Khalifa Aguir

List of Publications by Year
in descending order

111 papers	2,976 citations	109264 35 h-index	175177 52 g-index
114 all docs	114 docs citations	114 times ranked	2931 citing authors

#	Article	IF	Citations
1	Electrical properties of reactively sputtered WO3 thin films as ozone gas sensor. Sensors and Actuators B: Chemical, 2002, 84, 1-5.	4.0	166
2	The structure and electrical conductivity of vacuum-annealed WO3 thin films. Thin Solid Films, 2004, 467, 239-246.	0.8	121
3	Impedance spectroscopy on WO gas sensor. Sensors and Actuators B: Chemical, 2005, 106, 713-718.	4.0	120
4	One-step approach for preparing ozone gas sensors based on hierarchical NiCo₂O₄ structures. RSC Advances, 2016, 6, 92655-92662.	1.7	114
5	UV-enhanced ozone gas sensing response of ZnO-SnO2 heterojunctions at room temperature. Sensors and Actuators B: Chemical, 2017, 240, 573-579.	4.0	108
6	A novel ozone gas sensor based on one-dimensional (1D) Î±-Ag₂WO₄ nanostructures. Nanoscale, 2014, 6, 4058-4062.	2.8	105
7	Ethanol and ozone sensing characteristics of WO3 based sensors activated by Au and Pd. Sensors and Actuators B: Chemical, 2006, 120, 338-345.	4.0	102
8	Characterization of ozone sensors based on WO reactively sputtered films: influence of O concentration in the sputtering gas, and working temperature. Sensors and Actuators B: Chemical, 2004, 100, 320-324.	4.0	101
9	Adsorptionâ€"desorption noise in gas sensors: Modelling using Langmuir and Wolkenstein models for adsorption. Sensors and Actuators B: Chemical, 2006, 114, 451-459.	4.0	97
10	An easy method of preparing ozone gas sensors based on ZnO nanorods. RSC Advances, 2015, 5, 19528-19533.	1.7	68
11	Acetone gas sensor based on Î±-Ag2WO4 nanorods obtained via a microwave-assisted hydrothermal route. Journal of Alloys and Compounds, 2016, 683, 186-190.	2.8	66
12	dc and ac characterizations of WO3 sensors under ethanol vapors. Sensors and Actuators B: Chemical, 2006, 119, 374-379.	4.0	64
13	Reactive R.F. magnetron sputtering deposition of WO3 thin films. Sensors and Actuators B: Chemical, 2002, 84, 43-48.	4.0	61
14	Grain size effect in sputtered tungsten trioxide thin films on the sensitivity to ozone. Thin Solid Films, 2005, 484, 358-363.	0.8	58
15	Local Structure and Surface Properties of Co_{<i>x</i>}Zn_{1â€"<i>x</i>}O Thin Films for Ozone Gas Sensing. ACS Applied Materials & Interfaces, 2016, 8, 26066-26072.	4.0	57
16	Correlation between rf-sputtering parameters and WO3 sensor response towards ozone. Sensors and Actuators B: Chemical, 2007, 125, 622-627.	4.0	54
17	Modeling of a p-type resistive gas sensor in the presence of a reducing gas. Sensors and Actuators B: Chemical, 2013, 181, 340-347.	4.0	54
18	Development of an ammonia gas sensor. Sensors and Actuators B: Chemical, 2003, 95, 170-176.	4.0	53

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19	Ozone monitoring by micro-machined sensors with WO3 sensing films. Sensors and Actuators B: Chemical, 2007, 126, 573-578.	4.0	53
20	Highly selective ozone gas sensor based on nanocrystalline Zn0.95Co0.05O thin film obtained via spray pyrolysis technique. Applied Surface Science, 2019, 478, 347-354.	3.1	53
21	High performance of a gas identification system using sensor array and temperature modulation. Sensors and Actuators B: Chemical, 2007, 124, 209-216.	4.0	52
22	Theoretical and experimental study of the response of CuO gas sensor under ozone. Sensors and Actuators B: Chemical, 2014, 190, 8-15.	4.0	52
23	Ab initio study of oxygen point defects on tungsten trioxide surface. Surface Science, 2012, 606, 40-45.	0.8	50
24	A dynamic response model for the WO3-based ozone sensors. Sensors and Actuators B: Chemical, 2008, 128, 462-467.	4.0	47
25	Improving the ozone gas-sensing properties of CuWO4 nanoparticles. Journal of Alloys and Compounds, 2018, 748, 411-417.	2.8	44
26	Modeling of the conduction in a WO3 thin film as ozone sensor. Sensors and Actuators B: Chemical, 2006, 119, 327-334.	4.0	43
27	Ozone gas sensor based on nanocrystalline SrTi1â^'Fe O3 thin films. Sensors and Actuators B: Chemical, 2013, 181, 919-924.	4.0	41
28	One-Dimensional V₂O₅/TiO₂ Heterostructures for Chemiresistive Ozone Sensors. ACS Applied Nano Materials, 2019, 2, 4756-4764.	2.4	41
29	WO3 sensor response according to operating temperature: Experiment and modeling. Sensors and Actuators B: Chemical, 2007, 124, 24-29.	4.0	40
30	Ozone and nitrogen dioxide gas sensor based on a nanostructured SrTi0.85Fe0.15O3 thin film. Journal of Alloys and Compounds, 2015, 638, 374-379.	2.8	40
31	Modeling on oxygen chemisorption-induced noise in metallic oxide gas sensors. Sensors and Actuators B: Chemical, 2005, 107, 722-729.	4.0	39
32	Thermal modelling of a WO3 ozone sensor response. Sensors and Actuators B: Chemical, 2005, 104, 289-293.	4.0	39
33	Thermochromic CeO2â€“VO2 bilayers: Role of ceria coating in optical switching properties. Optical Materials, 2007, 30, 407-415.	1.7	38
34	VO2 thin films deposited on silicon substrates from V2O5 target: Limits in optical switching properties and modeling. Thin Solid Films, 2008, 516, 891-897.	0.8	36
35	Cobalt nanograins effect on the ozone detection by WO3 sensors. Sensors and Actuators B: Chemical, 2008, 132, 196-201.	4.0	35
36	A mobility and free carriers density fluctuations based model of adsorptionâ€“desorption noise in gas sensor. Journal Physics D: Applied Physics, 2008, 41, 065501.	1.3	35

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37	Ozone Sensing Based on Palladium Decorated Carbon Nanotubes. Sensors, 2014, 14, 6806-6818.	2.1	34
38	A Transient Signal Extraction Method of WO₃Gas Sensors Array to Identify Polluant Gases. IEEE Sensors Journal, 2016, 16, 3123-3130.	2.4	30
39	Highly sensitive nitrogen dioxide gas sensors based on sprayed Î²-In2S3 film. Sensors and Actuators B: Chemical, 2020, 319, 128280.	4.0	30
40	Electrical properties of a-GaAs/c-Si (p) heterojunctions. Thin Solid Films, 1995, 257, 98-103.	0.8	25
41	Skin alcohol perspiration measurements using MOX sensors. Sensors and Actuators B: Chemical, 2019, 280, 306-312.	4.0	25
42	New thermochromic bilayers for optical or electronic switching systems. Thin Solid Films, 2004, 449, 166-172.	0.8	23
43	Structural and NH3 gas-sensing properties of La0.8Ca0.1Pb0.1Fe1-Co O3 (0.00 â‰ x â‰ 0.20) perovskite compounds. Journal of Alloys and Compounds, 2018, 731, 655-661.	2.8	23
44	Hydrodynamic evaluation of gas testing chamber: Simulation, experiment. Sensors and Actuators B: Chemical, 2019, 290, 598-606.	4.0	23
45	Raman and Electrical Characterizations ofa-GaAs1-xNxThin Films Grown on c-Si(p) Substrates byN2Reactive Sputtering. Japanese Journal of Applied Physics, 1997, 36, 11-18.	0.8	19
46	Microfluidic gas sensor with integrated pumping system. Sensors and Actuators B: Chemical, 2012, 170, 45-50.	4.0	19
47	NiTi thin films as a gate of M.O.S. capacity sensors. Sensors and Actuators A: Physical, 1999, 74, 242-245.	2.0	18
48	Alternating current investigation and modeling of the temperature and ozone effects on the grains and the grain boundary contributions to the WO3 sensor responses. Thin Solid Films, 2009, 518, 355-361.	0.8	18
49	BTEX gas sensor based on hematite microrhombuses. Sensors and Actuators B: Chemical, 2021, 326, 128817.	4.0	17
50	Microstructure and electrical properties of RuO2â€“CeO2 composite thin films. Thin Solid Films, 2010, 518, 2801-2807.	0.8	15
51	A low power consumption CMOS differential-ring VCO for a wireless sensor. Analog Integrated Circuits and Signal Processing, 2012, 73, 731-740.	0.9	15
52	New perovskite compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si4.svg"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">L</mml:mi><mml:mi mathvariant="normal">a</mml:mi></mml:mrow><mml:mrow><mml:mn>0.885</mml:mn></mml:mrow></mml:msub><mml:msub><mm mathvariant="normal">P</mml:mi><mml:mi mathvariant="normal">b</mml:mi></mml:mrow><mml:mrow><mml:mn>0.005</mml:mn></mml:mrow></mml:msub><mml:msub><mm	1.2	15
53	Physical-Based Characterization of Noise Responses in Metal-Oxide Gas Sensors. IEEE Sensors Journal, 2013, 13, 980-986.	2.4	14
54	High-temperature sputtered amorphous GaAs. Journal of Non-Crystalline Solids, 1995, 183, 175-181.	1.5	12

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55	Composition study of high temperature sputtered amorphous GaxAs1âˆ’x films. Journal of Non-Crystalline Solids, 1998, 238, 253-258.	1.5	12
56	Adsorption characteristics of self-assembled thiol and dithiol layer on gold. Materials Science and Engineering C, 2007, 27, 620-624.	3.8	12
57	New plasma deposition process of amorphous GaxAs1âˆ’x in an r.f. capacitively coupled diode system. Thin Solid Films, 1986, 145, 233-240.	0.8	11
58	Noise Modeling in MOX Gas Sensors. Fluctuation and Noise Letters, 2017, 16, 1750013.	1.0	11
59	Characterization of hydrogenated amorphous Ga_xAs_{1âˆ’x} thin films. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1988, 58, 645-653.	0.6	10
60	A low power consumption CMOS differential-ring VCO for a Wireless Sensor. , 2011, , .		10
61	Synthesis of pure Cu2O thin layers controlled by in-situ conductivity measurements. Ceramics International, 2014, 40, 7851-7856.	2.3	10
62	Ammonia detection by a novel Pyrex microsystem based on thermal creep phenomenon. Sensors and Actuators B: Chemical, 2014, 192, 714-719.	4.0	10
63	Efficiency of new ozone filters for NO2 sensing and air depollution. Sensors and Actuators B: Chemical, 2018, 265, 591-599.	4.0	9
64	Electrical characteristics of amorphous GaAs-n-crystalline Si heterojunctions. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1995, 34, 27-31.	1.7	8
65	A Physics-Based Noise Model for Metallic Oxide Gas Sensors Characterization. Procedia Engineering, 2011, 25, 375-378.	1.2	8
66	Electrical and optical properties of RF glow discharges of amorphous GaxAs1âˆ’x films. Journal of Non-Crystalline Solids, 1989, 113, 231-238.	1.5	7
67	A temperature compensated CMOS ring oscillator for wireless sensing applications. , 2012, , .		7
68	Enhancing WO3 gas sensor selectivity using a set of pollutant detection classifiers. Sensor Review, 2018, 38, 65-73.	1.0	7
69	How the Chamber Design Can Affect Gas Sensor Responses. Proceedings (mdpi), 2018, 2, 820.	0.2	7
70	A Noise Spectroscopy-Based Selective Gas Sensing with MOX Gas Sensors. Fluctuation and Noise Letters, 2018, 17, 1850016.	1.0	7
71	Trends in metal oxide thin films: Synthesis and applications of tin oxide. , 2020, , 219-246.		7
72	Ozone detection based on nanostructured <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:mi mathvariant="normal">L</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mn>0.8</mml:mn></mml:msub><mml:mi mathvariant="normal">P</mml:mi><mml:msub><mml:mi mathvariant="normal">b</mml:mi><mml:mn>0.1</mml:mn></mml:msub><mml:mi mathvariant="normal"	2.8	6

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73	Amorphous GaAs1 âˆ’ xNx thin films on crystalline Si substrates: growth and characterizations. Diamond and Related Materials, 1997, 6, 1568-1571.	1.8	5
74	IIIâ€“V nitride materials: an approach through amorphous GaAs1 âˆ’ xNx thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 43, 283-287.	1.7	5
75	Temperature compensated CMOS ring VCO for MEMS gas sensor. Analog Integrated Circuits and Signal Processing, 2013, 76, 225-232.	0.9	5
76	Carbon Nanotubes Functionalized by Nanoparticles of Platinum. Materials Science Forum, 0, 793, 45-50.	0.3	5
77	Morphological and electrical properties of La0.8Ca0.1Pb0.1FeO3 perovskite nanopowder for NH3 and CO gas detection. Journal of Electroceramics, 2020, 45, 39-46.	0.8	5
78	A new combined transient extraction method coupled with WO₃ gas sensors for polluting gases classification. Sensor Review, 2021, 41, 437-448.	1.0	5
79	Correlation between structural, magnetic and gas sensor properties of La0.885Pb0.005Ca0.11Fe1-xCoxO2.95(0.00â‰xâ‰0.15) compounds. Materials Research Bulletin, 2020, 130, 110922.	2.7	5
80	Embedded Transdermal Alcohol Detection via a Finger Using SnO2 Gas Sensors. Sensors, 2021, 21, 6852.	2.1	5
81	Fabrication and characterization of gas detection microfluidic system. Procedia Engineering, 2010, 5, 1188-1191.	1.2	4
82	ZnO/SnO2 Heterojunctions Sensors with UV-Enhanced Gas-Sensing Properties at Room Temperature. Proceedings (mdpi), 2017, 1, 418.	0.2	4
83	Ozone Sensors Working at Room Temperature Using Zinc Oxide Nanocrystals Annealed at Low Temperature. Proceedings (mdpi), 2017, 1, 423.	0.2	4
84	A New Active Organic Component for Flexible Ammonia Gas Sensors. Procedia Engineering, 2011, 25, 1069-1072.	1.2	3
85	WO3 sensors array coupled with pattern recognition method for gases identification. , 2016, , .		3
86	Transdermal Alcohol Measurements Using MOX Sensors in Clinical Trials. Proceedings (mdpi), 2017, 1, 431.	0.2	3
87	The evolution of a-GaAs1âˆ’xNx/c-GaAs interface states as a function of Ar-NH3 plasma. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 50, 157-160.	1.7	2
88	Degradation during sputter deposition of solid electrolyte thin films for microsystems. Thin Solid Films, 2002, 422, 87-91.	0.8	2
89	Role of the active layer thickness on the sensitivity of WO<SUB align="right">3 gas sensors. International Journal of Nanotechnology, 2012, 9, 471.	0.1	2
90	A 250 μW 0.194 nV/rtHz Chopper-Stabilized instrumentation amplifier for MEMS gas sensor. , 2012, , .		2

#	ARTICLE	IF	CITATIONS
91	Recognition of O<inf>3</inf> concentration using WO<inf>3</inf> gas sensor and principal component analysis. , 2014, , .		2
92	A Temperature Compensated CMOS Ring Oscillator for Wireless Sensing Applications. Journal of Signal Processing Systems, 2014, 75, 47-54.	1.4	2
93	Design of new lowâ€noise and lowâ€power CMOS differential pair. Electronics Letters, 2015, 51, 1433-1435.	0.5	2
94	Low cost wireless current sensor for NIALM application. Sensors and Actuators A: Physical, 2016, 252, 209-224.	2.0	2
95	Can WO<inf>3</inf> and SnO<inf>2</inf> be used as acetone gas sensors in exhaled human breath for noninvasive blood glucose monitoring?. , 2017, , .		2
96	SnO₂ Sensors For a Portable Transdermal Alcohol Detector Via Finger. , 2019, , .		2
97	Method To Detect Ethanol Vapor in High Humidity by Direct Reflection on a Xerogel Coating. ACS Applied Materials & Interfaces, 2019, 11, 4439-4446.	4.0	2
98	Qualitative and quantitative analysis of toxic gases using a metal oxide sensor array. , 2006, , .		1
99	Combiners based on CMOS inverters and application in RF transmitter for wireless sensors. , 2012, , .		1
100	A new gases identification method based on noise spectroscopy using metal-oxide gas sensors. , 2017, , .		1
101	Selective Detection of NO2 with Specific Filters for O3 Trapping. Proceedings (mdpi), 2017, 1, 405.	0.2	1
102	Ammonia Detection at Low Temperature by Tungsten Oxide Nanowires. Proceedings (mdpi), 2018, 2, .	0.2	1
103	Toward a Selective Detection of Ethanol by Perspiration. , 2018, , .		1
104	Acetone discriminator and concentration estimator for diabetes monitoring in human breath. Semiconductor Science and Technology, 2021, 36, 085010.	1.0	1
105	Low Noise CMOS Chopper Amplifier for MEMS Gas Sensor. Lecture Notes in Computer Science, 2011, , 366-373.	1.0	1
106	High DC-Gain Two-Stage OTA Using Positive Feedback and Split-Length Transistor Techniques. Communications in Computer and Information Science, 2019, , 286-302.	0.4	1
107	BaTiO3 sensitive film enhancement for CO2 detection. , 2020, , .		1
108	A Novel High Linear CMOS Fully Integrated PA for the Design of Zigbee Transmitters. BioNanoScience, 2017, 7, 475-484.	1.5	0

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109	CO<inf>2</inf> Gas Sensor Based on BaTiO<inf>3</inf>Thin Film Deposited via Ultrasonic Spray. , 2018, , .		0
110	Silver Growth on Tungsten Oxide Nanowires for Nitrogen Dioxide Sensing at Low Temperature. Proceedings (mdpi), 2018, 2, .	0.2	0
111	Low Power Multisensors for Selective Gas Detection. Engineering Proceedings, 2021, 6, 89.	0.4	0