

# 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	High Current Density in Monolayer MoS <sub>2</sub> Doped by AlO <sub>x</sub> . ACS Nano, 2021, 15, 1587-1596.	14.6	116
2	Engineering Thermal Transport across Layered Graphene/MoS <sub>2</sub> Superlattices. ACS Nano, 2021, 15, 19503-19512.	14.6	16
3	Ultra-scaled MoS <sub>2</sub> transistors and circuits fabricated without nanolithography. 2D Materials, 2020, 7, 015018.	4.4	41
4	Large temperature coefficient of resistance in atomically thin two-dimensional semiconductors. Applied Physics Letters, 2020, 116, .	3.3	26
5	Ultrahigh thermal isolation across heterogeneously layered two-dimensional materials. Science Advances, 2019, 5, eaax1325.	10.3	149
6	Ternary content-addressable memory with MoS <sub>2</sub> transistors for massively parallel data search. Nature Electronics, 2019, 2, 108-114.	26.0	83
7	Reduction of hysteresis in MoS <sub>2</sub> transistors using pulsed voltage measurements. 2D Materials, 2019, 6, 011004.	4.4	39
8	Nanoscale Heterogeneities in Monolayer MoSe <sub>2</sub> Revealed by Correlated Scanning Probe Microscopy and Tip-Enhanced Raman Spectroscopy. ACS Applied Nano Materials, 2018, 1, 572-579.	5.0	45
9	Investigation of monolayer MX <sub>2</sub> as sub-nanometer copper diffusion barriers. , 2018, , .		4
10	High-Field Transport and Velocity Saturation in Synthetic Monolayer MoS <sub>2</sub> . Nano Letters, 2018, 18, 4516-4522.	9.1	103
11	Photoresponse of Natural van der Waals Heterostructures. ACS Nano, 2017, 11, 6024-6030.	14.6	44
12	Energy Dissipation in Monolayer MoS <sub>2</sub> Electronics. Nano Letters, 2017, 17, 3429-3433.	9.1	177
13	Intrinsic electrical transport and performance projections of synthetic monolayer MoS <sub>2</sub> devices. 2D Materials, 2017, 4, 011009.	4.4	117
14	Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS <sub>2</sub> by Raman Thermometry. ACS Applied Materials & Interfaces, 2017, 9, 43013-43020.	8.0	125
15	Detection of methylation on dsDNA using nanopores in a MoS <sub>2</sub> membrane. Nanoscale, 2017, 9, 14836-14845.	5.6	34
16	Large array fabrication of high performance monolayer MoS <sub>2</sub> photodetectors. Applied Physics Letters, 2017, 111, .	3.3	38
17	Effective n-type doping of monolayer MoS <sub>2</sub> by AlO <sub>x</sub> . , 2017, , .		20
18	Electrons, phonons, and unconventional applications of 2D materials. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
19	Studies of two-dimensional h-BN and MoS <sub>2</sub> for potential diffusion barrier application in copper interconnect technology. Npj 2D Materials and Applications, 2017, 1, .	7.9	57
20	Low Variability in Synthetic Monolayer MoS <sub>2</sub> Devices. ACS Nano, 2017, 11, 8456-8463.	14.6	147
21	Atomically thin diffusion barriers for ultra-scaled Cu interconnects implemented by 2D materials. , 2017, , .		7
22	Improved Hysteresis and Reliability of MoS <sub>2</sub> Transistors With High-Quality CVD Growth and Al <sub>2</sub> O <sub>3</sub> Encapsulation. IEEE Electron Device Letters, 2017, 38, 1763-1766.	3.9	81
23	Electronic, thermal, and unconventional applications of 2D materials. , 2017, , .		0
24	Approaching ballistic transport in monolayer MoS <sub>2</sub> transistors with self-aligned 10 nm top gates. , 2016, , .		60
25	WTe <sub>2</sub> as a two-dimensional (2D) metallic contact for 2D semiconductors. , 2016, , .		1
26	High mobility in monolayer MoS <sub>2</sub> devices grown by chemical vapor deposition. , 2015, , .		1