

Yuchen Du

List of Publications by Year in descending order

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33
papers

5,420
citations

361045
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34
docs citations

34
times ranked

8187
citing authors

#	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.	1.2	1
2	Field-effect transistors made from solution-grown two-dimensional tellurene. Nature Electronics, 2018, 1, 228-236.	13.1	591
3	Steep-Slope WSe_2 Negative Capacitance Field-Effect Transistor. Nano Letters, 2018, 18, 3682-3687.	4.5	97
4	One-Dimensional van der Waals Material Tellurium: Raman Spectroscopy under Strain and Magneto-Transport. Nano Letters, 2017, 17, 3965-3973.	4.5	272
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 $ZrTe_5$. Nano Letters, 2016, 16, 7364-7369.	4.5	80
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, .	1.5	5
8	Continuous-wave and transient characteristics of phosphorene microwave transistors. , 2016, , .		6
9	Few-layer black phosphorous PMOSFETs with BN/Al_2O_3 bilayer gate dielectric: Achieving $I_{on}/I_{off} = 850^{1/4} A/\mu m$, $g_m = 340^{1/4} S/\mu m$, and $R_{c} = 0.58 \Omega \cdot \mu m$. , 2016, , .		10
10	Transport studies in 2D transition metal dichalcogenides and black phosphorus. Journal of Physics Condensed Matter, 2016, 28, 263002.	0.7	12
11	Performance Enhancement of Black Phosphorus Field-Effect Transistors by Chemical Doping. IEEE Electron Device Letters, 2016, 37, 429-432.	2.2	55
12	Surface chemistry of black phosphorus under a controlled oxidative environment. Nanotechnology, 2016, 27, 434002.	1.3	112
13	Auxetic Black Phosphorus: A 2D Material with Negative Poisson's Ratio. Nano Letters, 2016, 16, 6701-6708.	4.5	184
14	P-type surface charge transfer doping of black phosphorus field-effect transistors. , 2016, , .		2
15	Weak localization in few-layer black phosphorus. 2D Materials, 2016, 3, 024003.	2.0	17
16	Mechanisms of current fluctuation in ambipolar black phosphorus field-effect transistors. Nanoscale, 2016, 8, 3572-3578.	2.8	27
17	Anisotropic in-plane thermal conductivity observed in few-layer black phosphorus. Nature Communications, 2015, 6, 8572.	5.8	520
18	Semiconducting black phosphorus: synthesis, transport properties and electronic applications. Chemical Society Reviews, 2015, 44, 2732-2743.	18.7	1,260

#	ARTICLE	IF	CITATIONS
19	Temporal and Thermal Stability of Al ₂ O ₃ -Passivated Phosphorene MOSFETs. IEEE Electron Device Letters, 2014, 35, 1314-1316.	2.2	76
20	High-performance MoS ₂ field-effect transistors enabled by chloride doping: Record low contact resistance (0.5 k Ω) and record high drain current (460 mA), 2014, .		12
21	Contact research strategy for emerging molybdenum disulfide and other two-dimensional field-effect transistors. APL Materials, 2014, 2, .	2.2	44
22	Chloride Molecular Doping Technique on 2D Materials: WS ₂ and MoS ₂ . Nano Letters, 2014, 14, 6275-6280.	4.5	606
23	The Effect of Dielectric Capping on Few-Layer Phosphorene Transistors: Tuning the Schottky Barrier Heights. IEEE Electron Device Letters, 2014, 35, 795-797.	2.2	154
24	Switching Mechanism in Single-Layer Molybdenum Disulfide Transistors: An Insight into Current Flow across Schottky Barriers. ACS Nano, 2014, 8, 1031-1038.	7.3	224
25	Physical understanding of graphene/metal hetero-contacts to enhance MoS ₂ field-effect transistors performance. , 2014, , .		5
26	Device Perspective for Black Phosphorus Field-Effect Transistors: Contact Resistance, Ambipolar Behavior, and Scaling. ACS Nano, 2014, 8, 10035-10042.	7.3	400
27	Two-Dimensional TaSe ₂ Metallic Crystals: Spin-Orbit Scattering Length and Breakdown Current Density. ACS Nano, 2014, 8, 9137-9142.	7.3	49
28	MoS ₂ Field-Effect Transistors With Graphene/Metal Heterocontacts. IEEE Electron Device Letters, 2014, 35, 599-601.	2.2	133
29	Molecular Doping of Multilayer MoS ₂ Field-Effect Transistors: Reduction in Sheet and Contact Resistances. IEEE Electron Device Letters, 2013, 34, 1328-1330.	2.2	231
30	Statistical Study of Deep Submicron Dual-Gated Field-Effect Transistors on Monolayer Chemical Vapor Deposition Molybdenum Disulfide Films. Nano Letters, 2013, 13, 2640-2646.	4.5	197
31	Dual-gate MOSFETs on monolayer CVD MoS ₂ films. , 2013, , .		2
32	(Invited) Fundamentals in MoS ₂ Transistors: Dielectric, Scaling and Metal Contacts. ECS Transactions, 2013, 58, 203-208.	0.3	19
33	Anisotropic Properties of Black Phosphorus. , 0, , 413-434.		3