

Heejun Yang

List of Publications by Year in descending order

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papers

4,495
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279701

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docs citations

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times ranked

6688
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum Sensing of Thermoelectric Power in Low-Dimensional Materials. <i>Advanced Materials</i> , 2023, 35, e2106871.	11.1	6
2	Orbital Gating Driven by Giant Stark Effect in Tunneling Phototransistors. <i>Advanced Materials</i> , 2022, 34, e2106625.	11.1	9
3	Bandgap modulation in the two-dimensional core-shell-structured monolayers of WS ₂ . <i>IScience</i> , 2022, 25, 103563.	1.9	4
4	Heterophase Boundary for Active Hydrogen Evolution in MoTe ₂ . <i>Advanced Functional Materials</i> , 2022, 32, 2105675.	7.8	21
5	Reshaped Weyl fermionic dispersions driven by Coulomb interactions in MoTe ₂ . <i>Physical Review B</i> , 2022, 105, .		
6	Local phase transition at crack edges of Mo _{1-x} W _x Te ₂ polymorphs. <i>Applied Surface Science</i> , 2022, , 153503.	3.1	3
7	Recent Progress in 1D Contacts for 2D-Material-Based Devices. <i>Advanced Materials</i> , 2022, 34, e2202408.	11.1	13
8	Atomic and Electronic Manipulation of Robust Ferroelectric Polymorphs. <i>Advanced Materials</i> , 2022, 34, .	11.1	4
9	Efficient hydrogen evolution reaction at the phase transition boundary of polymorphic Mo _{1-x} W _x Te ₂ . <i>APL Materials</i> , 2022, 10, 061107.	2.2	0
10	Classical and quantum phases in hexagonal boron nitride-combined van der Waals heterostructures. <i>Informa-Materially</i> , 2021, 3, 252-270.	8.5	5
11	Selective patterning of out-of-plane piezoelectricity in MoTe ₂ via focused ion beam. <i>Nano Energy</i> , 2021, 79, 105451.	8.2	17
12	Lifshitz Transition and Non-Fermi Liquid Behavior in Highly Doped Semimetals. <i>Advanced Materials</i> , 2021, 33, 2005742.	11.1	5
13	Mitrofanovite, Layered Platinum Telluride, for Active Hydrogen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 2437-2446.	4.0	10
14	Semiconductor-less vertical transistor with ION/IOFF of 106. <i>Nature Communications</i> , 2021, 12, 1000.	5.8	18
15	Harnessing Thermoelectric Puddles via the Stacking Order and Electronic Screening in Graphene. <i>ACS Nano</i> , 2021, 15, 5397-5404.	7.3	3
16	Nanoporous Silver Telluride for Active Hydrogen Evolution. <i>ACS Nano</i> , 2021, 15, 6540-6550.	7.3	10
17	Thermomechanical Manipulation of Electric Transport in MoTe ₂ . <i>Advanced Electronic Materials</i> , 2021, 7, 2000823.	2.6	5
18	Hydrogen bubble-assisted growth of Pt ₃ Te ₄ for electrochemical catalysts. <i>Current Applied Physics</i> , 2021, , .	1.1	6

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19	Near-field probing of dielectric screening by hexagonal boron nitride in graphene integrated on silicon photonics. <i>Nanotechnology</i> , 2021, 32, 315207.	1.3	3
20	In-sensor reservoir computing for language learning via two-dimensional memristors. <i>Science Advances</i> , 2021, 7, .	4.7	175
21	Active hydrogen evolution on the plasma-treated edges of WTe ₂ . <i>APL Materials</i> , 2021, 9, .	2.2	19
22	Doping-Mediated Lattice Engineering of Monolayer ReS ₂ for Modulating In-Plane Anisotropy of Optical and Transport Properties. <i>ACS Nano</i> , 2021, 15, 13770-13780.	7.3	17
23	Patterning of type-II Dirac semimetal PtTe ₂ for optimized interface of tellurene optoelectronic device. <i>Nano Energy</i> , 2021, 86, 106049.	8.2	22
24	Large-Area MoS ₂ via Colloidal Nanosheet Ink for Integrated Memtransistor. <i>Small Methods</i> , 2021, 5, 2100558.	4.6	8
25	Phase-controllable laser thinning in MoTe ₂ . <i>Applied Surface Science</i> , 2021, 563, 150282.	3.1	16
26	Robust Quantum Oscillation of Dirac Fermions in a Single-Defect Resonant Transistor. <i>ACS Nano</i> , 2021, 15, 20013-20019.	7.3	6
27	Ultralow switching voltage slope based on two-dimensional materials for integrated memory and neuromorphic applications. <i>Nano Energy</i> , 2020, 69, 104472.	8.2	50
28	Ultrashort Vertical-Channel van der Waals Semiconductor Transistors. <i>Advanced Science</i> , 2020, 7, 1902964.	5.6	24
29	Role of anionic vacancy for active hydrogen evolution in WTe ₂ . <i>Applied Surface Science</i> , 2020, 515, 145972.	3.1	34
30	Basal-Plane Catalytic Activity of Layered Metallic Transition Metal Ditellurides for the Hydrogen Evolution Reaction. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3087.	1.3	19
31	Symmetry Dictated Grain Boundary State in a Two-Dimensional Topological Insulator. <i>Nano Letters</i> , 2020, 20, 5837-5843.	4.5	16
32	Recent Progress in Synaptic Devices Based on 2D Materials. <i>Advanced Intelligent Systems</i> , 2020, 2, 1900167.	3.3	55
33	Polymorphic Spin, Charge, and Lattice Waves in Vanadium Ditelluride. <i>Advanced Materials</i> , 2020, 32, e1906578.	11.1	29
34	Resonant Tunneling Spectroscopy to Probe the Giant Stark Effect in Atomically Thin Materials. <i>Advanced Materials</i> , 2020, 32, e1906942.	11.1	18
35	Hybrid catalyst with monoclinic MoTe ₂ and platinum for efficient hydrogen evolution. <i>APL Materials</i> , 2019, 7, .	2.2	24
36	Vertical Heterophase for Electrical, Electrochemical, and Mechanical Manipulations of Layered MoTe ₂ . <i>Advanced Functional Materials</i> , 2019, 29, 1904504.	7.8	40

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37	Self-selective van der Waals heterostructures for large scale memory array. Nature Communications, 2019, 10, 3161.	5.8	139
38	Proximity Engineering of the van der Waals Interaction in Multilayered Graphene. ACS Applied Materials & Interfaces, 2019, 11, 42528-42533.	4.0	9
39	Plasmonic-Based Subwavelength Graphene-on-hBN Modulator on Silicon Photonics. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-6.	1.9	23
40	In Operando Stacking of Reduced Graphene Oxide for Active Hydrogen Evolution. ACS Applied Materials & Interfaces, 2019, 11, 43460-43465.	4.0	17
41	Coherent Thermoelectric Power from Graphene Quantum Dots. Nano Letters, 2019, 19, 61-68.	4.5	25
42	Atomic-scale symmetry breaking for out-of-plane piezoelectricity in two-dimensional transition metal dichalcogenides. Nano Energy, 2019, 58, 57-62.	8.2	33
43	Selective growth of monolayer semiconductors for diverse synaptic junctions. 2D Materials, 2019, 6, 015029.	2.0	25
44	In-plane electric field confinement engineering in graphene-based hybrid plasmonic waveguides. Applied Optics, 2019, 58, 7503.	0.9	15
45	Synaptic Computation Enabled by Joule Heating of Single-Layered Semiconductors for Sound Localization. Nano Letters, 2018, 18, 3229-3234.	4.5	134
46	Mixed-Phase (2H and 1T) MoS ₂ Catalyst for a Highly Efficient and Stable Si Photocathode. Catalysts, 2018, 8, 580.	1.6	20
47	Superconductivity in Te-deficient polymorphic MoTe ₂ and its derivatives: rich structural and electronic phase transitions. 2D Materials, 2018, 5, 031014.	2.0	5
48	Tunable Out-of-Plane Piezoelectricity in Thin-Layered MoTe ₂ by Surface Corrugation-Mediated Flexoelectricity. ACS Applied Materials & Interfaces, 2018, 10, 27424-27431.	4.0	44
49	Post-patterning of an electronic homojunction in atomically thin monoclinic MoTe ₂ . 2D Materials, 2017, 4, 024004.	2.0	32
50	Active hydrogen evolution through lattice distortion in metallic MoTe ₂ . 2D Materials, 2017, 4, 025061.	2.0	103
51	Long-Range Lattice Engineering of MoTe ₂ by a 2D Electride. Nano Letters, 2017, 17, 3363-3368.	4.5	72
52	Te vacancy-driven superconductivity in orthorhombic molybdenum ditelluride. 2D Materials, 2017, 4, 021030.	2.0	42
53	Structural and quantum-state phase transitions in van der Waals layered materials. Nature Physics, 2017, 13, 931-937.	6.5	280
54	Chain Vacancies in 2D Crystals. Small, 2017, 13, 1601930.	5.2	18

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55	Graphene traps. Nature Physics, 2016, 12, 994-995.	6.5	2
56	Applications of metal-semiconductor phase transition in 2D layered transition metal dichalcogenides. Vacuum Magazine, 2016, 3, 4-8.	0.0	0
57	Phase patterning for ohmic homojunction contact in MoTe ₂ . Science, 2015, 349, 625-628.	6.0	918
58	Bandgap opening in few-layered monoclinic MoTe ₂ . Nature Physics, 2015, 11, 482-486.	6.5	800
59	Graphene for True Ohmic Contact at Metal-Semiconductor Junctions. Nano Letters, 2013, 13, 4001-4005.	4.5	101
60	Graphene Barristor, a Triode Device with a Gate-Controlled Schottky Barrier. Science, 2012, 336, 1140-1143.	6.0	862
61	Passivation of Metal Surface States: Microscopic Origin for Uniform Monolayer Graphene by Low Temperature Chemical Vapor Deposition. ACS Nano, 2011, 5, 1915-1920.	7.3	58