Mauro Epifani

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6818029/publications.pdf

Version: 2024-02-01

94 papers	3,129 citations	117625 34 h-index	168389 53 g-index
95 all docs	95 docs citations	95 times ranked	4269 citing authors

#	Article	IF	Citations
1	Mechanistic Insights into WO3 Sensing and Related Perspectives. Sensors, 2022, 22, 2247.	3.8	11
2	Visible light photodegradation of dyes and paracetamol by direct sensitization mechanism onto metallic MoO2 nanocrystals. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 413, 113258.	3.9	12
3	How Chemoresistive Sensors Can Learn from Heterogeneous Catalysis. Hints, Issues, and Perspectives. Chemosensors, 2021, 9, 193.	3.6	6
4	High selectivity trimethylamine sensors based on graphene-NiGa2O4 nanocomposites prepared by hydrothermal method. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 118, 113788.	2.7	16
5	Rhodium as efficient additive for boosting acetone sensing by TiO2 nanocrystals. Beyond the classical view of noble metal additives. Sensors and Actuators B: Chemical, 2020, 319, 128338.	7.8	6
6	Nanogap Sensors Decorated with SnO₂ Nanoparticles Enable Low-Temperature Detection of Volatile Organic Compounds. ACS Applied Nano Materials, 2020, 3, 3337-3346.	5.0	13
7	WO₃-Based Gas Sensors: Identifying Inherent Qualities and Understanding the Sensing Mechanism. ACS Sensors, 2020, 5, 1624-1633.	7.8	82
8	WO3 Based Gas Sensors. Proceedings (mdpi), 2019, 2, .	0.2	9
9	The acetone sensing properties of ZnFe2O4-graphene quantum dots (GQDs) nanocomposites at room temperature. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 106, 326-333.	2.7	42
10	Surface modification by vanadium pentoxide turns oxide nanocrystals into powerful adsorbents of methylene blue. Journal of Colloid and Interface Science, 2019, 533, 369-374.	9.4	13
11	Facile Preparation of g-C₃N₄-WO₃ Composite Gas Sensing Materials with Enhanced Gas Sensing Selectivity to Acetone. Journal of Sensors, 2019, 2019, 1-8.	1.1	14
12	A dual band electrochromic device switchable across four distinct optical modes. Journal of Materials Chemistry A, 2018, 6, 10201-10205.	10.3	65
13	Inorganic Photocatalytic Enhancement: Activated RhB Photodegradation by Surface Modification of SnO2 Nanocrystals with V2O5-like species. Scientific Reports, 2017, 7, 44763.	3.3	17
14	Solvothermal Synthesis, Gasâ€Sensing Properties, and Solar Cellâ€Aided Investigation of TiO₂â€“MoO_x Nanocrystals. ChemNanoMat, 2017, 3, 798-807.	2.8	2
15	The Ethylhexanoate Route to Metal Oxide Nanocrystals: Synthesis of CoO Nanooctahedra from CoII 2-Ethylhexanoate. European Journal of Inorganic Chemistry, 2016, 2016, 3963-3968.	2.0	5
16	Acetone sensors based on TiO2 nanocrystals modified with tungsten oxide species. Journal of Alloys and Compounds, 2016, 665, 345-351.	5.5	32
17	ZnO@SnO2 engineered composite photoanodes for dye sensitized solar cells. Scientific Reports, 2015, 5, 14523.	3.3	54
18	TiO2 colloidal nanocrystals surface modification by V2O5 species: Investigation by 47,49Ti MAS-NMR and H2, CO and NO2 sensing properties. Applied Surface Science, 2015, 351, 1169-1173.	6.1	18

#	Article	IF	Citations
19	Surface modification, heterojunctions, and other structures: composing metal oxide nanocrystals for chemical sensors. Proceedings of SPIE, 2015, , .	0.8	0
20	Surface Modification of TiO₂ Nanocrystals by WO_x Coating or Wrapping: Solvothermal Synthesis and Enhanced Surface Chemistry. ACS Applied Materials & Interfaces, 2015, 7, 6898-6908.	8.0	21
21	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.	7.8	21
22	Acetone Sensing with TiO2-WO3 Nanocomposites: An Example of Response Enhancement by Inter-oxide Cooperative Effects. Procedia Engineering, 2014, 87, 803-806.	1.2	11
23	Tailor-made ZnO@SnO2networks for high efficiency photovoltaic devices. , 2014, , .		1
24	Solvothermal, Chloroalkoxide-based Synthesis of Monoclinic WO₃ Quantum Dots and Gas-Sensing Enhancement by Surface Oxygen Vacancies. ACS Applied Materials & Interfaces, 2014, 6, 16808-16816.	8.0	78
25	Soft chemistry routes to transparent metal oxide thin films. The case of solâ€“gel synthesis and structural characterization of Ta2O5 thin films from tantalum chloromethoxide. Thin Solid Films, 2014, 555, 39-41.	1.8	10
26	Suppression of the NO2 interference by chromium addition in WO3-based ammonia sensors. Investigation of the structural properties and of the related sensing pathways. Sensors and Actuators B: Chemical, 2013, 187, 308-312.	7.8	7
27	Colloidal Counterpart of the TiO₂-Supported V₂O₅ System: A Case Study of Oxide-on-Oxide Deposition by Wet Chemical Techniques. Synthesis, Vanadium Speciation, and Gas-Sensing Enhancement. Journal of Physical Chemistry C, 2013, 117, 20697-20705.	3.1	34
28	Pt doping triggers growth of TiO2 nanorods: nanocomposite synthesis and gas-sensing properties. CrystEngComm, 2012, 14, 3882.	2.6	26
29	Surface modification of metal oxide nanocrystals for improved supercapacitors. Energy and Environmental Science, 2012, 5, 7555.	30.8	33
30	Synthesis of Ceriaâ€“Zirconia Nanocrystals with Improved Microstructural Homogeneity and Oxygen Storage Capacity by Hydrolytic Solâ€“Gel Process in Coordinating Environment. Advanced Functional Materials, 2012, 22, 2867-2875.	14.9	25
31	Improvement of oxygen storage capacity using mesoporous ceriaâ€“zirconia solid solutions. Applied Catalysis B: Environmental, 2011, 108-109, 32-38.	20.2	72
32	Two step, hydrolytic-solvothermal synthesis of redispersible titania nanocrystals and their gas-sensing properties. Journal of Sol-Gel Science and Technology, 2011, 60, 254-259.	2.4	9
33	From doping to phase transformation: Ammonia sensing performances of chloroalkoxide-derived WO3 powders modified with chromium. Sensors and Actuators B: Chemical, 2010, 148, 200-206.	7.8	13
34	Synthesis and structural properties of ultra-small oxide (TiO2, ZrO2, SnO2) nanoparticles prepared by decomposition of metal alkoxides. Materials Chemistry and Physics, 2010, 124, 809-815.	4.0	15
35	Morphological and structural characterization of WO3 and Crâ€“WO3 thin films synthesized by solâ€“gel process. Thin Solid Films, 2010, 518, 4512-4514.	1.8	4
36	Crystallization Pathways of Multicomponent Oxide Nanocrystals: Critical Role of the Metal Cations Distribution in the Case Study of Metal Ferrites. Crystal Growth and Design, 2010, 10, 5176-5181.	3.0	9

#	Article	IF	Citations
37	Metal Oxide Nanocrystals from the Injection of Metal Oxide Sols in a Coordinating Environment: Principles, Applicability, and Investigation of the Synthesis Variables in the Case Study of CeO₂ and SnO₂. Chemistry of Materials, 2009, 21, 862-870.	6.7	16
38	Chloro-Alkoxide Route to Transition Metal Oxides. Synthesis of WO₃ Thin Films and Powders from a Tungsten Chloro-Methoxide. Chemistry of Materials, 2009, 21, 5215-5221.	6.7	39
39	The Chloroalkoxide Route to Transition Metal Oxides. Synthesis of V₂O₅ Thin Films and Powders from a Vanadium Chloromethoxide. Chemistry of Materials, 2009, 21, 1618-1626.	6.7	12
40	Chemoresistive sensing of light alkanes with SnO2 nanocrystals: a DFT-based insight. Physical Chemistry Chemical Physics, 2009, 11, 3634.	2.8	10
41	Synthesis of Soluble and Size-Controlled SnO2 and CeO2 Nanocrystals: Application of a General Concept for the Low-Temperature, Hydrolytic Synthesis of Organically Capped Oxide Nanoparticles. European Journal of Inorganic Chemistry, 2008, 2008, 859-862.	2.0	12
42	Chemical synthesis of In2O3 nanocrystals and their application in highly performing ozone-sensing devices. Sensors and Actuators B: Chemical, 2008, 130, 483-487.	7.8	34
43	TiO2 thin films from titanium butoxide: Synthesis, Pt addition, structural stability, microelectronic processing and gas-sensing properties. Sensors and Actuators B: Chemical, 2008, 130, 599-608.	7.8	61
44	The hydrolytic route to Co-porphyrin-doped SnO2 gas-sensing materials. Inorganica Chimica Acta, 2008, 361, 79-85.	2.4	9
45	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.	3.0	69
46	The Role of Surface Oxygen Vacancies in the NO₂ Sensing Properties of SnO₂ Nanocrystals. Journal of Physical Chemistry C, 2008, 112, 19540-19546.	3.1	181
47	Capping Ligand Effects on the Amorphous-to-Crystalline Transition of CdSe Nanoparticles. Langmuir, 2008, 24, 11182-11188.	3.5	36
48	The role of oxygen vacancies in the sensing properties of SnO<inf>2</inf> nanocrystals. , 2008, , .		1
49	Detection of unburned fuel as contaminant in engine oil by a gas microsensor array. , 2007, , .		0
50	Growth of CdSe Nanocrystals by a Catalytic Redox Activation of Ostwald Ripening:â€‰ A Case Study of the Concept of Traveling Solubility Perturbation. Chemistry of Materials, 2007, 19, 4919-4924.	6.7	10
51	Nanocrystals as Very Active Interfaces:â€‰ Ultrasensitive Room-Temperature Ozone Sensors with In₂O₃ Nanocrystals Prepared by a Low-Temperature Solâ˜Gel Process in a Coordinating Environment. Journal of Physical Chemistry C, 2007, 111, 13967-13971.	3.1	38
52	Interactions of nanocrystalline tin oxide powder with NO2: A Raman spectroscopic study. Sensors and Actuators B: Chemical, 2007, 126, 1-5.	7.8	34
53	Oxide nanocrystals from a low-temperature, self-limiting solâ€“gel transition in a coordinating environment: Nanocrystal synthesis, processing of gas-sensing devices and application to organic compounds. Sensors and Actuators B: Chemical, 2007, 126, 163-167.	7.8	7
54	Synthesis of nanocrystalline ZnO at low temperatures using inorganic sols as precursors. Materials Letters, 2007, 61, 3100-3102.	2.6	4

#	Article	IF	Citations
55	SnO2 thin films from metalorganic precursors: Synthesis, characterization, microelectronic processing and gas-sensing properties. Sensors and Actuators B: Chemical, 2007, 124, 217-226.	7.8	19
56	Precursors for the combustion synthesis of metal oxides from the solâ€“gel processing of metal complexes. Journal of the European Ceramic Society, 2007, 27, 115-123.	5.7	47
57	Solution Synthesis of Thin Films in the SnO2â^'In2O3System: A Case Study of the Mixing of Solâ^'Gel and Metal-Organic Solution Processes. Chemistry of Materials, 2006, 18, 840-846.	6.7	40
58	Nanostructured In2O3â€“SnO2 solâ€“gel thin film as material for NO2 detection. Sensors and Actuators B: Chemical, 2006, 114, 646-655.	7.8	126
59	Analysis of single-cultivar extra virgin olive oils by means of an Electronic Nose and HS-SPME/GC/MS methods. Sensors and Actuators B: Chemical, 2006, 114, 674-680.	7.8	44
60	Influence of electrodes ageing on the properties of the gas sensors based on SnO2. Sensors and Actuators B: Chemical, 2006, 115, 396-402.	7.8	20
61	Core-shell Pd nanoparticles embedded in SnOx films. Synthesis, analytical characterisation and perspective application in chemiresistor-type sensing devices. Microelectronics Journal, 2006, 37, 1620-1628.	2.0	10
62	Oxide nanopowders from the low-temperature processing of metal oxide sols and their application as gas-sensing materials. Sensors and Actuators B: Chemical, 2006, 118, 105-109.	7.8	26
63	In situ Raman spectroscopy study of NO2 adsorption onto nanocrystalline tin(IV) oxide. Journal of Raman Spectroscopy, 2006, 37, 1272-1277.	2.5	41
64	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.	14.9	97
65	A novel method based on gas microsensors to analyze diesel engine oil contaminated by diluent unburned diesel fuel. , 2006, , .		0
66	Design of an Electronic Nose for Selective Phosphine Detection in Cereals. Sensor Letters, 2006, 4, 229-234.	0.4	5
67	‹title›Cheap silicon technology integrated sol-gel combustion sensor‹/title›. , 2005, 5836, 255.		0
68	Response evaluation of TiO2 sensor to flue gas on spark ignition engine and in controlled environment. Sensors and Actuators B: Chemical, 2005, 107, 563-571.	7.8	26
69	NO2-gas-sensing properties of mixed In2O3â€“SnO2 thin films. Thin Solid Films, 2005, 490, 68-73.	1.8	51
70	Synthesis of gold nanocrystals in concurrently polymerizing organicâ€“inorganic hybrid films. Journal of Materials Research, 2005, 20, 1287-1294.	2.6	1
71	Synthesis of SnO2 and ZnO Colloidal Nanocrystals from the Decomposition of Tin(II) 2-Ethylhexanoate and Zinc(II) 2-Ethylhexanoate. Chemistry of Materials, 2005, 17, 6468-6472.	6.7	65
72	Chemical Synthesis, Characterization and Gas-Sensing Properties of Thin Films in the In2O3-SnO2 System. Materials Research Society Symposia Proceedings, 2004, 828, 209.	0.1	1

#	Article	IF	Citations
73	Preparation and characterization of cobalt porphyrin modified tin dioxide films for sensor applications. Sensors and Actuators B: Chemical, 2004, 103, 339-343.	7.8	67
74	Ambient Pressure Synthesis of Corundum-Type In2O3.. ChemInform, 2004, 35, no.	0.0	0
75	Ambient Pressure Synthesis of Corundum-Type In2O3. Journal of the American Chemical Society, 2004, 126, 4078-4079.	13.7	108
76	Synthesis and Characterization of MoO3 Thin Films and Powders from a Molybdenum Chloromethoxide. Chemistry of Materials, 2004, 16, 5495-5501.	6.7	50
77	Role of osmium in the electrical transport mechanism of polycrystalline tin oxide thin films. Applied Physics Letters, 2004, 84, 744-746.	3.3	21
78	A novel synthesis of CdSe nanocrystals. Materials Letters, 2004, 58, 2429-2432.	2.6	8
79	Title is missing!. Journal of Sol-Gel Science and Technology, 2003, 26, 741-744.	2.4	40
80	Innovative aspects in thin film technologies for nanostructured materials in gas sensor devices. Thin Solid Films, 2003, 436, 52-63.	1.8	34
81	Analysis of dry salami by means of an electronic nose and correlation with microbiological methods. Sensors and Actuators B: Chemical, 2003, 95, 123-131.	7.8	23
82	Hall effect measurements in gas sensors based on nanosized os-doped sol-gel derived SnO/sub 2/ thin films. IEEE Sensors Journal, 2003, 3, 827-834.	4.7	13
83	Preparation and characterization of nanostructured materials for an artificial olfactory sensing system. Sensors and Actuators B: Chemical, 2002, 84, 55-59.	7.8	16
84	Recognition of olive oils by means of an integrated solâ€“gel SnO2 Electronic Nose. Thin Solid Films, 2002, 418, 59-65.	1.8	32
85	Preparation of uniformly dispersed copper nanocluster doped silica glasses by the solâ€“gel process. Journal of Materials Chemistry, 2001, 11, 3326-3332.	6.7	40
86	Application of a semiconductor solâ€“gel sensor array to the discrimination of pollutants in air. Thin Solid Films, 2001, 391, 314-319.	1.8	17
87	Moisture influence and geometry effect of Au and Pt electrodes on CO sensing response of SnO2 microsensors based on solâ€“gel thin film. Sensors and Actuators B: Chemical, 2001, 77, 503-511.	7.8	73
88	Monitoring of rancidity of milk by means of an electronic nose and a dynamic PCA analysis. Sensors and Actuators B: Chemical, 2001, 78, 174-179.	7.8	93
89	Solâ€“Gel Processing and Characterization of Pure and Metalâ€Doped SnO₂ Thin Films. Journal of the American Ceramic Society, 2001, 84, 48-54.	3.8	57
90	Analysis of vapours and foods by means of an electronic nose based on a solâ€“gel metal oxide sensors array. Sensors and Actuators B: Chemical, 2000, 69, 230-235.	7.8	72

#	Article	IF	Citations
91	Solâ€“Gel Synthesis and Characterization of Ag and Au Nanoparticles in SiO₂, TiO₂, and ZrO₂ Thin Films. Journal of the American Ceramic Society, 2000, 83, 2385-2393.	3.8	206
92	Air quality monitoring by means of solâ€“gel integrated tin oxide thin films. Sensors and Actuators B: Chemical, 1999, 58, 283-288.	7.8	50
93	A novel gas sensor based on SnO2/Os thin film for the detection of methane at low temperature. Sensors and Actuators B: Chemical, 1999, 58, 350-355.	7.8	76
94	Copper-ruby monoliths by the sol-gel process. Journal of Non-Crystalline Solids, 1996, 201, 250-255.	3.1	33