

# Yuchen Du

## List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Electrical Characteristics of LDD and LDD-Free FinFET Devices of Dimension Compatible With 14 nm Technology Node. IEEE Journal of the Electron Devices Society, 2020, 8, 1039-1042.	2.2	2
2	Field-effect transistors made from solution-grown two-dimensional tellurene. Nature Electronics, 2018, 1, 228-236.	18.9	657
3	Steep-Slope WSe <sub>2</sub> Negative Capacitance Field-Effect Transistor. Nano Letters, 2018, 18, 3682-3687.	9.5	102
4	One-Dimensional van der Waals Material Tellurium: Raman Spectroscopy under Strain and Magneto-Transport. Nano Letters, 2017, 17, 3965-3973.	9.5	293
5	Black phosphorus field-effect transistor with record drain current exceeding 1 A/mm. , 2017, , .		12
6	Observation of Optical and Electrical In-Plane Anisotropy in High-Mobility Few-Layer ZrTe <sub>5</sub> . Nano Letters, 2016, 16, 7364-7369.	9.5	85
7	Ionic liquid gating on atomic layer deposition passivated GaN: Ultra-high electron density induced high drain current and low contact resistance. Applied Physics Letters, 2016, 108, .	3.2	5
8	Transport studies in 2D transition metal dichalcogenides and black phosphorus. Journal of Physics Condensed Matter, 2016, 28, 263002.	1.9	12
9	Performance Enhancement of Black Phosphorus Field-Effect Transistors by Chemical Doping. IEEE Electron Device Letters, 2016, 37, 429-432.	4.2	56
10	Surface chemistry of black phosphorus under a controlled oxidative environment. Nanotechnology, 2016, 27, 434002.	2.7	117
11	Auxetic Black Phosphorus: A 2D Material with Negative Poisson's Ratio. Nano Letters, 2016, 16, 6701-6708.	9.5	198
12	P-type surface charge transfer doping of black phosphorus field-effect transistors. , 2016, , .		2
13	Weak localization in few-layer black phosphorus. 2D Materials, 2016, 3, 024003.	4.5	17
14	Mechanisms of current fluctuation in ambipolar black phosphorus field-effect transistors. Nanoscale, 2016, 8, 3572-3578.	5.8	27
15	Anisotropic in-plane thermal conductivity observed in few-layer black phosphorus. Nature Communications, 2015, 6, 8572.	13.2	540
16	Semiconducting black phosphorus: synthesis, transport properties and electronic applications. Chemical Society Reviews, 2015, 44, 2732-2743.	40.3	1,303
17	Temporal and Thermal Stability of Al <sub>2</sub> O <sub>3</sub> -Passivated Phosphorene MOSFETs. IEEE Electron Device Letters, 2014, 35, 1314-1316.	4.2	76
18	High-performance MoS <sub>2</sub> field-effect transistors enabled by chloride doping: Record low contact resistance (0.5 k $\Omega$ ) and record high drain current (460 A/cm). , 2014, , .		13

#	ARTICLE	IF	CITATIONS
19	Contact research strategy for emerging molybdenum disulfide and other two-dimensional field-effect transistors. APL Materials, 2014, 2, .	4.8	45
20	Chloride Molecular Doping Technique on 2D Materials: WS <sub>2</sub> and MoS <sub>2</sub> . Nano Letters, 2014, 14, 6275-6280.	9.5	628
21	The Effect of Dielectric Capping on Few-Layer Phosphorene Transistors: Tuning the Schottky Barrier Heights. IEEE Electron Device Letters, 2014, 35, 795-797.	4.2	158
22	Switching Mechanism in Single-Layer Molybdenum Disulfide Transistors: An Insight into Current Flow across Schottky Barriers. ACS Nano, 2014, 8, 1031-1038.	15.3	226
23	Device Perspective for Black Phosphorus Field-Effect Transistors: Contact Resistance, Ambipolar Behavior, and Scaling. ACS Nano, 2014, 8, 10035-10042.	15.3	404
24	Two-Dimensional TaSe <sub>2</sub> Metallic Crystals: Spin-Orbit Scattering Length and Breakdown Current Density. ACS Nano, 2014, 8, 9137-9142.	15.3	49
25	$\text{MoS}_2$ Field-Effect Transistors With Graphene/Metal Heterocontacts. IEEE Electron Device Letters, 2014, 35, 599-601.	4.2	137
26	Molecular Doping of Multilayer $\text{MoS}_2$ Field-Effect Transistors: Reduction in Sheet and Contact Resistances. IEEE Electron Device Letters, 2013, 34, 1328-1330.	4.2	235
27	Statistical Study of Deep Submicron Dual-Gated Field-Effect Transistors on Monolayer Chemical Vapor Deposition Molybdenum Disulfide Films. Nano Letters, 2013, 13, 2640-2646.	9.5	200
28	(Invited) Fundamentals in MoS <sub>2</sub> Transistors: Dielectric, Scaling and Metal Contacts. ECS Transactions, 2013, 58, 203-208.	0.6	19
29	Anisotropic Properties of Black Phosphorus. , 0, , 413-434.		3