# Ion M Tiginyanu

## List of Publications by Citations



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|---|---|---|---|
| 83 papers | 1,324 citations | 16 h-index | 33 g-index |
| 100 ext. papers | 1,568 ext. citations | 3.7 avg, IF | 4.19 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 83 | Silver-doped zinc oxide single nanowire multifunctional nanosensor with a significant enhancement in response. *Sensors and Actuators B: Chemical*, **2016**, 223, 893-903 | 8.5 | 145 |
| 82 | Enhanced ethanol vapour sensing performances of copper oxide nanocrystals with mixed phases. *Sensors and Actuators B: Chemical*, **2016**, 224, 434-448 | 8.5 | 120 |
| 81 | Three-Dimensional SnO2 Nanowire Networks for Multifunctional Applications: From High-Temperature Stretchable Ceramics to Ultraresponsive Sensors. *Advanced Electronic Materials*, **2015**, 1, 1500081 | 6.4 | 104 |
| 80 | Versatile Growth of Freestanding Orthorhombic Molybdenum Trioxide Nano- and Microstructures by Rapid Thermal Processing for Gas Nanosensors. *Journal of Physical Chemistry C*, **2014**, 118, 15068-15078 | 3.8 | 95 |
| 79 | Multifunctional device based on ZnO:Fe nanostructured films with enhanced UV and ultra-fast ethanol vapour sensing. *Materials Science in Semiconductor Processing*, **2016**, 49, 20-33 | 4.3 | 62 |
| 78 | Rapid switching and ultra-responsive nanosensors based on individual shell core Ga2O3/GaN:O @SnO2 nanobelt with nanocrystalline shell in mixed phases. *Sensors and Actuators B: Chemical*, **2015**, 221, 544-555 | 8.5 | 58 |
| 77 | Light-Induced Motion of Microengines Based on Microarrays of TiO Nanotubes. *Small*, **2016**, 12, 5497-5505 | 8.5 | 52 |
| 76 | Strong light scattering and broadband (UV to IR) photoabsorption in stretchable 3D hybrid architectures based on Aerographite decorated by ZnO nanocrystallites. *Scientific Reports*, **2016**, 6, 32913 | 4.9 | 47 |
| 75 | Integration of individual TiO2 nanotube on the chip: Nanodevice for hydrogen sensing. *Physica Status Solidi - Rapid Research Letters*, **2015**, 9, 171-174 | 2.5 | 44 |
| 74 | Zinc oxide nanotetrapods with four different arm morphologies for versatile nanosensors. *Sensors and Actuators B: Chemical*, **2018**, 262, 425-435 | 8.5 | 44 |
| 73 | Three-dimensional Aerographite-GaN hybrid networks: single step fabrication of porous and mechanically flexible materials for multifunctional applications. *Scientific Reports*, **2015**, 5, 8839 | 4.9 | 40 |
| 72 | Ordered arrays of metal nanotubes in semiconductor envelope. *Electrochemistry Communications*, **2008**, 10, 731-734 | 5.1 | 35 |
| 71 | Size-dependent UV and gas sensing response of individual Fe2O3-ZnO:Fe micro- and nanowire based devices. *Journal of Alloys and Compounds*, **2017**, 701, 920-925 | 5.7 | 27 |
| 70 | Properties of a single SnO2:Zn2SnO4 Functionalized nanowire based nanosensor. *Ceramics International*, **2018**, 44, 4859-4867 | 5.1 | 26 |
| 69 | Exceptional integration of metal or semimetal nanowires in human-hair-like glass fiber. *Materials Letters*, **2010**, 64, 1902-1904 | 3.3 | 19 |
| 68 | Self-organized nucleation layer for the formation of ordered arrays of double-walled TiO2 nanotubes with temperature controlled inner diameter. *Physica Status Solidi - Rapid Research Letters*, **2010**, 4, 100-102 | 2.5 | 17 |
| 67 | Fabrication of GaN nanowalls and nanowires using surface charge lithography. *Materials Letters*, **2008**, 62, 4576-4578 | 3.3 | 16 |

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|---|---|---|---|
| 66 | Self-organized and self-propelled aero-GaN with dual hydrophilic-hydrophobic behaviour. *Nano Energy*, **2019**, 56, 759-769 | 17.1 | 16 |
| 65 | Self-Organized Three-Dimensional Nanostructured Architectures in Bulk GaN Generated by Spatial Modulation of Doping. *ECS Journal of Solid State Science and Technology*, **2016**, 5, P218-P227 | 2 | 15 |
| 64 | Metallized Porous GaP Templates for Electronic and Photonic Applications. *ECS Journal of Solid State Science and Technology*, **2015**, 4, P57-P62 | 2 | 15 |
| 63 | Membrane-assisted revelation of the spatial nanoarchitecture of dislocation networks. *Materials Letters*, **2011**, 65, 360-362 | 3.3 | 13 |
| 62 | Photocatalytic properties of TiO2 nanotubes doped with Ag, Au and Pt or covered by Ag, Au and Pt nanodots. *Surface Engineering and Applied Electrochemistry*, **2015**, 51, 3-8 | 0.8 | 12 |
| 61 | Ultra-lightweight pressure sensor based on graphene aerogel decorated with piezoelectric nanocrystalline films. *Nanotechnology*, **2016**, 27, 475203 | 3.4 | 12 |
| 60 | Porous semiconductor compounds. *Semiconductor Science and Technology*, **2020**, 35, 103001 | 1.8 | 12 |
| 59 | Sensing up to 40 atm Using Pressure-Sensitive Aero-GaN. *Physica Status Solidi - Rapid Research Letters*, **2019**, 13, 1900012 | 2.5 | 11 |
| 58 | Formation of InP nanomembranes and nanowires under fast anodic etching of bulk substrates. *Electrochemistry Communications*, **2014**, 47, 29-32 | 5.1 | 11 |
| 57 | Design of titania nanotube structures by focused laser beam direct writing. *Journal of Applied Physics*, **2013**, 114, 234302 | 2.5 | 11 |
| 56 | ZnAl2O4-Functionalized Zinc Oxide Microstructures for Highly Selective Hydrogen Gas Sensing Applications. *Physica Status Solidi (A) Applications and Materials Science*, **2018**, 215, 1700772 | 1.6 | 10 |
| 55 | Viability and proliferation of endothelial cells upon exposure to GaN nanoparticles. *Beilstein Journal of Nanotechnology*, **2016**, 7, 1330-1337 | 3 | 10 |
| 54 | Cathodoluminescence of TiO2 nanotubes prepared by low-temperature anodization of Ti foils. *Materials Letters*, **2010**, 64, 2155-2158 | 3.3 | 9 |
| 53 | Advanced Hybrid GaN/ZnO Nanoarchitectured Microtubes for Fluorescent Micromotors Driven by UV Light. *Small*, **2020**, 16, e1905141 | 11 | 9 |
| 52 | Electromagnetic interference shielding in X-band with aero-GaN. *Nanotechnology*, **2019**, 30, 34LT01 | 3.4 | 8 |
| 51 | Flexible pressure sensor based on graphene aerogel microstructures functionalized with CdS nanocrystalline thin film. *Superlattices and Microstructures*, **2018**, 117, 418-422 | 2.8 | 8 |
| 50 | Terahertz shielding properties of aero-GaN. *Semiconductor Science and Technology*, **2019**, 34, 12LT02 | 1.8 | 8 |
| 49 | Memristive GaN ultrathin suspended membrane array. *Nanotechnology*, **2016**, 27, 295204 | 3.4 | 8 |

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| 48 | Individual CdS-covered aerographite microtubes for room temperature VOC sensing with high selectivity. *Materials Science in Semiconductor Processing*, **2019**, 100, 275-282 | 4.3 | 7 |
| 47 | Targeting Endothelial Cells with Multifunctional GaN/Fe Nanoparticles. *Nanoscale Research Letters*, **2017**, 12, 486 | 5 | 7 |
| 46 | A SnS2-based photomemristor driven by sun. *Journal of Applied Physics*, **2018**, 123, 024506 | 2.5 | 7 |
| 45 | Structural and Vibrational Study of Pseudocubic CdIn2Se4under Compression. *Journal of Physical Chemistry C*, **2014**, 118, 26987-26999 | 3.8 | 7 |
| 44 | Design and maskless fabrication of ultrathin suspended membranes of GaN. *Physica Status Solidi - Rapid Research Letters*, **2012**, 6, 148-150 | 2.5 | 7 |
| 43 | Two-Dimensional Metallo-Semiconductor Networks for Electronic and Photonic Applications. *ECS Transactions*, **2012**, 41, 67-74 | 1 | 7 |
| 42 | Environmentally friendly approach for nonlithographic nanostructuring of materials. *Physica Status Solidi - Rapid Research Letters*, **2007**, 1, 98-100 | 2.5 | 7 |
| 41 | Aero-GaO Nanomaterial Electromagnetically Transparent from Microwaves to Terahertz for Internet of Things Applications. *Nanomaterials*, **2020**, 10, | 5.4 | 6 |
| 40 | Ultrafast third-order optical nonlinearity in SnS2 layered compound for photonic applications. *Optical Materials*, **2018**, 76, 69-74 | 3.3 | 6 |
| 39 | Structural and Vibrational Properties of CdAl2S4 under High Pressure: Experimental and Theoretical Approach. *Journal of Physical Chemistry C*, **2014**, 118, 15363-15374 | 3.8 | 6 |
| 38 | ZnSe-based conductive nanotemplates for nanofabrication. *Physica Status Solidi - Rapid Research Letters*, **2009**, 3, 97-99 | 2.5 | 6 |
| 37 | Learning mechanisms in memristor networks based on GaN nanomembranes. *Journal of Applied Physics*, **2018**, 124, 152110 | 2.5 | 6 |
| 36 | Atomically thin semiconducting layers and nanomembranes: a review. *Semiconductor Science and Technology*, **2017**, 32, 033001 | 1.8 | 5 |
| 35 | Electrochemical nanostructuring of (111) oriented GaAs crystals: from porous structures to nanowires. *Beilstein Journal of Nanotechnology*, **2020**, 11, 966-975 | 3 | 5 |
| 34 | Synthesis and optical properties of Ga2O3 nanowires grown on GaS substrate. *Thin Solid Films*, **2019**, 689, 137502 | 2.2 | 5 |
| 33 | Integration of Ge nanowire arrays in glass micro-fibers. *Surface Engineering and Applied Electrochemistry*, **2011**, 47, 103-106 | 0.8 | 5 |
| 32 | Improving gas sensing by CdTe decoration of individual Aerographite microtubes. *Nanotechnology*, **2019**, 30, 065501 | 3.4 | 5 |
| 31 | Fabrication of photonic crystal circuits based on GaN ultrathin membranes by maskless lithography **2015**, | | 4 |

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| 30 | Aero-ZnS architectures with dual hydrophilic/hydrophobic properties for microfluidic applications. *APL Materials*, **2020**, 8, 061105 | 5.7 | 4 |
| 29 | Mesenchymal stem cells proliferation and remote manipulation upon exposure to magnetic semiconductor nanoparticles. *Biotechnology Reports (Amsterdam, Netherlands)*, **2020**, 25, e00435 | 5.3 | 4 |
| 28 | Photonic Crystal Structures Based on GaN Ultrathin Membranes. *Journal of Nanoelectronics and Optoelectronics*, **2014**, 9, 271-275 | 1.3 | 4 |
| 27 | Self-induced oscillation of the macropore diameter in n-type silicon. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2009**, 6, 1533-1535 | | 4 |
| 26 | Hierarchical Aerographite 3D flexible networks hybridized by InP micro/nanostructures for strain sensor applications. *Scientific Reports*, **2018**, 8, 13880 | 4.9 | 4 |
| 25 | Multilayer porous structures on GaN for the fabrication of Bragg reflectors **2017**, | | 3 |
| 24 | Modulation of Electrical Conductivity and Lattice Distortions in Bulk HVPE-Grown GaN. *ECS Journal of Solid State Science and Technology*, **2019**, 8, Q141-Q146 | 2 | 3 |
| 23 | GaN nanostructuring for the fabrication of thin membranes and emerging applications. *Turkish Journal of Physics*, **2014**, 38, 328-368 | 1.6 | 3 |
| 22 | The impact of nanoperforation on persistent photoconductivity and optical quenching effects in suspended GaN nanomembranes. *Applied Physics Letters*, **2013**, 103, 243113 | 3.4 | 3 |
| 21 | Micro-Raman study of columnar GaAs nanostructures. *Physica Status Solidi (A) Applications and Materials Science*, **2005**, 202, 1562-1566 | 1.6 | 3 |
| 20 | Free-Standing Large-Area Nanoperforated Gold Membranes Fabricated by Hopping Electrodeposition. *ECS Journal of Solid State Science and Technology*, **2020**, 9, 064010 | 2 | 3 |
| 19 | Highly Porous and Ultra-Lightweight Aero-GaO: Enhancement of Photocatalytic Activity by Noble Metals. *Materials*, **2021**, 14, | 3.5 | 3 |
| 18 | Obtaining of II-VI compound substrates with controlled electrical parameters and prospects of their application for nanoporous structures. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2014**, 11, 1404-1407 | | 2 |
| 17 | Surface charge lithography for GaN micro- and nanostructuring **2009**, | | 2 |
| 16 | Ultra-thin semiconductor membrane nanotechnology based on surface charge lithography **2011**, | | 2 |
| 15 | Porous InP as Piezoelectric Component in Magneto-Electric Composite Sensors. *ECS Transactions*, **2011**, 35, 67-72 | 1 | 2 |
| 14 | Ultra-Thin GaN Membranes Fabricated by Using Surface Charge Lithography. *ECS Transactions*, **2011**, 35, 13-19 | 1 | 2 |
| 13 | Hydrophobic ZnO used in EWOD technology and SAW devices for better bio-fluid slip AT microchannel walls controlled by DC pulses **2012**, | | 2 |

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| 12 | Photoluminescence of Eu-doped ZnO structures **2005**, | | 2 |
| 11 | Crystallinity and optical properties of Ga2O3/Ga2S3 layered structure obtained by thermal annealing of Ga2S3 semiconductor. *Materials Science in Semiconductor Processing*, **2021**, 121, 105314 | 4.3 | 2 |
| 10 | Core-Shell GaAs-Fe Nanowire Arrays: Fabrication Using Electrochemical Etching and Deposition and Study of Their Magnetic Properties.. *Nanomaterials*, **2022**, 12, | 5.4 | 2 |
| 9 | Nanowire Networks: Three-Dimensional SnO2 Nanowire Networks for Multifunctional Applications: From High-Temperature Stretchable Ceramics to Ultraresponsive Sensors (Adv. Electron. Mater. 8/2015). *Advanced Electronic Materials*, **2015**, 1, n/a-n/a | 6.4 | 1 |
| 8 | Effect of Al Sn Doping on properties of zinc oxide nanostructured films grown by magnetron sputtering **2013**, | | 1 |
| 7 | Efficient Focusing with an Ultra-Low Effective-Index Lens Based on Photonic Crystals. *Materials Research Society Symposia Proceedings*, **2005**, 869, 441 | | 1 |
| 6 | Ultrafast Third-Order Nonlinear Optical Response Excited by fs Laser Pulses at 1550 nm in GaN Crystals. *Materials*, **2021**, 14, | 3.5 | 1 |
| 5 | Template Assisted Formation of Metal Nanotubes. *Nanoscience and Technology*, **2016**, 473-506 | 0.6 | 1 |
| 4 | Possible coherent backscattering of lightwaves from a strongly absorbing nanoporous medium. *Journal of Optics (United Kingdom)*, **2018**, 20, 075606 | 1.7 | 1 |
| 3 | Self-Propelled Aero-GaN Based Liquid Marbles Exhibiting Pulsed Rotation on the Water Surface. *Materials*, **2021**, 14, | 3.5 | 1 |
| 2 | Raman scattering by porous structures with InAs quantum dots. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2009**, 6, 883-885 | | |
| 1 | Microengines: Light-Induced Motion of Microengines Based on Microarrays of TiO2 Nanotubes (Small 39/2016). *Small*, **2016**, 12, 5508-5508 | 11 | |