

Xavi Illa

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

1,229
citations

361413

20
h-index

395702

33
g-index

51
all docs

51
docs citations

51
times ranked

1821
citing authors

#	ARTICLE	IF	CITATIONS
1	Full-bandwidth electrophysiology of seizures and epileptiform activity enabled by flexible graphene microtransistor depth neural probes. <i>Nature Nanotechnology</i> , 2022, 17, 301-309.	31.5	49
2	A 1024-Channel 10-Bit 36- μ S/ch CMOS ROIC for Multiplexed GFET-Only Sensor Arrays in Brain Mapping. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2021, 15, 860-876.	4.0	6
3	Graphene active sensor arrays for long-term and wireless mapping of wide frequency band epicortical brain activity. <i>Nature Communications</i> , 2021, 12, 211.	12.8	44
4	Novel Graphene Electrode for Retinal Implants: An in vivo Biocompatibility Study. <i>Frontiers in Neuroscience</i> , 2021, 15, 615256.	2.8	12
5	Characterization of optogenetically-induced cortical spreading depression in awake mice using graphene micro-transistor arrays. <i>Journal of Neural Engineering</i> , 2021, 18, 055002.	3.5	13
6	Gut-on-a-chip: Mimicking and monitoring the human intestine. <i>Biosensors and Bioelectronics</i> , 2021, 181, 113156.	10.1	58
7	Bias dependent variability of low-frequency noise in single-layer graphene FETs. <i>Nanoscale Advances</i> , 2020, 2, 5450-5460.	4.6	3
8	Distortion-Free Sensing of Neural Activity Using Graphene Transistors. <i>Small</i> , 2020, 16, 1906640.	10.0	20
9	Switchless Multiplexing of Graphene Active Sensor Arrays for Brain Mapping. <i>Nano Letters</i> , 2020, 20, 3528-3537.	9.1	42
10	Multiplexed neural sensor array of graphene solution-gated field-effect transistors. <i>2D Materials</i> , 2020, 7, 025046.	4.4	23
11	Improved metal-graphene contacts for low-noise, high-density microtransistor arrays for neural sensing. <i>Carbon</i> , 2020, 161, 647-655.	10.3	19
12	A Minimally Invasive Microsensor Specially Designed for Simultaneous Dissolved Oxygen and pH Biofilm Profiling. <i>Sensors</i> , 2019, 19, 4747.	3.8	8
13	Neural interfaces based on flexible graphene transistors: A new tool for electrophysiology. , 2019, , .		1
14	High-resolution mapping of infraslow cortical brain activity enabled by graphene microtransistors. <i>Nature Materials</i> , 2019, 18, 280-288.	27.5	121
15	Slow Waves in Cortical Slices: How Spontaneous Activity is Shaped by Laminar Structure. <i>Cerebral Cortex</i> , 2019, 29, 319-335.	2.9	68
16	A perfusion chamber for monitoring transepithelial NaCl transport in an in vitro model of the renal tubule. <i>Biotechnology and Bioengineering</i> , 2018, 115, 1604-1613.	3.3	8
17	Characterization of an encapsulated insulin secreting human pancreatic beta cell line in a modular microfluidic device. <i>Journal of Drug Targeting</i> , 2018, 26, 36-44.	4.4	15
18	Miniaturized multiparametric flexible platform for the simultaneous monitoring of ionic: Application in real urine. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 2861-2870.	7.8	10

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19	A compartmentalized microfluidic chip with crisscross microgrooves and electrophysiological electrodes for modeling the blood–retinal barrier. <i>Lab on A Chip</i> , 2018, 18, 95-105.	6.0	61
20	Flexible Graphene Solution–Gated Field–Effect Transistors: Efficient Transducers for Micro–Electrocorticography. <i>Advanced Functional Materials</i> , 2018, 28, 1703976.	14.9	97
21	Quantification of Signal-to-Noise Ratio in Cerebral Cortex Recordings Using Flexible MEAs With Co-localized Platinum Black, Carbon Nanotubes, and Gold Electrodes. <i>Frontiers in Neuroscience</i> , 2018, 12, 862.	2.8	28
22	Engineering and monitoring cellular barrier models. <i>Journal of Biological Engineering</i> , 2018, 12, 18.	4.7	52
23	3D Printed porous polyamide macrocapsule combined with alginate microcapsules for safer cell-based therapies. <i>Scientific Reports</i> , 2018, 8, 8512.	3.3	25
24	Online oxygen monitoring using integrated inkjet-printed sensors in a liver-on-a-chip system. <i>Lab on A Chip</i> , 2018, 18, 2023-2035.	6.0	100
25	Resemblance of the human liver sinusoid in a fluidic device with biomedical and pharmaceutical applications. <i>Biotechnology and Bioengineering</i> , 2018, 115, 2585-2594.	3.3	38
26	Maintenance of Hepatocyte Phenotype in Vitro: The Sinusoidal Milieu is the Key. <i>Journal of Hepatology</i> , 2016, 64, S307-S308.	3.7	0
27	Geometric correction factor for transepithelial electrical resistance measurements in transwell and microfluidic cell cultures. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 375401.	2.8	53
28	Spontaneous formation of spiral-like patterns with distinct periodic physical properties by confined electrodeposition of Co-In disks. <i>Scientific Reports</i> , 2016, 6, 30398.	3.3	9
29	P0104 : The liver sinusoid within a microfluidic chamber: A new tool for vascular biology research. <i>Journal of Hepatology</i> , 2015, 62, S339-S340.	3.7	0
30	A SU-8-based flexible microprobe for close and distal recordings from the cortical network. <i>Proceedings of SPIE</i> , 2015, , .	0.8	3
31	A novel strategy to monitor microfluidic in-vitro blood-brain barrier models using impedance spectroscopy. <i>Proceedings of SPIE</i> , 2015, , .	0.8	7
32	A Novel Modular Bioreactor to In Vitro Study the Hepatic Sinusoid. <i>PLoS ONE</i> , 2014, 9, e111864.	2.5	31
33	Flexible Polyimide Platform based on the Integration of Potentiometric Multi-sensor for Biomedical Applications. <i>Procedia Engineering</i> , 2014, 87, 276-279.	1.2	2
34	New Trends in Quantitative Assessment of the Corneal Barrier Function. <i>Sensors</i> , 2014, 14, 8718-8727.	3.8	4
35	Flexible microfluidic bio-lab-on-a-chip multi-sensor platform for electrochemical measurements. , 2014, , .		1
36	Determination of heterogeneous electron transfer rate constants at interdigitated nanoband electrodes fabricated by an optical mix-and-match process. <i>Sensors and Actuators B: Chemical</i> , 2014, 194, 86-95.	7.8	20

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37	Flexible probe for in vivo quantification of corneal epithelium permeability through non-invasive tetrapolar impedance measurements. <i>Biomedical Microdevices</i> , 2013, 15, 849-858.	2.8	5
38	In vivo assessment of corneal barrier function through non-invasive impedance measurements using a flexible probe. <i>Journal of Physics: Conference Series</i> , 2013, 434, 012072.	0.4	0
39	Experimental study of the retention properties of a cyclo olefin polymer pillar array column in reversed-phase mode. <i>Journal of Separation Science</i> , 2010, 33, 3313-3318.	2.5	9
40	Experimental study of the depth influence on the band broadening effect in a cyclo-olefin polymer column containing an array of ordered pillars. <i>Journal of Chromatography A</i> , 2010, 1217, 5817-5821.	3.7	15
41	A cyclo olefin polymer microfluidic chip with integrated gold microelectrodes for aqueous and non-aqueous electrochemistry. <i>Lab on A Chip</i> , 2010, 10, 1254.	6.0	49
42	Mesoporous Silica: A Suitable Adsorbent for Amines. <i>Nanoscale Research Letters</i> , 2009, 4, 1303-8.	5.7	19
43	An array of ordered pillars with retentive properties for pressure-driven liquid chromatography fabricated directly from an unmodified cyclo olefin polymer. <i>Lab on A Chip</i> , 2009, 9, 1511.	6.0	31
44	Nanostructured oxides on porous silicon microhotplates for NH ₃ sensing. <i>Microelectronic Engineering</i> , 2008, 85, 1116-1119.	2.4	14
45	Micro and nanotechnologies for the development of an integrated chromatographic system. , 2007, , .		2
46	Analyses of the ammonia response of integrated gas sensors working in pulsed mode. <i>Sensors and Actuators B: Chemical</i> , 2006, 118, 318-322.	7.8	28
47	Carbon Nanotubes as Suitable Interface for Improving Neural Recordings. , 0, , .		2
48	Single and Multisite Graphene-Based Electroretinography Recording Electrodes: A Benchmarking Study. <i>Advanced Materials Technologies</i> , 0, , 2101181.	5.8	1