

Kirby K H Smithe

List of Publications by Year in descending order

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26
papers

1,531
citations

471509

17
h-index

839539

18
g-index

26
all docs

26
docs citations

26
times ranked

2390
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy Dissipation in Monolayer MoS ₂ Electronics. Nano Letters, 2017, 17, 3429-3433.	9.1	177
2	Ultrahigh thermal isolation across heterogeneously layered two-dimensional materials. Science Advances, 2019, 5, eaax1325.	10.3	149
3	Low Variability in Synthetic Monolayer MoS ₂ Devices. ACS Nano, 2017, 11, 8456-8463.	14.6	147
4	Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS ₂ by Raman Thermometry. ACS Applied Materials & Interfaces, 2017, 9, 43013-43020.	8.0	125
5	Intrinsic electrical transport and performance projections of synthetic monolayer MoS ₂ devices. 2D Materials, 2017, 4, 011009.	4.4	117
6	High Current Density in Monolayer MoS ₂ Doped by AlO _x . ACS Nano, 2021, 15, 1587-1596.	14.6	116
7	High-Field Transport and Velocity Saturation in Synthetic Monolayer MoS ₂ . Nano Letters, 2018, 18, 4516-4522.	9.1	103
8	Ternary content-addressable memory with MoS ₂ transistors for massively parallel data search. Nature Electronics, 2019, 2, 108-114.	26.0	83
9	Improved Hysteresis and Reliability of MoS ₂ Transistors With High-Quality CVD Growth and Al ₂ O ₃ Encapsulation. IEEE Electron Device Letters, 2017, 38, 1763-1766.	3.9	81
10	Approaching ballistic transport in monolayer MoS ₂ transistors with self-aligned 10 nm top gates. , 2016, , .		60
11	Studies of two-dimensional h-BN and MoS ₂ for potential diffusion barrier application in copper interconnect technology. Npj 2D Materials and Applications, 2017, 1, .	7.9	57
12	Nanoscale Heterogeneities in Monolayer MoSe ₂ Revealed by Correlated Scanning Probe Microscopy and Tip-Enhanced Raman Spectroscopy. ACS Applied Nano Materials, 2018, 1, 572-579.	5.0	45
13	Photoresponse of Natural van der Waals Heterostructures. ACS Nano, 2017, 11, 6024-6030.	14.6	44
14	Ultra-scaled MoS ₂ transistors and circuits fabricated without nanolithography. 2D Materials, 2020, 7, 015018.	4.4	41
15	Reduction of hysteresis in MoS ₂ transistors using pulsed voltage measurements. 2D Materials, 2019, 6, 011004.	4.4	39
16	Large array fabrication of high performance monolayer MoS ₂ photodetectors. Applied Physics Letters, 2017, 111, .	3.3	38
17	Detection of methylation on dsDNA using nanopores in a MoS ₂ membrane. Nanoscale, 2017, 9, 14836-14845.	5.6	34
18	Large temperature coefficient of resistance in atomically thin two-dimensional semiconductors. Applied Physics Letters, 2020, 116, .	3.3	26

#	ARTICLE	IF	CITATIONS
19	Effective n-type doping of monolayer MoS ₂ by AlO _x , 2017, , .		20
20	Engineering Thermal Transport across Layered Grapheneâ€“MoS ₂ Superlattices. ACS Nano, 2021, 15, 19503-19512.	14.6	16
21	Atomically thin diffusion barriers for ultra-scaled Cu interconnects implemented by 2D materials. , 2017, , .		7
22	Investigation of monolayer MX ₂ as sub-nanometer copper diffusion barriers. , 2018, , .		4
23	High mobility in monolayer MoS ₂ devices grown by chemical vapor deposition. , 2015, , .		1
24	WTe ₂ as a two-dimensional (2D) metallic contact for 2D semiconductors. , 2016, , .		1
25	Electrons, phonons, and unconventional applications of 2D materials. , 2017, , .		0
26	Electronic, thermal, and unconventional applications of 2D materials. , 2017, , .		0