Eric Pop

List of Publications by Year
in descending order

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321 papers	24,617 citations	6250 80 h-index	7736 150 g-index
325 all docs	325 docs citations	325 times ranked	24263 citing authors

#	Article	IF	Citations
1	Electro-Thermal Confinement Enables Improved Superlattice Phase Change Memory. IEEE Electron Device Letters, 2022, 43, 204-207.	2.2	11
2	Temperature-dependent thermal resistance of phase change memory. Applied Physics Letters, 2022, 120, 113501.	1.5	1
3	Electrically driven reprogrammable phase-change metasurface reaching 80% efficiency. Nature Communications, 2022, 13, 1696.	5.8	125
4	Direct measurement of nanoscale filamentary hot spots in resistive memory devices. Science Advances, 2022, 8, eabk1514.	4.7	20
5	Nonequilibrium Phonon Thermal Resistance at MoS₂/Oxide and Graphene/Oxide Interfaces. ACS Applied Materials & Interfaces, 2022, 14, 22372-22380.	4.0	14
6	Substrate-dependence of monolayer MoS2 thermal conductivity and thermal boundary conductance. Journal of Applied Physics, 2022, 131, .	1.1	11
7	Ultra-low-energy programmable non-volatile silicon photonics based on phase-change materials with graphene heaters. Nature Nanotechnology, 2022, 17, 842-848.	15.6	94
8	Reduced thermal conductivity of supported and encased monolayer and bilayer MoS₂. 2D Materials, 2021, 8, 011001.	2.0	29
9	High Current Density in Monolayer MoS₂ Doped by AlO_x. ACS Nano, 2021, 15, 1587-1596.	7.3	116
10	Dynamic Hybrid Metasurfaces. Nano Letters, 2021, 21, 1238-1245.	4.5	85
11	Tuning electrical and interfacial thermal properties of bilayer MoS₂ via electrochemical intercalation. Nanotechnology, 2021, 32, 265202.	1.3	3
12	Carbon nanotube thermoelectric devices by direct printing: Toward wearable energy converters. Applied Physics Letters, 2021, 118, .	1.5	7
13	High-Performance pâ€“n Junction Transition Metal Dichalcogenide Photovoltaic Cells Enabled by MoO_x Doping and Passivation. Nano Letters, 2021, 21, 3443-3450.	4.5	35
14	Spectral decomposition of thermal conductivity: Comparing velocity decomposition methods in homogeneous molecular dynamics simulations. Physical Review B, 2021, 103, .	1.1	30
15	Ultrathin Three-Monolayer Tunneling Memory Selectors. ACS Nano, 2021, 15, 8484-8491.	7.3	8
16	Advanced Data Encryption â€‹using 2D Materials. Advanced Materials, 2021, 33, e2100185.	11.1	67
17	High-performance flexible nanoscale transistors based on transition metal dichalcogenides. Nature Electronics, 2021, 4, 495-501.	13.1	117
18	Uncovering Phase Change Memory Energy Limits by Subâ€Nanosecond Probing of Power Dissipation Dynamics. Advanced Electronic Materials, 2021, 7, 2100217.	2.6	8

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19	Graphene-based electromechanical thermal switches. 2D Materials, 2021, 8, 035055.	2.0	4
20	Field-effect at electrical contacts to two-dimensional materials. Nano Research, 2021, 14, 4894-4900.	5.8	11
21	Uncovering Thermal and Electrical Properties of Sb₂Te₃/GeTe Superlattice Films. Nano Letters, 2021, 21, 5984-5990.	4.5	31
22	Toward Low-Temperature Solid-Source Synthesis of Monolayer MoS₂. ACS Applied Materials & Interfaces, 2021, 13, 41866-41874.	4.0	21
23	Vibrational Properties of a Naturally Occurring Semiconducting van der Waals Heterostructure. Journal of Physical Chemistry C, 2021, 125, 21607-21613.	1.5	4
24	Application-driven synthesis and characterization of hexagonal boron nitride deposited on metals and carbon nanotubes. 2D Materials, 2021, 8, 045024.	2.0	2
25	Ultralowâ€“switching current density multilevel phase-change memory on a flexible substrate. Science, 2021, 373, 1243-1247.	6.0	78
26	Sub-Nanosecond Pulses Enable Partial Reset for Analog Phase Change Memory. IEEE Electron Device Letters, 2021, 42, 1291-1294.	2.2	9
27	Transistors based on two-dimensional materials for future integrated circuits. Nature Electronics, 2021, 4, 786-799.	13.1	335
28	Engineering Thermal Transport across Layered Grapheneâ€“MoS₂ Superlattices. ACS Nano, 2021, 15, 19503-19512.	7.3	16
29	High-specific-power flexible transition metal dichalcogenide solar cells. Nature Communications, 2021, 12, 7034.	5.8	84
30	Diamond Integration on GaN for Channel Temperature Reduction. , 2021, , .		3
31	Sub-200 Î©Â·Âµm Alloyed Contacts to Synthetic Monolayer MoS2. , 2021, , .		19
32	Lateral electrical transport and field-effect characteristics of sputtered p-type chalcogenide thin films. Applied Physics Letters, 2021, 119, 232106.	1.5	3
33	Ultra-scaled MoS₂ transistors and circuits fabricated without nanolithography. 2D Materials, 2020, 7, 015018.	2.0	41
34	VO₂ Switch for Electrostatic Discharge Protection. IEEE Electron Device Letters, 2020, 41, 292-295.	2.2	3
35	Improved Current Density and Contact Resistance in Bilayer MoSe₂ Field Effect Transistors by AlO_x Capping. ACS Applied Materials & Interfaces, 2020, 12, 36355-36361.	4.0	31
36	Flexible Low-Power Superlattice-Like Phase Change Memory. , 2020, , .		0

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37	Two-Fold Reduction of Switching Current Density in Phase Change Memory Using Biâ„‚Teâ„‚f Thermoelectric Interfacial Layer. IEEE Electron Device Letters, 2020, 41, 1657-1660.	2.2	17
38	Ultrahigh Doping of Graphene Using Flame-Deposited MoO₃. IEEE Electron Device Letters, 2020, 41, 1592-1595.	2.2	11
39	Thermal Boundary Conductance: Visualizing Energy Transfer at Buried Interfaces in Layered Materials Using Picosecond Xâ€Rays (Adv. Funct. Mater. 34/2020). Advanced Functional Materials, 2020, 30, 2070232.	7.8	1
40	Uncovering the Effects of Metal Contacts on Monolayer MoS₂. ACS Nano, 2020, 14, 14798-14808.	7.3	89
41	Large temperature coefficient of resistance in atomically thin two-dimensional semiconductors. Applied Physics Letters, 2020, 116, .	1.5	26
42	Visualizing Energy Transfer at Buried Interfaces in Layered Materials Using Picosecond Xâ€Rays. Advanced Functional Materials, 2020, 30, 2002282.	7.8	11
43	Nonvolatile Electrically Reconfigurable Integrated Photonic Switch Enabled by a Silicon PIN Diode Heater. Advanced Materials, 2020, 32, e2001218.	11.1	152
44	Monolithic mtesla-level magnetic induction by self-rolled-up membrane technology. Science Advances, 2020, 6, eaay4508.	4.7	35
45	Stacking Independence and Resonant Interlayer Excitation of Monolayer WSe₂/MoSe₂ Heterostructures for Photocatalytic Energy Conversion. ACS Applied Nano Materials, 2020, 3, 1175-1181.	2.4	7
46	Localized Heating and Switching in MoTe₂-Based Resistive Memory Devices. Nano Letters, 2020, 20, 1461-1467.	4.5	38
47	Transient hot-carrier dynamics and intrinsic velocity saturation in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review Materials, 2020, 4, .	0.9	15
48	Phase change material integrated silicon photonics: GST and beyond. , 2020, , .		4
49	Highly confined plasmons in individual single-walled carbon nanotube nanoantennas. , 2020, , .		0
50	Nonvolatile Electrically Reconfigurable Integrated Photonic Switches Using Phase-Change Materials. , 2020, , .		1
51	Localized Triggering of the Insulator-Metal Transition in VO₂ Using a Single Carbon Nanotube. ACS Nano, 2019, 13, 11070-11077.	7.3	25
52	Thermal boundary conductance of two-dimensional MoS2 interfaces. Journal of Applied Physics, 2019, 126, .	1.1	32
53	Ultrahigh thermal isolation across heterogeneously layered two-dimensional materials. Science Advances, 2019, 5, eaax1325.	4.7	149
54	3D Heterogeneous Integration with 2D Materials. , 2019, , .		1

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55	Fast Spiking of a Mott VO₂â€“Carbon Nanotube Composite Device. Nano Letters, 2019, 19, 6751-6755.	4.5	56
56	Contact Engineering High-Performance n-Type MoTe₂ Transistors. Nano Letters, 2019, 19, 6352-6362.	4.5	87
57	Layer-Dependent Interfacial Transport and Optoelectrical Properties of MoS₂ on Ultraflat Metals. ACS Applied Materials & Interfaces, 2019, 11, 31543-31550.	4.0	33
58	Temperature-Dependent Contact Resistance to Nonvolatile Memory Materials. IEEE Transactions on Electron Devices, 2019, 66, 3816-3821.	1.6	15
59	Process-induced anomalous current transport in graphene/InAlN/GaN heterostructured diodes. , 2019, , .		1
60	Dry Transfer of van der Waals Crystals to Noble Metal Surfaces To Enable Characterization of Buried Interfaces. ACS Applied Materials & Interfaces, 2019, 11, 38218-38225.	4.0	20
61	Significant Phonon Drag Enables High Power Factor in the AlGaN/GaN Two-Dimensional Electron Gas. Nano Letters, 2019, 19, 3770-3776.	4.5	13
62	Understanding the switching mechanism of interfacial phase change memory. Journal of Applied Physics, 2019, 125, .	1.1	35
63	Strain- and Strain-Rate-Invariant Conductance in a Stretchable and Compressible 3D Conducting Polymer Foam. Matter, 2019, 1, 205-218.	5.0	58
64	Energy-Efficient Indirectly Heated Phase Change RF Switch. IEEE Electron Device Letters, 2019, 40, 455-458.	2.2	24
65	Thermal transport in layer-by-layer assembled polycrystalline graphene films. Npj 2D Materials and Applications, 2019, 3, .	3.9	28
66	Engineering thermal and electrical interface properties of phase change memory with monolayer MoS2. Applied Physics Letters, 2019, 114, .	1.5	36
67	Ternary content-addressable memory with MoS2 transistors for massively parallel data search. Nature Electronics, 2019, 2, 108-114.	13.1	83
68	Plasmon-Resonant Enhancement of Photocatalysis on Monolayer WSe₂. ACS Photonics, 2019, 6, 787-792.	3.2	43
69	Thermal transport in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> from molecular dynamics using different empirical potentials. Physical Review B, 2019, 99, .	3.7	50
70	Quasi-Ballistic Thermal Transport Across MoS₂ Thin Films. Nano Letters, 2019, 19, 2434-2442.	4.5	61
71	Strongly tunable anisotropic thermal transport in MoS ₂ by strain and lithium intercalation: first-principles calculations. 2D Materials, 2019, 6, 025033.	2.0	31
72	Flexible Top-Gated Monolayer MoS2 Transistors with High Mobility. , 2019, , .		0

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73	Vertical Sidewall MoS₂ Growth and Transistors. , 2019, , .		2
74	Large Temperature Coefficient of Resistance in Atomically Thin 2D Devices. , 2019, , .		1
75	Thermal conductivity of crystalline AlN and the influence of atomic-scale defects. Journal of Applied Physics, 2019, 126, .	1.1	75
76	Spatial Separation of Carrier Spin by the Valley Hall Effect in Monolayer WSe₂ Transistors. Nano Letters, 2019, 19, 770-774.	4.5	31
77	Thermal transport across graphene step junctions. 2D Materials, 2019, 6, 011005.	2.0	15
78	Reduction of hysteresis in MoS ₂ transistors using pulsed voltage measurements. 2D Materials, 2019, 6, 011004.	2.0	39
79	Recommended Methods to Study Resistive Switching Devices. Advanced Electronic Materials, 2019, 5, 1800143.	2.6	452
80	Reconfigurable infrared spectral imaging with phase change materials. , 2019, , .		6
81	Nonvolatile Electrically Reconfigurable Silicon Photonic Switches Using Phase-Change Materials. , 2019, , .		2
82	Carbon nanomaterials for non-volatile memories. Nature Reviews Materials, 2018, 3, .	23.3	87
83	Unipolar n-Type Black Phosphorus Transistors with Low Work Function Contacts. Nano Letters, 2018, 18, 2822-2827.	4.5	40
84	Microstructural origin of resistanceâ€“strain hysteresis in carbon nanotube thin film conductors. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1986-1991.	3.3	107
85	Ultra-low contact resistance in graphene devices at the Dirac point. 2D Materials, 2018, 5, 025014.	2.0	50
86	Theoretical potential for low energy consumption phase change memory utilizing electrostatically-induced structural phase transitions in 2D materials. Npj Computational Materials, 2018, 4, .	3.5	40
87	Nanoscale Heterogeneities in Monolayer MoSe₂ Revealed by Correlated Scanning Probe Microscopy and Tip-Enhanced Raman Spectroscopy. ACS Applied Nano Materials, 2018, 1, 572-579.	2.4	45
88	Tuning Electrical and Thermal Transport in AlGaN/GaN Heterostructures via Buffer Layer Engineering. Advanced Functional Materials, 2018, 28, 1705823.	7.8	19
89	Probing the Optical Properties and Strain-Tuning of Ultrathin Mo_{1â€“x}W_xTe₂. Nano Letters, 2018, 18, 2485-2491.	4.5	53
90	Flexural resonance mechanism of thermal transport across graphene-SiO2 interfaces. Journal of Applied Physics, 2018, 123, .	1.1	24

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91	3D Monolithic Stacked 1T1R cells using Monolayer MoS<inf>2</inf> FET and hBN RRAM Fabricated at Low (150Â°C) Temperature. , 2018, , .		25
92	Investigation of monolayer MX<inf>2</inf> as sub-nanometer copper diffusion barriers. , 2018, , .		4
93	An electrochemical thermal transistor. Nature Communications, 2018, 9, 4510.	5.8	105
94	Probing Self-Heating in RRAM Devices by Sub-100 nm Spatially Resolved Thermometry. , 2018, , .		5
95	Localized Heating in Mo'I'ei-Based Resistive Memory Devices. , 2018, , .		0
96	Sub-Thermionic Steep Switching in Hole-Doped WSe2 Transistors. , 2018, , .		2
97	Thermoelectrics: Tuning Electrical and Thermal Transport in AlGaN/GaN Heterostructures via Buffer Layer Engineering (Adv. Funct. Mater. 22/2018). Advanced Functional Materials, 2018, 28, 1870152.	7.8	3
98	Detection of Methylation on dsDNA at Single-Molecule Level using Solid-State Nanopores. Biophysical Journal, 2018, 114, 216a.	0.2	1
99	High-Field Transport and Velocity Saturation in Synthetic Monolayer MoS₂. Nano Letters, 2018, 18, 4516-4522.	4.5	103
100	The Heat Conduction Renaissance. , 2018, , .		5
101	Non-volatile All-Optical Quasi-Continuous Switching in GST-on-Silicon Microring Resonators. , 2018, , .		0
102	GST-on-silicon hybrid nanophotonic integrated circuits: a non-volatile quasi-continuously reprogrammable platform. Optical Materials Express, 2018, 8, 1551.	1.6	166
103	Electronic synapses made of layered two-dimensional materials. Nature Electronics, 2018, 1, 458-465.	13.1	459
104	Energy-Efficient Phase Change Memory Programming by Nanosecond Pulses. , 2018, , .		3
105	Low Power Nanoscale Switching of VO₂using Carbon Nanotube Heaters. , 2018, , .		0
106	Research Update: Recent progress on 2D materials beyond graphene: From ripples, defects, intercalation, and valley dynamics to straintronics and power dissipation. APL Materials, 2018, 6, .	2.2	30
107	Characterization of Graphene Gate Electrodes for Metal-Oxide-Semiconductor Devices. MRS Advances, 2017, 2, 103-108.	0.5	1
108	Photoresponse of Natural van der Waals Heterostructures. ACS Nano, 2017, 11, 6024-6030.	7.3	44

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109	Reducing graphene device variability with yttrium sacrificial layers. Applied Physics Letters, 2017, 110, .	1.5	12
110	Rapid Flame Synthesis of Atomically Thin MoO₃ down to Monolayer Thickness for Effective Hole Doping of WSe₂. Nano Letters, 2017, 17, 3854-3861.	4.5	120
111	High-Gain Graphene Transistors with a Thin AlOx Top-Gate Oxide. Scientific Reports, 2017, 7, 2419.	1.6	36
112	Effect of oxygen vacancies and strain on the phonon spectrum of HfO2 thin films. Journal of Applied Physics, 2017, 121, .	1.1	10
113	Energy Dissipation in Monolayer MoS₂ Electronics. Nano Letters, 2017, 17, 3429-3433.	4.5	177
114	Intrinsic electrical transport and performance projections of synthetic monolayer MoS ₂ devices. 2D Materials, 2017, 4, 011009.	2.0	117
115	Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS₂ by Raman Thermometry. ACS Applied Materials & Interfaces, 2017, 9, 43013-43020.	4.0	125
116	HfSe ₂ and ZrSe ₂ : Two-dimensional semiconductors with native high-Î° oxides. Science Advances, 2017, 3, e1700481.	4.7	197
117	High-Velocity Saturation in Graphene Encapsulated by Hexagonal Boron Nitride. ACS Nano, 2017, 11, 9914-9919.	7.3	89
118	A Systems Approach to Computing in Beyond CMOS Fabrics. , 2017, , .		1
119	In Quest of the Next Information Processing Substrate. , 2017, , .		0
120	Detection of methylation on dsDNA using nanopores in a MoS₂ membrane. Nanoscale, 2017, 9, 14836-14845.	2.8	34
121	Large array fabrication of high performance monolayer MoS2 photodetectors. Applied Physics Letters, 2017, 111, .	1.5	38
122	Effective n-type doping of monolayer MoS<inf>2</inf> by AlO<inf>x</inf>. , 2017, , .		20
123	Electrons, phonons, and unconventional applications of 2D materials. , 2017, , .		0
124	Studies of two-dimensional h-BN and MoS2 for potential diffusion barrier application in copper interconnect technology. Npj 2D Materials and Applications, 2017, 1, .	3.9	57
125	Spatially Resolved Thermometry of Resistive Memory Devices. Scientific Reports, 2017, 7, 15360.	1.6	41
126	Dense Vertically Aligned Copper Nanowire Composites as High Performance Thermal Interface Materials. ACS Applied Materials & Interfaces, 2017, 9, 42067-42074.	4.0	51

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127	Replacing copper interconnects with graphene at a 7-nm node. , 2017, , .		22
128	Low Variability in Synthetic Monolayer MoS₂ Devices. ACS Nano, 2017, 11, 8456-8463.	7.3	147
129	Atomically thin diffusion barriers for ultra-scaled Cu interconnects implemented by 2D materials. , 2017, , .		7
130	2D molybdenum disulfide (MoS<inf>2</inf>) transistors driving RRAMs with 1T1R configuration. , 2017, , .		9
131	Thermal boundary conductance of the MOS<inf>2</inf>-SiO<inf>2</inf> interface. , 2017, , .		2
132	Active metasurfaces based on phase-change memory material digital metamolecules. , 2017, , .		0
133	Improved Hysteresis and Reliability of MoS₂Transistors With High-Quality CVD Growth and Al₂O₃Encapsulation. IEEE Electron Device Letters, 2017, 38, 1763-1766.	2.2	81
134	Dual-Layer Dielectric Stack for Thermally Isolated Low-Energy Phase-Change Memory. IEEE Transactions on Electron Devices, 2017, 64, 4496-4502.	1.6	29
135	Sub-15 nm nanowires enabled by cryo pulsed self-aligned nanotrench ablation on carbon nanotubes. , 2017, , .		0
136	Electronic, thermal, and unconventional applications of 2D materials. , 2017, , .		0
137	Metasurfaces Based on Nano-Patterned Phase-Change Memory Materials. , 2017, , .		0
138	Atomically-thin HfSe<inf>2</inf> transistors with native metal oxides. , 2016, , .		2
139	Gate tunneling current and quantum capacitance in metal-oxide-semiconductor devices with graphene gate electrodes. Applied Physics Letters, 2016, 109, .	1.5	12
140	Thermal conductivity of chirality-sorted carbon nanotube networks. Applied Physics Letters, 2016, 108, .	1.5	38
141	Approaching ballistic transport in monolayer MoS<inf>2</inf> transistors with self-aligned 10 nm top gates. , 2016, , .		60
142	S2DS: Physics-based compact model for circuit simulation of two-dimensional semiconductor devices including non-idealities. Journal of Applied Physics, 2016, 120, .	1.1	78
143	Reduction of hysteresis in MoS<inf>2</inf> transistors using pulsed voltage measurements. , 2016, , .		4
144	Electrical and Thermoelectric Transport by Variable Range Hopping in Thin Black Phosphorus Devices. Nano Letters, 2016, 16, 3969-3975.	4.5	65

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145	Improved Contacts to MoS₂ Transistors by Ultra-High Vacuum Metal Deposition. Nano Letters, 2016, 16, 3824-3830.	4.5	394
146	Optimization of TCR and heat transport in group-IV multiple-quantum-well microbolometers. Proceedings of SPIE, 2016, , .	0.8	0
147	Visualization of Defect-Induced Excitonic Properties of the Edges and Grain Boundaries in Synthesized Monolayer Molybdenum Disulfide. Journal of Physical Chemistry C, 2016, 120, 24080-24087.	1.5	20
148	GDOT: A graphene-based nanofunction for dot-product computation. , 2016, , .		8
149	Thermal limitations of two-dimensional semi-metallic WTe<inf>2</inf> devices. , 2016, , .		0
150	Role of Remote Interfacial Phonon (RIP) Scattering in Heat Transport Across Graphene/SiO₂ Interfaces. Nano Letters, 2016, 16, 6014-6020.	4.5	35
151	SANTA: Self-aligned nanotrench ablation via Joule heating for probing sub-20 nm devices. Nano Research, 2016, 9, 2950-2959.	5.8	3
152	Analytical model of graphene-enabled ultra-low power phase change memory. , 2016, , .		2
153	High Current Density and Low Thermal Conductivity of Atomically Thin Semimetallic WTe₂. ACS Nano, 2016, 10, 7507-7514.	7.3	100
154	WTe₂as a two-dimensional (2D) metallic contact for 2D semiconductors. , 2016, , .		1
155	Direct observation of power dissipation in monolayer MoS2 devices. , 2016, , .		3
156	Role of Pressure in the Growth of Hexagonal Boron Nitride Thin Films from Ammonia-Borane. Chemistry of Materials, 2016, 28, 4169-4179.	3.2	85
157	Kinetic Study of Hydrogen Evolution Reaction over Strained MoS₂ with Sulfur Vacancies Using Scanning Electrochemical Microscopy. Journal of the American Chemical Society, 2016, 138, 5123-5129.	6.6	244
158	Device and energy properties of two-dimensional (2D) atomically thin materials. , 2015, , .		0
159	Forward-bias diode parameters, electronic noise, and photoresponse of graphene/silicon Schottky junctions with an interfacial native oxide layer. Journal of Applied Physics, 2015, 118, .	1.1	41
160	Physics-based compact model for circuit simulations of 2-dimensional semiconductor devices. , 2015, , .		11
161	High mobility in monolayer MoS<inf>2</inf> devices grown by chemical vapor deposition. , 2015, , .		1
162	Thermal modeling of metal oxides for highly scaled nanoscale RRAM. , 2015, , .		4

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163	Energy-Efficient Abundant-Data Computing: The N3XT 1,000x. Computer, 2015, 48, 24-33.	1.2	156
164	Annealing free, clean graphene transfer using alternative polymer scaffolds. Nanotechnology, 2015, 26, 055302.	1.3	114
165	Bright visible light emission from graphene. Nature Nanotechnology, 2015, 10, 676-681.	15.6	284
166	Graphene-Based Platform for Infrared Near-Field Nanospectroscopy of Water and Biological Materials in an Aqueous Environment. ACS Nano, 2015, 9, 7968-7975.	7.3	75
167	Solution-Mediated Selective Nanosoldering of Carbon Nanotube Junctions for Improved Device Performance. ACS Nano, 2015, 9, 4806-4813.	7.3	16
168	Scaling of graphene integrated circuits. Nanoscale, 2015, 7, 8076-8083.	2.8	25
169	Engineering Ultra-Low Work Function of Graphene. Nano Letters, 2015, 15, 6475-6480.	4.5	75
170	Compact modeling and design optimization of carbon nanotube field-effect transistors for the sub-10-nm technology nodes. , 2015, , .		4
171	A Compact Virtual-Source Model for Carbon Nanotube FETs in the Sub-10-nm Regimeâ€”Part I: Intrinsic Elements. IEEE Transactions on Electron Devices, 2015, 62, 3061-3069.	1.6	187
172	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
173	A Compact Virtual-Source Model for Carbon Nanotube FETs in the Sub-10-nm Regimeâ€”Part II: Extrinsic Elements, Performance Assessment, and Design Optimization. IEEE Transactions on Electron Devices, 2015, 62, 3070-3078.	1.6	123
174	Energy-Efficient Phase-Change Memory with Graphene as a Thermal Barrier. Nano Letters, 2015, 15, 6809-6814.	4.5	121
175	Nanoscale phase change memory with graphene ribbon electrodes. Applied Physics Letters, 2015, 107, .	1.5	35
176	Improving contact resistance in MoS<inf>2</inf> field effect transistors. , 2014, , .		11
177	Phase change materials and phase change memory. MRS Bulletin, 2014, 39, 703-710.	1.7	404
178	Nanometer-scale temperature imaging for independent observation of Joule and Peltier effects in phase change memory devices. Review of Scientific Instruments, 2014, 85, 094904.	0.6	6
179	Response to â€œComment on â€˜Theoretical analysis of high-field transport in graphene on a substrateâ€™â€•[J. Appl. Phys. 116, 236101 (2014)]. Journal of Applied Physics, 2014, 116, .	1.1	0
180	Direct observation of resistive heating at graphene wrinkles and grain boundaries. Applied Physics Letters, 2014, 105, .	1.5	47

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181	Heterogeneous nanometer-scale Joule and Peltier effects in sub-25â€‰nm thin phase change memory devices. Journal of Applied Physics, 2014, 116, .	1.1	11
182	Ultrafast terahertz-induced response of GeSbTe phase-change materials. Applied Physics Letters, 2014, 104, .	1.5	38
183	High-field and thermal transport in 2D atomic layer devices. Proceedings of SPIE, 2014, , .	0.8	3
184	Energy efficiency and conversion in 1D and 2D electronics. , 2014, , .		0
185	Nanoscale thermal transport. II. 2003â€“2012. Applied Physics Reviews, 2014, 1, 011305.	5.5	1,277
186	Hysteresis-Free Nanosecond Pulsed Electrical Characterization of Top-Gated Graphene Transistors. IEEE Transactions on Electron Devices, 2014, 61, 1583-1589.	1.6	31
187	Multi-valley high-field transport in 2-dimensional MoS<inf>2</inf> transistors. , 2014, , .		3
188	Substrate-supported thermometry platform for nanomaterials like graphene, nanotubes, and nanowires. Applied Physics Letters, 2014, 105, .	1.5	11
189	Theoretical analysis of high-field transport in graphene on a substrate. Journal of Applied Physics, 2014, 116, .	1.1	36
190	Variability of graphene mobility and contacts: Surface effects, doping and strain. , 2014, , .		0
191	Carbon Nanotube Circuit Integration up to Sub-20 nm Channel Lengths. ACS Nano, 2014, 8, 3434-3443.	7.3	70
192	Self-Aligned Cu Etch Mask for Individually Addressable Metallic and Semiconducting Carbon Nanotubes. ACS Nano, 2014, 8, 6500-6508.	7.3	2
193	Monolithic IIIâ€“V Nanowire Solar Cells on Graphene via Direct van der Waals Epitaxy. Advanced Materials, 2014, 26, 3755-3760.	11.1	86
194	MONTE CARLO TRANSPORT AND HEAT GENERATION IN SEMICONDUCTORS. Annual Review of Heat Transfer, 2014, 17, 385-423.	0.3	6
195	Role of Joule Heating on Current Saturation and Transient Behavior of Graphene Transistors. IEEE Electron Device Letters, 2013, 34, 166-168.	2.2	70
196	Reliability, failure, and fundamental limits of graphene and carbon nanotube interconnects. , 2013, , .		4
197	Realistic simulation of graphene transistors including non-ideal electrostatics. , 2013, , .		0
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