Salvatore Gianluca Leonardi

List of Publications by Year
in descending order

129 papers	5,377 citations	81900 39 h-index	91884 69 g-index
138 all docs	138 docs citations	138 times ranked	6532 citing authors

#	Article	IF	Citations
1	Detection of hazardous volatile organic compounds (VOCs) by metal oxide nanostructures-based gas sensors: A review. Ceramics International, 2016, 42, 15119-15141.	4.8	866
2	Al-doped ZnO for highly sensitive CO gas sensors. Sensors and Actuators B: Chemical, 2014, 196, 413-420.	7.8	325
3	Roomâ€Temperature Hydrogen Sensing with Heteronanostructures Based on Reduced Graphene Oxide and Tin Oxide. Angewandte Chemie - International Edition, 2012, 51, 11053-11057.	13.8	259
4	Sensing behavior of SnO2/reduced graphene oxide nanocomposites toward NO2. Sensors and Actuators B: Chemical, 2013, 179, 61-68.	7.8	160
5	Two-Dimensional Zinc Oxide Nanostructures for Gas Sensor Applications. Chemosensors, 2017, 5, 17.	3.6	134
6	Sol gel graphene/TiO2 nanoparticles for the photocatalytic-assisted sensing and abatement of NO2. Applied Catalysis B: Environmental, 2019, 243, 183-194.	20.2	131
7	Highly stable and selective ethanol sensor based on Î±-Fe2O3 nanoparticles prepared by Pechini solâ€"gel method. Ceramics International, 2016, 42, 6136-6144.	4.8	126
8	Synthesis, Characterization and Gas Sensing Properties of Ag@Î±-Fe2O3 Coreâ€"Shell Nanocomposites. Nanomaterials, 2015, 5, 737-749.	4.1	102
9	Simultaneous electrochemical determination of epinephrine and uric acid in the presence of ascorbic acid using SnO2/graphene nanocomposite modified glassy carbon electrode. Sensors and Actuators B: Chemical, 2015, 221, 1412-1422.	7.8	99
10	Pt-decorated In2O3 nanoparticles and their ability as a highly sensitive (<10 ppb) acetone sensor for biomedical applications. Sensors and Actuators B: Chemical, 2016, 230, 697-705.	7.8	97
11	CO and NO2 Selective Monitoring by ZnO-Based Sensors. Nanomaterials, 2013, 3, 357-369.	4.1	92
12	Enhanced performance of novel calcium/aluminum co-doped zinc oxide for CO 2 sensors. Sensors and Actuators B: Chemical, 2017, 239, 36-44.	7.8	88
13	Electrochemical sensor for simultaneous determination of ascorbic acid, uric acid and folic acid based on Mn-SnO2 nanoparticles modified glassy carbon electrode. Journal of Electroanalytical Chemistry, 2016, 770, 23-32.	3.8	86
14	Effect of indium doping on ZnO based-gas sensor for CO. Materials Science in Semiconductor Processing, 2014, 27, 319-325.	4.0	82
15	Characterization and optical studies of PVP-capped silver nanoparticles. Journal of Nanostructure in Chemistry, 2017, 7, 37-46.	9.1	80
16	Metal-Oxide Based Nanomaterials: Synthesis, Characterization and Their Applications in Electrical and Electrochemical Sensors. Sensors, 2021, 21, 2494.	3.8	79
17	A novel gas sensor based on Ag/Fe2O3 core-shell nanocomposites. Ceramics International, 2016, 42, 18974-18982.	4.8	76
18	Sm-doped cobalt ferrite nanoparticles: A novel sensing material for conductometric hydrogen leak sensor. Ceramics International, 2017, 43, 1029-1037.	4.8	69

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19	ZnO:Ca nanopowders with enhanced CO₂sensing properties. Journal Physics D: Applied Physics, 2015, 48, 255503.	2.8	68
20	Sr- and Ni-doping in ZnO nanorods synthesized by a simple wet chemical method as excellent materials for CO and CO₂ gas sensing. RSC Advances, 2016, 6, 82733-82742.	3.6	68
21	CO sensing properties of Ga-doped ZnO prepared by solâ€"gel route. Journal of Alloys and Compounds, 2015, 634, 187-192.	5.5	62
22	LaFeO3 ceramics as selective oxygen sensors at mild temperature. Ceramics International, 2018, 44, 4183-4189.	4.8	60
23	Synthesis and characterization of mesoporous Î±-Fe2O3 nanoparticles and investigation of electrical properties of fabricated thick films. Processing and Application of Ceramics, 2016, 10, 209-217.	0.8	60
24	Electrochemical properties of Ce-doped SrFeO3 perovskites-modified electrodes towards hydrogen peroxide oxidation. Electrochimica Acta, 2016, 190, 939-947.	5.2	58
25	Development of a selective hydrogen leak sensor based on chemically doped SnO2 for automotive applications. International Journal of Hydrogen Energy, 2017, 42, 10645-10655.	7.1	57
26	Amperometric Sensing of H₂O₂ using Ptâ€"TiO₂/Reduced Graphene Oxide Nanocomposites. ChemElectroChem, 2014, 1, 617-624.	3.4	56
27	A comparison of the ethanol sensing properties ofÎ±-iron oxide nanostructures prepared via the solâ€"gel and electrospinning techniques. Nanotechnology, 2016, 27, 075502.	2.6	54
28	Gas sensing properties of Al-doped ZnO for UV-activated CO detection. Journal Physics D: Applied Physics, 2016, 49, 135502.	2.8	54
29	One-step microwave-assisted synthesis and characterization of novel CuO nanodisks for non-enzymatic glucose sensing. Journal of Electroanalytical Chemistry, 2019, 835, 161-168.	3.8	53
30	CO sensing properties under UV radiation of Ga-doped ZnO nanopowders. Applied Surface Science, 2015, 355, 1321-1326.	6.1	48
31	In-situ grown flower-like nanostructured CuO on screen printed carbon electrodes for non-enzymatic amperometric sensing of glucose. Mikrochimica Acta, 2017, 184, 2375-2385.	5.0	48
32	Nonâ€enzymatic Glucose Sensor Based on Nickel/Carbon Composite. Electroanalysis, 2018, 30, 727-733.	2.9	48
33	Tuning the NiO Thin Film Morphology on Carbon Nanotubes by Atomic Layer Deposition for Enzymeâ€Free Glucose Sensing. ChemElectroChem, 2019, 6, 383-392.	3.4	47
34	Sensing properties and photochromism of Agâ€"TiO₂nano-heterostructures. Journal of Materials Chemistry A, 2016, 4, 9600-9613.	10.3	45
35	A novel disposable electrochemical sensor for determination of carbamazepine based on Fe doped SnO2 nanoparticles modified screen-printed carbon electrode. Materials Science and Engineering C, 2016, 62, 53-60.	7.3	45
36	Modification of anatase using noble-metals (Au, Pt, Ag): Toward a nanoheterojunction exhibiting simultaneously photocatalytic activity and plasmonic gas sensing. Applied Catalysis B: Environmental, 2017, 218, 370-384.	20.2	43

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37	Exfoliated 2D-MoS2 nanosheets on carbon and gold screen printed electrodes for enzyme-free electrochemical sensing of tyrosine. Sensors and Actuators B: Chemical, 2020, 303, 127229.	7.8	43
38	Effect of gamma irradiation on structural, electrical and gas sensing properties of tungsten oxide nanoparticles. Journal of Alloys and Compounds, 2017, 693, 366-372.	5.5	42
39	Investigation of CdO nanostructures synthesized by microwave assisted irradiation technique for NO2 gas detection. Journal of Alloys and Compounds, 2014, 607, 54-60.	5.5	41
40	Fabrication of folic acid sensor based on the Cu doped SnO₂nanoparticles modified glassy carbon electrode. Nanotechnology, 2014, 25, 295501.	2.6	41
41	Sensing behavior to ethanol of tin oxide nanoparticles prepared by microwave synthesis with different irradiation time. Sensors and Actuators B: Chemical, 2014, 194, 96-104.	7.8	40
42	Molybdenum oxide nanoparticles for the sensitive and selective detection of dopamine. Journal of Electroanalytical Chemistry, 2018, 814, 91-96.	3.8	40
43	Two-Dimensional (2D) SnS 2 -based Oxygen Sensor. Procedia Engineering, 2016, 168, 1102-1105.	1.2	37
44	CO sensing characteristics of In-doped ZnO semiconductor nanoparticles. Journal of Science: Advanced Materials and Devices, 2017, 2, 34-40.	3.1	37
45	Pt-TiO2/MWCNTs Hybrid Composites for Monitoring Low Hydrogen Concentrations in Air. Sensors, 2012, 12, 12361-12373.	3.8	36
46	La_{0.6}Sr_{0.4}FeO_{3â€Î´} and La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_{3â€Î´} Perovskite Materials for H₂O₂ and Glucose Electrochemical Sensors. Electroanalysis, 2015, 27, 684-692.	2.9	35
47	Microwave irradiated Sn-substituted CdO nanostructures for enhanced CO2 sensing. Ceramics International, 2015, 41, 14766-14772.	4.8	35
48	Gas Sensing of NiOâ€SCCNT Coreâ€“Shell Heterostructures: Optimization by Radial Modulation of the Holeâ€Accumulation Layer. Advanced Functional Materials, 2020, 30, 1906874.	14.9	33
49	PANI/Sm2O3 nanocomposite sensor for fast hydrogen detection at room temperature. Synthetic Metals, 2020, 268, 116493.	3.9	33
50	Room temperature detection and modelling of sub-ppm NO2 by low-cost nanoporous NiO film. Sensors and Actuators B: Chemical, 2020, 305, 127481.	7.8	32
51	A highly sensitive room temperature humidity sensor based on 2D-WS2 nanosheets. FlatChem, 2018, 9, 21-26.	5.6	30
52	Synthesis, Characterization and Sensing Properties of AZO and IZO Nanomaterials. Chemosensors, 2014, 2, 121-130.	3.6	29
53	Comparison of Electrical and Sensing Properties of Pure, Sn- and Zn-Doped CuO Gas Sensors. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 903-912.	4.7	29
54	Synthesis and characterization of Sm2O3 nanorods for application as a novel CO gas sensor. Applied Surface Science, 2019, 487, 793-800.	6.1	28

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55	Ammonia sensing properties of two-dimensional tin disulphide/tin oxides (SnS2/SnO2-x) mixed phases. Journal of Alloys and Compounds, 2019, 781, 440-449.	5.5	28
56	Investigations on the effect of gamma-ray irradiation on the gas sensing properties of SnO₂nanoparticles. Nanotechnology, 2016, 27, 385502.	2.6	26
57	Photo-electrochemical properties of CuOâ€"TiO₂ heterojunctions for glucose sensing. Journal of Materials Chemistry C, 2020, 8, 9529-9539.	5.5	25
58	CO₂sensing properties of electro-spun Ca-doped ZnO fibres. Nanotechnology, 2018, 29, 305501.	2.6	24
59	Characterisation and H 2 O 2 sensing properties of TiO 2 -CNTs/Pt electro-catalysts. Materials Chemistry and Physics, 2016, 170, 129-137.	4.0	22
60	High performance Gd-doped Î³-Fe2O3 based acetone sensor. Materials Science in Semiconductor Processing, 2020, 116, 105154.	4.0	22
61	Electrochemical properties of a novel Ni-doped nanoporous carbon. Materials Letters, 2015, 160, 452-455.	2.6	21
62	Novel nanosynthesis of In₂O₃ and its application as a resistive gas sensor for sevoflurane anesthetic. Journal of Materials Chemistry B, 2015, 3, 399-407.	5.8	21
63	MgNi2O3 nanoparticles as novel and versatile sensing material for non-enzymatic electrochemical sensing of glucose and conductometric determination of acetone. Journal of Alloys and Compounds, 2020, 817, 152787.	5.5	21
64	Electrochemical Sensing of Serotonin by a Modified MnO2-Graphene Electrode. Biosensors, 2020, 10, 33.	4.7	21
65	Excellent CO gas sensor based on Ga-doped ZnO nanoparticles. Journal of Materials Science: Materials in Electronics, 2015, 26, 6020-6024.	2.2	20
66	Development of a hydrogen dual sensor for fuel cell applications. International Journal of Hydrogen Energy, 2018, 43, 11896-11902.	7.1	20
67	Behavior of sheet-like crystalline ammonium trivanadate hemihydrate (NH4V3O8Ã—0.5H2O) as a novel ammonia sensing material. Journal of Solid State Chemistry, 2013, 202, 105-110.	2.9	19
68	Ammonia sensing properties of V-doped ZnO:Ca nanopowders prepared by solâ€"gel synthesis. Journal of Solid State Chemistry, 2015, 226, 192-200.	2.9	19
69	Comparison of the Sensing Properties of ZnO Nanowalls-Based Sensors toward Low Concentrations of CO and NO2. Chemosensors, 2017, 5, 20.	3.6	19
70	High performance acetone sensor based on Î³-Fe₂O₃/Alâ€"ZnO nanocomposites. Nanotechnology, 2019, 30, 055502.	2.6	19
71	Simultaneous and selective determination of dopamine and tyrosine in the presence of uric acid with 2D-MoS2 nanosheets modified screen-printed carbon electrodes. FlatChem, 2020, 24, 100187.	5.6	19
72	Fe₂O₃/Carbon Nanotube-Based Resistive Sensors for the Selective Ammonia Gas Sensing. Sensor Letters, 2014, 12, 17-23.	0.4	19

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73	Doped-ZnO nanoparticles for selective gas sensors. Journal of Materials Science: Materials in Electronics, 2017, 28, 9667-9674.	2.2	18
74	Electrochemical Properties of Ag@iron Oxide Nanocomposite for Application as Nitrate Sensor. Electroanalysis, 2015, 27, 2654-2662.	2.9	17
75	Photo-Electrochemical Sensing of Dopamine by a Novel Porous TiO2 Array-Modified Screen-Printed Ti Electrode. Sensors, 2018, 18, 3566.	3.8	17
76	NdFeO3 as a new electrocatalytic material for the electrochemical monitoring of dopamine. Analytical and Bioanalytical Chemistry, 2019, 411, 7681-7688.	3.7	17
77	Nanostructured Nickel on Porous Carbon-Silica Matrix as an Efficient Electrocatalytic Material for a Non-Enzymatic Glucose Sensor. Chemosensors, 2018, 6, 54.	3.6	16
78	Hydrogen Sensing Properties of Co-Doped ZnO Nanoparticles. Chemosensors, 2018, 6, 61.	3.6	16
79	A novel conductometric sensor based on hierarchical self-assembly nanoparticles Sm2O3 for VOCs monitoring. Ceramics International, 2018, 44, 16953-16959.	4.8	16
80	Silver nanoparticles/polymethacrylic acid (AgNPs/PMA) hybrid nanocomposites-modified electrodes for the electrochemical detection of nitrate ions. Measurement: Journal of the International Measurement Confederation, 2016, 84, 83-90.	5.0	15
81	Origin of the different behavior of some platinum decorated nanocarbons towards the electrochemical oxidation of hydrogen peroxide. Materials Chemistry and Physics, 2016, 184, 269-278.	4.0	14
82	Hybrid Noble-Metals/Metal-Oxide Bifunctional Nano-Heterostructure Displaying Outperforming Gas-Sensing and Photochromic Performances. ACS Omega, 2018, 3, 9846-9859.	3.5	14
83	Detection of Catecholamine Neurotransmitters by Nanostructured SnO2-Based Electrochemical Sensors: A Review of Recent Progress. Mini-Reviews in Organic Chemistry, 2018, 15, 382-388.	1.3	14
84	Defects and gas sensing properties of carbon nanotube-based devices. Journal of Sensors and Sensor Systems, 2015, 4, 25-30.	0.9	14
85	NO2 sensing properties of N-, F- and NF co-doped ZnO nanoparticles. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 263, 114870.	3.5	13
86	Monitoring of glucose in fermentation processes by using Au/TiO2 composites as novel modified electrodes. Journal of Applied Electrochemistry, 2015, 45, 943-951.	2.9	12
87	Resonant Devices and Gas Sensing: from Low Frequencies to Microwave Range. , 2019, , .		12
88	Acetone sensing and modelling by low-cost NiO nanowalls. Materials Letters, 2020, 262, 127043.	2.6	12
89	Ultrathin Silicon Nanowires for Optical and Electrical Nitrogen Dioxide Detection. Nanomaterials, 2021, 11, 1767.	4.1	12
90	Development of a Novel Cu(II) Complex Modified Electrode and a Portable Electrochemical Analyzer for the Determination of Dissolved Oxygen (DO) in Water. Chemosensors, 2016, 4, 7.	3.6	11

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91	Synthesis, characterization and hydrogen sensing properties of nanosized colloidal rhodium oxides prepared by Pulsed Laser Ablation in water. Sensors and Actuators B: Chemical, 2018, 262, 79-85.	7.8	11
92	Electrochemical sensing of ascorbic acid by a novel manganese(III) complex. Materials Letters, 2014, 133, 232-235.	2.6	10
93	Ink-Jet Printed Colorimetric Sensor for the Determination of Fe(II). IEEE Sensors Journal, 2015, 15, 3196-3200.	4.7	10
94	Life Cycle Assessment for Supporting Eco-Design: The Case Study of Sodiumâ€"Nickel Chloride Cells. Energies, 2021, 14, 1897.	3.1	10
95	Effects of UV Irradiation on the Sensing Properties of In2O3 for CO Detection at Low Temperature. Micromachines, 2019, 10, 338.	2.9	9
96	Investigation on the ageing mechanism for a lithium-ion cell under accelerated tests: The case of primary frequency regulation service. Journal of Energy Storage, 2021, 41, 102904.	8.1	9
97	Monitoring of Chemical Risk Factors for Sudden Infant Death Syndrome (SIDS) by Hydroxyapatite-Graphene-MWCNT Composite-Based Sensors. Sensors, 2019, 19, 3437.	3.8	8
98	Synthesis, characterization and electrochemical properties of 5-aza[5]helicene-CH‹sub›2‹/sub›O-CO-MWCNTs nanocomposite. Nanotechnology, 2017, 28, 135501.	2.6	6
99	High Performance Flame-Made Ultraporous ZnO-Based QCM Sensor For Acetaldehyde. , 2019, , .		5
100	MOx/CNTs Hetero-Structures for Gas Sensing Applications: Role of CNTs Defects. Procedia Engineering, 2012, 47, 1259-1262.	1.2	4
101	A comparison of NO2 sensing characteristics of Î±- and Î³-iron oxide-based solid-state gas sensors. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	4
102	Fast and selective detection of volatile organic compounds using a novel pseudo spin-ladder compound CaCu‹sub›2‹/sub›O‹sub›3‹/sub›. Materials Advances, 2020, 1, 2368-2379.	5.4	4
103	Effect of Ga-doping and UV Radiation on High Performance CO Sensing of ZnO Nano-powders. Procedia Engineering, 2014, 87, 1079-1082.	1.2	3
104	Ag-doped nanostructured materials for electrochemical sensors. , 2015, , .		3
105	Novel 2D-Inorganic Materials for Gas Sensing. Chemosensors, 2017, 5, 29.	3.6	3
106	Development of a MnOâ,,-Modified Screen-Printed Electrode for Phenol Monitoring. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	3
107	A comparative study on the electrical and gas sensing properties of thick films prepared with synthesized nano-sized and commercial micro-sized Fe2O3 powders. Processing and Application of Ceramics, 2017, 11, 265-274.	0.8	3
108	On the Development and Characterization of PMA-based SAW Sensing Devices. Procedia Engineering, 2012, 47, 1271-1274.	1.2	2

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109	Optical, electrical and sensing properties of ZnO nanoparticles synthesized by sol-gel technique. , 2014, , .		2
110	Microstructural, Electrical and Hydrogen Sensing Properties of F-SnO2 Nanoparticles. Procedia Engineering, 2014, 87, 1087-1090.	1.2	2
111	Development of a high performance oxygen sensor operating at room temperature. , 2018, , .		2
112	On paper colorimetric sensor for ascorbic acid detection. , 2015, , .		1
113	Synthesis, characterization and electrochemical properties of metal-doped nanoporous carbon. IOP Conference Series: Materials Science and Engineering, 2015, 92, 012005.	0.6	1
114	Characterization and Ammonia Sensing Properties of 2D SnS2/SnO2âˆ’x Flakes-Based Films. Proceedings (mdpi), 2017, 1, 327.	0.2	1
115	Nanostructured MnO<inf>2</inf> for phenolic compounds degradation and monitoring. , 2018, , .		1
116	Electrochemical Sensor Based on Molybdenum Oxide Nanoparticles for Detection of Dopamine. Lecture Notes in Electrical Engineering, 2019, , 31-38.	0.4	1
117	Sensing Properties of Indium, Tin and Zinc Oxides for Hexanal Detection. Lecture Notes in Electrical Engineering, 2019, , 39-44.	0.4	1
118	Samarium Oxide as a Novel Sensing Material for Acetone and Ethanol. Lecture Notes in Electrical Engineering, 2019, , 83-87.	0.4	1
119	Correlation Between Structural and Sensing Properties of Carbon Nanotube-Based Devices. Lecture Notes in Electrical Engineering, 2015, , 207-210.	0.4	1
120	A Portable System for the Monitoring of Dissolved Oxygen in Aquatic Environment. Lecture Notes in Electrical Engineering, 2017, , 67-73.	0.4	1
121	Development of an amperometric H<inf>2</inf>O<inf>2</inf> sensor based on MOx/reduced graphene oxide nanocomposites. , 2013, , .		0
122	Dissolved Oxygen Sensor Based on Reduced Graphene Oxide. Lecture Notes in Electrical Engineering, 2014, , 89-93.	0.4	0
123	Sunflower pollen-assisted synthesis of nanosized semiconducting ZnO and its application in the selective sensing of NO2. Journal of Materials Science: Materials in Electronics, 2018, 29, 11096-11103.	2.2	0
124	High Performance VOCs Sensor Based on É£-Fe2O3/Al-ZnO Nanocomposites. Lecture Notes in Electrical Engineering, 2019, , 25-30.	0.4	0
125	Comparison of machine learning techniques for SoC and SoH evaluation from impedance data of an aged lithium ion battery. Acta IMEKO (2012), 2021, 10, 80.	0.7	0
126	CuO-Modified Cu Electrodes for Glucose Sensing. Lecture Notes in Electrical Engineering, 2018, , 90-96.	0.4	0

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127	Stable Aqueous Solution for the Fabrication of Î±-Fe2O3 Thin Film-Based Chemoresistive Sensors. Lecture Notes in Electrical Engineering, 2018, , 97-102.	0.4	0
128	Development of an Efficient Acetone Conductometric Sensor Based on NdFeO3. Lecture Notes in Electrical Engineering, 2020, , 201-206.	0.4	0
129	Photochemical Activation of Non-enzymatic Sensors Based on Cu/TiO2. Lecture Notes in Electrical Engineering, 2020, , 195-200.	0.4	0