Marcelo O Orlandi

List of Publications by Year
in descending order

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102 papers	3,499 citations	159573 30 h-index	144002 57 g-index
105 all docs	105 docs citations	105 times ranked	4113 citing authors

#	Article	IF	Citations
1	The Role of Hierarchical Morphologies in the Superior Gas Sensing Performance of CuOâ€Based Chemiresistors. Advanced Functional Materials, 2013, 23, 1759-1766.	14.9	255
2	Effect of Different Solvent Ratios (Water/Ethylene Glycol) on the Growth Process of CaMoO₄ Crystals and Their Optical Properties. Crystal Growth and Design, 2010, 10, 4752-4768.	3.0	204
3	Electronic structure, growth mechanism and photoluminescence of CaWO₄crystals. CrystEngComm, 2012, 14, 853-868.	2.6	200
4	Yolk-shelled ZnCo2O4 microspheres: Surface properties and gas sensing application. Sensors and Actuators B: Chemical, 2018, 257, 906-915.	7.8	197
5	Hydrothermal Microwave: A New Route to Obtain Photoluminescent Crystalline BaTiO₃ Nanoparticles. Chemistry of Materials, 2008, 20, 5381-5387.	6.7	166
6	Role of oxygen at the grain boundary of metal oxide varistors: A potential barrier formation mechanism. Applied Physics Letters, 2001, 79, 48-50.	3.3	163
7	Comparative gas sensor response of SnO2, SnO and Sn3O4 nanobelts to NO2 and potential interferents. Sensors and Actuators B: Chemical, 2015, 208, 122-127.	7.8	124
8	Efficient microwave-assisted hydrothermal synthesis of CuO sea urchin-like architectures via a mesoscale self-assembly. CrystEngComm, 2010, 12, 1696.	2.6	109
9	Direct in situ observation of the electron-driven synthesis of Ag filaments on Î±-Ag2WO4 crystals. Scientific Reports, 2013, 3, 1676.	3.3	103
10	ZnO architectures synthesized by a microwave-assisted hydrothermal method and their photoluminescence properties. Solid State Ionics, 2010, 181, 775-780.	2.7	92
11	Gas sensor properties of Ag- and Pd-decorated SnO micro-disks to NO2, H2 and CO: Catalyst enhanced sensor response and selectivity. Sensors and Actuators B: Chemical, 2017, 239, 253-261.	7.8	92
12	Growth mechanism and photocatalytic properties of SrWO4 microcrystals synthesized by injection of ions into a hot aqueous solution. Advanced Powder Technology, 2013, 24, 344-353.	4.1	89
13	Schottky-type grain boundaries in CCTO ceramics. Solid State Communications, 2011, 151, 1377-1381.	1.9	79
14	Growth of SnO Nanobelts and Dendrites by a Self-Catalytic VLS Process. Journal of Physical Chemistry B, 2006, 110, 6621-6625.	2.6	77
15	Growth mechanism of octahedron-like BaMoO4 microcrystals processed in microwave-hydrothermal: Experimental observations and computational modeling. Particuology, 2009, 7, 353-362.	3.6	76
16	A Joint Experimental and Theoretical Study on the Nanomorphology of CaWO₄ Crystals. Journal of Physical Chemistry C, 2011, 115, 20113-20119.	3.1	73
17	High gas sensor performance of WO3 nanofibers prepared by electrospinning. Journal of Alloys and Compounds, 2021, 864, 158745.	5.5	64
18	Structural evolution, growth mechanism and photoluminescence properties of CuWO4 nanocrystals. Ultrasonics Sonochemistry, 2017, 38, 256-270.	8.2	60

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19	Anatase TiO2 nanocrystals anchored at inside of SBA-15 mesopores and their optical behavior. Applied Surface Science, 2016, 389, 1137-1147.	6.1	50
20	SnO2 nanocrystals synthesized by microwave-assisted hydrothermal method: towards a relationship between structural and optical properties. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	49
21	Gas sensing materials roadmap. Journal of Physics Condensed Matter, 2021, 33, 303001.	1.8	49
22	Investigation of electronic and chemical sensitization effects promoted by Pt and Pd nanoparticles on single-crystalline SnO nanobelt-based gas sensors. Sensors and Actuators B: Chemical, 2019, 301, 127055.	7.8	48
23	Formation and evolution of TiO2 nanotubes in alkaline synthesis. Ceramics International, 2015, 41, 2884-2891.	4.8	47
24	Carbon Fiber Reinforced Polymer and Epoxy Adhesive Tensile Test Failure Analysis Using Scanning Electron Microscopy. Materials Research, 2017, 20, 951-961.	1.3	47
25	Ionic conductivity of Bi4Ti0.2V1.8O10.7 polycrystalline ceramics obtained by the polymeric precursor route. Materials Letters, 2003, 57, 2540-2544.	2.6	41
26	Importance of oxygen atmosphere to recover the ZnO-based varistors properties. Journal of Materials Science, 2006, 41, 6221-6227.	3.7	41
27	Role of oxygen on the phase stability and microstructure evolution of CaCu3Ti4O12 ceramics. Journal of the European Ceramic Society, 2017, 37, 129-136.	5.7	40
28	Giant Chemo-Resistance of SnO disk-like structures. Sensors and Actuators B: Chemical, 2013, 186, 103-108.	7.8	34
29	Electrostatic force microscopy as a tool to estimate the number of active potential barriers in dense non-Ohmic polycrystalline SnO2 devices. Applied Physics Letters, 2006, 89, 152102.	3.3	33
30	Visible light-driven photoelectrocatalytic degradation of acid yellow 17 using Sn3O4 flower-like thin films supported on Ti substrate (Sn3O4/TiO2/Ti). Journal of Photochemistry and Photobiology A: Chemistry, 2019, 376, 196-205.	3.9	31
31	Multi-functional properties of CaCu3Ti4O12 thin films. Journal of Applied Physics, 2012, 112, 054512.	2.5	27
32	Nonohmic behavior of SnO2-MnO polycrystalline ceramics. II. Analysis of admittance and dielectric spectroscopy. Journal of Applied Physics, 2004, 96, 3811-3817.	2.5	26
33	Morphological Evolution of Tin Oxide Nanobelts after Phase Transition. Crystal Growth and Design, 2008, 8, 1067-1072.	3.0	26
34	Electrical and Optical Properties of Conductive and Transparent ITO@PMMA Nanocomposites. Journal of Physical Chemistry C, 2012, 116, 12946-12952.	3.1	26
35	Tin-doped indium oxide nanobelts grown by carbothermal reduction method. Applied Physics A: Materials Science and Processing, 2005, 80, 23-25.	2.3	25
36	Insight into Copperâ€Based Catalysts: Microwaveâ€Assisted Morphosynthesis, Inâ€…Situ Reduction Studies, and Dehydrogenation of Ethanol. ChemCatChem, 2011, 3, 839-843.	3.7	25

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37	Cellulosic material obtained from Antarctic algae biomass. Cellulose, 2020, 27, 113-126.	4.9	25
38	The Influence of Excess Precipitate on the Non-Ohmic Properties of SnO2-Based Varistors. , 2003, 10, 63-68.		24
39	Controlled Synthesis of Layered Sn₃O₄ Nanobelts by Carbothermal Reduction Method and Their Gas Sensor Properties. Journal of Nanoscience and Nanotechnology, 2014, 14, 6662-6668.	0.9	24
40	Monitoring a CuO gas sensor at work: an advanced in situ X-ray absorption spectroscopy study. Physical Chemistry Chemical Physics, 2015, 17, 18761-18767.	2.8	24
41	Nonohmic behavior of SnO2-MnO polycrystalline ceramics. I. Correlations between microstructural morphology and nonohmic features. Journal of Applied Physics, 2004, 96, 2693-2700.	2.5	22
42	Probing the effects of oxygen-related defects on the optical and luminescence properties in CaCu3Ti4O12 ceramics. Journal of the European Ceramic Society, 2018, 38, 5002-5006.	5.7	20
43	Grain-Boundary Resistance and Nonlinear Coefficient Correlation for SnO2-Based Varistors. Materials Research, 2016, 19, 1286-1291.	1.3	18
44	Layered Î±-MoO₃ nanoplates for gas sensing applications. CrystEngComm, 2020, 22, 4640-4649.	2.6	18
45	Morphological modifications and surface amorphization in ZnO sonochemically treated nanoparticles. Ultrasonics Sonochemistry, 2013, 20, 799-804.	8.2	17
46	Controlling the breakdown electric field in SnO2 based varistors by the insertion of SnO2 nanobelts. Journal of the European Ceramic Society, 2017, 37, 1535-1540.	5.7	17
47	Influence of processing parameters on nanomaterials synthesis efficiency by a carbothermal reduction process. Journal of Nanoparticle Research, 2011, 13, 2081-2088.	1.9	16
48	Photoelectrocatalytic oxidation of hair dye basic red 51 at W/WO3/TiO2 bicomposite photoanode activated by ultraviolet and visible radiation. Journal of Environmental Chemical Engineering, 2013, 1, 194-199.	6.7	16
49	Tungsten oxide ion gel-gated transistors: how structural and electrochemical properties affect the doping mechanism. Journal of Materials Chemistry C, 2018, 6, 1980-1987.	5.5	16
50	Structure of the Electrical Double Layer at the Interface between an Ionic Liquid and Tungsten Oxide in Ion-Gated Transistors. Journal of Physical Chemistry Letters, 2020, 11, 3257-3262.	4.6	16
51	Feasible and Clean Solid-Phase Synthesis of LiNbO₃ by Microwave-Induced Combustion and Its Application as Catalyst for Low-Temperature Aniline Oxidation. ACS Sustainable Chemistry and Engineering, 2018, 6, 1680-1691.	6.7	15
52	Accelerated microwave-assisted hydrothermal/solvothermal processing: Fundamentals, morphologies, and applications. Journal of Electroceramics, 2018, 40, 271-292.	2.0	15
53	A Gas Sensor Based on a Single SnO Micro-Disk. Sensors, 2018, 18, 3229.	3.8	15
54	Study of intense photoluminescence from monodispersed Î²-Ga2O3 ellipsoidal structures. Ceramics International, 2019, 45, 5023-5029.	4.8	15

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55	Tin oxide materials. , 2020, , 1-9.		15
56	Superior performance of rGO-tin oxide nanocomposite for selective reduction of CO2 to methanol. Journal of CO2 Utilization, 2021, 46, 101460.	6.8	15
57	Gas sensing and conductivity relationship on nanoporous thin films: A CaCu3Ti4O12 case study. Thin Solid Films, 2016, 604, 69-73.	1.8	14
58	High-performance and low-voltage SnO2-based varistors. Ceramics International, 2017, 43, 13759-13764.	4.8	14
59	Tungsten oxide ion-gated phototransistors using ionic liquid and aqueous gating media. Journal Physics D: Applied Physics, 2019, 52, 305102.	2.8	13
60	The effect of TiO₂ on the microstructural and electrical properties of low voltage varistor based on (Sn,Ti)O₂ ceramics. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 457-461.	1.8	12
61	Facile preparation of a novel biomass-derived H3PO4 and Mn(NOâ‚ƒ)â‚‚ activated carbon from citrus bergamia peels for high-performance supercapacitors. Materials Today Communications, 2021, 26, 101779.	1.9	12
62	CerÃ¢micas eletrÃ´nicas Ã base de SnO2 e TiO2. Ceramica, 2001, 47, 136-143.	0.8	11
63	Microstructure and electrical properties of (Ta, Co, Pr) doped TiO2 based electroceramics. Journal of Materials Science: Materials in Electronics, 2010, 21, 246-251.	2.2	11
64	Heating Method Effect on SnO Micro-Disks as NO2 Gas Sensor. Frontiers in Materials, 2019, 6, .	2.4	11
65	Tunable graphene oxide inter-sheet distance to obtain graphene oxideâ€“silver nanoparticle hybrids. New Journal of Chemistry, 2019, 43, 1285-1290.	2.8	11
66	Sonochemical Synthesis and Magnetism in Co-doped ZnO Nanoparticles. Journal of Superconductivity and Novel Magnetism, 2013, 26, 2515-2519.	1.8	10
67	Ultrafast Growth of h-MoO3 Microrods and Its Acetone Sensing Performance. Surfaces, 2021, 4, 9-16.	2.3	9
68	Nonohmic behavior of SnO2.MnO2-based ceramics. Materials Research, 2003, 6, 279-283.	1.3	8
69	Qualitative evaluation of active potential barriers in SnO2-based polycrystalline devices by electrostatic force microscopy. Applied Physics A: Materials Science and Processing, 2007, 87, 793-796.	2.3	7
70	Influence of Synthesis Route on the Radiation Sensing Properties of ZnO Nanostructures. Journal of Nanomaterials, 2016, 2016, 1-9.	2.7	7
71	Sn3O4 exfoliation process investigated by density functional theory and modern scotch-tape experiment. Computational Materials Science, 2019, 170, 109160.	3.0	7
72	Carbothermal Reduction Synthesis: An Alternative Approach to Obtain Single-Crystalline Metal Oxide Nanostructures. , 2017, , 43-67.		7

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73	Carbon-coated SnO2 nanobelts and nanoparticles by single catalytic step. Journal of Nanoparticle Research, 2009, 11, 955-963.	1.9	6
74	Effect of controlled conductivity on thermal sensing property of 0â€“3 pyroelectric composite. Smart Materials and Structures, 2013, 22, 025015.	3.5	6
75	The role of surface stoichiometry in NO₂gas sensing using single and multiple nanobelts of tin oxide. Physical Chemistry Chemical Physics, 2021, 23, 9733-9742.	2.8	6
76	Exploring ZnO nanostructures with reduced graphene oxide in layer-by-layer films as supercapacitor electrodes for energy storage. Journal of Materials Science, 2022, 57, 7023-7034.	3.7	6
77	(Ta, Cr)-doped {T}{i}O2 electroceramic systems. Journal of Materials Science: Materials in Electronics, 2006, 17, 79-84.	2.2	5
78	Dependence of annealing time on structural and morphological properties of Ca(Zr0.05Ti0.95)O3 thin films. Journal of Alloys and Compounds, 2008, 453, 386-391.	5.5	5
79	Influence of thermal annealing treatment in oxygen atmosphere on grain boundary chemistry and nonâ€ohmic properties of SnO₂Â·MnO polycrystalline semiconductors. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 383-388.	1.8	4
80	SnO2 nanoparticles functionalized in amorphous silica and glass. Powder Technology, 2009, 195, 91-95.	4.2	4
81	Chemical composition and morphology study of bovine enamel submitted to different sterilization methods. Clinical Oral Investigations, 2018, 22, 733-744.	3.0	4
82	Coalescence growth mechanism of inserted tin dioxide belts in polycrystalline SnO2-based ceramics. Materials Characterization, 2018, 142, 289-294.	4.4	4
83	Temperature dependence of electron properties of Sn doped nanobelts. Physica B: Condensed Matter, 2007, 400, 243-247.	2.7	3
84	Novel Aspects of the Purpose-Built Materials Strategy: Evidence of Topographic Template Effect and Oriented Attachment Growth Mechanism. Journal of Nanoscience and Nanotechnology, 2008, 8, 3447-3453.	0.9	3
85	Flexible composite via rapid titania coating by microwave-assisted hydrothermal synthesis. Bulletin of Materials Science, 2017, 40, 499-504.	1.7	3
86	Influence of pH in Obtaining Indium Tin Oxide Nanoparticles by Microwave Assisted Solvothermal Method. Materials Research, 2018, 21, .	1.3	3
87	Varistor technology based on SnO2. , 2020, , 321-343.		3
88	Supercapacitor Based on Nanostructured Multilayer Films Consisting of Polyelectrolyte/Graphene Oxideâ€MnO₂â€ZnO for Energy Storage Applications. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	1.8	3
89	Damage Detection and Quantification Using Thin Film of ITO Nanocomposites. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 207-213.	0.5	2
90	Methods for characterization and evaluation of chemoresistive nanosensors. , 2020, , 63-83.		2

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91	Structural, thermal, vibrational, and optical characterization of Snâ€“Sâ€“Se dichalcogenide system synthesized by high-energy ball milling. Journal of Physics and Chemistry of Solids, 2021, 157, 110203.	4.0	2
92	Real-Time Monitoring of Electrochromic Memory Loss of Layered Î±-MoO3 Nanoplates. Journal of the Electrochemical Society, 2020, 167, 166509.	2.9	2
93	Detection of H2 facilitated by ionic liquid gating of tungsten oxide films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 013202.	2.1	2
94	Layer-by-Layer Films with CoFe₂O₄ Nanocrystals and Graphene Oxide as a Sensitive Interface in Capacitive Field-Effect Devices. ACS Applied Nano Materials, 0, , .	5.0	2
95	Efeito do Pr2O3 nas propriedades elÃ©tricas de varistores Ã base de SnO2. Ceramica, 2003, 49, 232-236.	0.8	1
96	Study ITO@PMMA Composites by Transmission Electron Microscopy. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	1
97	Ab initio investigation of the role of charge transfer in the adsorption properties of H2,ÂN2,ÂO2,CO,NO,CO2,ÂNO2 , and CH4 on the van der Waals layered Sn3O4 semiconductor. Physical Review Materials, 2020, 4, .	2.4	1
98	In-situ sensor response of copper oxide urchin-like structures. , 2016, , .		0
99	Nanofitas de Ã³xido de estanho: controle do estado de oxidaÃ§Ã£o pela atmosfera de sÃntese. Ceramica, 2004, 50, 58-61.	0.8	0
100	Influence of the Relative Humidity to the Damage Detection Effectiveness of an ITO/PMMA Nanocomposite Film Sensor. , 0, , .		0
101	(Invited) Visible Light Driven Photoelectrocatalytic Degradation of Acid Yellow 17 Dye Using Thin Film Sn3O4 Flowers-like Nanostructurred Supporting Onto Ti. ECS Meeting Abstracts, 2018, , .	0.0	0
102	Emerging Chemical Sensing Technologies: Recent Advances and Future Trends. Surfaces, 2022, 5, 318-320.	2.3	0