

Postica Vasile

List of Publications by Year in descending order

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62
papers

3,034
citations

147566

31
h-index

197535

49
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64
all docs

64
docs citations

64
times ranked

3417
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct Growth of Freestanding ZnO Tetrapod Networks for Multifunctional Applications in Photocatalysis, UV Photodetection, and Gas Sensing. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 14303-14316.	4.0	433
2	Silver-doped zinc oxide single nanowire multifunctional nanosensor with a significant enhancement in response. <i>Sensors and Actuators B: Chemical</i> , 2016, 223, 893-903.	4.0	170
3	Synthesis, characterization and DFT studies of zinc-doped copper oxide nanocrystals for gas sensing applications. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6527-6539.	5.2	157
4	Enhanced ethanol vapour sensing performances of copper oxide nanocrystals with mixed phases. <i>Sensors and Actuators B: Chemical</i> , 2016, 224, 434-448.	4.0	140
5	Multifunctional Materials: A Case Study of the Effects of Metal Doping on ZnO Tetrapods with Bismuth and Tin Oxides. <i>Advanced Functional Materials</i> , 2017, 27, 1604676.	7.8	140
6	Hybridization of Zinc Oxide Tetrapods for Selective Gas Sensing Applications. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 4084-4099.	4.0	135
7	Single and Networked ZnO@CNT Hybrid Tetrapods for Selective Room-Temperature High-Performance Ammonia Sensors. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 23107-23118.	4.0	125
8	Ultra-sensitive and selective hydrogen nanosensor with fast response at room temperature based on a single Pd/ZnO nanowire. <i>Sensors and Actuators B: Chemical</i> , 2018, 254, 1259-1270.	4.0	118
9	PdO/PdO ₂ functionalized ZnO@Pd films for lower operating temperature H ₂ gas sensing. <i>Nanoscale</i> , 2018, 10, 14107-14127.	2.8	114
10	Localized Synthesis of Iron Oxide Nanowires and Fabrication of High Performance Nanosensors Based on a Single Fe ₂ O ₃ Nanowire. <i>Small</i> , 2017, 13, 1602868.	5.2	111
11	Single and networked CuO nanowires for highly sensitive p-type semiconductor gas sensor applications. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, 260-266.	1.2	96
12	Tuning ZnO Sensors Reactivity toward Volatile Organic Compounds via Ag Doping and Nanoparticle Functionalization. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 31452-31466.	4.0	78
13	Multifunctional device based on ZnO:Fe nanostructured films with enhanced UV and ultra-fast ethanol vapour sensing. <i>Materials Science in Semiconductor Processing</i> , 2016, 49, 20-33.	1.9	73
14	Non-planar nanoscale p-n heterojunctions formation in Zn Cu ₁₀ nanocrystals by mixed phases for enhanced sensors. <i>Sensors and Actuators B: Chemical</i> , 2016, 230, 832-843.	4.0	70
15	Influence of CuO nanostructures morphology on hydrogen gas sensing performances. <i>Microelectronic Engineering</i> , 2016, 164, 63-70.	1.1	62
16	Sacrificial Template Synthesis and Properties of 3D Hollow-Silicon Nano- and Microstructures. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 20491-20498.	4.0	60
17	Sensing performances of pure and hybridized carbon nanotubes-ZnO nanowire networks: A detailed study. <i>Scientific Reports</i> , 2017, 7, 14715.	1.6	56
18	Highly selective and ultra-low power consumption metal oxide based hydrogen gas sensor employing graphene oxide as molecular sieve. <i>Sensors and Actuators B: Chemical</i> , 2020, 320, 128363.	4.0	56

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19	Zinc oxide nanotetrapods with four different arm morphologies for versatile nanosensors. <i>Sensors and Actuators B: Chemical</i> , 2018, 262, 425-435.	4.0	50
20	Low powered, tunable and ultra-light aerographite sensor for climate relevant gas monitoring. <i>Journal of Materials Chemistry A</i> , 2016, 4, 16723-16730.	5.2	49
21	Low-Temperature Solution Synthesis of Au-Modified ZnO Nanowires for Highly Efficient Hydrogen Nanosensors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 32115-32126.	4.0	49
22	(CuO-Cu ₂ O)/ZnO:Al heterojunctions for volatile organic compound detection. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 1362-1375.	4.0	47
23	Enhanced UV and ethanol vapour sensing of a single 3-D ZnO tetrapod alloyed with Fe ₂ O ₃ nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2017, 245, 448-461.	4.0	46
24	Buckminsterfullerene hybridized zinc oxide tetrapods: defects and charge transfer induced optical and electrical response. <i>Nanoscale</i> , 2018, 10, 10050-10062.	2.8	44
25	Room temperature gas nanosensors based on individual and multiple networked Au-modified ZnO nanowires. <i>Sensors and Actuators B: Chemical</i> , 2019, 299, 126977.	4.0	38
26	Surface functionalization of ZnO:Ag columnar thin films with AgAu and AgPt bimetallic alloy nanoparticles as an efficient pathway for highly sensitive gas discrimination and early hazard detection in batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16246-16264.	5.2	38
27	Tuning doping and surface functionalization of columnar oxide films for volatile organic compound sensing: experiments and theory. <i>Journal of Materials Chemistry A</i> , 2018, 6, 23669-23682.	5.2	36
28	Properties of a single SnO ₂ :Zn ₂ SnO ₄ " Functionalized nanowire based nanosensor. <i>Ceramics International</i> , 2018, 44, 4859-4867.	2.3	34
29	Pd-Functionalized ZnO:Eu Columnar Films for Room-Temperature Hydrogen Gas Sensing: A Combined Experimental and Computational Approach. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24951-24964.	4.0	34
30	Functionalized Pd/ZnO Nanowires for Nanosensors. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018, 12, 1700321.	1.2	33
31	Schottky Diode Based on a Single Carbon "Nanotube" ZnO Hybrid Tetrapod for Selective Sensing Applications. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700507.	1.9	32
32	Morphology dependent UV photoresponse of Sn-doped ZnO microstructures. <i>Solid State Sciences</i> , 2017, 71, 75-86.	1.5	32
33	UV detection properties of hybrid ZnO tetrapod 3-D networks. <i>Vacuum</i> , 2017, 146, 492-500.	1.6	30
34	Ultra-thin TiO ₂ films by atomic layer deposition and surface functionalization with Au nanodots for sensing applications. <i>Materials Science in Semiconductor Processing</i> , 2018, 87, 44-53.	1.9	30
35	Size-dependent UV and gas sensing response of individual Fe ₂ O ₃ -ZnO:Fe micro- and nanowire based devices. <i>Journal of Alloys and Compounds</i> , 2017, 701, 920-925.	2.8	28
36	Individual hollow and mesoporous aero-graphitic microtube based devices for gas sensing applications. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	26

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37	Improved Long-Term Stability and Reduced Humidity Effect in Gas Sensing: SiO ₂ Ultra-Thin Layered ZnO Columnar Films. <i>Advanced Materials Technologies</i> , 2021, 6, 2001137.	3.0	24
38	The effect of morphology and functionalization on UV detection properties of ZnO networked tetrapods and single nanowires. <i>Vacuum</i> , 2019, 166, 393-398.	1.6	22
39	UV nanophotodetectors: A case study of individual Au-modified ZnO nanowires. <i>Sensors and Actuators A: Physical</i> , 2019, 296, 400-408.	2.0	19
40	Effect of noble metal functionalization and film thickness on sensing properties of sprayed TiO ₂ ultra-thin films. <i>Sensors and Actuators A: Physical</i> , 2019, 293, 242-258.	2.0	19
41	Al-Doped ZnO Nanowires by Electrochemical Deposition for Selective VOC Nanosensor and Nanophotodetector. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700824.	0.8	17
42	ZnAl ₂ O ₄ -Functionalized Zinc Oxide Microstructures for Highly Selective Hydrogen Gas Sensing Applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700772.	0.8	16
43	Comparison of Thermal Annealing versus Hydrothermal Treatment Effects on the Detection Performances of ZnO Nanowires. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 10537-10552.	4.0	14
44	Crystallinity and optical properties of In ₂ -Ga ₂ O ₃ /Ga ₂ S ₃ layered structure obtained by thermal annealing of Ga ₂ S ₃ semiconductor. <i>Materials Science in Semiconductor Processing</i> , 2021, 121, 105314.	1.9	9
45	Individual CdS-covered aerographite microtubes for room temperature VOC sensing with high selectivity. <i>Materials Science in Semiconductor Processing</i> , 2019, 100, 275-282.	1.9	8
46	Improving gas sensing by CdTe decoration of individual Aerographite microtubes. <i>Nanotechnology</i> , 2019, 30, 065501.	1.3	8
47	Low temperature preparation of Ag-doped ZnO nanowire arrays for sensor and light-emitting diode applications. , 2016, , .		2
48	Nanosensors: Multifunctional Materials: A Case Study of the Effects of Metal Doping on ZnO Tetrapods with Bismuth and Tin Oxides (<i>Adv. Funct. Mater.</i> 6/2017). <i>Advanced Functional Materials</i> , 2017, 27, .	7.8	2
49	UV radiation and CH ₄ gas detection with a single ZnO:Pd nanowire. , 2017, , .		1
50	Individual Bi ₂ O ₃ -Functionalized ZnO Microwire for Hydrogen Gas Detection. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , 2018, , 445-450.	0.2	1
51	Detectors based on Pd-doped and PdO-functionalized ZnO nanostructures. , 2018, , .		1
52	Micro-nano-technologies of zinc and copper oxides for sensor and medicine applications. , 2015, , .		0
53	Properties of ZnO:Fe nanostructured films grown by successive chemical synthesis. , 2016, , .		0
54	Inside Back Cover: Single and networked CuO nanowires for highly sensitive p-type semiconductor gas sensor applications (<i>Phys. Status Solidi RRL</i> 3/2016). <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, n/a-n/a.	1.2	0

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55	H ₂ gas sensing properties of a ZnO/CuO and ZnO/CuO/Cu ₂ O Heterostructures. Proceedings of SPIE, 2017, , .	0.8	0
56	Single nanowire nanosensors: Fabrication and detailed studies. , 2017, , .		0
57	Detection properties of individual and networked CNT-ZnO-hybrid tetrapods. , 2017, , .		0
58	CuO/Cu ₂ O Nanostructured Films for Gas Sensors. , 2019, , .		0
59	High-Performance Gas Sensors Using Heterostructures based on Binary and Ternary Metal Oxides. , 2021, , .		0
60	Acetone Sensing Properties of Nanostructured Copper Oxide Films on Glass Substrate. IFMBE Proceedings, 2020, , 285-290.	0.2	0
61	UV nanophotodetector based on a single ZnO:Au nanowire functionalized with Au-nanoparticles. , 2020, , .		0
62	Au-NPs/ZnO Single Nanowire Nanosensors for Health Care Applications. , 2020, , .		0