Marcelo O Orlandi

List of Publications by Citations

99 papers	2,800 citations	27 h-index	51 g-index
105 ext. papers	3,148 ext. citations	3.9 avg, IF	5.23 L-index

#	Paper	IF	Citations
99	The Role of Hierarchical Morphologies in the Superior Gas Sensing Performance of CuO-Based Chemiresistors. *Advanced Functional Materials*, **2013**, 23, 1759-1766	15.6	218
98	Effect of Different Solvent Ratios (Water/Ethylene Glycol) on the Growth Process of CaMoO4Crystals and Their Optical Properties. *Crystal Growth and Design*, **2010**, 10, 4752-4768	3.5	186
97	Electronic structure, growth mechanism and photoluminescence of CaWO4 crystals. *CrystEngComm*, **2012**, 14, 853-868	3.3	174
96	Hydrothermal Microwave: A New Route to Obtain Photoluminescent Crystalline BaTiO3 Nanoparticles. *Chemistry of Materials*, **2008**, 20, 5381-5387	9.6	147
95	Role of oxygen at the grain boundary of metal oxide varistors: A potential barrier formation mechanism. *Applied Physics Letters*, **2001**, 79, 48-50	3.4	144
94	Yolk-shelled ZnCo2O4 microspheres: Surface properties and gas sensing application. *Sensors and Actuators B: Chemical*, **2018**, 257, 906-915	8.5	141
93	Direct in situ observation of the electron-driven synthesis of Ag filaments on □Ag2WO4 crystals. *Scientific Reports*, **2013**, 3, 1676	4.9	95
92	Efficient microwave-assisted hydrothermal synthesis of CuO sea urchin-like architectures via a mesoscale self-assembly. *CrystEngComm*, **2010**, 12, 1696	3.3	92
91	Comparative gas sensor response of SnO2, SnO and Sn3O4 nanobelts to NO2 and potential interferents. *Sensors and Actuators B: Chemical*, **2015**, 208, 122-127	8.5	91
90	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	4.6	79
89	ZnO architectures synthesized by a microwave-assisted hydrothermal method and their photoluminescence properties. *Solid State Ionics*, **2010**, 181, 775-780	3.3	79
88	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	8.5	73
87	Growth mechanism of octahedron-like BaMoO4 microcrystals processed in microwave-hydrothermal: Experimental observations and computational modeling. *Particuology*, **2009**, 7, 353-362	2.8	70
86	Growth of SnO nanobelts and dendrites by a self-catalytic VLS process. *Journal of Physical Chemistry B*, **2006**, 110, 6621-5	3.4	69
85	Schottky-type grain boundaries in CCTO ceramics. *Solid State Communications*, **2011**, 151, 1377-1381	1.6	68
84	A Joint Experimental and Theoretical Study on the Nanomorphology of CaWO4 Crystals. *Journal of Physical Chemistry C*, **2011**, 115, 20113-20119	3.8	66
83	SnO2 nanocrystals synthesized by microwave-assisted hydrothermal method: towards a relationship between structural and optical properties. *Journal of Nanoparticle Research*, **2012**, 14, 1	2.3	42

82	Ionic conductivity of Bi4Ti0.2V1.8O10.7 polycrystalline ceramics obtained by the polymeric precursor route. *Materials Letters*, **2003**, 57, 2540-2544	3.3	40
81	Anatase TiO2 nanocrystals anchored at inside of SBA-15 mesopores and their optical behavior. *Applied Surface Science*, **2016**, 389, 1137-1147	6.7	39
80	Structural evolution, growth mechanism and photoluminescence properties of CuWO nanocrystals. *Ultrasonics Sonochemistry*, **2017**, 38, 256-270	8.9	38
79	Formation and evolution of TiO2 nanotubes in alkaline synthesis. *Ceramics International*, **2015**, 41, 2884-2891	3.1	33
78	Importance of oxygen atmosphere to recover the ZnO-based varistors properties. *Journal of Materials Science*, **2006**, 41, 6221-6227	4.3	32
77	Role of oxygen on the phase stability and microstructure evolution of CaCu3Ti4O12 ceramics. *Journal of the European Ceramic Society*, **2017**, 37, 129-136	6	30
76	Giant Chemo-Resistance of SnO disk-like structures. *Sensors and Actuators B: Chemical*, **2013**, 186, 103-108	8.5	30
75	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	3.4	29
74	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	8.5	28
73	Carbon Fiber Reinforced Polymer and Epoxy Adhesive Tensile Test Failure Analysis Using Scanning Electron Microscopy. *Materials Research*, **2017**, 20, 951-961	1.5	28
72	Morphological Evolution of Tin Oxide Nanobelts after Phase Transition. *Crystal Growth and Design*, **2008**, 8, 1067-1072	3.5	26
71	Nonohmic behavior of SnO2-MnO polycrystalline ceramics. II. Analysis of admittance and dielectric spectroscopy. *Journal of Applied Physics*, **2004**, 96, 3811-3817	2.5	25
70	Multi-functional properties of CaCu3Ti4O12 thin films. *Journal of Applied Physics*, **2012**, 112, 054512	2.5	24
69	Tin-doped indium oxide nanobelts grown by carbothermal reduction method. *Applied Physics A: Materials Science and Processing*, **2005**, 80, 23-25	2.6	24
68	Electrical and Optical Properties of Conductive and Transparent [email´protected] Nanocomposites. *Journal of Physical Chemistry C*, **2012**, 116, 12946-12952	3.8	23
67	The Influence of Excess Precipitate on the Non-Ohmic Properties of SnO2-Based Varistors **2003**, 10, 63-68		22
66	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	21
65	High gas sensor performance of WO3 nanofibers prepared by electrospinning. *Journal of Alloys and Compounds*, **2021**, 864, 158745	5.7	21

64	Controlled synthesis of layered Sn3O4 nanobelts by carbothermal reduction method and their gas sensor properties. *Journal of Nanoscience and Nanotechnology*, **2014**, 14, 6662-8	1.3	20
63	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	4.7	20
62	Monitoring a CuO gas sensor at work: an advanced in situ X-ray absorption spectroscopy study. *Physical Chemistry Chemical Physics*, **2015**, 17, 18761-7	3.6	18
61	Insight into Copper-Based Catalysts: Microwave-Assisted Morphosynthesis, In Situ Reduction Studies, and Dehydrogenation of Ethanol. *ChemCatChem*, **2011**, 3, 839-843	5.2	18
60	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	6	16
59	Cellulosic material obtained from Antarctic algae biomass. *Cellulose*, **2020**, 27, 113-126	5.5	16
58	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	6.8	15
57	Gas sensing materials roadmap. *Journal of Physics Condensed Matter*, **2021**, 33,	1.8	15
56	Grain-Boundary Resistance and Nonlinear Coefficient Correlation for SnO2-Based Varistors. *Materials Research*, **2016**, 19, 1286-1291	1.5	15
55	Influence of processing parameters on nanomaterials synthesis efficiency by a carbothermal reduction process. *Journal of Nanoparticle Research*, **2011**, 13, 2081-2088	2.3	14
54	Tungsten oxide ion gel-gated transistors: how structural and electrochemical properties affect the doping mechanism. *Journal of Materials Chemistry C*, **2018**, 6, 1980-1987	7.1	13
53	Layered □MoO3 nanoplates for gas sensing applications. *CrystEngComm*, **2020**, 22, 4640-4649	3.3	12
52	Gas sensing and conductivity relationship on nanoporous thin films: A CaCu3Ti4O12 case study. *Thin Solid Films*, **2016**, 604, 69-73	2.2	12
51	A Gas Sensor Based on a Single SnO Micro-Disk. *Sensors*, **2018**, 18,	3.8	12
50	Feasible and Clean Solid-Phase Synthesis of LiNbO3by Microwave-Induced Combustion and Its Application as Catalyst for Low-Temperature Aniline Oxidation. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 1680-1691	8.3	11
49	Accelerated microwave-assisted hydrothermal/solvothermal processing: Fundamentals, morphologies, and applications. *Journal of Electroceramics*, **2018**, 40, 271-292	1.5	11
48	High-performance and low-voltage SnO2-based varistors. *Ceramics International*, **2017**, 43, 13759-13764	5.1	11
47	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	6.4	11

46	Tunable graphene oxide inter-sheet distance to obtain graphene oxideâ€silver nanoparticle hybrids. *New Journal of Chemistry*, **2019**, 43, 1285-1290	3.6	10
45	Microstructure and electrical properties of (Ta, Co, Pr) doped TiO2 based electroceramics. *Journal of Materials Science: Materials in Electronics*, **2010**, 21, 246-251	2.1	10
44	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	1.6	10
43	Cerâmicas eletrônicas à base de SnO2 e TiO2. *Ceramica*, **2001**, 47, 136-143	1	10
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	6	9
41	Morphological modifications and surface amorphization in ZnO sonochemically treated nanoparticles. *Ultrasonics Sonochemistry*, **2013**, 20, 799-804	8.9	9
40	Sonochemical Synthesis and Magnetism in Co-doped ZnO Nanoparticles. *Journal of Superconductivity and Novel Magnetism*, **2013**, 26, 2515-2519	1.5	9
39	Nonohmic behavior of SnO2.MnO2-based ceramics. *Materials Research*, **2003**, 6, 279-283	1.5	8
38	Study of intense photoluminescence from monodispersed Ga2O3 ellipsoidal structures. *Ceramics International*, **2019**, 45, 5023-5029	5.1	8
37	Tungsten oxide ion-gated phototransistors using ionic liquid and aqueous gating media. *Journal Physics D: Applied Physics*, **2019**, 52, 305102	3	7
36	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	2.6	7
35	Superior performance of rGO-tin oxide nanocomposite for selective reduction of CO2 to methanol. *Journal of CO2 Utilization*, **2021**, 46, 101460	7.6	7
34	Sn3O4 exfoliation process investigated by density functional theory and modern scotch-tape experiment. *Computational Materials Science*, **2019**, 170, 109160	3.2	6
33	Heating Method Effect on SnO Micro-Disks as NO2 Gas Sensor. *Frontiers in Materials*, **2019**, 6,	4	6
32	Effect of controlled conductivity on thermal sensing property of 0â pyroelectric composite. *Smart Materials and Structures*, **2013**, 22, 025015	3.4	6
31	Carbon-coated SnO2 nanobelts and nanoparticles by single catalytic step. *Journal of Nanoparticle Research*, **2009**, 11, 955-963	2.3	6
30	Influence of Synthesis Route on the Radiation Sensing Properties of ZnO Nanostructures. *Journal of Nanomaterials*, **2016**, 2016, 1-9	3.2	6
29	(Ta, Cr)-doped {T}{i}O2 electroceramic systems. *Journal of Materials Science: Materials in Electronics*, **2006**, 17, 79-84	2.1	5

28	Ultrafast Growth of h-MoO3 Microrods and Its Acetone Sensing Performance. *Surfaces*, **2021**, 4, 9-16	2.9	5
27	SnO2 nanoparticles functionalized in amorphous silica and glass. *Powder Technology*, **2009**, 195, 91-95	5.2	4
26	Influence of thermal annealing treatment in oxygen atmosphere on grain boundary chemistry and non-ohmic properties of SnO2□MnO polycrystalline semiconductors. *Physica Status Solidi (A) Applications and Materials Science*, **2008**, 205, 383-388	1.6	4
25	Carbothermal Reduction Synthesis: An Alternative Approach to Obtain Single-Crystalline Metal Oxide Nanostructures **2017**, 43-67		4
24	Tin oxide materials **2020**, 1-9		4
23	Chemical composition and morphology study of bovine enamel submitted to different sterilization methods. *Clinical Oral Investigations*, **2018**, 22, 733-744	4.2	3
22	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	5.7	3
21	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, 3447-53	1.3	3
20	Facile preparation of a novel biomass-derived H3PO4 and Mn(NOâ□□â□□activated carbon from citrus bergamia peels for high-performance supercapacitors. *Materials Today Communications*, **2021**, 26, 101779	2.5	3
19	Coalescence growth mechanism of inserted tin dioxide belts in polycrystalline SnO2-based ceramics. *Materials Characterization*, **2018**, 142, 289-294	3.9	3
18	Influence of pH in Obtaining Indium Tin Oxide Nanoparticles by Microwave Assisted Solvothermal Method. *Materials Research*, **2018**, 21,	1.5	2
17	Flexible composite via rapid titania coating by microwave-assisted hydrothermal synthesis. *Bulletin of Materials Science*, **2017**, 40, 499-504	1.7	2
16	Damage Detection and Quantification Using Thin Film of ITO Nanocomposites. *Conference Proceedings of the Society for Experimental Mechanics*, **2014**, 207-213	0.3	2
15	Temperature dependence of electron properties of Sn doped nanobelts. *Physica B: Condensed Matter*, **2007**, 400, 243-247	2.8	2
14	Real-Time Monitoring of Electrochromic Memory Loss of Layered □MoO3 Nanoplates. *Journal of the Electrochemical Society*, **2020**, 167, 166509	3.9	2
13	Varistor technology based on SnO2 **2020**, 321-343		2
12	The role of surface stoichiometry in NO gas sensing using single and multiple nanobelts of tin oxide. *Physical Chemistry Chemical Physics*, **2021**, 23, 9733-9742	3.6	2
11	Study ITO@PMMA Composites by Transmission Electron Microscopy. *Materials Research Society Symposia Proceedings*, **2011**, 1312, 1		1

10	Efeito do Pr2O3 nas propriedades el□tricas de varistores ˆ base de SnO2. *Ceramica*, **2003**, 49, 232-236	1	1
9	Ab initio investigation of the role of charge transfer in the adsorption properties of H2, N2, O2,CO,NO,CO2, NO2, and CH4 on the van der Waals layered Sn3O4 semiconductor. *Physical Review Materials*, **2020**, 4,	3.2	1
8	Development and Characterization of an ITO Nanocomposite Film Sensor for Damage Detection. *Conference Proceedings of the Society for Experimental Mechanics*, **2016**, 1-7	0.3	1
7	Methods for characterization and evaluation of chemoresistive nanosensors **2020**, 63-83		0
6	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	4.3	0
5	Oxide Ceramics: The Role of Surface and Grain Boundaries for Reliable Functional Applications **2015**, 415-426		
4	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	2.9	
3	Nanofitas de □xido de estanho: controle do estado de oxida□ pela atmosfera de s□ntese. *Ceramica*, **2004**, 50, 58-61	1	
2	Structural, thermal, vibrational, and optical characterization of Sn□S□Se dichalcogenide system synthesized by high-energy ball milling. *Journal of Physics and Chemistry of Solids*, **2021**, 157, 110203	3.9	
1	Emerging Chemical Sensing Technologies: Recent Advances and Future Trends. *Surfaces*, **2022**, 5, 318-329	2.9	