Hussein Nili

List of Publications by Year
in descending order

40 papers	3,461 citations	331259 21 h-index	377514 34 g-index
42 all docs	42 docs citations	42 times ranked	6237 citing authors

#	Article	IF	Citations
1	Elemental Analogues of Graphene: Silicene, Germanene, Stanene, and Phosphorene. Small, 2015, 11, 640-652.	5.2	725
2	Twoâ€Dimensional Molybdenum Trioxide and Dichalcogenides. Advanced Functional Materials, 2013, 23, 3952-3970.	7.8	443
3	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
4	Transition metal oxides â€“ Thermoelectric properties. Progress in Materials Science, 2013, 58, 1443-1489.	16.0	302
5	Implementation of multilayer perceptron network with highly uniform passive memristive crossbar circuits. Nature Communications, 2018, 9, 2331.	5.8	281
6	Highâ€Performance Field Effect Transistors Using Electronic Inks of 2D Molybdenum Oxide Nanoflakes. Advanced Functional Materials, 2016, 26, 91-100.	7.8	164
7	Spike-timing-dependent plasticity learning of coincidence detection with passively integrated memristive circuits. Nature Communications, 2018, 9, 5311.	5.8	153
8	Hardware-intrinsic security primitives enabled by analogue state and nonlinear conductance variations in integrated memristors. Nature Electronics, 2018, 1, 197-202.	13.1	148
9	Nanoscale Resistive Switching in Amorphous Perovskite Oxide (aâ€SrTiO₃) Memristors. Advanced Functional Materials, 2014, 24, 6741-6750.	7.8	111
10	4K-memristor analog-grade passive crossbar circuit. Nature Communications, 2021, 12, 5198.	5.8	97
11	In situ nanoindentation: Probing nanoscale multifunctionality. Progress in Materials Science, 2013, 58, 1-29.	16.0	90
12	Donorâ€Induced Performance Tuning of Amorphous SrTiO₃ Memristive Nanodevices: Multistate Resistive Switching and Mechanical Tunability. Advanced Functional Materials, 2015, 25, 3172-3182.	7.8	68
13	Transparent functional oxide stretchable electronics: micro-tectonics enabled high strain electrodes. NPG Asia Materials, 2013, 5, e62-e62.	3.8	67
14	Stretchable and Tunable Microtectonic ZnO-Based Sensors and Photonics. Small, 2015, 11, 4532-4539.	5.2	54
15	Acousticâ€“Excitonic Coupling for Dynamic Photoluminescence Manipulation of Quasiâ€2D MoS₂ Nanoflakes. Advanced Optical Materials, 2015, 3, 888-894.	3.6	39
16	Microstructure and dynamics of vacancy-induced nanofilamentary switching network in donor doped SrTiO_{3â^'x}memristors. Nanotechnology, 2016, 27, 505210.	1.3	39
17	Reset-voltage-dependent precise tuning operation of TiOx/Al2O3 memristive crossbar array. Applied Physics Letters, 2020, 117, .	1.5	35
18	An Ultrasensitive Silicon Photonic Ion Sensor Enabled by 2D Plasmonic Molybdenum Oxide. Small, 2019, 15, e1805251.	5.2	31

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19	Reduced impurity-driven defect states in anodized nanoporous Nb2O5: the possibility of improving performance of photoanodes. Chemical Communications, 2013, 49, 6349.	2.2	28
20	Alkali ratio control for lead-free piezoelectric thin films utilizing elemental diffusivities in RF plasma. CrystEngComm, 2013, 15, 7222.	1.3	26
21	A Physical Unclonable Function With Redox-Based Nanoionic Resistive Memory. IEEE Transactions on Information Forensics and Security, 2018, 13, 437-448.	4.5	24
22	Mixed-Signal Neuromorphic Inference Accelerators: Recent Results and Future Prospects. , 2018, , .		21
23	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
24	Comprehensive Compact Phenomenological Modeling of Integrated Metal-Oxide Memristors. IEEE Nanotechnology Magazine, 2020, 19, 344-349.	1.1	19
25	Correlation between nanomechanical and piezoelectric properties of thin films: An experimental and finite element study. Materials Letters, 2013, 90, 148-151.	1.3	18
26	Transparent amorphous strontium titanate resistive memories with transient photo-response. Nanoscale, 2017, 9, 14690-14702.	2.8	18
27	RX-PUF: Low Power, Dense, Reliable, and Resilient Physically Unclonable Functions Based on Analog Passive RRAM Crossbar Arrays. , 2018, , .		16
28	Conduction mechanism effect on physical unclonable function using Al2O3/TiOX memristors. Chaos, Solitons and Fractals, 2021, 152, 111388.	2.5	15
29	Nanoscale electro-mechanical dynamics of nano-crystalline platinum thin films: An in situ electrical nanoindentation study. Journal of Applied Physics, 2014, 116, .	1.1	13
30	Intrinsic Bounds for Computing Precision in Memristor-Based Vector-by-Matrix Multipliers. IEEE Nanotechnology Magazine, 2020, 19, 429-435.	1.1	13
31	Ultra-Low Power Physical Unclonable Function with Nonlinear Fixed-Resistance Crossbar Circuits. , 2019, , .		11
32	Towards the Development of Analog Neuromorphic Chip Prototype with 2.4M Integrated Memristors. , 2019, , .		10
33	Combinatorial optimization by weight annealing in memristive hopfield networks. Scientific Reports, 2021, 11, 16383.	1.6	10
34	ChipSecure. , 2019, , .		9
35	3D ReRAM arrays and crossbars: Fabrication, characterization and applications. , 2017, , .		8
36	A Strong Physically Unclonable Function With >2â¸â° CRPs and <1.4% BER Using Passive ReRAM Technology. IEEE Solid-State Circuits Letters, 2020, 3, 182-185.	1.3	8

#	Article	IF	Citations
37	Semiconductors: Twoâ€Dimensional Molybdenum Trioxide and Dichalcogenides (Adv. Funct. Mater.) Tj ETQq1 1 0.784314 rgBT /Over	7.8	6
38	Predictive Analysis of 3D ReRAM-Based PUF for Securing the Internet of Things. , 2018, , .		4
39	Utilizing I-V non-linearity and analog state variations in ReRAM-based security primitives. , 2017, , .		3
40	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