biosensors</i> , 2018, 8, 65.	4.7	13
53	Gold nanoparticle-based eco-friendly ink for electrode patterning on flexible substrates. <i>Electrochemistry Communications</i> , 2021, 123, 106918.	4.7	13
54	Electrochemical tuning of reduced graphene oxide in printed electrolyte-gated transistors. Impact on charge transport properties. <i>Electrochimica Acta</i> , 2021, 371, 137819.	5.2	13

#	ARTICLE	IF	CITATIONS
55	Monitoring photosynthetic microorganism activity with an electrolyte-gated organic field effect transistor. <i>Biosensors and Bioelectronics</i> , 2020, 157, 112166.	10.1	12
56	Electrocatalytic miRNA Detection Using Cobalt Porphyrin-Modified Reduced Graphene Oxide. <i>Sensors</i> , 2014, 14, 9984-9994.	3.8	11
57	A simple flexible printed capacitive pressure sensor for chronic wound monitoring. <i>Sensors and Actuators A: Physical</i> , 2022, 338, 113490.	4.1	10
58	Electrochemical investigation of interactions between quinone derivatives and single stranded DNA. <i>Electrochimica Acta</i> , 2012, 85, 588-593.	5.2	9
59	Nernst-Planck-Poisson analysis of electrolyte-gated organic field-effect transistors. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 415101.	2.8	9
60	All-Inkjet-Printed Humidity Sensors for the Detection of Relative Humidity in Air and Soil-Towards the Direct Fabrication on Plant Leaves. <i>MRS Advances</i> , 2020, 5, 965-973.	0.9	7
61	Algae-functionalized hydrogel-gated organic field-effect transistor. Application to the detection of herbicides. <i>Electrochimica Acta</i> , 2021, 372, 137881.	5.2	7
62	Designing a magnetic inductive micro-electrode for virus monitoring: modelling and feasibility for hepatitis B virus. <i>Mikrochimica Acta</i> , 2020, 187, 463.	5.0	6
63	In vivo electrochemically-assisted polymerization of conjugated functionalized terthiophenes inside the vascular system of a plant. <i>Electrochemistry Communications</i> , 2022, 137, 107270.	4.7	5
64	Nanodomains of Juglonethiol on Au(111): Relationship between Domain Size and Electrochemical Properties. <i>Journal of Physical Chemistry C</i> , 2015, 119, 29015-29026.	3.1	4
65	Computational Studies of a DNA-Based Aptasensor: toward Theory-Driven Transduction Improvement. <i>Journal of Physical Chemistry B</i> , 2021, 125, 9499-9506.	2.6	3
66	DNA and PNA Probes for DNA Detection in Electroanalytical Systems. <i>RNA Technologies</i> , 2015, , 47-80.	0.3	2
67	Challenges, Prospects, and Emerging Applications of Inkjet-Printed Electronics: A Chemist's Point of View. <i>Angewandte Chemie</i> , 0, , .	2.0	2
68	Driving Electrolyte-Gated Organic Field-Effect Transistors with Redox Reactions. , 2020, 60, ,		0
69	Electronic devices for biomarker monitoring. , 2022, , 183-207.		0