

# 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  
g-index

64  
all docs

64  
docs citations

64  
times ranked

3417  
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystallinity and optical properties of $\text{In}^{2-}\text{Ga}_2\text{O}_3/\text{Ga}_2\text{S}_3$ layered structure obtained by thermal annealing of $\text{Ga}_2\text{S}_3$ semiconductor. <i>Materials Science in Semiconductor Processing</i> , 2021, 121, 105314.	1.9	9
2	Comparison of Thermal Annealing versus Hydrothermal Treatment Effects on the Detection Performances of ZnO Nanowires. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 10537-10552.	4.0	14
3	Improved Long-Term Stability and Reduced Humidity Effect in Gas Sensing: $\text{SiO}_2$ Ultra-Thin Layered ZnO Columnar Films. <i>Advanced Materials Technologies</i> , 2021, 6, 2001137.	3.0	24
4	High-Performance Gas Sensors Using Heterostructures based on Binary and Ternary Metal Oxides. , 2021, , .		0
5	Pd-Functionalized ZnO:Eu Columnar Films for Room-Temperature Hydrogen Gas Sensing: A Combined Experimental and Computational Approach. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 24951-24964.	4.0	34
6	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
7	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
8	Acetone Sensing Properties of Nanostructured Copper Oxide Films on Glass Substrate. <i>IFMBE Proceedings</i> , 2020, , 285-290.	0.2	0
9	UV nanophotodetector based on a single ZnO:Ag nanowire functionalized with Au-nanoparticles. , 2020, , .		0
10	Au-NPs/ZnO Single Nanowire Nanosensors for Health Care Applications. , 2020, , .		0
11	Low-Temperature Solution Synthesis of Au-Modified ZnO Nanowires for Highly Efficient Hydrogen Nanosensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 32115-32126.	4.0	49
12	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
13	Tuning ZnO Sensors Reactivity toward Volatile Organic Compounds via Ag Doping and Nanoparticle Functionalization. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 31452-31466.	4.0	78
14	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
15	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
16	Effect of noble metal functionalization and film thickness on sensing properties of sprayed TiO <sub>2</sub> ultra-thin films. <i>Sensors and Actuators A: Physical</i> , 2019, 293, 242-258.	2.0	19
17	CuO/Cu <sub>2</sub> O Nanostructured Films for Gas Sensors. , 2019, , .		0
18	Improving gas sensing by CdTe decoration of individual Aerographite microtubes. <i>Nanotechnology</i> , 2019, 30, 065501.	1.3	8

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19	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
20	Buckminsterfullerene hybridized zinc oxide tetrapods: defects and charge transfer induced optical and electrical response. <i>Nanoscale</i> , 2018, 10, 10050-10062.	2.8	44
21	ZnAl <sub>2</sub> O <sub>4</sub> 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
22	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
23	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
24	(CuO-Cu <sub>2</sub> O)/ZnO:Al heterojunctions for volatile organic compound detection. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 1362-1375.	4.0	47
25	Properties of a single SnO <sub>2</sub> :Zn <sub>2</sub> SnO <sub>4</sub> Functionalized nanowire based nanosensor. <i>Ceramics International</i> , 2018, 44, 4859-4867.	2.3	34
26	Functionalized Pd/ZnO Nanowires for Nanosensors. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018, 12, 1700321.	1.2	33
27	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
28	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
29	Individual Bi <sub>2</sub> O <sub>3</sub> -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
30	PdO/Pd <sub>2</sub> functionalized ZnO:Al films for lower operating temperature H <sub>2</sub> gas sensing. <i>Nanoscale</i> , 2018, 10, 14107-14127.	2.8	114
31	Ultra-thin TiO <sub>2</sub> 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
32	Detectors based on Pd-doped and PdO-functionalized ZnO nanostructures. , 2018, , .		1
33	Size-dependent UV and gas sensing response of individual Fe <sub>2</sub> O <sub>3</sub> -ZnO:Fe micro- and nanowire based devices. <i>Journal of Alloys and Compounds</i> , 2017, 701, 920-925.	2.8	28
34	Enhanced UV and ethanol vapour sensing of a single 3-D ZnO tetrapod alloyed with Fe <sub>2</sub> O <sub>3</sub> nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2017, 245, 448-461.	4.0	46
35	Hybridization of Zinc Oxide Tetrapods for Selective Gas Sensing Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 4084-4099.	4.0	135
36	H <sub>2</sub> gas sensing properties of a ZnO/CuO and ZnO/CuO/Cu <sub>2</sub> O Heterostructures. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0

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37	UV radiation and CH <sub>4</sub> gas detection with a single ZnO:Pd nanowire. , 2017, , .		1
38	Nanosensors: Multifunctional Materials: A Case Study of the Effects of Metal Doping on ZnO Tetrapods with Bismuth and Tin Oxides (Adv. Funct. Mater. 6/2017). Advanced Functional Materials, 2017, 27, .	7.8	2
39	Localized Synthesis of Iron Oxide Nanowires and Fabrication of High Performance Nanosensors Based on a Single Fe <sub>2</sub> O <sub>3</sub> Nanowire. Small, 2017, 13, 1602868.	5.2	111
40	UV detection properties of hybrid ZnO tetrapod 3-D networks. Vacuum, 2017, 146, 492-500.	1.6	30
41	Multifunctional Materials: A Case Study of the Effects of Metal Doping on ZnO Tetrapods with Bismuth and Tin Oxides. Advanced Functional Materials, 2017, 27, 1604676.	7.8	140
42	Schottky Diode Based on a Single Carbonâ€“Nanotubeâ€“ZnO Hybrid Tetrapod for Selective Sensing Applications. Advanced Materials Interfaces, 2017, 4, 1700507.	1.9	32
43	Sensing performances of pure and hybridized carbon nanotubes-ZnO nanowire networks: A detailed study. Scientific Reports, 2017, 7, 14715.	1.6	56
44	Morphology dependent UV photoresponse of Sn-doped ZnO microstructures. Solid State Sciences, 2017, 71, 75-86.	1.5	32
45	Individual hollow and mesoporous aero-graphitic microtube based devices for gas sensing applications. Applied Physics Letters, 2017, 110, .	1.5	26
46	Single and Networked ZnOâ€“CNT Hybrid Tetrapods for Selective Room-Temperature High-Performance Ammonia Sensors. ACS Applied Materials & Interfaces, 2017, 9, 23107-23118.	4.0	125
47	Single nanowire nanosensors: Fabrication and detailed studies. , 2017, , .		0
48	Detection properties of individual and networked CNT-ZnO-hybrid tetrapods. , 2017, , .		0
49	Single and networked CuO nanowires for highly sensitive p-type semiconductor gas sensor applications. Physica Status Solidi - Rapid Research Letters, 2016, 10, 260-266.	1.2	96
50	Properties of ZnO:Fe nanostructured films grown by successive chemical synthesis. , 2016, , .		0
51	Synthesis, characterization and DFT studies of zinc-doped copper oxide nanocrystals for gas sensing applications. Journal of Materials Chemistry A, 2016, 4, 6527-6539.	5.2	157
52	Non-planar nanoscale pâ€“p heterojunctions formation in Zn Cu <sub>10</sub> O nanocrystals by mixed phases for enhanced sensors. Sensors and Actuators B: Chemical, 2016, 230, 832-843.	4.0	70
53	Low temperature preparation of Ag-doped ZnO nanowire arrays for sensor and light-emitting diode applications. , 2016, , .		2
54	Low powered, tunable and ultra-light aerographite sensor for climate relevant gas monitoring. Journal of Materials Chemistry A, 2016, 4, 16723-16730.	5.2	49

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55	Influence of CuO nanostructures morphology on hydrogen gas sensing performances. <i>Microelectronic Engineering</i> , 2016, 164, 63-70.	1.1	62
56	Sacrificial Template Synthesis and Properties of 3D Hollow-Silicon Nano- and Microstructures. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 20491-20498.	4.0	60
57	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
58	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
59	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
60	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
61	Direct Growth of Freestanding ZnO Tetrapod Networks for Multifunctional Applications in Photocatalysis, UV Photodetection, and Gas Sensing. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 14303-14316.	4.0	433
62	Micro-nano-technologies of zinc and copper oxides for sensor and medicine applications. , 2015, , .		0