Feng Xiong

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1620940/publications.pdf

Version: 2024-02-01

55 papers	5,825 citations	185998 28 h-index	253896 43 g-index
56 all docs	56 docs citations	56 times ranked	9133 citing authors

#	Article	IF	Citations
1	Selective deposition and stable encapsulation of lithium through heterogeneous seeded growth. Nature Energy, 2016, 1, .	19.8	1,516
2	Low-Power Switching of Phase-Change Materials with Carbon Nanotube Electrodes. Science, 2011, 332, 568-570.	6.0	474
3	Entrapment of Polysulfides by a Blackâ€Phosphorusâ€Modified Separator for Lithiumâ€“Sulfur Batteries. Advanced Materials, 2016, 28, 9797-9803.	11.1	453
4	Phase change materials and phase change memory. MRS Bulletin, 2014, 39, 703-710.	1.7	404
5	Li Intercalation in MoS₂: In Situ Observation of Its Dynamics and Tuning Optical and Electrical Properties. Nano Letters, 2015, 15, 6777-6784.	4.5	312
6	Ballistic to diffusive crossover of heat flow in graphene ribbons. Nature Communications, 2013, 4, 1734.	5.8	263
7	Lowâ€Power, Electrochemically Tunable Graphene Synapses for Neuromorphic Computing. Advanced Materials, 2018, 30, e1802353.	11.1	209
8	Vertical Heterostructure of Two-Dimensional MoS₂ and WSe₂ with Vertically Aligned Layers. Nano Letters, 2015, 15, 1031-1035.	4.5	194
9	Polycrystalline Graphene Ribbons as Chemiresistors. Advanced Materials, 2012, 24, 53-57.	11.1	177
10	Energy Dissipation in Monolayer MoS₂ Electronics. Nano Letters, 2017, 17, 3429-3433.	4.5	177
11	Emerging Artificial Synaptic Devices for Neuromorphic Computing. Advanced Materials Technologies, 2019, 4, 1900037.	3.0	175
12	Using nanoscale thermocapillary flows to create arrays of purely semiconducting single-walled carbon nanotubes. Nature Nanotechnology, 2013, 8, 347-355.	15.6	167
13	Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS₂ by Raman Thermometry. ACS Applied Materials & Interfaces, 2017, 9, 43013-43020.	4.0	125
14	Tuning the flexibility and thermal storage capacity of solidâ€“solid phase change materials towards wearable applications. Journal of Materials Chemistry A, 2020, 8, 20133-20140.	5.2	119
15	Self-Aligned Nanotubeâ€“Nanowire Phase Change Memory. Nano Letters, 2013, 13, 464-469.	4.5	118
16	An electrochemical thermal transistor. Nature Communications, 2018, 9, 4510.	5.8	105
17	Roadmap on emerging hardware and technology for machine learning. Nanotechnology, 2021, 32, 012002.	1.3	104
18	Thermal dissipation and variability in electrical breakdown of carbon nanotube devices. Physical Review B, 2010, 82, .	1.1	89

#	Article	IF	Citations
19	Resistive Random Access Memory Enabled by Carbon Nanotube Crossbar Electrodes. ACS Nano, 2013, 7, 5360-5366.	7.3	77
20	Quasi-Ballistic Thermal Transport Across MoS₂ Thin Films. Nano Letters, 2019, 19, 2434-2442.	4.5	61
21	Inducing chalcogenide phase change with ultra-narrow carbon nanotube heaters. Applied Physics Letters, 2009, 95, .	1.5	51
22	Copper Sulfide Nanodisk-Doped Solidâ€“Solid Phase Change Materials for Full Spectrum Solar-Thermal Energy Harvesting and Storage. ACS Applied Materials & Interfaces, 2021, 13, 1377-1385.	4.0	46
23	Spatially Resolved Thermometry of Resistive Memory Devices. Scientific Reports, 2017, 7, 15360.	1.6	41
24	Ultrafast terahertz-induced response of GeSbTe phase-change materials. Applied Physics Letters, 2014, 104, .	1.5	38
25	Nanoscale phase change memory with graphene ribbon electrodes. Applied Physics Letters, 2015, 107, .	1.5	35
26	Hysteresis-Free Nanosecond Pulsed Electrical Characterization of Top-Gated Graphene Transistors. IEEE Transactions on Electron Devices, 2014, 61, 1583-1589.	1.6	31
27	Verticalâ€Grapheneâ€Reinforced Titanium Alloy Bipolar Plates in Fuel Cells. Advanced Materials, 2022, 34, e2110565.	11.1	31
28	Direct observation of nanometer-scale Joule and Peltier effects in phase change memory devices. Applied Physics Letters, 2013, 102, .	1.5	30
29	Lateral and Vertical Two-Dimensional Layered Topological Insulator Heterostructures. ACS Nano, 2015, 9, 10916-10921.	7.3	30
30	Conductive preferential paths of hot carriers in amorphous phase-change materials. Applied Physics Letters, 2013, 103, .	1.5	25
31	Electrical Transport and Power Dissipation in Aerosol-Jet-Printed Graphene Interconnects. Scientific Reports, 2018, 8, 10842.	1.6	25
32	Effects of tip-nanotube interactions on atomic force microscopy imaging of carbon nanotubes. Nano Research, 2012, 5, 235-247.	5.8	15
33	Temperature-Dependent Contact Resistance to Nonvolatile Memory Materials. IEEE Transactions on Electron Devices, 2019, 66, 3816-3821.	1.6	15
34	Thermal transport across graphene step junctions. 2D Materials, 2019, 6, 011005.	2.0	15
35	Designing fast and efficient electrically driven phase change photonics using foundry compatible waveguide-integrated microheaters. Optics Express, 2022, 30, 13673.	1.7	13
36	Artificial Synapses: Lowâ€Power, Electrochemically Tunable Graphene Synapses for Neuromorphic Computing (Adv. Mater. 36/2018). Advanced Materials, 2018, 30, 1870273.	11.1	11

#	Article	IF	Citations
37	Lowâ€Voltage Electrochemical Li_xWO₃ Synapses with Temporal Dynamics for Spiking Neural Networks. Advanced Intelligent Systems, 2021, 3, 2100021.	3.3	9
38	(Bi0.2Sb0.8)2Te3 based dynamic synapses with programmable spatio-temporal dynamics. APL Materials, 2019, 7, 101107.	2.2	8
39	Novel 3D random-network model for threshold switching of phase-change memories. , 2013, , .		6
40	Pulsed nanosecond characterization of graphene transistors. , 2012, , .		5
41	Enhancing Thermal Interface Conductance to Graphene Using Niâ€“Pd Alloy Contacts. ACS Applied Materials & Interfaces, 2020, 12, 34317-34322.	4.0	5
42	Ultra-low power phase change memory with carbon nanotube interconnects. , 2010, , .		3
43	SANTA: Self-aligned nanotrench ablation via Joule heating for probing sub-20 nm devices. Nano Research, 2016, 9, 2950-2959.	5.8	3
44	Tuning electrical and interfacial thermal properties of bilayer MoS₂ via electrochemical intercalation. Nanotechnology, 2021, 32, 265202.	1.3	3
45	Nanowire phase change memory with carbon nanotube electrodes. , 2012, , .		2
46	Energy-efficiency and thermal management in nanoscale devices. , 2012, , .		2
47	Graphene Sensors: Polycrystalline Graphene Ribbons as Chemiresistors (Adv. Mater. 1/2012). Advanced Materials, 2012, 24, 52-52.	11.1	2
48	3D-nHD: A HydroDynamic model for trap-limited conduction in a 3D network. , 2013, , .		2
49	Self-Aligned Cu Etch Mask for Individually Addressable Metallic and Semiconducting Carbon Nanotubes. ACS Nano, 2014, 8, 6500-6508.	7.3	2
50	Integrating carbon-based nanoelectronics with chalcogenide phase change memory. , 2010, , .		1
51	Atomic-scale study of scattering and electronic properties of CVD graphene grain boundaries. , 2012, , .		1
52	Chalcogenide phase change induced with single-wall carbon nanotube heaters. , 2009, , .		0
53	Nanoscale power and heat management in electronics. , 2012, , .		0
54	Energy efficiency and conversion in 1D and 2D electronics. , 2014, , .		0

#	Article	IF	Citations
55	(Invited) Electrochemically-Tunable and Low-Power 2D Synapses for Neuromorphic Computing. ECS Meeting Abstracts, 2019, , .	0.0	0