

Hussein Nili

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

3,461
citations

331259

21
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377514

34
g-index

42
all docs

42
docs citations

42
times ranked

6237
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1 | Combinatorial optimization by weight annealing in memristive hopfield networks. Scientific Reports, 2021, 11, 16383. | 1.6 | 10 |
| 2 | 4K-memristor analog-grade passive crossbar circuit. Nature Communications, 2021, 12, 5198. | 5.8 | 97 |
| 3 | The Impact of Device Uniformity on Functionality of Analog Passively-Integrated Memristive Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4090-4101. | 3.5 | 3 |
| 4 | Conduction mechanism effect on physical unclonable function using Al ₂ O ₃ /TiO _x memristors. Chaos, Solitons and Fractals, 2021, 152, 111388. | 2.5 | 15 |
| 5 | Reset-voltage-dependent precise tuning operation of TiO _x /Al ₂ O ₃ memristive crossbar array. Applied Physics Letters, 2020, 117, . | 1.5 | 35 |
| 6 | A Strong Physically Unclonable Function With >2 ⁴⁸ CRPs and <1.4% BER Using Passive ReRAM Technology. IEEE Solid-State Circuits Letters, 2020, 3, 182-185. | 1.3 | 8 |
| 7 | Intrinsic Bounds for Computing Precision in Memristor-Based Vector-by-Matrix Multipliers. IEEE Nanotechnology Magazine, 2020, 19, 429-435. | 1.1 | 13 |
| 8 | Comprehensive Compact Phenomenological Modeling of Integrated Metal-Oxide Memristors. IEEE Nanotechnology Magazine, 2020, 19, 344-349. | 1.1 | 19 |
| 9 | ChipSecure. , 2019, , . | | 9 |
| 10 | An Ultrasensitive Silicon Photonic Ion Sensor Enabled by 2D Plasmonic Molybdenum Oxide. Small, 2019, 15, e1805251. | 5.2 | 31 |
| 11 | Towards the Development of Analog Neuromorphic Chip Prototype with 2.4M Integrated Memristors. , 2019, , . | | 10 |
| 12 | Nano-Intrinsic True Random Number Generation: A Device to Data Study. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 2615-2626. | 3.5 | 19 |
| 13 | Ultra-Low Power Physical Unclonable Function with Nonlinear Fixed-Resistance Crossbar Circuits. , 2019, , . | | 11 |
| 14 | Hardware-intrinsic security primitives enabled by analogue state and nonlinear conductance variations in integrated memristors. Nature Electronics, 2018, 1, 197-202. | 13.1 | 148 |
| 15 | A Physical Unclonable Function With Redox-Based Nanoionic Resistive Memory. IEEE Transactions on Information Forensics and Security, 2018, 13, 437-448. | 4.5 | 24 |
| 16 | Predictive Analysis of 3D ReRAM-Based PUF for Securing the Internet of Things. , 2018, , . | | 4 |
| 17 | Mixed-Signal Neuromorphic Inference Accelerators: Recent Results and Future Prospects. , 2018, , . | | 21 |
| 18 | Spike-timing-dependent plasticity learning of coincidence detection with passively integrated memristive circuits. Nature Communications, 2018, 9, 5311. | 5.8 | 153 |

| # | ARTICLE | IF | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | RX-PUF: Low Power, Dense, Reliable, and Resilient Physically Unclonable Functions Based on Analog Passive RRAM Crossbar Arrays. , 2018, , . | | 16 |
| 20 | Implementation of multilayer perceptron network with highly uniform passive memristive crossbar circuits. Nature Communications, 2018, 9, 2331. | 5.8 | 281 |
| 21 | Transparent amorphous strontium titanate resistive memories with transient photo-response. Nanoscale, 2017, 9, 14690-14702. | 2.8 | 18 |
| 22 | 3D ReRAM arrays and crossbars: Fabrication, characterization and applications. , 2017, , . | | 8 |
| 23 | Utilizing I-V non-linearity and analog state variations in ReRAM-based security primitives. , 2017, , . | | 3 |
| 24 | High-Performance Field Effect Transistors Using Electronic Inks of 2D Molybdenum Oxide Nanoflakes. Advanced Functional Materials, 2016, 26, 91-100. | 7.8 | 164 |
| 25 | Microstructure and dynamics of vacancy-induced nanofilamentary switching network in donor doped SrTiO ₃ memristors. Nanotechnology, 2016, 27, 505210. | 1.3 | 39 |
| 26 | Donor-Induced Performance Tuning of Amorphous SrTiO ₃ Memristive Nanodevices: Multistate Resistive Switching and Mechanical Tunability. Advanced Functional Materials, 2015, 25, 3172-3182. | 7.8 | 68 |
| 27 | Stretchable and Tunable Microtectonic ZnO-Based Sensors and Photonics. Small, 2015, 11, 4532-4539. | 5.2 | 54 |
| 28 | Flexible metasurfaces and metamaterials: A review of materials and fabrication processes at micro- and nano-scales. Applied Physics Reviews, 2015, 2, 011303. | 5.5 | 303 |
| 29 | Acoustic-Excitonic Coupling for Dynamic Photoluminescence Manipulation of Quasi-2D MoS ₂ Nanoflakes. Advanced Optical Materials, 2015, 3, 888-894. | 3.6 | 39 |
| 30 | Elemental Analogues of Graphene: Silicene, Germanene, Stanene, and Phosphorene. Small, 2015, 11, 640-652. | 5.2 | 725 |
| 31 | Nanoscale electro-mechanical dynamics of nano-crystalline platinum thin films: An <i>in situ</i> electrical nanoindentation study. Journal of Applied Physics, 2014, 116, . | 1.1 | 13 |
| 32 | Nanoscale Resistive Switching in Amorphous Perovskite Oxide (SrTiO ₃) Memristors. Advanced Functional Materials, 2014, 24, 6741-6750. | 7.8 | 111 |
| 33 | Reduced impurity-driven defect states in anodized nanoporous Nb ₂ O ₅ : the possibility of improving performance of photoanodes. Chemical Communications, 2013, 49, 6349. | 2.2 | 28 |
| 34 | Semiconductors: Two-Dimensional Molybdenum Trioxide and Dichalcogenides (Adv. Funct. Mater.) Tj ETQq0 0 0 ggBT /Overlock 10 Tf | 7.8 | 6 |
| 35 | Alkali ratio control for lead-free piezoelectric thin films utilizing elemental diffusivities in RF plasma. CrystEngComm, 2013, 15, 7222. | 1.3 | 26 |
| 36 | Two-Dimensional Molybdenum Trioxide and Dichalcogenides. Advanced Functional Materials, 2013, 23, 3952-3970. | 7.8 | 443 |

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|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 37 | In situ nanoindentation: Probing nanoscale multifunctionality. Progress in Materials Science, 2013, 58, 1-29. | 16.0 | 90 |
| 38 | Transition metal oxides – Thermoelectric properties. Progress in Materials Science, 2013, 58, 1443-1489. | 16.0 | 302 |
| 39 | Correlation between nanomechanical and piezoelectric properties of thin films: An experimental and finite element study. Materials Letters, 2013, 90, 148-151. | 1.3 | 18 |
| 40 | Transparent functional oxide stretchable electronics: micro-tectonics enabled high strain electrodes. NPG Asia Materials, 2013, 5, e62-e62. | 3.8 | 67 |