Jordi Fonollosa

List of Publications by Year in descending order

55 papers	1,542 citations	394421 19 h-index	315739 38 g-index
55 all docs	55 docs citations	55 times ranked	1423 citing authors

#	Article	IF	Citations
1	Reservoir computing compensates slow response of chemosensor arrays exposed to fast varying gas concentrations in continuous monitoring. Sensors and Actuators B: Chemical, 2015, 215, 618-629.	7.8	170
2	Calibration transfer and drift counteraction in chemical sensor arrays using Direct Standardization. Sensors and Actuators B: Chemical, 2016, 236, 1044-1053.	7.8	147
3	On the calibration of sensor arrays for pattern recognition using the minimal number of experiments. Chemometrics and Intelligent Laboratory Systems, 2014, 130, 123-134.	3.5	145
4	On the performance of gas sensor arrays in open sampling systems using Inhibitory Support Vector Machines. Sensors and Actuators B: Chemical, 2013, 185, 462-477.	7.8	128
5	Chemical Sensor Systems and Associated Algorithms for Fire Detection: A Review. Sensors, 2018, 18, 553.	3.8	100
6	Online decorrelation of humidity and temperature in chemical sensors for continuous monitoring. Chemometrics and Intelligent Laboratory Systems, 2016, 157, 169-176.	3.5	87
7	Chemical Discrimination in Turbulent Gas Mixtures with MOX Sensors Validated by Gas Chromatography-Mass Spectrometry. Sensors, 2014, 14, 19336-19353.	3.8	67
8	Algorithmic mitigation of sensor failure: Is sensor replacement really necessary?. Sensors and Actuators B: Chemical, 2013, 183, 211-221.	7.8	59
9	Application of an Array of Metal-Oxide Semiconductor Gas Sensors in an Assistant Personal Robot for Early Gas Leak Detection. Sensors, 2019, 19, 1957.	3.8	51
10	Temperature optimization of metal oxide sensor arrays using Mutual Information. Sensors and Actuators B: Chemical, 2013, 187, 331-339.	7.8	49
11	Ethylene optical spectrometer for apple ripening monitoring in controlled atmosphere store-houses. Sensors and Actuators B: Chemical, 2009, 136, 546-554.	7.8	36
12	Learning of Chunking Sequences in Cognition and Behavior. PLoS Computational Biology, 2015, 11, e1004592.	3.2	36
13	Bioinspired early detection through gas flow modulation in chemo-sensory systems. Sensors and Actuators B: Chemical, 2015, 206, 538-547.	7.8	33
14	Estimation of the limit of detection using information theory measures. Analytica Chimica Acta, 2014, 810, 1-9.	5.4	30
15	Early fire detection based on gas sensor arrays: Multivariate calibration and validation. Sensors and Actuators B: Chemical, 2022, 352, 130961.	7.8	29
16	Human activity monitoring using gas sensor arrays. Sensors and Actuators B: Chemical, 2014, 199, 398-402.	7.8	28
17	Multi-unit calibration rejects inherent device variability of chemical sensor arrays. Sensors and Actuators B: Chemical, 2018, 265, 142-154.	7.8	26
18	Chemical gas sensor array dataset. Data in Brief, 2015, 3, 85-89.	1.0	22

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19	Quality Coding by Neural Populations in the Early Olfactory Pathway: Analysis Using Information Theory and Lessons for Artificial Olfactory Systems. PLoS ONE, 2012, 7, e37809.	2.5	20
20	A compact optical multichannel system for ethylene monitoring. Microsystem Technologies, 2008, 14, 637-644.	2.0	19
21	Design and fabrication of silicon-based mid infrared multi-lenses for gas sensing applications. Sensors and Actuators B: Chemical, 2008, 132, 498-507.	7.8	19
22	Exploration of the metrological performance of a gas detector based on an array of unspecific infrared filters. Sensors and Actuators B: Chemical, 2006, 116, 183-191.	7.8	18
23	Limits to the integration of filters and lenses on thermoelectric IR detectors by flip-chip techniques. Sensors and Actuators A: Physical, 2009, 149, 65-73.	4.1	18
24	Two-dimensional wavelet transform feature extraction for porous silicon chemical sensors. Analytica Chimica Acta, 2013, 785, 1-15.	5.4	18
25	Drift in a popular metal oxide sensor dataset reveals limitations for gas classification benchmarks. Sensors and Actuators B: Chemical, 2022, 361, 131668.	7.8	18
26	Pulsed-Temperature Metal Oxide Gas Sensors for Microwatt Power Consumption. IEEE Access, 2020, 8, 70938-70946.	4.2	17
27	Fire detection using a gas sensor array with sensor fusion algorithms. , 2017, , .		16
28	Gas Sensor Array for Reliable Fire Detection. Procedia Engineering, 2016, 168, 444-447.	1.2	15
29	Sniffing speeds up chemical detection by controlling air-flows near sensors. Nature Communications, 2021, 12, 1232.	12.8	13
30	Optical Label-Free Nanoplasmonic Biosensing Using a Vertical-Cavity Surface-Emitting Laser and Charge-Coupled Device. Analytical Chemistry, 2010, 82, 1535-1539.	6.5	11
31	COVID-19 impact on maritime traffic and corresponding pollutant emissions. The case of the Port of Barcelona. Journal of Environmental Management, 2022, 310, 114787.	7.8	10
32	<title>A highly sensitive IR-optical sensor for ethylene-monitoring</title>. , 2005, 5836, 452.		9
33	Evaluation of calibration transfer strategies between Metal Oxide gas sensor arrays. Procedia Engineering, 2015, 120, 261-264.	1.2	9
34	Biologically Inspired Computation for Chemical Sensing. Procedia Computer Science, 2011, 7, 226-227.	2.0	7
35	How Did the COVID-19 Lockdown Affect Children and Adolescent's Well-Being: Spanish Parents, Children, and Adolescents Respond. Frontiers in Public Health, 2021, 9, 746052.	2.7	7
36	Dataset from chemical gas sensor array in turbulent wind tunnel. Data in Brief, 2015, 3, 169-174.	1.0	6

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37	A Practical Method to Estimate the Resolving Power of a Chemical Sensor Array: Application to Feature Selection. Frontiers in Chemistry, 2018, 6, 209.	3.6	6
38	Fresnel lenses: study and fabrication in silicon technology for medium-IR applications. , 2006, 6186, 233.		5
39	Continuous Prediction in Chemoresistive Gas Sensors Using Reservoir Computing. Procedia Engineering, 2014, 87, 843-846.	1.2	5
40	mWISE: An Algorithm for Context-Based Annotation of Liquid Chromatographyâ€“Mass Spectrometry Features through Diffusion in Graphs. Analytical Chemistry, 2021, 93, 10772-10778.	6.5	5
41	Improving the Robustness of Odor Sensing Systems by Multivariate Signal Processing. , 0, , 296-316.		5
42	Data set from chemical sensor array exposed to turbulent gas mixtures. Data in Brief, 2015, 3, 216-220.	1.0	4
43	Improving Calibration of Chemical Gas Sensors for Fire Detection Using Small Scale Setups. Proceedings (mdpi), 2017, 1, 453.	0.2	4
44	A compact optical ethylene monitoring system. , 2007, , .		3
45	Inkjet-printed, functional heterolayers of ZnO@CuO for stoma pouch monitoring. Applied Nanoscience (Switzerland), 2018, 8, 1907-1914.	3.1	3
46	Mapping layperson medical terminology into the Human Phenotype Ontology using neural machine translation models. Expert Systems With Applications, 2022, 204, 117446.	7.6	3
47	Design and Fabrication of Micromachined Silicon Based Mid Infrared Multilenses for Gas Sensing Applications. , 2007, , .		2
48	Data set from gas sensor array under flow modulation. Data in Brief, 2015, 3, 131-136.	1.0	2
49	Sensor failure mitigation based on multiple kernels. , 2012, , .		1
50	Discontinuously operated MOX sensors for low power applications. , 2017, , .		1
51	<title>Non-selective NDIR array for gas detection</title>. , 2005, , .		0
52	(Invited) Strategies for Calibration Cost Reduction in Heterogeneous Chemical Sensor Arrays. ECS Meeting Abstracts, 2021, MA2021-01, 1308-1308.	0.0	0
53	Smart Sensors. , 2019, , 193-214.		0
54	(Invited) Strategies for Calibration Cost Reduction in Heterogeneous Chemical Sensor Arrays. ECS Meeting Abstracts, 2020, MA2020-01, 1845-1845.	0.0	0

#	Article	IF	Citations
55	Estimation of vessel emissions and contribution to overall pollution in port-cities. , 2022, , .		0