

Panagiotis Anastasios Bousoulas

List of Publications by Year in descending order

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| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Low Power Stochastic Neurons From SiO ₂ -Based Bilayer Conductive Bridge Memristors for Probabilistic Spiking Neural Network Applications”Part II: Modeling. IEEE Transactions on Electron Devices, 2022, 69, 2368-2376. | 1.6 | 9 |
| 2 | Low Power Stochastic Neurons From SiO ₂ -Based Bilayer Conductive Bridge Memristors for Probabilistic Spiking Neural Network Applications”Part I: Experimental Characterization. IEEE Transactions on Electron Devices, 2022, 69, 2360-2367. | 1.6 | 11 |
| 3 | Chemical Wave Computing from Labware to Electrical Systems. Electronics (Switzerland), 2022, 11, 1683. | 1.8 | 3 |
| 4 | Memristor-based Oscillator for Complex Chemical Wave Logic Computations: Fredkin Gate Paradigm. , 2022, , . | | 0 |
| 5 | Demonstration of Enhanced Switching Variability and Conductance Quantization Properties in a SiO ₂ Conducting Bridge Resistive Memory with Embedded Two-Dimensional MoS ₂ Material. ACS Applied Electronic Materials, 2022, 4, 2869-2878. | 2.0 | 0 |
| 6 | Emulating low power nociceptive functionalities with a forming-free SiO ₂ /VO _x conductive bridge memory with Pt nanoparticles. Applied Physics Letters, 2022, 120, . | 1.5 | 5 |
| 7 | Emulating artificial neuron and synaptic properties with SiO ₂ -based memristive devices by tuning threshold and bipolar switching effects. Journal Physics D: Applied Physics, 2021, 54, 225303. | 1.3 | 23 |
| 8 | Emulating Artificial Synaptic Plasticity Characteristics from SiO ₂ -Based Conductive Bridge Memories with Pt Nanoparticles. Micromachines, 2021, 12, 306. | 1.4 | 10 |
| 9 | Tuning the analog synaptic properties of forming free SiO ₂ memristors by material engineering. Applied Physics Letters, 2021, 118, . | 1.5 | 20 |
| 10 | Impact of Active Electrode on the Synaptic Properties of SiO ₂ -Based Forming-Free Conductive Bridge Memory. IEEE Transactions on Electron Devices, 2021, 68, 1598-1603. | 1.6 | 15 |
| 11 | Highly Flexible Artificial Synapses from SiO ₂ -Based Conductive Bridge Memristors and Pt Nanoparticles through a Crack Suppression Technique. ACS Applied Electronic Materials, 2021, 3, 2729-2737. | 2.0 | 7 |
| 12 | Unconventional Logic on Memristor-Based Oscillatory Medium. , 2021, , . | | 1 |
| 13 | Emulating artificial mechanoreceptor functionalities from SiO ₂ -based memristor and PDMS stretchable sensor for artificial skin applications. , 2021, , . | | 0 |
| 14 | Multifunctional Spatially-Expanded Logic Gate for Unconventional Computations with Memristor-Based Oscillators. , 2021, , . | | 1 |
| 15 | Memristive Oscillatory Networks for Computing: The Chemical Wave Propagation Paradigm. , 2021, , . | | 5 |
| 16 | Emulating artificial mechanoreceptor functionalities from SiO ₂ -based memristor and PDMS stretchable sensor for artificial skin applications. , 2021, , . | | 0 |
| 17 | Margolus Chemical Wave Logic Gate with Memristive Oscillatory Networks. , 2021, , . | | 3 |
| 18 | Investigating the origins of ultra-short relaxation times of silver filaments in forming-free SiO ₂ -based conductive bridge memristors. Nanotechnology, 2020, 31, 454002. | 1.3 | 34 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Spatial Confinement Effects of Embedded Nanocrystals on Multibit and Synaptic Properties of Forming Free SiO ₂ -Based Conductive Bridge Random Access Memory. IEEE Electron Device Letters, 2020, 41, 1013-1016. | 2.2 | 13 |
| 20 | Enhancing the synaptic properties of low-power and forming-free HfO _x /TaO _y /HfO _x resistive switching devices. Microelectronic Engineering, 2020, 229, 111358. | 1.1 | 22 |
| 21 | Impact of Pt embedded nanocrystals on the resistive switching and synaptic properties of forming free TiO _{2-x} /TiO _{2-y} -based bilayer structures. Journal of Applied Physics, 2019, 126, . | 1.1 | 24 |
| 22 | Tuning Resistive, Capacitive, and Synaptic Properties of Forming Free TiO _{2-x} -Based RRAM Devices by Embedded Pt and Ta Nanocrystals. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700440. | 0.8 | 12 |
| 23 | Investigating the origins of high multilevel resistive switching in forming free Ti/TiO _{2-x} -based memory devices through experiments and simulations. Journal of Applied Physics, 2017, 121, . | 1.1 | 32 |
| 24 | Resistive memory multilayer structure with self-rectifying and forming free properties along with their modification by adding a hafnium nanoparticle midlayer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, . | 0.9 | 3 |
| 25 | Low-Power Forming Free TiO _{2-x} /HfO _{2-x} /TiO _{2-x} RRAM Devices Exhibiting Synaptic Property Characteristics. IEEE Transactions on Electron Devices, 2017, 64, 3151-3158. | 1.6 | 43 |
| 26 | Coexistence of bipolar and threshold resistive switching in TiO ₂ -based structure with embedded hafnium nanoparticles. Journal Physics D: Applied Physics, 2017, 50, 045103. | 1.3 | 11 |
| 27 | Ultra-Low Power Multilevel Switching with Enhanced Uniformity in Forming Free TiO _{2-x} -Based RRAM with Embedded Pt Nanocrystals. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700570. | 0.8 | 25 |
| 28 | Experiments and simulation of multilevel resistive switching in forming free Ti/TiO _{2-x} RRAM devices. , 2017, , . | | 2 |
| 29 | Heavy metal ion detection using DNAzyme-modified platinum nanoparticle networks. Sensors and Actuators B: Chemical, 2017, 239, 962-969. | 4.0 | 25 |
| 30 | Understanding the Formation of Conducting Filaments in RRAM Through the Design of Experiments. , 2017, , . | | 0 |
| 31 | Understanding the Formation of Conducting Filaments in RRAM Through the Design of Experiments. International Journal of High Speed Electronics and Systems, 2016, 25, 1640007. | 0.3 | 5 |
| 32 | Engineering amorphous-crystalline interfaces in TiO _{2-x} /TiO _{2-y} -based bilayer structures for enhanced resistive switching and synaptic properties. Journal of Applied Physics, 2016, 120, . | 1.1 | 38 |
| 33 | Physical modelling of the SET/RESET characteristics and analog properties of TiO _x /HfO _{2-x} /TiO _x -based RRAM devices. , 2016, , . | | 2 |
| 34 | Low-Power and Highly Uniform 3-b Multilevel Switching in Forming Free TiO _{2-x} -Based RRAM With Embedded Pt Nanocrystals. IEEE Electron Device Letters, 2016, 37, 874-877. | 2.2 | 59 |
| 35 | Memory programming of TiO _{2-x} films by Conductive Atomic Force Microscopy evidencing filamentary resistive switching. Applied Surface Science, 2015, 332, 55-61. | 3.1 | 24 |
| 36 | Material and Device Parameters Influencing Multi-Level Resistive Switching of Room Temperature Grown Titanium Oxide Layers. Materials Research Society Symposia Proceedings, 2015, 1729, 59-64. | 0.1 | 0 |

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|----|--|-----|-----------|
| 37 | Improving the resistive switching uniformity of forming-free TiO ₂ based devices by embedded Pt nanocrystals. , 2015, , . | | 5 |
| 38 | Structural Characterization of Layers for Advanced Non-volatile Memories. Springer Proceedings in Physics, 2015, , 9-17. | 0.1 | 0 |
| 39 | Influence of oxygen content of room temperature TiO _{2-x} deposited films for enhanced resistive switching memory performance. Journal of Applied Physics, 2014, 115, 034516. | 1.1 | 47 |
| 40 | Influence of Ti top electrode thickness on the resistive switching properties of forming free and self-rectified TiO _{2-x} thin films. Thin Solid Films, 2014, 571, 23-31. | 0.8 | 33 |