Antonella Macagnano

List of Publications by Year
in descending order

88 papers	3,614 citations	136740 32 h-index	138251 58 g-index
93 all docs	93 docs citations	93 times ranked	4079 citing authors

#	Article	IF	Citations
1	Lung cancer identification by the analysis of breath by means of an array of non-selective gas sensors. Biosensors and Bioelectronics, 2003, 18, 1209-1218.	5.3	573
2	Multisensor for fish quality determination. Trends in Food Science and Technology, 2004, 15, 86-93.	7.8	236
3	Electronic nose and electronic tongue integration for improved classification of clinical and food samples. Sensors and Actuators B: Chemical, 2000, 64, 15-21.	4.0	148
4	Olfactory systems for medical applications. Sensors and Actuators B: Chemical, 2008, 130, 458-465.	4.0	138
5	The evaluation of quality of post-harvest oranges and apples by means of an electronic nose. Sensors and Actuators B: Chemical, 2001, 78, 26-31.	4.0	129
6	Porphyrins-based opto-electronic nose for volatile compounds detection. Sensors and Actuators B: Chemical, 2000, 65, 220-226.	4.0	110
7	Design and optimization of an ultra thin flexible capacitive humidity sensor. Sensors and Actuators B: Chemical, 2009, 143, 302-307.	4.0	91
8	Metalloporphyrins as basic material for volatile sensitive sensors. Sensors and Actuators B: Chemical, 2000, 65, 209-215.	4.0	90
9	Application of a combined artificial olfaction and taste system to the quantification of relevant compounds in red wine. Sensors and Actuators B: Chemical, 2000, 69, 342-347.	4.0	89
10	A high sensitive NO2 gas sensor based on PEDOTâ€“PSS/TiO2 nanofibres. Sensors and Actuators B: Chemical, 2013, 176, 390-398.	4.0	87
11	Photophysical Behaviour of Corrole and its Symmetrical and Unsymmetrical Dyads. , 1999, 03, 364-370.		82
12	Electronic nose based investigation of the sensorial properties of peaches and nectarines. Sensors and Actuators B: Chemical, 2001, 77, 561-566.	4.0	76
13	Outer product analysis of electronic nose and visible spectra: application to the measurement of peach fruit characteristics. Analytica Chimica Acta, 2002, 459, 107-117.	2.6	73
14	Human skin odor analysis by means of an electronic nose. Sensors and Actuators B: Chemical, 2000, 65, 216-219.	4.0	68
15	Porphyrin thin films coated quartz crystal microbalances prepared by electropolymerization technique. Thin Solid Films, 1999, 354, 245-250.	0.8	66
16	Characterization and design of porphyrins-based broad selectivity chemical sensors for electronic nose applications. Sensors and Actuators B: Chemical, 1998, 52, 162-168.	4.0	65
17	Use of electronic nose and trained sensory panel in the evaluation of tomato quality. Journal of the Science of Food and Agriculture, 2000, 80, 63-71.	1.7	63
18	Flexible sensing systems based on polysilicon thin film transistors technology. Sensors and Actuators B: Chemical, 2013, 179, 114-124.	4.0	62

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19	Technologies and tools for mimicking olfaction: status of the Rome â€œTor Vergataâ€•electronic nose. Biosensors and Bioelectronics, 1998, 13, 711-721.	5.3	58
20	A study of a QCM sensor based on pentacene for the detection of BTX vapors in air. Sensors and Actuators B: Chemical, 2017, 240, 1160-1164.	4.0	53
21	Penetrators for in situ subsurface investigations of Europa. Advances in Space Research, 2011, 48, 725-742.	1.2	51
22	Pattern recognition approach to the study of the interactions between metalloporphyrin Langmuirâ€“Blodgett films and volatile organic compounds. Analytica Chimica Acta, 1999, 384, 249-259.	2.6	49
23	Electrospinning of Polystyrene/Polyhydroxybutyrate Nanofibers Doped with Porphyrin and Graphene for Chemiresistor Gas Sensors. Nanomaterials, 2019, 9, 280.	1.9	49
24	Qualitative structureâ€“sensitivity relationship in porphyrins based QMB chemical sensors. Sensors and Actuators B: Chemical, 2000, 68, 319-323.	4.0	48
25	Electronic nose analysis of urine samples containing blood. Physiological Measurement, 1999, 20, 377-384.	1.2	47
26	Biomimetic sensing layer based on electrospun conductive polymer webs. Biosensors and Bioelectronics, 2011, 26, 2460-2465.	5.3	46
27	Self-assembled monolayers of mercaptoporphyrins as sensing material for quartz crystal microbalance chemical sensors. Sensors and Actuators B: Chemical, 1998, 47, 70-76.	4.0	45
28	Langmuirâ’Blodgett Films of a Manganese Corrole Derivative. Langmuir, 1999, 15, 1268-1274.	1.6	42
29	Platinum nanoparticles on electrospun titania nanofibers as hydrogen sensing materials working at room temperature. Nanoscale, 2014, 6, 9177-9184.	2.8	42
30	Flexible sensorial system based on capacitive chemical sensors integrated with readout circuits fully fabricated on ultra thin substrate. Sensors and Actuators B: Chemical, 2011, 155, 768-774.	4.0	36
31	Nanofibrous PANI-based conductive polymers for trace gas analysis. Thin Solid Films, 2011, 520, 978-985.	0.8	35
32	Electronic-nose modelling and data analysis using a self-organizing map. Measurement Science and Technology, 1997, 8, 1236-1243.	1.4	34
33	Comparison and integration of arrays of quartz resonators and metal-oxide semiconductor chemoresistors in the quality evaluation of olive oils. Sensors and Actuators B: Chemical, 2001, 78, 303-309.	4.0	34
34	Electronic nose and SPME techniques to monitor phenanthrene biodegradation in soil. Sensors and Actuators B: Chemical, 2008, 131, 63-70.	4.0	34
35	Humidity effects on a novel eco-friendly chemosensor based on electrospun PANi/PHB nanofibres. Sensors and Actuators B: Chemical, 2016, 232, 16-27.	4.0	34
36	Use of a multiplexed oscillator in a miniaturized electronic nose based on a multichannel quartz crystal microbalance. Sensors and Actuators B: Chemical, 2008, 131, 159-166.	4.0	32

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37	Improving sensing features of a nanocomposite PEDOT:PSS sensor for NO breath monitoring. Sensors and Actuators B: Chemical, 2013, 179, 87-94.	4.0	30
38	A study on the dependence of bacteria adhesion on the polymer nanofibre diameter. Environmental Science: Nano, 2019, 6, 778-797.	2.2	30
39	Enhanced Sensory Properties of a Multichannel Quartz Crystal Microbalance Coated with Polymeric Nanobeads. Sensors, 2007, 7, 2920-2928.	2.1	29
40	Flexible Piezoelectric Transducer Based on Electrospun PVDF Nanofibers for Sensing Applications. Procedia Engineering, 2014, 87, 1509-1512.	1.2	28
41	On-chip fabrication of ultrasensitive NO₂ sensors based on silicon nanowires. Applied Physics Letters, 2012, 101, 103101.	1.5	26
42	Alcohol vapor sensory properties of nanostructured conjugated polymers. Journal of Physics Condensed Matter, 2008, 20, 474207.	0.7	25
43	Use of electronic nose technology to measure soil microbial activity through biogenic volatile organic compounds and gases release. Soil Biology and Biochemistry, 2011, 43, 2094-2107.	4.2	25
44	Gas sensor based on photoconductive electrospun titania nanofibres operating at room temperature. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	25
45	Investigation of the Origin of Selectivity in Cavitand-Based Supramolecular Sensors. Chemistry - A European Journal, 2003, 9, 5388-5395.	1.7	24
46	Sorption and condensation phenomena of volatile compounds on solid-state metalloporphyrin films. Sensors and Actuators B: Chemical, 2007, 124, 260-268.	4.0	22
47	Investigation of the Gas-Sensing Performance of Electrospun TiO₂ Nanofiber-Based Sensors for Ethanol Sensing. IEEE Sensors Journal, 2018, 18, 7365-7374.	2.4	22
48	Structural changes in sardine (Sardina pilchardus) muscle during iced storage: Investigation by DRIFT spectroscopy. Food Chemistry, 2007, 103, 1024-1030.	4.2	20
49	A field intercomparison of three passive air samplers for gaseous mercury in ambient air. Atmospheric Measurement Techniques, 2021, 14, 3657-3672.	1.2	19
50	Kelvin prove investigation of self-assembled-monolayers of thiol derivatized porphyrins interacting with volatile compounds. Sensors and Actuators B: Chemical, 1998, 48, 368-372.	4.0	18
51	Environmental Hg vapours adsorption and detection by using functionalized gold nanoparticles network. Journal of Environmental Chemical Engineering, 2018, 6, 4706-4713.	3.3	17
52	Thickness shear mode resonator sensors for the detection of androstenone in pork fat. Sensors and Actuators B: Chemical, 2003, 91, 169-174.	4.0	16
53	Effects of temperature and humidity on electrospun conductive nanofibers based on polyaniline blends. Journal of Nanoparticle Research, 2011, 13, 6193-6200.	0.8	16
54	Double layer sensors mimic olfactive perception: A case study. Thin Solid Films, 2008, 516, 7857-7865.	0.8	15

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55	Kelvin probe investigation of the thickness effects in Langmuirâ€“Blodgett films of pyrrolic macrocycles sensitive to volatile compounds in gas phase. Sensors and Actuators B: Chemical, 1999, 57, 183-187.	4.0	14
56	Aspergillus Species Discrimination Using a Gas Sensor Array. Sensors, 2020, 20, 4004.	2.1	14
57	Sensing Asthma with Portable Devices Equipped with Ultrasensitive Sensors Based on Electrospun Nanomaterials. Electroanalysis, 2014, 26, 1419-1429.	1.5	13
58	PEDOT:PSS coated titania nanofibers for NO2 detection: Study of humidity effects. Sensors and Actuators B: Chemical, 2013, 179, 69-73.	4.0	12
59	Functionalized Gold Nanoparticles as an Active Layer for Mercury Vapor Detection at Room Temperature. ACS Applied Nano Materials, 2021, 4, 2930-2940.	2.4	12
60	Biomedical Application of an Electronic Nose. Critical Reviews in Biomedical Engineering, 2000, 28, 481-485.	0.5	12
61	Mesoscale organization of titania thin films enables oxygen sensing at room temperature. Journal of Materials Chemistry C, 2017, 5, 11815-11823.	2.7	11
62	Elemental mercury vapor chemoresistors employing TIO2 nanofibers photocatalytically decorated with Au-nanoparticles. Sensors and Actuators B: Chemical, 2017, 247, 957-967.	4.0	9
63	A small heterobifunctional ligand provides stable and water dispersible coreâ€“shell CdSe/ZnS quantum dots (QDs). Nanoscale, 2018, 10, 19720-19732.	2.8	9
64	VISTA: A Î¼-Thermogravimeter for Investigation of Volatile Compounds in Planetary Environments. Origins of Life and Evolution of Biospheres, 2016, 46, 273-281.	0.8	8
65	Passive Sampling of Gaseous Elemental Mercury Based on a Composite TiO2NP/AuNP Layer. Nanomaterials, 2018, 8, 798.	1.9	8
66	Potentials and limitations of a porphyrin-based AT-cut resonator for sensing applications. Sensors and Actuators B: Chemical, 2008, 130, 411-417.	4.0	7
67	Exploring the feasibility of volatile desorption studies by means of a quartz crystal microbalance with an integrated micro-heater. Sensors and Actuators A: Physical, 2011, 172, 504-510.	2.0	7
68	A 3D soil-like nanostructured fabric for the development of bacterial biofilms for agricultural and environmental uses. Environmental Science: Nano, 2020, 7, 2546-2572.	2.2	7
69	Catechol-Loading Nanofibrous Membranes for Eco-Friendly Iron Nutrition of Plants. Nanomaterials, 2019, 9, 1315.	1.9	6
70	Photoconductive Electrospun Titania Nanofibres to Develop Gas Sensors Operating at Room Temperature. Nanoscience and Technology, 2015, , 115-128.	1.5	5
71	Electrospinning-Based Nanobiosensors. Nanoscience and Technology, 2015, , 225-279.	1.5	5
72	A smart nanofibrous material for adsorbing and detecting elemental mercury in air. Atmospheric Chemistry and Physics, 2017, 17, 6883-6893.	1.9	5

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73	Thermally Driven Selective Nanocomposite PS-PHB/MGC Nanofibrous Conductive Sensor for Air Pollutant Detection. Frontiers in Chemistry, 2018, 6, 432.	1.8	5
74	Use of Gold Nanoparticles as Substrate for Diffusive Monitoring of Gaseous Mercury. Materials, 2018, 11, 2119.	1.3	4
75	Low-Cost Benzene Toluene Xylene Measurement Gas System Based on the Mini Chromatographic Cartridge. Sensors, 2021, 21, 125.	2.1	4
76	Characteristics and Performances of a Nanostructured Material for Passive Samplers of Gaseous Hg. Sensors, 2020, 20, 6021.	2.1	3
77	Biochemical Evidence for Two Forms of Acetohydroxyacid Synthase in Daucus carota L. Cell Lines Selected for Chlorsulfuron Resistance. Pesticide Biochemistry and Physiology, 1999, 64, 76-84.	1.6	2
78	Double Layer Sensor Reproducing Perception Dynamics of Olfactory Cells. Advances in Science and Technology, 2008, 58, 91-96.	0.2	2
79	Remotely Controlled Terrestrial Vehicle Integrated Sensory System for Environmental Monitoring. Lecture Notes in Electrical Engineering, 2018, , 338-343.	0.3	2
80	Pocket Mercury-Vapour Detection System Employing a Preconcentrator Based on Au-TiO2 Nanomaterials. Sensors, 2021, 21, 8255.	2.1	2
81	Fiber optic multimeter for interrogating an array of absorption-based optochemical sensors. , 2004, 5270, 140.		1
82	Nanostructured composite materials for advanced chemical sensors. , 2020, , 297-332.		1
83	ELECTRONIC NOSE EVALUATION OF STORAGE DAYS OF FRESH AND THAWED TROUT FISHES. , 2000, , .		1
84	A MIXED SENSOR ARRAY FOR THE CLASSIFICATION OF OLIVE OILS. , 2000, , .		1
85	New Applications of Nanoheterogeneous Systems. , 2014, , 449-493.		0
86	THE OPTICAL TRANSDUCTION OF THE SENSITIVE PROPERTIES OF METALLOPORPHYRINS FILMS. , 2002, , .		0
87	CLASSIFICATION OF COMPLEX MIXTURES WITH AN ELECTRONIC NOSE: THE CASE OF PHARMACEUTICAL PRODUCTS. , 2004, , .		0
88	Synthesis and characterization of mesoâ€tetraphenylporphyrinâ€“corrole unsymmetrical dyads. Journal of Porphyrins and Phthalocyanines, 1998, 2, 501-510.	0.4	0