M Carmen Horrillo

List of Publications by Year
in descending order

90 papers	3,363 citations	101384 36 h-index	168136 53 g-index
90 all docs	90 docs citations	90 times ranked	3040 citing authors

#	Article	IF	Citations
1	Carbon SH-SAW-Based Electronic Nose to Discriminate and Classify Sub-ppm NO2. Sensors, 2022, 22, 1261.	2.1	8
2	Eco-Friendly Disposable WS2 Paper Sensor for Sub-ppm NO2 Detection at Room Temperature. Nanomaterials, 2022, 12, 1213.	1.9	13
3	Novel SH-SAW Biosensors for Ultra-Fast Recognition of Growth Factors. Biosensors, 2022, 12, 17.	2.3	6
4	Gas sensors based on elasticity changes of nanoparticle layers. Sensors and Actuators B: Chemical, 2018, 268, 93-99.	4.0	19
5	Quantification of Wine Mixtures with an Electronic Nose and a Human Panel. Frontiers in Bioengineering and Biotechnology, 2018, 6, 14.	2.0	18
6	Wine Applications With Electronic Noses. , 2016, , 137-148.		12
7	Love Wave Gas Sensor based on Surface-functionalized Nanoparticles. Procedia Engineering, 2015, 120, 606-609.	1.2	1
8	A Wireless and Portable Electronic Nose to Differentiate Musts of Different Ripeness Degree and Grape Varieties. Sensors, 2015, 15, 8429-8443.	2.1	33
9	Automatic Sensor System for the Continuous Analysis of the Evolution of Wine. American Journal of Enology and Viticulture, 2015, 66, 148-155.	0.9	18
10	Propagation of acoustic waves in metal oxide nanoparticle layers with catalytic metals for selective gas detection. Sensors and Actuators B: Chemical, 2015, 217, 65-71.	4.0	12
11	Nanocrystalline Tin Oxide Nanofibers Deposited by a Novel Focused Electrospinning Method. Application to the Detection of TATP Precursors. Sensors, 2014, 14, 24231-24243.	2.1	23
12	Love-Wave Sensors Combined with Microfluidics for Fast Detection of Biological Warfare Agents. Sensors, 2014, 14, 12658-12669.	2.1	25
13	Cascade of Artificial Neural Network committees for the calibration of small gas commercial sensors for NO<inf>2</inf>, NH<inf>3</inf> and CO. , 2014, , .		0
14	Advances in artificial olfaction: Sensors and applications. Talanta, 2014, 124, 95-105.	2.9	106
15	Characterization of an array of Love-wave gas sensors developed using electrospinning technique to deposit nanofibers as sensitive layers. Talanta, 2014, 120, 408-412.	2.9	22
16	Detection of bacteriophages in dynamic mode using a Love-wave immunosensor with microfluidics technology. Sensors and Actuators B: Chemical, 2013, 185, 218-224.	4.0	28
17	Comparison of two types of acoustic biosensors to detect immunoreactions: Love-wave sensor working in dynamic mode and QCM working in static mode. Sensors and Actuators B: Chemical, 2013, 189, 123-129.	4.0	18
18	Edible and non-edible olive oils discrimination by the application of a sensory olfactory system based on tin dioxide sensors. Food Chemistry, 2013, 136, 1154-1159.	4.2	28

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19	New sensitive layers for surface acoustic wave gas sensors based on polymer and carbon nanotube composites. Sensors and Actuators B: Chemical, 2012, 175, 67-72.	4.0	61
20	Love-wave sensor array to detect, discriminate and classify chemical warfare agent simulants. Sensors and Actuators B: Chemical, 2012, 175, 173-178.	4.0	49
21	Discrimination and classification of chemical warfare agent simulants using a Love-wave sensor array. Procedia Engineering, 2011, 25, 23-26.	1.2	2
22	New sensitive layers for surface acoustic wave gas sensors based on polymer and carbon nanotube composites. Procedia Engineering, 2011, 25, 256-259.	1.2	3
23	Array of Love-wave sensors based on quartz/Novolac to detect CWA simulants. Talanta, 2011, 85, 1442-1447.	2.9	24
24	Chemical warfare agents simulants detection with an optimized SAW sensor array. Sensors and Actuators B: Chemical, 2011, 154, 199-205.	4.0	78
25	Single-walled carbon nanotube microsensors for nerve agent simulant detection. Sensors and Actuators B: Chemical, 2011, 157, 253-259.	4.0	27
26	Surface acoustic wave gas sensors based on polyisobutylene and carbon nanotube composites. Sensors and Actuators B: Chemical, 2011, 156, 1-5.	4.0	40
27	Detection of Acetic Acid in wine by means of an electronic nose. , 2011, , .		5
28	Threshold detection of aromatic compounds in wine with an electronic nose and a human sensory panel. Talanta, 2010, 80, 1899-1906.	2.9	47
29	Optimized design of a SAW sensor array for chemical warfare agents simulants detection. Procedia Chemistry, 2009, 1, 232-235.	0.7	5
30	Evaluation of Wine Aromatic Compounds by a Sensory Human Panel and an Electronic Nose. Journal of Agricultural and Food Chemistry, 2009, 57, 11543-11549.	2.4	42
31	Portable e-nose to classify different kinds of wine. Sensors and Actuators B: Chemical, 2008, 131, 71-76.	4.0	99
32	Electronic nose for wine ageing detection. Sensors and Actuators B: Chemical, 2008, 133, 180-186.	4.0	81
33	Application of pulsed digital oscillators to volatile organic compounds sensing. Sensors and Actuators B: Chemical, 2008, 134, 773-779.	4.0	18
34	Enrichment sampling methods for wine discrimination with gas sensors. Journal of Food Composition and Analysis, 2008, 21, 716-723.	1.9	37
35	Carbon nanotube networks as gas sensors for NO2 detection. Talanta, 2008, 77, 758-764.	2.9	117
36	Novel selective sensors based on carbon nanotube films for hydrogen detection. Sensors and Actuators B: Chemical, 2007, 122, 75-80.	4.0	99

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37	Comparative study of sampling systems combined with gas sensors for wine discrimination. Sensors and Actuators B: Chemical, 2007, 126, 616-623.	4.0	39
38	Correlating e-nose responses to wine sensorial descriptors and gas chromatographyâ€“mass spectrometry profiles using partial least squares regression analysis. Sensors and Actuators B: Chemical, 2007, 127, 267-276.	4.0	55
39	Discrimination of volatile compounds through an electronic nose based on ZnO SAW sensors. Sensors and Actuators B: Chemical, 2007, 127, 277-283.	4.0	43
40	Differentiation of red wines using an electronic nose based on surface acoustic wave devices. Talanta, 2006, 68, 1162-1165.	2.9	39
41	Wine classification with a zinc oxide SAW sensor array. Sensors and Actuators B: Chemical, 2006, 120, 166-171.	4.0	44
42	Electronic nose for wine discrimination. Sensors and Actuators B: Chemical, 2006, 113, 911-916.	4.0	143
43	Electronic nose for ham discrimination. Sensors and Actuators B: Chemical, 2006, 114, 418-422.	4.0	26
44	Optimization of SAW sensors with a structure ZnOâ€“SiO2â€“Si to detect volatile organic compounds. Sensors and Actuators B: Chemical, 2006, 118, 356-361.	4.0	35
45	Identification of typical wine aromas by means of an electronic nose. IEEE Sensors Journal, 2006, 6, 173-178.	2.4	68
46	The effect of the oxygen concentration and the rf power on the zinc oxide films properties deposited by magnetron sputtering. Applied Surface Science, 2005, 245, 273-280.	3.1	42
47	SAW sensor array for wine discrimination. Sensors and Actuators B: Chemical, 2005, 107, 291-295.	4.0	44
48	Structural studies of zinc oxide films grown by RF magnetron sputtering. Synthetic Metals, 2005, 148, 37-41.	2.1	21
49	Hydrogen sensors based on carbon nanotubes thin films. Synthetic Metals, 2005, 148, 15-19.	2.1	183
50	Classification of white wine aromas with an electronic nose. Talanta, 2005, 67, 610-616.	2.9	77
51	A comparative study of sensor array and GCâ€“MS: application to Madrid wines characterization. Sensors and Actuators B: Chemical, 2004, 102, 299-307.	4.0	54
52	Detection of volatile organic compounds using surface acoustic wave sensors with different polymer coatings. Thin Solid Films, 2004, 467, 234-238.	0.8	51
53	Discrimination of different aromatic compounds in water, ethanol and wine with a thin film sensor array. Sensors and Actuators B: Chemical, 2004, 103, 98-103.	4.0	25
54	Analysis of neural networks and analysis of feature selection with genetic algorithm to discriminate among pollutant gas. Sensors and Actuators B: Chemical, 2004, 103, 122-128.	4.0	46

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55	Fine-tuning of the resonant frequency using a hybrid coupler and fixed components in SAW oscillators for gas detection. Sensors and Actuators B: Chemical, 2004, 103, 139-144.	4.0	15
56	Electronic nose for the identification of pig feeding and ripening time in Iberian hams. Meat Science, 2004, 66, 727-732.	2.7	31
57	Artificial olfactory system for the classification of Iberian hams. Sensors and Actuators B: Chemical, 2003, 96, 621-629.	4.0	16
58	Transmission electron microscopy investigation of the effect of deposition conditions and a platinum layer in gas-sensitive r.f.-sputtered SnO2 films. Thin Solid Films, 2003, 445, 38-47.	0.8	15
59	Detection of Iberian ham aroma by a semiconductor multisensorial system. Meat Science, 2003, 65, 1175-1185.	2.7	14
60	Detection of toxic gases by a tin oxide multisensor. IEEE Sensors Journal, 2002, 2, 387-393.	2.4	23
61	Pulsed laser deposition of nanostructured tin oxide films for gas sensing applications. Sensors and Actuators B: Chemical, 2001, 77, 383-388.	4.0	79
62	Results on the reliability of silicon micromachined structures for semiconductor gas sensors. Sensors and Actuators B: Chemical, 2001, 77, 409-415.	4.0	29
63	Structural and dimensional control in micromachined integrated solid state gas sensors. Sensors and Actuators B: Chemical, 2000, 69, 314-319.	4.0	34
64	Detection of gases with arrays of micromachined tin oxide gas sensors. Sensors and Actuators B: Chemical, 2000, 65, 244-246.	4.0	40
65	Discrimination of grape juice and fermented wine using a tin oxide multisensor. Sensors and Actuators B: Chemical, 1999, 57, 249-254.	4.0	18
66	Detection of low NO2 concentrations with low power micromachined tin oxide gas sensors. Sensors and Actuators B: Chemical, 1999, 58, 325-329.	4.0	50
67	Influence of tin oxide microstructure on the sensitivity to reductor gases. Sensors and Actuators B: Chemical, 1999, 58, 474-477.	4.0	50
68	Environmental applications of gas sensor arrays: combustion atmospheres and contaminated soils. Sensors and Actuators B: Chemical, 1999, 59, 249-254.	4.0	20
69	Transmission electron microscopy investigation of SnO2 thin films for sensor devices. Scripta Materialia, 1999, 11, 813-819.	0.5	12
70	Electrical characterization of a thin film tin oxide sensor array for VOCs detection. Thin Solid Films, 1998, 317, 429-431.	0.8	9
71	Crystallite size distributions and lattice defects in r.f. sputtered nanograin TiO2 and SnO2 films. Scripta Materialia, 1998, 10, 357-363.	0.5	17
72	Measurements of VOCs with a Semiconductor Electronic Nose. Journal of the Electrochemical Society, 1998, 145, 2486-2489.	1.3	27

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73	Microstructural characterization of nanograin tin oxide gas sensors. Scripta Materialia, 1997, 9, 43-52.	0.5	45
74	Measurements of VOCs in soils through a tin oxide multisensor system. Sensors and Actuators B: Chemical, 1997, 43, 193-199.	4.0	22
75	Analysis of VOCs with a tin oxide sensor array. Sensors and Actuators B: Chemical, 1997, 43, 200-205.	4.0	53
76	A micromachined solid state integrated gas sensor for the detection of aromatic hydrocarbons. Sensors and Actuators B: Chemical, 1997, 44, 483-487.	4.0	61
77	Influence of the deposition conditions of SnO2 thin films by reactive sputtering on the sensitivity to urban pollutants. Sensors and Actuators B: Chemical, 1997, 45, 193-198.	4.0	39
78	Chemical composition and crystalline structure of SnO2 thin films used as gas sensors. Thin Solid Films, 1997, 304, 113-122.	0.8	77
79	Integrated sensor array for gas analysis in combustion atmospheres. Sensors and Actuators B: Chemical, 1996, 33, 128-133.	4.0	19
80	Long-term reliability of sensors for detection of nitrogen oxides. Sensors and Actuators B: Chemical, 1995, 26, 56-58.	4.0	22
81	The effect of additives in tin oxide on the sensitivity and selectivity to NOx and CO. Sensors and Actuators B: Chemical, 1995, 26, 19-23.	4.0	67
82	The influence of the tin-oxide deposition technique on the sensitivity to CO. Sensors and Actuators B: Chemical, 1995, 25, 507-511.	4.0	25
83	The interaction of different oxidizing agents on doped tin oxide. Sensors and Actuators B: Chemical, 1995, 25, 512-515.	4.0	23
84	Ultrafine grain-size tin-oxide films for carbon monoxide monitoring in urban environments. Sensors and Actuators B: Chemical, 1995, 25, 559-563.	4.0	58
85	Hall effect measurements to calculate the conduction control in semiconductor films of SnO2. Sensors and Actuators A: Physical, 1994, 42, 619-621.	2.0	17
86	Hall coefficient measurements for SnO2 doped sensors, as a function of temperature and atmosphere. Sensors and Actuators B: Chemical, 1993, 15, 98-104.	4.0	18
87	A potentially selective methane sensor based on the differential conductivity responses of Pd- and Pt-doped tin oxide thick layers. Sensors and Actuators B: Chemical, 1993, 16, 384-389.	4.0	20
88	NOx tin dioxide sensors activities, as a function of doped materials and temperature. Sensors and Actuators B: Chemical, 1993, 16, 354-356.	4.0	19
89	Design of polycrystalline gas sensors based on admittance spectrum measurements. Sensors and Actuators B: Chemical, 1992, 7, 609-613.	4.0	4
90	Properties of polycrystalline gas sensors based on d.c. and a.c. electrical measurements. Sensors and Actuators B: Chemical, 1992, 8, 231-235.	4.0	16