

Yu-Hui He

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2656322/publications.pdf>

Version: 2024-02-01

65
papers

2,285
citations

186265

28
h-index

223800

46
g-index

66
all docs

66
docs citations

66
times ranked

2257
citing authors

#	ARTICLE	IF	CITATIONS
1	Controlling DNA Translocation through Gate Modulation of Nanopore Wall Surface Charges. ACS Nano, 2011, 5, 5509-5518.	14.6	208
2	Recent Advances on Neuromorphic Devices Based on Chalcogenide Phase-Change Materials. Advanced Functional Materials, 2020, 30, 2003419.	14.9	144
3	Gate Manipulation of DNA Capture into Nanopores. ACS Nano, 2011, 5, 8391-8397.	14.6	104
4	Single-Nanoparticle Detection Using a Low-Aspect-Ratio Pore. ACS Nano, 2012, 6, 3499-3505.	14.6	90
5	Thermophoretic Manipulation of DNA Translocation through Nanopores. ACS Nano, 2013, 7, 538-546.	14.6	77
6	A Flexible Mott Synaptic Transistor for Nociceptor Simulation and Neuromorphic Computing. Advanced Functional Materials, 2021, 31, 2101099.	14.9	76
7	Nanochannel-Based Transport in an Interfacial Memristor Can Emulate the Analog Weight Modulation of Synapses. Nano Letters, 2019, 19, 4279-4286.	9.1	73
8	An electro-photo-sensitive synaptic transistor for edge neuromorphic visual systems. Nanoscale, 2019, 11, 17590-17599.	5.6	71
9	Enhanced DNA Sequencing Performance Through Edge-Hydrogenation of Graphene Electrodes. Advanced Functional Materials, 2011, 21, 2674-2679.	14.9	70
10	Particle Trajectory-Dependent Ionic Current Blockade in Low-Aspect-Ratio Pores. ACS Nano, 2016, 10, 803-809.	14.6	69
11	Graphene-ferroelectric transistors as complementary synapses for supervised learning in spiking neural network. Npj 2D Materials and Applications, 2019, 3, .	7.9	67
12	Transverse electric field dragging of DNA in a nanochannel. Scientific Reports, 2012, 2, 394.	3.3	60
13	Discrimination of VOCs molecules via extracting concealed features from a temperature-modulated p-type NiO sensor. Sensors and Actuators B: Chemical, 2019, 293, 342-349.	7.8	60
14	Low-Power Artificial Neurons Based on Ag/TiN/HfAlO _x /Pt Threshold Switching Memristor for Neuromorphic Computing. IEEE Electron Device Letters, 2020, 41, 1245-1248.	3.9	58
15	Ferroelectric Synaptic Transistor Network for Associative Memory. Advanced Electronic Materials, 2021, 7, 2001276.	5.1	52
16	Threshold switching memristor-based stochastic neurons for probabilistic computing. Materials Horizons, 2021, 8, 619-629.	12.2	50
17	Strategies to Improve the Accuracy of Memristor-Based Convolutional Neural Networks. IEEE Transactions on Electron Devices, 2020, 67, 895-901.	3.0	49
18	LiSiO _x -Based Analog Memristive Synapse for Neuromorphic Computing. IEEE Electron Device Letters, 2019, 40, 542-545.	3.9	48

#	ARTICLE	IF	CITATIONS
19	A Reconfigurable Two-WSe ₂ Transistor Synaptic Cell for Reinforcement Learning. <i>Advanced Materials</i> , 2022, 34, e2107754.	21.0	48
20	Solid-state nanopore systems: from materials to applications. <i>NPG Asia Materials</i> , 2021, 13, .	7.9	47
21	Mechanism of How Salt-Gradient-Induced Charges Affect the Translocation of DNA Molecules through a Nanopore. <i>Biophysical Journal</i> , 2013, 105, 776-782.	0.5	45
22	High thermopower of mechanically stretched single-molecule junctions. <i>Scientific Reports</i> , 2015, 5, 11519.	3.3	45
23	Theoretical assessment of feasibility to sequence DNA through interlayer electronic tunneling transport at aligned nanopores in bilayer graphene. <i>Scientific Reports</i> , 2015, 5, 17560.	3.3	45
24	An asymmetric hot carrier tunneling van der Waals heterostructure for multibit optoelectronic memory. <i>Materials Horizons</i> , 2020, 7, 1331-1340.	12.2	40
25	Short channel effects on electrokinetic energy conversion in solid-state nanopores. <i>Scientific Reports</i> , 2017, 7, 46661.	3.3	34
26	Electrokinetic Analysis of Energy Harvest from Natural Salt Gradients in Nanochannels. <i>Scientific Reports</i> , 2017, 7, 13156.	3.3	31
27	High-Precision Symmetric Weight Update of Memristor by Gate Voltage Ramping Method for Convolutional Neural Network Accelerator. <i>IEEE Electron Device Letters</i> , 2020, 41, 353-356.	3.9	31
28	Multifunctional Mixed-Dimensional MoS ₂ /CuO Junction Field-Effect Transistor for Logic Operation and Phototransistor. <i>Advanced Electronic Materials</i> , 2019, 5, 1800976.	5.1	30
29	Trapping and identifying single-nanoparticles using a low-aspect-ratio nanopore. <i>Applied Physics Letters</i> , 2013, 103, 013108.	3.3	28
30	Strain distributions in lattice-mismatched semiconductor core-shell nanowires. <i>Journal of Vacuum Science & Technology B</i> , 2009, 27, 827-830.	1.3	27
31	Salt-Gradient Approach for Regulating Capture-to-Translocation Dynamics of DNA with Nanochannel Sensors. <i>ACS Sensors</i> , 2016, 1, 807-816.	7.8	26
32	Rapid structural analysis of nanomaterials in aqueous solutions. <i>Nanotechnology</i> , 2017, 28, 155501.	2.6	26
33	Reconfigurable Synaptic and Neuronal Functions in a V/VO _x /HfWO _x /Pt Memristor for Nonpolar Spiking Convolutional Neural Network. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	25
34	Tracking single-particle dynamics via combined optical and electrical sensing. <i>Scientific Reports</i> , 2013, 3, 1855.	3.3	24
35	DNA capture in nanopores for genome sequencing: challenges and opportunities. <i>Journal of Materials Chemistry</i> , 2012, 22, 13423.	6.7	21
36	Time-dependent transport: Time domain recursively solving NEGF technique. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 31, 191-195.	2.7	20

#	ARTICLE	IF	CITATIONS
37	Nanocrystal-Embedded-Insulator (NEI) Ferroelectric Field-Effect Transistor Featuring Low Operating Voltages and Improved Synaptic Behavior. <i>IEEE Electron Device Letters</i> , 2019, 40, 1933-1936.	3.9	20
38	Graphene/hexagonal boron nitride/graphene nanopore for electrical detection of single molecules. <i>NPG Asia Materials</i> , 2014, 6, e104-e104.	7.9	17
39	Solid-State Nanopore Time-of-Flight Mass Spectrometer. <i>ACS Sensors</i> , 2019, 4, 2974-2979.	7.8	17
40	Alleviating Conductance Nonlinearity via Pulse Shape Designs in TaO _x Memristive Synapses. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 810-813.	3.0	17
41	Toward memristive in-memory computing: principles and applications. <i>Frontiers of Optoelectronics</i> , 2022, 15, .	3.7	17
42	Differential conductance as a promising approach for rapid DNA sequencing with nanopore-embedded electrodes. <i>Applied Physics Letters</i> , 2010, 97, 043701.	3.3	16
43	The impact of membrane surface charges on the ion transport in MoS ₂ nanopore power generators. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	15
44	Optimal Tuning of Memristor Conductance Variation in Spiking Neural Networks for Online Unsupervised Learning. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 2844-2849.	3.0	14
45	Enhancing the efficiency of energy harvesting from salt gradient with ion-selective nanochannel. <i>Nanotechnology</i> , 2019, 30, 295402.	2.6	14
46	Field effect control of translocation dynamics in surround-gate nanopores. <i>Communications Materials</i> , 2021, 2, .	6.9	14
47	Electroosmosis-Driven Nanofluidic Diodes. <i>Journal of Physical Chemistry B</i> , 2020, 124, 7086-7092.	2.6	12
48	Quasi-Stable Salt Gradient and Resistive Switching in Solid-State Nanopores. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 52175-52181.	8.0	12
49	Enhancing LiAlO _x synaptic performance by reducing the Schottky barrier height for deep neural network applications. <i>Nanoscale</i> , 2020, 12, 22970-22977.	5.6	10
50	A non-linear two-dimensional float gate transistor as a lateral inhibitory synapse for retinal early visual processing. <i>Materials Horizons</i> , 2022, 9, 2335-2344.	12.2	9
51	Spin-current shot noise in mesoscopic conductors. <i>Journal of Applied Physics</i> , 2007, 101, 023710.	2.5	7
52	Performance Evaluation of GaAs/GaP Core/Shell-Nanowire Field-Effect Transistors. <i>IEEE Transactions on Electron Devices</i> , 2009, 56, 1199-1203.	3.0	7
53	AC conductance of finite-length carbon nanotubes. <i>Journal of Physics Condensed Matter</i> , 2006, 18, 8707-8713.	1.8	6
54	Time-Dependent Transport in Low-Dimensional Systems—A Numerical Solution Using the Nonequilibrium Green's Functions. <i>IEEE Nanotechnology Magazine</i> , 2007, 6, 56-62.	2.0	6

#	ARTICLE	IF	CITATIONS
55	Electrical trapping mechanism of single-microparticles in a pore sensor. <i>AIP Advances</i> , 2016, 6, 115004.	1.3	6
56	Complementary Graphene-Ferroelectric Transistors (C-GFTs) as Synapses with Modulatable Plasticity for Supervised Learning. , 2019, , .		6
57	Nanochannel-Based Interfacial Memristor: Electrokinetic Analysis of the Frequency Characteristics. <i>Advanced Electronic Materials</i> , 2021, 7, 2000848.	5.1	6
58	Impact of Water-Depletion Layer on Transport in Hydrophobic Nanochannels. <i>Analytical Chemistry</i> , 2015, 87, 12040-12050.	6.5	5
59	Complementary Memristor-Based Multilayer Neural Networks for Online Supervised Learning Through (Anti-)Spike-Timing-Dependent Plasticity. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2022, 33, 6640-6651.	11.3	4
60	2022 roadmap on neuromorphic devices and applications research in China. <i>Neuromorphic Computing and Engineering</i> , 2022, 2, 042501.	5.9	4
61	Nano-corrugated Nanochannels for In Situ Tracking of Single-Nanoparticle Translocation Dynamics. <i>ACS Sensors</i> , 2020, 5, 2530-2536.	7.8	3
62	Memristive brain-like computing. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, 71, 140501.	0.5	1
63	Spin-Current Shot Noise in Spin Transistors. , 2006, , .		0
64	Impact of ionization equilibrium on electrokinetic flow of weak electrolytes in nanochannels. <i>Nanotechnology</i> , 2018, 29, 295402.	2.6	0
65	Low dimensional materials and devices for neuromorphic computing. , 2020, , .		0