List of Publications by Year in descending order

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83 papers	18,614 citations	41323 49 h-index	76872 74 g-index
84 all docs	84 docs citations	84 times ranked	19072 citing authors

#	Article	IF	Citations
1	Rediscovering black phosphorus as an anisotropic layered material for optoelectronics and electronics. Nature Communications, 2014, 5, 4458.	5.8	2,866
2	Two-dimensional material nanophotonics. Nature Photonics, 2014, 8, 899-907.	15.6	2,362
3	Integrated Circuits Based on Bilayer MoS₂ Transistors. Nano Letters, 2012, 12, 4674-4680.	4.5	1,526
4	Highly anisotropic and robust excitons in monolayer black phosphorus. Nature Nanotechnology, 2015, 10, 517-521.	15.6	1,204
5	The renaissance of black phosphorus. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4523-4530.	3.3	1,143
6	Black Phosphorus Mid-Infrared Photodetectors with High Gain. Nano Letters, 2016, 16, 4648-4655.	4.5	616
7	Synthesis and Transfer of Single-Layer Transition Metal Disulfides on Diverse Surfaces. Nano Letters, 2013, 13, 1852-1857.	4.5	612
8	Tunable optical properties of multilayer black phosphorus thin films. Physical Review B, 2014, 90, .	1.1	592
9	Graphene/MoS₂ Hybrid Technology for Large-Scale Two-Dimensional Electronics. Nano Letters, 2014, 14, 3055-3063.	4.5	554
10	Plasmons and Screening in Monolayer and Multilayer Black Phosphorus. Physical Review Letters, 2014, 113, 106802.	2.9	515
11	Black Arsenicâ€“Phosphorus: Layered Anisotropic Infrared Semiconductors with Highly Tunable Compositions and Properties. Advanced Materials, 2015, 27, 4423-4429.	11.1	378
12	Electronic transport and device prospects of monolayer molybdenum disulphide grown by chemical vapour deposition. Nature Communications, 2014, 5, 3087.	5.8	370
13	Graphene Frequency Multipliers. IEEE Electron Device Letters, 2009, 30, 547-549.	2.2	316
14	Black Phosphorus Radio-Frequency Transistors. Nano Letters, 2014, 14, 6424-6429.	4.5	307
15	Anisotropic Black Phosphorus Synaptic Device for Neuromorphic Applications. Advanced Materials, 2016, 28, 4991-4997.	11.1	281
16	Giant optical anisotropy in a quasi-one-dimensional crystal. Nature Photonics, 2018, 12, 392-396.	15.6	269
17	Two-dimensional MoS2-enabled flexible rectenna for Wi-Fi-band wireless energy harvesting. Nature, 2019, 566, 368-372.	13.7	266
18	Efficient electrical control of thin-film black phosphorus bandgap. Nature Communications, 2017, 8, 14474.	5.8	249

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19	Recent Progress on Stability and Passivation of Black Phosphorus. Advanced Materials, 2018, 30, e1704749.	11.1	248
20	Graphene-Based Ambipolar RF Mixers. IEEE Electron Device Letters, 2010, 31, 906-908.	2.2	229
21	Black phosphorus and its isoelectronic materials. Nature Reviews Physics, 2019, 1, 306-317.	11.9	196
22	Optoelectronic devices based on two-dimensional transition metal dichalcogenides. Nano Research, 2016, 9, 1543-1560.	5.8	186
23	BN/Graphene/BN Transistors for RF Applications. IEEE Electron Device Letters, 2011, 32, 1209-1211.	2.2	179
24	Interlayer interactions in anisotropic atomically thin rhenium diselenide. Nano Research, 2015, 8, 3651-3661.	5.8	159
25	Applications of graphene devices in RF communications. , 2010, 48, 122-128.		155
26	Atomically Thin Femtojoule Memristive Device. Advanced Materials, 2017, 29, 1703232.	11.1	147
27	Vertical Ga₂O₃Schottky Barrier Diodes With Small-Angle Beveled Field Plates: A Baligaâ€™s Figure-of-Merit of 0.6 GW/cm². IEEE Electron Device Letters, 2019, 40, 1399-1402.	2.2	139
28	245-GHz InAlN/GaN HEMTs With Oxygen Plasma Treatment. IEEE Electron Device Letters, 2011, 32, 755-757.	2.2	134
29	Impact of Graphene Interface Quality on Contact Resistance and RF Device Performance. IEEE Electron Device Letters, 2011, 32, 1008-1010.	2.2	126
30	Synthesis of thin-film black phosphorus on a flexible substrate. 2D Materials, 2015, 2, 031002.	2.0	124
31	Low-symmetry two-dimensional materials for electronic and photonic applications. Nano Today, 2016, 11, 763-777.	6.2	113
32	High breakdown electric field in Î²-Ga2O3/graphene vertical barristor heterostructure. Applied Physics Letters, 2018, 112, .	1.5	110
33	Emulating Bilingual Synaptic Response Using a Junction-Based Artificial Synaptic Device. ACS Nano, 2017, 11, 7156-7163.	7.3	106
34	Roadmap on emerging hardware and technology for machine learning. Nanotechnology, 2021, 32, 012002.	1.3	104
35	Tellurene Photodetector with High Gain and Wide Bandwidth. ACS Nano, 2020, 14, 303-310.	7.3	101
36	Two-dimensional materials for nanophotonics application. Nanophotonics, 2015, 4, 128-142.	2.9	97

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37	A Dynamically Reconfigurable Ambipolar Black Phosphorus Memory Device. ACS Nano, 2016, 10, 10428-10435.	7.3	97
38	Nanowire Channel InAlN/GaN HEMTs With High Linearity of $g_{m m}$ and $f_{m T}$. IEEE Electron Device Letters, 2013, 34, 969-971.	2.2	93
39	pH sensing properties of graphene solution-gated field-effect transistors. Journal of Applied Physics, 2013, 114, .	1.1	88
40	Monolayer Molybdenum Disulfide Nanoribbons with High Optical Anisotropy. Advanced Optical Materials, 2016, 4, 756-762.	3.6	74
41	Tunable Plasmonâ€“Phonon Polaritons in Layered Grapheneâ€“Hexagonal Boron Nitride Heterostructures. ACS Photonics, 2015, 2, 907-912.	3.2	70
42	Nanoscopy of Black Phosphorus Degradation. Advanced Materials Interfaces, 2016, 3, 1600121.	1.9	67
43	Compact Virtual-Source Currentâ€“Voltage Model for Top- and Back-Gated Graphene Field-Effect Transistors. IEEE Transactions on Electron Devices, 2011, 58, 1523-1533.	1.6	66
44	High-voltage vertical Ga2O3 power rectifiers operational at high temperatures up to 600â€‰K. Applied Physics Letters, 2019, 115, .	1.5	58
45	Breakdown Voltage for Superjunction Power Devices With Charge Imbalance: An Analytical Model Valid for Both Punch Through and Non Punch Through Devices. IEEE Transactions on Electron Devices, 2009, 56, 3175-3183.	1.6	57
46	Spatial-Temporal Imaging of Anisotropic Photocarrier Dynamics in Black Phosphorus. Nano Letters, 2017, 17, 3675-3680.	4.5	56
47	Al₂O₃ passivated InAlN/GaN HEMTs on SiC substrate with record current density and transconductance. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2440-2444.	0.8	55
48	Gigahertz ambipolar frequency multiplier based on CVD graphene. , 2010, , .		52
49	Nanoscale electronic devices based on transition metal dichalcogenides. 2D Materials, 2019, 6, 032004.	2.0	51
50	An Ambipolar Virtual-Source-Based Charge-Current Compact Model for Nanoscale Graphene Transistors. IEEE Nanotechnology Magazine, 2014, 13, 1005-1013.	1.1	49
51	Ultrathin High-Quality SnTe Nanoplates for Fabricating Flexible Near-Infrared Photodetectors. ACS Applied Materials & Interfaces, 2020, 12, 31810-31822.	4.0	49
52	Large-Area 2-D Electronics: Materials, Technology, and Devices. Proceedings of the IEEE, 2013, 101, 1638-1652.	16.4	46
53	The Effect of Charge Imbalance on Superjunction Power Devices: An Exact Analytical Solution. IEEE Electron Device Letters, 2008, 29, 249-251.	2.2	42
54	Linear Dichroism Conversion in Quasiâ€1D Perovskite Chalcogenide. Advanced Materials, 2019, 31, e1902118.	11.1	41

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55	Graphene Electronics for RF Applications. IEEE Microwave Magazine, 2012, 13, 114-125.	0.7	39
56	Nanoscopy reveals surface-metallic black phosphorus. Light: Science and Applications, 2016, 5, e16162-e16162.	7.7	37
57	Stacking Fault Enriching the Electronic and Transport Properties of Few-Layer Phosphorenes and Black Phosphorus. Nano Letters, 2016, 16, 1317-1322.	4.5	37
58	Low-defect-density WS2 by hydroxide vapor phase deposition. Nature Communications, 2022, 13, .	5.8	37
59	Tri-gate GaN junction HEMT. Applied Physics Letters, 2020, 117, .	1.5	29
60	Delay Analysis of Graphene Field-Effect Transistors. IEEE Electron Device Letters, 2012, 33, 324-326.	2.2	26
61	Emerging low-dimensional materials for mid-infrared detection. Nano Research, 2021, 14, 1863-1877.	5.8	22
62	Atomically Thin CBRAM Enabled by 2-D Materials: Scaling Behaviors and Performance Limits. IEEE Transactions on Electron Devices, 2018, 65, 4160-4166.	1.6	19
63	Mid-wave and Long-Wave Infrared Linear Dichroism in a Hexagonal Perovskite Chalcogenide. Chemistry of Materials, 2018, 30, 4897-4901.	3.2	19
64	Ultrathin Sb₂Se₃ Nanowires for Polarimetric Imaging Photodetectors with a High Signal/Noise Ratio. Advanced Materials Interfaces, 2022, 9, .	1.9	18
65	Temperature-Dependent Transport in Ultrathin Black Phosphorus Field-Effect Transistors. Nano Letters, 2019, 19, 482-487.	4.5	17
66	Transport Properties and Device Prospects of Ultrathin Black Phosphorus on Hexagonal Boron Nitride. IEEE Transactions on Electron Devices, 2017, 64, 5163-5171.	1.6	16
67	Efficient learning and crossbar operations with atomically-thin 2-D material compound synapses. Journal of Applied Physics, 2018, 124, .	1.1	14
68	Large area van der Waals epitaxy of IIâ€“VI CdSe thin films for flexible optoelectronics and full-color imaging. Nano Research, 2022, 15, 368-376.	5.8	14
69	SnSe Nanoplates for Photodetectors with a High Signal/Noise Ratio. ACS Applied Nano Materials, 2021, 4, 13071-13078.	2.4	14
70	Beyond Graphene: Low-Symmetry and Anisotropic 2D Materials. Journal of Applied Physics, 2020, 128, 140401.	1.1	13
71	Superjunction Power Transistors with Interface Charges: A Case Study for GaN. IEEE Journal of the Electron Devices Society, 2019, , 1-1.	1.2	9
72	High Frequency Performance of Graphene Transistors Grown by Chemical Vapor Deposition for Mixed Signal Applications. Japanese Journal of Applied Physics, 2011, 50, 070114.	0.8	8

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73	High Frequency Performance of Graphene Transistors Grown by Chemical Vapor Deposition for Mixed Signal Applications. Japanese Journal of Applied Physics, 2011, 50, 070114.	0.8	7
74	A unified charge-current compact model for ambipolar operation in quasi-ballistic graphene transistors: Experimental verification and circuit-analysis demonstration. , 2013, , .		7
75	Orientation-Controlled Anisotropy in Single Crystals of Quasi-1D BaTiS₃. Chemistry of Materials, 2022, 34, 5680-5689.	3.2	6
76	Towards ubiquitous RF electronics based on graphene. , 2012, , .		5
77	Fluidic Flow Assisted Deterministic Folding of Van der Waals Materials. Advanced Functional Materials, 2020, 30, 1908691.	7.8	5
78	Graphene electronics for RF applications. , 2011, , .		2
79	High linearity nanowire channel GaN HEMTs. , 2013, , .		1
80	Novel electronic and photonic properties of low-symmetry two-dimensional materials. , 2016, , .		1
81	Probing interlayer shear thermal deformation in atomically-thin van der Waals layered materials. Nature Communications, 2022, 13, .	5.8	1
82	Optical Phase Anisotropy in Layered Black Phosphorus. , 2016, , .		0
83	Optical Characterization of A1+xBX3 Crystals. , 2021, , .		0