

Ke Xu

List of Publications by Year in descending order

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1588
citing authors

#	ARTICLE	IF	CITATIONS
1	Realizing Large-Scale, Electronic-Grade Two-Dimensional Semiconductors. ACS Nano, 2018, 12, 965-975.	7.3	172
2	Tuning the Electronic and Photonic Properties of Monolayer MoS ₂ via In Situ Rhenium Substitutional Doping. Advanced Functional Materials, 2018, 28, 1706950.	7.8	137
3	Considerations for Utilizing Sodium Chloride in Epitaxial Molybdenum Disulfide. ACS Applied Materials & Interfaces, 2018, 10, 40831-40837.	4.0	58
4	Impact of Post-Lithography Polymer Residue on the Electrical Characteristics of MoS ₂ and WSe ₂ Field Effect Transistors. Advanced Materials Interfaces, 2019, 6, 1801321.	1.9	56
5	Scalable BEOL compatible 2D tungsten diselenide. 2D Materials, 2020, 7, 015029.	2.0	41
6	Monolayer Solid-State Electrolyte for Electric Double Layer Gating of Graphene Field-Effect Transistors. ACS Nano, 2017, 11, 5453-5464.	7.3	40
7	Electric-double-layer-gated transistors based on two-dimensional crystals: recent approaches and advances. JPhys Materials, 2020, 3, 032001.	1.8	34
8	Graphene- and aptamer-based electrochemical biosensor. Nanotechnology, 2014, 25, 205501.	1.3	32
9	Properties of synthetic epitaxial graphene/molybdenum disulfide lateral heterostructures. Carbon, 2017, 125, 551-556.	5.4	27
10	Pulse Dynamics of Electric Double Layer Formation on All-Solid-State Graphene Field-Effect Transistors. ACS Applied Materials & Interfaces, 2018, 10, 43166-43176.	4.0	25
11	Electric Double Layer Dynamics in Poly(ethylene oxide) LiClO ₄ on Graphene Transistors. Journal of Physical Chemistry C, 2017, 121, 16996-17004.	1.5	24
12	Optical Detection of Lead and Potassium Ions Using a Quantum-Dot-Based Aptamer Nanosensor. IEEE Transactions on Nanobioscience, 2014, 13, 161-164.	2.2	23
13	Deconvoluting the Photonic and Electronic Response of 2D Materials: The Case of MoS ₂ . Scientific Reports, 2017, 7, 16938.	1.6	23
14	Electric Double-Layer Gating of Two-Dimensional Field-Effect Transistors Using a Single-Ion Conductor. ACS Applied Materials & Interfaces, 2019, 11, 35879-35887.	4.0	20
15	Electrical conductivity and dielectric properties of PMMA/graphite nanoplatelet ensembles. Superlattices and Microstructures, 2012, 51, 606-612.	1.4	19
16	Tuning transport across MoS ₂ /graphene interfaces via as-grown lateral heterostructures. Npj 2D Materials and Applications, 2020, 4, .	3.9	12
17	Modification of the Electronic Transport in Atomically Thin WSe ₂ by Oxidation. Advanced Materials Interfaces, 2020, 7, 2000422.	1.9	11
18	Graphene-based FET structure: Modeling FET characteristics for an aptamer-based analyte sensor. , 2012, , .		7

#	ARTICLE	IF	CITATIONS
19	Design and Applications of Nanomaterial-Based and Biomolecule-Based Nanodevices and Nanosensors. Challenges and Advances in Computational Chemistry and Physics, 2014, , 61-97.	0.6	7
20	Ion-Locking in Solid Polymer Electrolytes for Reconfigurable Gateless Lateral Graphene p-n Junctions. Materials, 2020, 13, 1089.	1.3	7
21	Molecularly Thin Electrolyte for All Solid-State Nonvolatile Two-Dimensional Crystal Memory. Nano Letters, 2019, 19, 8911-8919.	4.5	6
22	Single- versus Dual-Ion Conductors for Electric Double Layer Gating: Finite Element Modeling and Hall-Effect Measurements. ACS Applied Materials & Interfaces, 2020, 12, 40850-40858.	4.0	6
23	Detection of Immunoglobulin E with a Graphene-Based Field-Effect Transistor Aptasensor. Journal of Sensors, 2018, 2018, 1-8.	0.6	4
24	Direct Write Formation and Dissolution of Silver Nanofilaments in Ionic Liquid-Polymer Electrolyte Composites. Small, 2018, 14, 1802023.	5.2	4
25	Silver Nanofilament Formation Dynamics in a Polymer-Ionic Liquid Thin Film by Direct Write. Advanced Functional Materials, 2020, 30, 1907950.	7.8	4
26	Photoluminescence Switching Effect in a Two-Dimensional Atomic Crystal. ACS Nano, 2021, 15, 19439-19445.	7.3	4
27	Electric-field-induced optical hysteresis in single-layer WSe ₂ . Applied Physics Letters, 2019, 115, 161103.	1.5	3
28	Surface-enhanced Raman spectroscopy as a tool for characterizing nanostructures containing molecular components. , 2012, , .		2
29	Surface-enhanced Raman spectroscopy signatures of an RNA molecule: An aptamer that binds to α 3 integrin. , 2012, , .		2
30	Surface-enhanced Raman spectroscopy study of single stranded DNA sequences on silver nanorod array. , 2012, , .		1
31	Reconfigurable p-n junction formation and bandgap opening in bilayer graphene using polyethylene oxide and CsClO ₄ solid polymer electrolyte. , 2015, , .		1
32	Design and Applications of Graphene and Biomolecule-Based Nanosensors and Nanodevices. , 2016, , 3-12.		1
33	2D Materials: Tuning the Electronic and Photonic Properties of Monolayer MoS ₂ via In Situ Rhenium Substitutional Doping (Adv. Funct. Mater. 16/2018). Advanced Functional Materials, 2018, 28, 1870105.	7.8	1
34	(Invited) MoS ₂ Field-Effect Transistors Gated with a Two-Dimensional Electrolyte. ECS Meeting Abstracts, 2017, , .	0.0	1
35	Study of electric field caused by semiconductor quantum dots in close proximity to DNA origami. , 2014, , .		0
36	Using Ions to Control Transport in Two-Dimensional Materials for Ion-Controlled Electronics. , 2018, , .		0

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37	Engineering p-n junctions in grapbene/molybdenum disulfide heterostructures. , 2019, , .		0