Camilla Baratto

List of Publications by Year
in descending order

118	4,113	147726	133188
papers	citations	31 h-index	59 g-index

120	120	120	4842
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quasi-one dimensional metal oxide semiconductors: Preparation, characterization and application as chemical sensors. Progress in Materials Science, 2009, 54, 1-67.	16.0	582
2	Metal oxide nanocrystals for gas sensing. , 0, , .		451
3	Nanostructured ZnO chemical gas sensors. Ceramics International, 2015, 41, 14239-14244.	2.3	193
4	Synthesis and characterization of semiconducting nanowires for gas sensing. Sensors and Actuators B: Chemical, 2007, 121, 208-213.	4.0	163
5	Low temperature selective NO2 sensors by nanostructured fibres of ZnO. Sensors and Actuators B: Chemical, 2004, 100, 261-265.	4.0	159
6	Metal oxide nanoscience and nanotechnology for chemical sensors. Sensors and Actuators B: Chemical, 2013, 179, 3-20.	4.0	153
7	Adsorption effects of NO2 at ppm level on visible photoluminescence response of SnO2 nanobelts. Applied Physics Letters, 2005, 86, 011923.	1.5	133
8	NO2 monitoring at room temperature by a porous silicon gas sensor. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 69-70, 210-214.	1.7	126
9	Metal Oxide Gas Sensors, a Survey of Selectivity Issues Addressed at the SENSOR Lab, Brescia (Italy). Sensors, 2017, 17, 714.	2.1	126
10	Metal oxide nanocrystals for gas sensing. Sensors and Actuators B: Chemical, 2005, 109, 2-6.	4.0	113
11	A novel porous silicon sensor for detection of sub-ppm NO2 concentrations. Sensors and Actuators B: Chemical, 2001, 77, 62-66.	4.0	102
12	Single crystal ZnO nanowires as optical and conductometric chemical sensor. Journal Physics D: Applied Physics, 2007, 40, 7255-7259.	1.3	82
13	Multiparametric Porous Silicon Sensors. Sensors, 2002, 2, 121-126.	2.1	81
14	Sol-Gel Preparation of Î±-Fe2O3 Thin Films: Structural Characterization by XAFS and Raman. Journal of Sol-Gel Science and Technology, 1998, 13, 667-671.	1.1	75
15	Luminescence response of ZnO nanowires to gas adsorption. Sensors and Actuators B: Chemical, 2009, 140, 461-466.	4.0	65
16	Front-side micromachined porous silicon nitrogen dioxide gas sensor. Thin Solid Films, 2001, 391, 261-264.	0.8	59
17	Gas detection with a porous silicon based sensor. Sensors and Actuators B: Chemical, 2000, 65, 257-259.	4.0	57
18	On the mechanism of photoluminescence quenching in tin dioxide nanowires by NO₂adsorption. New Journal of Physics, 2008, 10, 043013.	1.2	57

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19	Metal Oxide Nanowire and Thin-Film-Based Gas Sensors for Chemical Warfare Simulants Detection. IEEE Sensors Journal, 2008, 8, 735-742.	2.4	54
20	Gold-catalysed porous silicon for NOx sensing. Sensors and Actuators B: Chemical, 2000, 68, 74-80.	4.0	46
21	Semiconducting tin oxide nanowires and thin films for Chemical Warfare Agents detection. Thin Solid Films, 2009, 517, 6156-6160.	0.8	46
22	Tailoring the textured surface of porous nanostructured NiO thin films for the detection of pollutant gases. Thin Solid Films, 2015, 583, 233-238.	0.8	43
23	Ozone adsorption on carbon nanotubes:Ab initiocalculations and experiments. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1466-1470.	0.9	40
24	Inverse opal gas sensors: Zn(II)-doped tin dioxide systems for low temperature detection of pollutant gases. Sensors and Actuators B: Chemical, 2008, 130, 567-573.	4.0	40
25	p-Type copper aluminum oxide thin films for gas-sensing applications. Sensors and Actuators B: Chemical, 2015, 209, 287-296.	4.0	40
26	Optical tuning of dielectric nanoantennas for thermo-optically reconfigurable nonlinear metasurfaces. Optics Letters, 2021, 46, 2453.	1.7	40
27	Recombination dynamics of deep defect states in zinc oxide nanowires. Nanotechnology, 2009, 20, 175706.	1.3	36
28	Gas sensitive light emission properties of tin oxide and zinc oxide nanobelts. Journal of Non-Crystalline Solids, 2006, 352, 1457-1460.	1.5	35
29	Pd- and Ca-doped iron oxide for ethanol vapor sensing. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 139, 41-47.	1.7	34
30	Kelvin probe as an effective tool to develop sensitive p-type CuO gas sensors. Sensors and Actuators B: Chemical, 2016, 222, 1257-1263.	4.0	34
31	Multiparametric porous silicon gas sensors with improved quality and sensitivity. Physica Status Solidi A, 2003, 197, 523-527.	1.7	32
32	Room-temperature gas sensing based on visible photoluminescence properties of metal oxide nanobelts. Journal of Optics, 2006, 8, S585-S588.	1.5	32
33	Fabrication and Characterization of a Sensing Device Based on Porous Silicon. Physica Status Solidi A, 2000, 182, 473-477.	1.7	31
34	Growth and properties of ZnO nanorods by RF-sputtering for detection of toxic gases. RSC Advances, 2018, 8, 32038-32043.	1.7	31
35	Monitoring plants health in greenhouse for space missions. Sensors and Actuators B: Chemical, 2005, 108, 278-284.	4.0	30
36	Transfer of CVD-grown graphene for room temperature gas sensors. Nanotechnology, 2017, 28, 414001.	1.3	30

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37	Monitoring penetration of ethanol in a porous silicon microcavity by photoluminescence interferometry. Applied Physics Letters, 2001, 78, 3744-3746.	1.5	29
38	Fe2O3 films for Îž(3) optics: Raman and XAS characterization. Optical Materials, 1998, 9, 368-372.	1.7	28
39	Optical sensing of NO2 in tin oxide nanowires at sub-ppm level. Sensors and Actuators B: Chemical, 2008, 130, 391-395.	4.0	27
40	Plasma-induced enhancement of UV photoluminescence in ZnO nanowires. CrystEngComm, 2013, 15, 7981.	1.3	27
41	Large surface area biphase titania for chemical sensing. Sensors and Actuators B: Chemical, 2015, 209, 1091-1096.	4.0	26
42	Tin Oxide Nanowires Decorated with Ag Nanoparticles for Visible Light-Enhanced Hydrogen Sensing at Room Temperature: Bridging Conductometric Gas Sensing and Plasmon-Driven Catalysis. Journal of Physical Chemistry C, 2018, 122, 5026-5031.	1.5	26
43	Experimental apparatus for annihilation cross-section measurements of low energy antiprotons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 711, 12-20.	0.7	25
44	Synthesis of self-assembled chain-like ZnO nanostructures on stiff and flexible substrates. CrystEngComm, 2013, 15, 2881.	1.3	22
45	Metal oxide nanowire chemical and biochemical sensors. Journal of Materials Research, 2013, 28, 2911-2931.	1.2	22
46	Conductometric Sensing with Individual InAs Nanowires. Sensors, 2019, 19, 2994.	2.1	22
47	An ultrathin TiO2 blocking layer on Cd stannate as highly efficient front contact for dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2013, 15, 16812.	1.3	21
48	SnO[sub 2] lithographic processing for nanopatterned gas sensors. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2784.	1.6	19
49	Iron-doped indium oxide by modified RGTO deposition for ozone sensing. Sensors and Actuators B: Chemical, 2006, 118, 221-225.	4.0	19
50	SnO2 sub-micron wires for gas sensors. Microelectronic Engineering, 2005, 78-79, 178-184.	1.1	18
51	Magnetic gas sensing exploiting the magneto-optical Kerr effect on ZnO nanorods/Co layer system. RSC Advances, 2016, 6, 42517-42521.	1.7	17
52	Compact hematite buffer layer as a promoter of nanorod photoanode performances. Scientific Reports, 2016, 6, 35049.	1.6	17
53	Anomalous gas sensing behaviors to reducing agents of hydrothermally grown Î±-Fe2O3 nanorods. Sensors and Actuators B: Chemical, 2018, 273, 1237-1245.	4.0	17
54	Si<scp>OCN</scp> Functionalized Carbon Nanotube Gas Sensors for Elevated Temperature Applications. Journal of the American Ceramic Society, 2015, 98, 1142-1149.	1.9	16

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55	High degree of polarization of the near-band-edge photoluminescence in ZnO nanowires. Nanoscale Research Letters, 2011, 6, 501.	3.1	15
56	Visible electroluminescence from a ZnO nanowires/p-GaN heterojunction light emitting diode. Optics Express, 2015, 23, 18937.	1.7	15
57	Towards a Deeper Comprehension of the Interaction Mechanisms between Mesoporous Silicon and NO2. Physica Status Solidi A, 2000, 182, 465-471.	1.7	14
58	Vertically Coupling ZnO Nanorods onto MoS2 Flakes for Optical Gas Sensing. Chemosensors, 2020, 8, 19.	1.8	14
59	New strategy for magnetic gas sensing. RSC Advances, 2016, 6, 83399-83405.	1.7	13
60	Influence of metallic impurities on response kinetics in metal oxide thin film gas sensors. Sensors and Actuators B: Chemical, 2004, 103, 448-456.	4.0	12
61	On the alignment of ZnO nanowires by Langmuir â€“ Blodgett technique for sensing application. Applied Surface Science, 2020, 528, 146959.	3.1	12
62	Metal Oxides Monoâ€Đimensional Nanostructures for Gas Sensing and Light Emission. Journal of the American Ceramic Society, 2012, 95, 831-850.	1.9	11
63	Sputtering deposition of amorphous cadmium stannate as transparent conducting oxide. Thin Solid Films, 2012, 520, 2739-2744.	0.8	11
64	Functionalized Single Wall Carbon Nanotubes Based Gas Sensor. , 2006, , .		10
65	Single Metal Oxide Nanowire devices for Ammonia and Other Gases Detection in Humid Atmosphere. Procedia Engineering, 2016, 168, 1052-1055.	1.2	10
66	Gas sensing applications of the inverse spinel zinc tin oxide. Materials Science in Semiconductor Processing, 2017, 71, 461-469.	1.9	10
67	Bottle-brush-shaped heterostructures of NiOâ€“ZnO nanowires: growth study and sensing properties. Nanotechnology, 2017, 28, 465502.	1.3	10
68	Gas Sensing Study of ZnO Nanowire Heterostructured with NiO for Detection of Pollutant Gases. Procedia Engineering, 2014, 87, 1091-1094.	1.2	9
69	Transparent front contact optimization in dye sensitized solar cells: use of cadmium stannate and titanium oxide by sputtering. Thin Solid Films, 2014, 555, 18-20.	0.8	9
70	ZnO nanocrystals by chemical route for optical gas sensing. , 2008, , .		8
71	Two-phase Titania Nanotubes for Gas Sensing. Procedia Engineering, 2014, 87, 176-179.	1.2	8
72	Stoichiometry Gradient, Cation Interdiffusion, and Band Alignment between a Nanosized TiO₂ Blocking Layer and a Transparent Conductive Oxide in Dye-Sensitized Solar Cell Front Contacts. ACS Applied Materials & Interfaces, 2015, 7, 765-773.	4.0	8

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73	Mineralization of 3D Osteogenic Model Based on Gelatin-Dextran Hybrid Hydrogel Scaffold Bioengineered with Mesenchymal Stromal Cells: A Multiparametric Evaluation. Materials, 2021, 14, 3852.	1.3	7
74	Study of the Degradation of Biobased Plastic after Stress Tests in Water. Coatings, 2021, 11, 1330.	1.2	7
75	Vapour phase nucleation of ZnO nanowires on GaN: growth habit, interface study and optical properties. RSC Advances, 2016, 6, 15087-15093.	1.7	6
76	P-type CuO Nanowires and thin Film for Highly Sensitive Kelvin Probe Gas Sensing Applications. Procedia Engineering, 2014, 87, 16-19.	1.2	5
77	Conductance and Work Function of TiO 2 Nanotubes Based Gas Sensors. Procedia Engineering, 2015, 120, 769-772.	1.2	5
78	ZnO and SnO<inf>2</inf> one-dimensional sensors for detection of hazardous gases. , 2017, , .		4
79	Selective semiconductor gas sensor based on surface photovoltage. , 2002, , .		3
80	New Trends in Optical Resonant Bio-Chemical Sensing. IEEE Sensors Journal, 2021, 21, 12856-12867.	2.4	3
81	One-Dimensional Polyaniline Nanotubes for Enhanced Chemical and Biochemical Sensing. Lecture Notes in Electrical Engineering, 2011, , 311-315.	0.3	3
82	Multiparametric sensor for air pollutants based on a porous silicon optical microcavity. Materials Research Society Symposia Proceedings, 2000, 638, 1.	0.1	2
83	Ozone reactivity with carbon nanotubes: experimental and theoretical studies. , 0, , .		2
84	CHECS (Closed Habitat Environmental Control Sensors). , 2004, , .		2
85	Investigation on Novel Poly (3-hexylthiophene)-ZnO Nanocomposite Thin Films Gas Sensor. , 2006, , .		2
86	Thin films for nonlinear optics: sol-gel preparation, Raman and XAS characterization of Î±-Fe 2 O 3. , 1998, 3359, 334.		1
87	Inverse Opal Structure of SnO2 and SnO2: Zn for Gas Sensing. , 0, , .		1
88	Metal oxide nanowires for optical gas sensing. , 2007, 6474, 212.		1
89	SnO<inf>2</inf> nanowire bio-transistor for electrical DNA sensing. , 2007, , .		1
90	Functionalized single-wall carbon nanotube-based gas sensor. Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanoengineering and Nanosystems, 2007, 221, 17-21.	0.1	1

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91	SnO<inf>2</inf> nanowires for optical and optoelectronic gas sensing. , 2009, , .		1
92	Growth and gas sensing properties of self-assembled chain-like ZnO nanostructures. , 2012, , .		1
93	Growth and Gas Sensing Properties of Self-Assembled Chain-Like ZnO Nanostructures. Procedia Engineering, 2012, 47, 762-765.	1.2	1
94	Tailoring and Characterization of Porous hierarchical Nanostructured p Type Thin Film of Cu-Al-Oxide for the Detection of Pollutant Gases. Procedia Engineering, 2014, 87, 252-255.	1.2	1
95	Fabrication of single-nanowire sensing devices by electron beam lithography. , 2015, , .		1
96	Sensing through the optical radiation pattern in dielectric metastructures. , 2019, , .		1
97	Light Emission Properties of SnO₂ Nanowires for Applications in Gas Sensing. Sensor Letters, 2008, 6, 596-600.	0.4	1
98	Multiparametric gas sensors with porous silicon optical microcavities. , 0, , .		0
99	THIN FILMS OF ALUMINUM/VANADIUM OXIDE FOR ORGANIC VAPOURS SENSING. , 2002, , .		0
100	Mixed In/Fe oxide thin films for ppb-level ozone sensing. , 0, , .		0
101	Surface photovoltage studies of porous silicon in presence of polluting gases: toward a selective gas sensor. , 2003, 5222, 12.		0
102	Sub-micron structured Metal Oxide gas sensors by means of lithographic techniques. Materials Research Society Symposia Proceedings, 2004, 828, 108.	0.1	0
103	Highly sensitive single crystalline metal oxide nanowires gas sensors. , 2006, , .		0
104	Towards bio-nanotransistors for electrical DNA sensing. , 2006, , .		0
105	Metal oxide nanowires for biochemical gas sensing. , 2007, , .		0
106	Single crystalline metal oxide nano-wires/tubes: controlled growth for sensitive gas sensor devices. , 2007, , .		0
107	Pd- AND Ca-DOPED IRON OXIDE FOR ETHANOL VAPOR SENSING. , 2008, , .		0
108	Integration of metal oxide nanowires in dye sensitized solar cells. , 2009, , .		0

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109	The Power of Nanomaterial Approaches in Gas Sensors. Springer Series on Chemical Sensors and Biosensors, 2011, , 53-78.	0.5	0
110	Co/ZnO nanorods system for magnetic gas sensing applications. , 2016, , .		0
111	Tunable Filters for Visible Light Based on Resonant VO2 Planar Thin Films. , 2020, , .		0
112	A Porous Silicon Microcavity as an Optical and Electrical Multipatrametric Chemical Sensor. , 2002, , 399-412.		0
113	NEW NANOSTRUCTURES FOR GENOSENSING. , 2008, , .		0
114	Optical Gas Sensing Properties of ZnO Nanowires. Lecture Notes in Electrical Engineering, 2010, , 173-176.	0.3	0
115	Gas Influence on Photocurrent Generation in Metal Oxide Nanowires. Lecture Notes in Electrical Engineering, 2011, , 93-97.	0.3	0
116	Graphene plasmon enhanced optical properties in ZnO micro-structures. , 2016, , .		0
117	Nonlinear Transparency of Dielectric - Metal - Dielectric 1D photonic crystals in the THz Range. , 2020, , .		0
118	Effect of light activation on chemical gas sensors based on aligned nanowires. , 2020, , .		0