Elisabetta Comini

List of Publications by Citations

385 papers	13,934 citations	59 h-index	104 g-index
444 ext. papers	15,521 ext. citations	5.3 avg, IF	6.7 L-index

#	Paper	IF	Citations
385	Stable and highly sensitive gas sensors based on semiconducting oxide nanobelts. *Applied Physics Letters*, **2002**, 81, 1869-1871	3.4	1245
384	Metal oxide nano-crystals for gas sensing. *Analytica Chimica Acta*, **2006**, 568, 28-40	6.6	627
383	Quasi-one dimensional metal oxide semiconductors: Preparation, characterization and application as chemical sensors. *Progress in Materials Science*, **2009**, 54, 1-67	42.2	509
382	Ultrasensitive and highly selective gas sensors using three-dimensional tungsten oxide nanowire networks. *Applied Physics Letters*, **2006**, 88, 203101	3.4	363
381	TiO2 thin films by a novel sol□gel processing for gas sensor applications. *Sensors and Actuators B: Chemical*, **2000**, 68, 189-196	8.5	297
380	Metal oxide nanowires as chemical sensors. *Materials Today*, **2010**, 13, 36-44	21.8	287
379	UV light activation of tin oxide thin films for NO2 sensing at low temperatures. *Sensors and Actuators B: Chemical*, **2001**, 78, 73-77	8.5	228
378	Light enhanced gas sensing properties of indium oxide and tin dioxide sensors. *Sensors and Actuators B: Chemical*, **2000**, 65, 260-263	8.5	188
377	Gas sensing properties of MoO3 nanorods to CO and CH3OH. *Chemical Physics Letters*, **2005**, 407, 368-371	2.5	167
376	Nanostructured ZnO chemical gas sensors. *Ceramics International*, **2015**, 41, 14239-14244	5.1	158
375	"Metal oxide -based heterostructures for gas sensors"- A review. *Analytica Chimica Acta*, **2018**, 1039, 1-23	6.6	157
374	The Role of Surface Oxygen Vacancies in the NO2 Sensing Properties of SnO2 Nanocrystals. *Journal of Physical Chemistry C*, **2008**, 112, 19540-19546	3.8	154
373	Comparison of single and binary oxide MoO3, TiO2 and WO3 sol□gel gas sensors. *Sensors and Actuators B: Chemical*, **2002**, 83, 276-280	8.5	151
372	1D ZnO nano-assemblies by Plasma-CVD as chemical sensors for flammable and toxic gases. *Sensors and Actuators B: Chemical*, **2010**, 149, 1-7	8.5	150
371	Synthesis and characterization of semiconducting nanowires for gas sensing. *Sensors and Actuators B: Chemical*, **2007**, 121, 208-213	8.5	145
370	TiO2 nanotubes: recent advances in synthesis and gas sensing properties. *Sensors*, **2013**, 13, 14813-38	3.8	140
369	First Example of ZnO□TiO2 Nanocomposites by Chemical Vapor Deposition: Structure, Morphology, Composition, and Gas Sensing Performances. *Chemistry of Materials*, **2007**, 19, 5642-5649	9.6	140

368	Investigation on the O3 sensitivity properties of WO3 thin films prepared by sol–gel, thermal evaporation and r.f. sputtering techniques. *Sensors and Actuators B: Chemical*, **2000**, 64, 182-188	8.5	136
367	Characterization of n-type and p-type semiconductor gas sensors based on NiOx doped TiO2 thin films. *Thin Solid Films*, **2009**, 517, 2775-2780	2.2	132
366	Metal oxide nanoscience and nanotechnology for chemical sensors. *Sensors and Actuators B: Chemical*, **2013**, 179, 3-20	8.5	129
365	Co3O4/ZnO nanocomposites: from plasma synthesis to gas sensing applications. *ACS Applied Materials & Interfaces*, **2012**, 4, 928-34	9.5	125
364	Nanostructured WO3 deposited by modified thermal evaporation for gas-sensing applications. *Thin Solid Films*, **2005**, 490, 81-85	2.2	120
363	Controlled Growth and Sensing Properties of In2O3 Nanowires. *Crystal Growth and Design*, **2007**, 7, 2500-2504	3.5	117
362	p- and n-type Fe-doped SnO2 gas sensors fabricated by the mechanochemical processing technique. *Sensors and Actuators B: Chemical*, **2003**, 93, 562-565	8.5	116
361	Novel Synthesis and Gas Sensing Performances of CuO–TiO2 Nanocomposites Functionalized with Au Nanoparticles. *Journal of Physical Chemistry C*, **2011**, 115, 10510-10517	3.8	115
360	Synthesis of In2O3–ZnO core–shell nanowires and their application in gas sensing. *Sensors and Actuators B: Chemical*, **2011**, 160, 1346-1351	8.5	115
359	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	3.1	114
358	Metal oxide nanowire chemical sensors: innovation and quality of life. *Materials Today*, **2016**, 19, 559-567	21.8	105
357	Nanocomposites SnO2/Fe2O3: Sensor and catalytic properties. *Sensors and Actuators B: Chemical*, **2006**, 118, 208-214	8.5	102
356	Metal oxide nanocrystals for gas sensing. *Sensors and Actuators B: Chemical*, **2005**, 109, 2-6	8.5	102
355	Tin oxide nanobelts electrical and sensing properties. *Sensors and Actuators B: Chemical*, **2005**, 111-112, 2-6	8.5	100
354	Chemical vapor deposition of copper oxide films and entangled quasi-1D nanoarchitectures as innovative gas sensors. *Sensors and Actuators B: Chemical*, **2009**, 141, 270-275	8.5	96
353	A novel porous silicon sensor for detection of sub-ppm NO2 concentrations. *Sensors and Actuators B: Chemical*, **2001**, 77, 62-66	8.5	91
352	Nanostructured mixed oxides compounds for gas sensing applications. *Sensors and Actuators B: Chemical*, **2002**, 84, 26-32	8.5	90
351	Nanocrystalline Metal Oxides from the Injection of Metal Oxide Sols in Coordinating Solutions: Synthesis, Characterization, Thermal Stabilization, Device Processing, and Gas-Sensing Properties. *Advanced Functional Materials*, **2006**, 16, 1488-1498	15.6	87

350	Defect study of SnO2 nanostructures by cathodoluminescence analysis: Application to nanowires. *Sensors and Actuators B: Chemical*, **2007**, 126, 6-12	8.5	85
349	Branch-like NiO/ZnO heterostructures for VOC sensing. *Sensors and Actuators B: Chemical*, **2018**, 262, 477-485	8.5	84
348	Urchin-like ZnO nanorod arrays for gas sensing applications. *CrystEngComm*, **2010**, 12, 3419	3.3	82
347	Columnar CeO2nanostructures for sensor application. *Nanotechnology*, **2007**, 18, 125502	3.4	82
346	Oxidation of Sn Thin Films to SnO2. Micro-Raman Mapping and X-ray Diffraction Studies. *Journal of Materials Research*, **1998**, 13, 2457-2460	2.5	81
345	Titanium dioxide thin films prepared for alcohol microsensor applications. *Sensors and Actuators B: Chemical*, **2000**, 66, 139-141	8.5	79
344	Investigation of sol□gel prepared CeO2□TiO2 thin films for oxygen gas sensing. *Sensors and Actuators B: Chemical*, **2003**, 95, 145-150	8.5	78
343	Single crystal ZnO nanowires as optical and conductometric chemical sensor. *Journal Physics D: Applied Physics*, **2007**, 40, 7255-7259	3	77
342	In2O3 nanowires for gas sensors: morphology and sensing characterisation. *Thin Solid Films*, **2007**, 515, 8356-8359	2.2	75
341	Reduced graphene oxide/ZnO nanocomposite for application in chemical gas sensors. *RSC Advances* , **2016**, 6, 34225-34232	3.7	75
340	Preparation of nanosized titania thick and thin films as gas-sensors. *Sensors and Actuators B: Chemical*, **1999**, 57, 197-200	8.5	74
339	CO sensing properties of titanium and iron oxide nanosized thin films. *Sensors and Actuators B: Chemical*, **2001**, 77, 16-21	8.5	73
338	Semiconductor MoO3□TiO2 thin film gas sensors. *Sensors and Actuators B: Chemical*, **2001**, 77, 472-477	8.5	72
337	Plasma-assisted synthesis of Ag/ZnO nanocomposites: First example of photo-induced H2 production and sensing. *International Journal of Hydrogen Energy*, **2011**, 36, 15527-15537	6.7	71
336	Sensitivity enhancement towards ethanol and methanol of TiO2 films doped with Pt and Nb. *Sensors and Actuators B: Chemical*, **2000**, 64, 169-174	8.5	71
335	Solvothermal, chloroalkoxide-based synthesis of monoclinic WO(3) quantum dots and gas-sensing enhancement by surface oxygen vacancies. *ACS Applied Materials & Interfaces*, **2014**, 6, 16808-16	9.5	69
334	Reversed bias Pt/nanostructured ZnO Schottky diode with enhanced electric field for hydrogen sensing. *Sensors and Actuators B: Chemical*, **2010**, 146, 507-512	8.5	69
333	Data preprocessing enhances the classification of different brands of Espresso coffee with an electronic nose. *Sensors and Actuators B: Chemical*, **2000**, 69, 397-403	8.5	69

332	Au/Fe2O3 Nanocomposites as Selective NO2 Gas Sensors. *Journal of Physical Chemistry C*, **2014**, 118, 11813-11819	3.8	67
331	Electrical Properties of Tin Dioxide Two-Dimensional Nanostructures. *Journal of Physical Chemistry B*, **2004**, 108, 1882-1887	3.4	65
330	Carbon monoxide response of molybdenum oxide thin films deposited by different techniques. *Sensors and Actuators B: Chemical*, **2000**, 68, 168-174	8.5	64
329	Synthesis of different ZnO nanostructures by modified PVD process and potential use for dye-sensitized solar cells. *Materials Chemistry and Physics*, **2010**, 124, 694-698	4.4	63
328	Synthesis and Gas-Sensing Properties of Pd-Doped SnO2 Nanocrystals. A Case Study of a General Methodology for Doping Metal Oxide Nanocrystals. *Crystal Growth and Design*, **2008**, 8, 1774-1778	3.5	61
327	TiO2 nanotubular and nanoporous arrays by electrochemical anodization on different substrates. *RSC Advances*, **2011**, 1, 1038	3.7	60
326	Synthesis and integration of tin oxide nanowires into an electronic nose. *Vacuum*, **2012**, 86, 532-535	3.7	58
325	Luminescence response of ZnO nanowires to gas adsorption. *Sensors and Actuators B: Chemical*, **2009**, 140, 461-466	8.5	58
324	Metal Oxide Nanostructures in Food Applications: Quality Control and Packaging. *Chemosensors*, **2018**, 6, 16	4	57
323	Functionalised zinc oxide nanowire gas sensors: Enhanced NO(2) gas sensor response by chemical modification of nanowire surfaces. *Beilstein Journal of Nanotechnology*, **2012**, 3, 368-77	3	57
322	The role of self-assembled monolayers in electronic devices. *Journal of Materials Chemistry C*, **2020**, 8, 3938-3955	7.1	56
321	Preparation of Radial and Longitudinal Nanosized Heterostructures of In2O3 and SnO2. *Nano Letters*, **2007**, 7, 3553-3558	11.5	55
320	On the mechanism of photoluminescence quenching in tin dioxide nanowires by NO2adsorption. *New Journal of Physics*, **2008**, 10, 043013	2.9	54
319	Selectivity enhancement of SnO2 sensors by means of operating temperature modulation. *Thin Solid Films*, **2002**, 418, 2-8	2.2	54
318	Nanostructured metal oxide gas sensors, a survey of applications carried out at SENSOR lab, Brescia (Italy) in the security and food quality fields. *Sensors*, **2012**, 12, 17023-45	3.8	52
317	CuO/ZnO nanocomposite gas sensors developed by a plasma-assisted route. *ChemPhysChem*, **2012**, 13, 2342-8	3.2	51
316	Preparation of copper oxide nanowire-based conductometric chemical sensors. *Sensors and Actuators B: Chemical*, **2013**, 182, 7-15	8.5	51
315	Metal oxide nanowires: Preparation and application in gas sensing. *Journal of Molecular Catalysis A*, **2009**, 305, 170-177		51

314	Plasma enhanced-CVD of undoped and fluorine-doped Co3O4 nanosystems for novel gas sensors. *Sensors and Actuators B: Chemical*, **2011**, 160, 79-86	8.5	50
313	Characterization of Ga2O3 based MRISiC hydrogen gas sensors. *Sensors and Actuators B: Chemical*, **2004**, 103, 129-135	8.5	50
312	Sol□gel TiO2 and W/TiO2 nanostructured thin films for control of drunken driving. *Sensors and Actuators B: Chemical*, **2002**, 83, 230-237	8.5	50
311	Layered WO3/ZnO/36□LiTaO3 SAW gas sensor sensitive towards ethanol vapour and humidity. *Sensors and Actuators B: Chemical*, **2006**, 117, 442-450	8.5	48
310	Indium oxide quasi-monodimensional low temperature gas sensor. *Sensors and Actuators B: Chemical*, **2006**, 118, 204-207	8.5	48
309	Gas detection with a porous silicon based sensor. *Sensors and Actuators B: Chemical*, **2000**, 65, 257-259	8.5	48
308	Fabrication and investigation of gas sensing properties of Nb-doped TiO(2) nanotubular arrays. *Nanotechnology*, **2012**, 23, 235706	3.4	46
307	Controlled synthesis and properties of □Fe2O3 nanosystems functionalized with Ag or Pt nanoparticles. *CrystEngComm*, **2012**, 14, 6469	3.3	46
306	Selectivity Modification of SnO2-Based Materials for Gas Sensor Arrays. *Electroanalysis*, **2010**, 22, 2809-2816	3	46
305	Solid oxide fuel cell: Decade of progress, future perspectives and challenges. *International Journal of Hydrogen Energy*, **2021**, 46, 27643-27674	6.7	46
304	STM and XPS characterisation of vacuum annealed nanocrystalline WO3 films. *Surface Science*, **2007**, 601, 4953-4957	1.8	45
303	Hydrogen and hydrocarbon gas sensing performance of Pt/WO3/SiC MROSiC devices. *Sensors and Actuators B: Chemical*, **2005**, 111-112, 111-116	8.5	45
302	Ozone detection using low-power-consumption metal□xide gas sensors. *Sensors and Actuators A: Physical*, **1999**, 74, 229-232	3.9	45
301	Nickel oxide nanowires: vapor liquid solid synthesis and integration into a gas sensing device. *Nanotechnology*, **2016**, 27, 205701	3.4	45
300	. *IEEE Sensors Journal*, **2008**, 8, 735-742	4	44
299	Effect of nickel ions on sensitivity of In2O3 thin film sensors to NO2. *Sensors and Actuators B: Chemical*, **1999**, 57, 153-158	8.5	44
298	Very low power consumption micromachined CO sensors. *Sensors and Actuators B: Chemical*, **1999**, 55, 140-146	8.5	43
297	Gold functionalized MoO3 nano flakes for gas sensing applications. *Sensors and Actuators B: Chemical*, **2018**, 269, 331-339	8.5	43

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295	Semiconducting tin oxide nanowires and thin films for Chemical Warfare Agents detection. *Thin Solid Films*, **2009**, 517, 6156-6160	2.2	42
294	Cr-inserted TiO2 thin films for chemical gas sensors. *Sensors and Actuators B: Chemical*, **2007**, 128, 312-319	8.5	40
293	Orthorhombic Pbcn SnO2 nanowires for gas sensing applications. *Journal of Crystal Growth*, **2008**, 310, 253-260	1.6	40
292	Synthesis of Cu2O bi-pyramids by reduction of Cu(OH)2 in solution. *Materials Letters*, **2010**, 64, 469-471	3.3	39
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290	Gold-catalysed porous silicon for NOx sensing. *Sensors and Actuators B: Chemical*, **2000**, 68, 74-80	8.5	39
289	Metal-oxide nanowire sensors for CO detection: Characterization and modeling. *Sensors and Actuators B: Chemical*, **2010**, 148, 283-291	8.5	38
288	ZnO/TiO2 nanonetwork as efficient photoanode in excitonic solar cells. *Applied Physics Letters*, **2009**, 95, 193104	3.4	37
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284	Preparation and characterization of nanostructured CuO thin films using spray pyrolysis technique. *Superlattices and Microstructures*, **2019**, 127, 2-10	2.8	36
283	One-dimensional nanostructured oxides for thermoelectric applications and excitonic solar cells. *Nano Energy*, **2012**, 1, 372-390	17.1	36
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281	Gas sensitive light emission properties of tin oxide and zinc oxide nanobelts. *Journal of Non-Crystalline Solids*, **2006**, 352, 1457-1460	3.9	34
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276	Toward Optimized Radial Modulation of the Space-Charge Region in One-Dimensional SnO-NiO Core-Shell Nanowires for Hydrogen Sensing. *ACS Applied Materials & Interfaces*, **2020**, 12, 4594-4606	9.5	32
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261	Integration of metal oxide nanowires in flexible gas sensing devices. *Sensors*, **2013**, 13, 10659-73	3.8	28

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258	Room-temperature gas sensing based on visible photoluminescence properties of metal oxide nanobelts. *Journal of Optics*, **2006**, 8, S585-S588		27
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255	Kelvin probe as an effective tool to develop sensitive p-type CuO gas sensors. *Sensors and Actuators B: Chemical*, **2016**, 222, 1257-1263	8.5	26
254	Interactions of nanocrystalline tin oxide powder with NO2: A Raman spectroscopic study. *Sensors and Actuators B: Chemical*, **2007**, 126, 1-5	8.5	26
253	Gas sensing properties of zinc oxide nanostructures prepared by thermal evaporation. *Applied Physics A: Materials Science and Processing*, **2007**, 88, 45-48	2.6	26
252	Effect of vanadium doping on ZnO sensing properties synthesized by spray pyrolysis. *Materials and Design*, **2018**, 139, 56-64	8.1	25
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235	Catalytic impact of RuOx clusters to high ammonia sensitivity of tin dioxide. *Sensors and Actuators B: Chemical*, **2012**, 175, 186-193	8.5	21
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229	Synthesis of self-assembled chain-like ZnO nanostructures on stiff and flexible substrates. *CrystEngComm*, **2013**, 15, 2881	3.3	20
228	FT-IR and UV-Vis-NIR characterisation of pure and mixed MoO3 and WO3 thin films. *Thin Solid Films*, **2005**, 490, 74-80	2.2	20
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226	Acetone sensor based on Ni doped ZnO nanostructues: growth and sensing capability. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 7681-7690	2.1	19
225	Application of a Novel S3 Nanowire Gas Sensor Device in Parallel with GC-MS for the Identification of Rind Percentage of Grated Parmigiano Reggiano. *Sensors*, **2018**, 18,	3.8	19

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220	Evidence of catalytic activation of anatase nanocrystals by vanadium oxide surface layer: Acetone and ethanol sensing properties. *Sensors and Actuators B: Chemical*, **2015**, 217, 193-197	8.5	18
219	Toward the Detection of Poisonous Chemicals and Warfare Agents by Functional MnO Nanosystems. *ACS Applied Materials & Interfaces*, **2018**, 10, 12305-12310	9.5	18
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