

Ion M Tiginyanu

List of Publications by Year in descending order

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97
papers

1,711
citations

361296

20
h-index

315616

38
g-index

100
all docs

100
docs citations

100
times ranked

2188
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	Three-dimensional SnO ₂ Nanowire Networks for Multifunctional Applications: From High-Temperature Stretchable Ceramics to Ultraresponsive Sensors. <i>Advanced Electronic Materials</i> , 2015, 1, 1500081.	2.6	116
4	Versatile Growth of Freestanding Orthorhombic \pm -Molybdenum Trioxide Nano- and Microstructures by Rapid Thermal Processing for Gas Nanosensors. <i>Journal of Physical Chemistry C</i> , 2014, 118, 15068-15078.	1.5	114
5	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
6	Light-Induced Motion of Microengines Based on Microarrays of TiO ₂ Nanotubes. <i>Small</i> , 2016, 12, 5497-5505.	5.2	68
7	Rapid switching and ultra-responsive nanosensors based on individual shell-core Ga ₂ O ₃ /GaN:O@SnO ₂ nanobelt with nanocrystalline shell in mixed phases. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 544-555.	4.0	62
8	Integration of individual TiO ₂ nanotube on the chip: Nanodevice for hydrogen sensing. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 171-174.	1.2	56
9	Strong light scattering and broadband (UV to IR) photoabsorption in stretchable 3D hybrid architectures based on Aerographite decorated by ZnO nanocrystallites. <i>Scientific Reports</i> , 2016, 6, 32913.	1.6	56
10	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
11	Three-dimensional Aerographite-GaN hybrid networks: Single step fabrication of porous and mechanically flexible materials for multifunctional applications. <i>Scientific Reports</i> , 2015, 5, 8839.	1.6	45
12	Ordered arrays of metal nanotubes in semiconductor envelope. <i>Electrochemistry Communications</i> , 2008, 10, 731-734.	2.3	42
13	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
14	Porous semiconductor compounds. <i>Semiconductor Science and Technology</i> , 2020, 35, 103001.	1.0	33
15	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
16	Exceptional integration of metal or semimetal nanowires in human-hair-like glass fiber. <i>Materials Letters</i> , 2010, 64, 1902-1904.	1.3	27
17	Self-organized and self-propelled aero-GaN with dual hydrophilic-hydrophobic behaviour. <i>Nano Energy</i> , 2019, 56, 759-769.	8.2	26
18	Metallized Porous GaP Templates for Electronic and Photonic Applications. <i>ECS Journal of Solid State Science and Technology</i> , 2015, 4, P57-P62.	0.9	23

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19	Self-organized nucleation layer for the formation of ordered arrays of double-walled TiO ₂ nanotubes with temperature controlled inner diameter. <i>Physica Status Solidi - Rapid Research Letters</i> , 2010, 4, 100-102.	1.2	22
20	Formation of InP nanomembranes and nanowires under fast anodic etching of bulk substrates. <i>Electrochemistry Communications</i> , 2014, 47, 29-32.	2.3	21
21	Fabrication of GaN nanowalls and nanowires using surface charge lithography. <i>Materials Letters</i> , 2008, 62, 4576-4578.	1.3	19
22	Photocatalytic properties of TiO ₂ nanotubes doped with Ag, Au and Pt or covered by Ag, Au and Pt nanodots. <i>Surface Engineering and Applied Electrochemistry</i> , 2015, 51, 3-8.	0.3	18
23	Self-Organized Three-Dimensional Nanostructured Architectures in Bulk GaN Generated by Spatial Modulation of Doping. <i>ECS Journal of Solid State Science and Technology</i> , 2016, 5, P218-P227.	0.9	18
24	Advanced Hybrid GaN/ZnO Nanoarchitected Microtubes for Fluorescent Micromotors Driven by UV Light. <i>Small</i> , 2020, 16, 1905141.	5.2	18
25	Membrane-assisted revelation of the spatial nanoarchitecture of dislocation networks. <i>Materials Letters</i> , 2011, 65, 360-362.	1.3	16
26	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
27	Ultra-lightweight pressure sensor based on graphene aerogel decorated with piezoelectric nanocrystalline films. <i>Nanotechnology</i> , 2016, 27, 475203.	1.3	15
28	Viability and proliferation of endothelial cells upon exposure to GaN nanoparticles. <i>Beilstein Journal of Nanotechnology</i> , 2016, 7, 1330-1337.	1.5	14
29	Electrochemical nanostructuring of (111) oriented GaAs crystals: from porous structures to nanowires. <i>Beilstein Journal of Nanotechnology</i> , 2020, 11, 966-975.	1.5	14
30	Design of titania nanotube structures by focused laser beam direct writing. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	13
31	Flexible pressure sensor based on graphene aerogel microstructures functionalized with CdS nanocrystalline thin film. <i>Superlattices and Microstructures</i> , 2018, 117, 418-422.	1.4	13
32	Terahertz shielding properties of aero-GaN. <i>Semiconductor Science and Technology</i> , 2019, 34, 12LT02.	1.0	13
33	Sensing up to 40%atm Using Pressure Sensitive Aero GaN. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1900012.	1.2	13
34	Cathodoluminescence of TiO ₂ nanotubes prepared by low-temperature anodization of Ti foils. <i>Materials Letters</i> , 2010, 64, 2155-2158.	1.3	12
35	Electromagnetic interference shielding in X-band with aero-GaN. <i>Nanotechnology</i> , 2019, 30, 34LT01.	1.3	12
36	Aero-Ga ₂ O ₃ Nanomaterial Electromagnetically Transparent from Microwaves to Terahertz for Internet of Things Applications. <i>Nanomaterials</i> , 2020, 10, 1047.	1.9	12

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37	Core-Shell GaAs-Fe Nanowire Arrays: Fabrication Using Electrochemical Etching and Deposition and Study of Their Magnetic Properties. <i>Nanomaterials</i> , 2022, 12, 1506.	1.9	12
38	Environmentally friendly approach for nonlithographic nanostructuring of materials. <i>Physica Status Solidi - Rapid Research Letters</i> , 2007, 1, 98-100.	1.2	11
39	Two-Dimensional Metallo-Semiconductor Networks for Electronic and Photonic Applications. <i>ECS Transactions</i> , 2012, 41, 67-74.	0.3	10
40	Design and maskless fabrication of ultrathin suspended membranes of GaN. <i>Physica Status Solidi - Rapid Research Letters</i> , 2012, 6, 148-150.	1.2	10
41	Memristive GaN ultrathin suspended membrane array. <i>Nanotechnology</i> , 2016, 27, 295204.	1.3	9
42	Atomically thin semiconducting layers and nanomembranes: a review. <i>Semiconductor Science and Technology</i> , 2017, 32, 033001.	1.0	9
43	Ultrafast third-order optical nonlinearity in SnS ₂ layered compound for photonic applications. <i>Optical Materials</i> , 2018, 76, 69-74.	1.7	9
44	Synthesis and optical properties of Ga ₂ O ₃ nanowires grown on GaS substrate. <i>Thin Solid Films</i> , 2019, 689, 137502.	0.8	9
45	Aero-ZnS architectures with dual hydrophilic-hydrophobic properties for microfluidic applications. <i>APL Materials</i> , 2020, 8, .	2.2	9
46	Crystallinity and optical properties of Γ^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
47	Highly Porous and Ultra-Lightweight Aero-Ga ₂ O ₃ : Enhancement of Photocatalytic Activity by Noble Metals. <i>Materials</i> , 2021, 14, 1985.	1.3	9
48	ZnSe-based conductive nanotemplates for nanofabrication. <i>Physica Status Solidi - Rapid Research Letters</i> , 2009, 3, 97-99.	1.2	8
49	Structural and Vibrational Properties of CdAl ₂ S ₄ under High Pressure: Experimental and Theoretical Approach. <i>Journal of Physical Chemistry C</i> , 2014, 118, 15363-15374.	1.5	8
50	A SnS ₂ -based photomemristor driven by sun. <i>Journal of Applied Physics</i> , 2018, 123, 024506.	1.1	8
51	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
52	Improving gas sensing by CdTe decoration of individual Aerographite microtubes. <i>Nanotechnology</i> , 2019, 30, 065501.	1.3	8
53	Structural and Vibrational Study of Pseudocubic CdIn ₂ Se ₄ under Compression. <i>Journal of Physical Chemistry C</i> , 2014, 118, 26987-26999.	1.5	7
54	Targeting Endothelial Cells with Multifunctional GaN/Fe Nanoparticles. <i>Nanoscale Research Letters</i> , 2017, 12, 486.	3.1	7

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55	Hierarchical Aerographite 3D flexible networks hybridized by InP micro/nanostructures for strain sensor applications. <i>Scientific Reports</i> , 2018, 8, 13880.	1.6	7
56	Mesenchymal stem cells proliferation and remote manipulation upon exposure to magnetic semiconductor nanoparticles. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2020, 25, e00435.	2.1	7
57	Integration of Ge nanowire arrays in glass micro-fibers. <i>Surface Engineering and Applied Electrochemistry</i> , 2011, 47, 103-106.	0.3	6
58	Learning mechanisms in memristor networks based on GaN nanomembranes. <i>Journal of Applied Physics</i> , 2018, 124, 152110.	1.1	6
59	Free-Standing Large-Area Nanoperforated Gold Membranes Fabricated by Hopping Electrodeposition. <i>ECS Journal of Solid State Science and Technology</i> , 2020, 9, 064010.	0.9	6
60	Photonic Crystal Structures Based on GaN Ultrathin Membranes. <i>Journal of Nanoelectronics and Optoelectronics</i> , 2014, 9, 271-275.	0.1	5
61	Modulation of Electrical Conductivity and Lattice Distortions in Bulk HVPE-Grown GaN. <i>ECS Journal of Solid State Science and Technology</i> , 2019, 8, Q141-Q146.	0.9	5
62	Ultrafast Third-Order Nonlinear Optical Response Excited by fs Laser Pulses at 1550 nm in GaN Crystals. <i>Materials</i> , 2021, 14, 3194.	1.3	5
63	Ultrathin tin sulfide field-effect transistors with subthreshold slope below 60 mV/decade. <i>Nanotechnology</i> , 2022, 33, 405207.	1.3	5
64	Micro-Raman study of columnar GaAs nanostructures. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, 1562-1566.	0.8	4
65	Self-induced oscillation of the macropore diameter in n-type silicon. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, 1533-1535.	0.8	4
66	Ultra-Thin GaN Membranes Fabricated by Using Surface Charge Lithography. <i>ECS Transactions</i> , 2011, 35, 13-19.	0.3	4
67	Fabrication of photonic crystal circuits based on GaN ultrathin membranes by maskless lithography. , 2015, , .		4
68	Multilayer porous structures on GaN for the fabrication of Bragg reflectors. <i>Proceedings of SPIE</i> , 2017, , .	0.8	4
69	Photoluminescence of Eu-doped ZnO structures. , 2005, , .		3
70	Surface charge lithography for GaN micro- and nanostructuring. <i>Proceedings of SPIE</i> , 2009, , .	0.8	3
71	Ultra-thin semiconductor membrane nanotechnology based on surface charge lithography. <i>Proceedings of SPIE</i> , 2011, , .	0.8	3
72	Porous InP as Piezoelectric Component in Magneto-Electric Composite Sensors. <i>ECS Transactions</i> , 2011, 35, 67-72.	0.3	3

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73	The impact of nanoporation on persistent photoconductivity and optical quenching effects in suspended GaN nanomembranes. <i>Applied Physics Letters</i> , 2013, 103, 243113.	1.5	3
74	Obtaining of II-VI compound substrates with controlled electrical parameters and prospects of their application for nanoporous structures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 1404-1407.	0.8	3
75	GaN nanostructuring for the fabrication of thin membranes and emerging applications. <i>Turkish Journal of Physics</i> , 2014, 38, 328-368.	0.5	3
76	Self-Propelled Aero-GaN Based Liquid Marbles Exhibiting Pulsed Rotation on the Water Surface. <i>Materials</i> , 2021, 14, 5086.	1.3	3
77	The microwave properties of tin sulfide thin films prepared by RF magnetron sputtering techniques. <i>Nanotechnology</i> , 2022, 33, 235705.	1.3	3
78	Hydrophobic ZnO used in EWOD technology and SAW devices for better bio-fluid slip AT microchannel walls controlled by DC pulses. , 2012, , .		2
79	Template Assisted Formation of Metal Nanotubes. <i>Nanoscience and Technology</i> , 2016, , 473-506.	1.5	2
80	Possible coherent backscattering of lightwaves from a strongly absorbing nanoporous medium. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 075606.	1.0	2
81	Efficient Focusing with an Ultra-Low Effective-Index Lens Based on Photonic Crystals. <i>Materials Research Society Symposia Proceedings</i> , 2005, 869, 441.	0.1	1
82	Effect of Al Sn — Doping on properties of zinc oxide nanostructured films grown by magnetron sputtering. , 2013, , .		1
83	Nanowire Networks: Three-Dimensional SnO ₂ Nanowire Networks for Multifunctional Applications: From High-Temperature Stretchable Ceramics to Ultraresponsive Sensors (<i>Adv. Electron. Mater.</i>) Tj ETQq1 1 0.784314 rgBT /Overlock		1
84	Special issue on electrochemical processing of semiconductor materials. <i>Semiconductor Science and Technology</i> , 2016, 31, 010301.	1.0	1
85	Raman scattering by porous structures with InAs quantum dots. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, 883-885.	0.8	0
86	Nearfield effect in a nanotube/nanopor array system for application in EWOD devices that are operating in THz region. , 2012, , .		0
87	Electrochemistry-based maskless nanofabrication. , 2012, , .		0
88	Copper doped zinc oxide micro- and nanostructures for room-temperature sensorial applications. , 2013, , .		0
89	Rapid synthesis and characterization of micro and nanostructures of molybdenum trioxide. , 2013, , .		0
90	Design of titania nanotube structures by focused laser beam writing. , 2013, , .		0

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91	Structure and morphology of nanoporous zno and dark currentâ€Voltage characteristics of the glass/(TCO)/zno/poly[2,7â€(9,9â€dioctylfluorene)â€(5,5'â€bithiophene)]/ag structure. Journal of Applied Polymer Science, 2015, 132, .	1.3	0
92	Microengines: Lightâ€Induced Motion of Microengines Based on Microarrays of TiO ₂ Nanotubes (Small 39/2016). Small, 2016, 12, 5508-5508.	5.2	0
93	<I>A Special Issue on</I> Nanotechnologies and Nanomaterials for Electronic, Phononic and Photonic Applications. Journal of Nanoelectronics and Optoelectronics, 2012, 7, 637-639.	0.1	0
94	<l>A Special Section on</l> Nanotechnologies and Nanomaterials for Electronic and Photonic Applications. Journal of Nanoelectronics and Optoelectronics, 2014, 9, 193-195.	0.1	0
95	The Role of Alternating Current on Photo-Assisted Electrochemical Porosification of GaN. Journal of Nanoelectronics and Optoelectronics, 2014, 9, 287-290.	0.1	0
96	(Invited) New Avenues for Exploration and Applications of GaN. ECS Meeting Abstracts, 2019, , .	0.0	0
97	Large-Sized Nanocrystalline Ultrathin Î ² -Ga ₂ O ₃ Membranes Fabricated by Surface Charge Lithography. Nanomaterials, 2022, 12, 689.	1.9	0