

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	Machine learning in materials science. <i>InformaÅnÃ-MateriÃjly</i> , 2019, 1, 338-358.	17.3	427
2	Large cation ethylammonium incorporated perovskite for efficient and spectra stable blue light-emitting diodes. <i>Nature Communications</i> , 2020, 11, 4165.	12.8	217
3	Thicknessâ€Dependent Carrier Transport Characteristics of a New 2D Elemental Semiconductor: Black Arsenic. <i>Advanced Functional Materials</i> , 2018, 28, 1802581.	14.9	125
4	Recent Advances of 2D Materials in Nonlinear Photonics and Fiber Lasers. <i>Advanced Optical Materials</i> , 2020, 8, 1901631.	7.3	122
5	Ultrafast photonics of two dimensional AuTe ₂ Se _{4/3} in fiber lasers. <i>Communications Physics</i> , 2020, 3, .	5.3	93
6	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
7	Electronic structure and exciton shifts in Sb-doped MoS ₂ monolayer. <i>Npj 2D Materials and Applications</i> , 2019, 3, .	7.9	82
8	Unified theory of direct or indirect band-gap nature of conventional semiconductors. <i>Physical Review B</i> , 2018, 98, .	3.2	60
9	Reviewing and understanding the stability mechanism of halide perovskite solar cells. <i>InformaÅnÃ-MateriÃjly</i> , 2020, 2, 1034-1056.	17.3	55
10	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
11	Thickness-Dependent Ultrafast Photonics of SnS ₂ Nanolayers for Optimizing Fiber Lasers. <i>ACS Applied Nano Materials</i> , 2019, 2, 2697-2705.	5.0	48
12	Quantum engineering of non-equilibrium efficient p-doping in ultra-wide band-gap nitrides. <i>Light: Science and Applications</i> , 2021, 10, 69.	16.6	42
13	Mixedâ€Valenceâ€Driven Quasiâ€1D Sn ^{II} Sn ^{IV} S ₃ with Highly Polarizationâ€Sensitive UVâ€visâ€NIR Photoresponse. <i>Advanced Functional Materials</i> , 2019, 29, 1904416.	14.9	39
14	Exceptional Optoelectronic Properties of Hydrogenated Bilayer Silicene. <i>Physical Review X</i> , 2014, 4, .	8.9	35
15	Symmetryâ€Reduction Enhanced Polarizationâ€Sensitive Photodetection in Coreâ€Shell SbI ₃ /Sb ₂ O ₃ van der Waals Heterostructure. <i>Small</i> , 2020, 16, e1907172.	10.0	32
16	Realistic dimension-independent approach for charged-defect calculations in semiconductors. <i>Physical Review B</i> , 2020, 101, .	3.2	30
17	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
18	Quasiparticle Band Structure and Optical Properties of the Janus Monolayer and Bilayer SnSSe. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23832-23838.	3.1	23

#	ARTICLE	IF	CITATIONS
19	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
20	Abnormal diffusion behaviors of Cu atoms in van der Waals layered material MoS ₂ . <i>Journal of Materials Chemistry C</i> , 2019, 7, 6052-6058.	5.5	18
21	Donor–Acceptor Pair Quantum Emitters in Hexagonal Boron Nitride. <i>Nano Letters</i> , 2022, 22, 1331-1337.	9.1	17
22	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
23	Deep insights into interface engineering by buffer layer for efficient perovskite solar cells: a first-principles study. <i>Science China Materials</i> , 2020, 63, 1588-1596.	6.3	10
24	Decoupling of the Electrical and Thermal Transports in Strongly Coupled Interlayer Materials. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 7832-7839.	4.6	8
25	Clarification of the relative magnitude of exciton binding energies in ZnO and SnO ₂ . <i>Applied Physics Letters</i> , 2022, 120, .	3.3	8
26	Large lattice-relaxation-induced intrinsic shallow p-type characteristics in monolayer black phosphorus and black arsenic. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	6
27	Orbital localization induced magnetization in nonmetal-doped phosphorene. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 155001.	2.8	4
28	Manipulation of crystalline structure, magnetic performance, and topological feature in Mn ₃ Ge films. <i>APL Materials</i> , 2021, 9, .	5.1	4
29	Band offset trends in IV–VI layered semiconductor heterojunctions. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 195003.	1.8	3
30	Field-Effect Transistors: Thickness-Dependent Carrier Transport Characteristics of a New 2D Elemental Semiconductor: Black Arsenic (<i>Adv. Funct. Mater.</i> 43/2018). <i>Advanced Functional Materials</i> , 2018, 28, 1870312.	14.9	2
31	Electronic structures and band alignment transition in double-wall MoS ₂ /WS ₂ nanotubes for optoelectronic applications. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 095105.	2.8	2
32	Polarization-Sensitive Photodetectors: Symmetry-Reduction Enhanced Polarization-Sensitive Photodetection in Core-Shell Sb ₃ /Sb ₂ O ₃ van der Waals Heterostructure (<i>Small</i> 7/2020). <i>Small</i> , 2020, 16, 2070036.	10.0	1
33	Origin of the discrepancy between the fundamental and optical gaps and native defects in two dimensional ultra-wide bandgap semiconductor: Gallium thiophosphate. <i>Applied Physics Letters</i> , 2022, 120, 172108.	3.3	1