

# Hui-Xiong Deng

## List of Publications by Year in descending order

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33  
papers

1,720  
citations

394421

19  
h-index

395702

33  
g-index

35  
all docs

35  
docs citations

35  
times ranked

2254  
citing authors

#	ARTICLE	IF	CITATIONS
1	Donor-acceptor Pair Quantum Emitters in Hexagonal Boron Nitride. Nano Letters, 2022, 22, 1331-1337.	9.1	17
2	Clarification of the relative magnitude of exciton binding energies in ZnO and SnO <sub>2</sub> . Applied Physics Letters, 2022, 120, .	3.3	8
3	Band offset trends in IV-VI layered semiconductor heterojunctions. Journal of Physics Condensed Matter, 2022, 34, 195003.	1.8	3
4	Origin of the discrepancy between the fundamental and optical gaps and native defects in two dimensional ultra-wide bandgap semiconductor: Gallium thiophosphate. Applied Physics Letters, 2022, 120, 172108.	3.3	1
5	Large lattice-relaxation-induced intrinsic shallow p-type characteristics in monolayer black phosphorus and black arsenic. Applied Physics Letters, 2021, 118, .	3.3	6
6	Quantum engineering of non-equilibrium efficient p-doping in ultra-wide band-gap nitrides. Light: Science and Applications, 2021, 10, 69.	16.6	42
7	Decoupling of the Electrical and Thermal Transports in Strongly Coupled Interlayer Materials. Journal of Physical Chemistry Letters, 2021, 12, 7832-7839.	4.6	8
8	Electronic structures and band alignment transition in double-wall MoS <sub>2</sub> /WS <sub>2</sub> nanotubes for optoelectronic applications. Journal Physics D: Applied Physics, 2021, 54, 095105.	2.8	2
9	Manipulation of crystalline structure, magnetic performance, and topological feature in Mn <sub>3</sub> Ge films. APL Materials, 2021, 9, .	5.1	4
10	Quasiparticle Band Structure and Optical Properties of the Janus Monolayer and Bilayer SnSSe. Journal of Physical Chemistry C, 2020, 124, 23832-23838.	3.1	23
11	Large cation ethylammonium incorporated perovskite for efficient and spectra stable blue light-emitting diodes. Nature Communications, 2020, 11, 4165.	12.8	217
12	Deep insights into interface engineering by buffer layer for efficient perovskite solar cells: a first-principles study. Science China Materials, 2020, 63, 1588-1596.	6.3	10
13	Reviewing and understanding the stability mechanism of halide perovskite solar cells. Information Materials, 2020, 2, 1034-1056.	17.3	55
14	Orbital localization induced magnetization in nonmetal-doped phosphorene. Journal Physics D: Applied Physics, 2020, 53, 155001.	2.8	4
15	Recent Advances of 2D Materials in Nonlinear Photonics and Fiber Lasers. Advanced Optical Materials, 2020, 8, 1901631.	7.3	122
16	Polarization-sensitive Photodetectors: Symmetry-Reduction Enhanced Polarization-sensitive Photodetection in Core-shell Sb <sub>3</sub> /Sb <sub>2</sub> O <sub>3</sub> van der Waals Heterostructure (Small 7/2020). Small, 2020, 16, 2070036.	10.0	1
17	Ultrafast photonics of two dimensional AuTe <sub>2</sub> Se <sub>4</sub> /3 in fiber lasers. Communications Physics, 2020, 3, .	5.3	93
18	Symmetry-Reduction Enhanced Polarization-sensitive Photodetection in Core-shell Sb <sub>3</sub> /Sb <sub>2</sub> O <sub>3</sub> van der Waals Heterostructure. Small, 2020, 16, e1907172.	10.0	32

#	ARTICLE	IF	CITATIONS
19	Realistic dimension-independent approach for charged-defect calculations in semiconductors. <i>Physical Review B</i> , 2020, 101, .	3.2	30
20	Mixed-valence-Driven Quasi-1D Sn <sup>II</sup> Sn <sup>IV</sup> S <sub>3</sub> with Highly Polarization-Sensitive UV-vis-NIR Photoresponse. <i>Advanced Functional Materials</i> , 2019, 29, 1904416.	14.9	39
21	Machine learning in materials science. <i>Informa-Å-Materi-ly</i> , 2019, 1, 338-358.	17.3	427
22	Thickness-Dependent Ultrafast Photonics of SnS <sub>2</sub> Nanolayers for Optimizing Fiber Lasers. <i>ACS Applied Nano Materials</i> , 2019, 2, 2697-2705.	5.0	48
23	Abnormal diffusion behaviors of Cu atoms in van der Waals layered material MoS <sub>2</sub> . <i>Journal of Materials Chemistry C</i> , 2019, 7, 6052-6058.	5.5	18
24	A systematic study of the negative thermal expansion in zinc-blende and diamond-like semiconductors. <i>New Journal of Physics</i> , 2019, 21, 123015.	2.9	10
25	Electronic structure and exciton shifts in Sb-doped MoS <sub>2</sub> monolayer. <i>Npj 2D Materials and Applications</i> , 2019, 3, .	7.9	82
26	Tuning transport performance in two-dimensional metal-organic framework semiconductors: Role of the metal <i>d</i> band. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	53
27	Unified theory of direct or indirect band-gap nature of conventional semiconductors. <i>Physical Review B</i> , 2018, 98, .	3.2	60
28	Field-Effect Transistors: Thickness-Dependent Carrier Transport Characteristics of a New 2D Elemental Semiconductor: Black Arsenic (Adv. Funct. Mater. 43/2018). <i>Advanced Functional Materials</i> , 2018, 28, 1870312.	14.9	2
29	Metal and ligand effects on the stability and electronic properties of crystalline two-dimensional metal-benzenehexathiolate coordination compounds. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 465301.	1.8	20
30	Thickness-Dependent Carrier Transport Characteristics of a New 2D Elemental Semiconductor: Black Arsenic. <i>Advanced Functional Materials</i> , 2018, 28, 1802581.	14.9	125
31	Tunable electronic and optical properties of InSe/InTe van der Waals heterostructures toward optoelectronic applications. <i>Journal of Materials Chemistry C</i> , 2018, 6, 7201-7206.	5.5	87
32	Origin of the Distinct Diffusion Behaviors of Cu and Ag in Covalent and Ionic Semiconductors. <i>Physical Review Letters</i> , 2016, 117, 165901.	7.8	25
33	Exceptional Optoelectronic Properties of Hydrogenated Bilayer Silicene. <i>Physical Review X</i> , 2014, 4, .	8.9	35