

Xue-Peng Wang

List of Publications by Year in descending order

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Version: 2024-02-01

35
papers

920
citations

471509

17
h-index

454955

30
g-index

35
all docs

35
docs citations

35
times ranked

884
citing authors

#	ARTICLE	IF	CITATIONS
1	Continuous transition from double-layer to Faradaic charge storage in confined electrolytes. <i>Nature Energy</i> , 2022, 7, 222-228.	39.5	130
2	Ultrafast dynamics of spin relaxation in monolayer WSe_2 and the WSe_2 /graphene heterojunction. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 16538-16544.	2.8	3
3	Nucleation Dynamics of Phase-Change Memory Materials: Atomic Motion and Property Evolution. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2000441.	2.4	5
4	Demystifying the Stern layer at a metal-electrolyte interface: Local dielectric constant, specific ion adsorption, and partial charge transfer. <i>Journal of Chemical Physics</i> , 2021, 154, 124701.	3.0	15
5	High-Throughput Screening for Phase-Change Memory Materials. <i>Advanced Functional Materials</i> , 2021, 31, 2009803.	14.9	43
6	Controllable molecular doping in organic single crystals toward high-efficiency light-emitting devices. <i>Organic Electronics</i> , 2021, 91, 106089.	2.6	7
7	Phase-Change-Memory Process at the Limit: A Proposal for Utilizing Monolayer Sb_2Te_3 . <i>Advanced Science</i> , 2021, 8, 2004185.	11.2	25
8	Electronic structure evolution and exciton energy shifting dynamics in WSe_2 : from monolayer to bulk. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 354002.	2.8	4
9	Orbital-selective electronic excitation in phase-change memory materials: a brief review. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2021, .	0.7	0
10	Theoretical Insights into MXene Termination and Surface Charge Regulation. <i>Journal of Physical Chemistry C</i> , 2021, 125, 21771-21779.	3.1	10
11	Mexican-hat potential energy surface in two-dimensional III2-VI3 materials and the importance of entropy barrier in ultrafast reversible ferroelectric phase change. <i>Applied Physics Reviews</i> , 2021, 8, .	11.3	13
12	First-principles research on mechanism of sub-band absorption of amorphous silicon induced by ultrafast laser irradiation. <i>Results in Physics</i> , 2021, 31, 104941.	4.1	2
13	Nanoscale amorphous interfaces in phase-change memory materials: structure, properties and design. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 114002.	2.8	4
14	Optical subpicosecond nonvolatile switching and electron-phonon coupling in ferroelectric materials. <i>Physical Review B</i> , 2020, 102, .	3.2	9
15	Time-dependent density-functional theory molecular-dynamics study on amorphization of Sc-Sb-Te alloy under optical excitation. <i>Npj Computational Materials</i> , 2020, 6, .	8.7	32
16	Stability enhancement of the metastable cubic Sb_2Te_3 in superlattice-like films. <i>Materials Letters</i> , 2019, 243, 153-156.	2.6	4
17	High-Color-Rendering and High-Efficiency White Organic Light-Emitting Devices Based on Double-Doped Organic Single Crystals. <i>Advanced Functional Materials</i> , 2019, 29, 1807606.	14.9	42
18	Investigating the dynamics of excitons in monolayer WSe_2 before and after organic super acid treatment. <i>Nanoscale</i> , 2018, 10, 9346-9352.	5.6	12

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19	Electric field analyses on monolayer semiconductors: the example of InSe. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 6945-6950.	2.8	46
20	Metal-Insulator Transition of GeSbTe Superlattice: An Electron Counting Model Study. <i>IEEE Nanotechnology Magazine</i> , 2018, 17, 140-146.	2.0	31
21	Directional Forces by Momentumless Excitation and Order-to-Order Transition in Peierls-Distorted Solids: The Case of GeTe. <i>Physical Review Letters</i> , 2018, 120, 185701.	7.8	38
22	Black Silicon IR Photodiode Supersaturated With Nitrogen by Femtosecond Laser Irradiation. <i>IEEE Sensors Journal</i> , 2018, 18, 3595-3601.	4.7	25
23	Strong electron-polarized atom chain in amorphous phase-change memory Ge Sb Te alloy. <i>Acta Materialia</i> , 2018, 143, 102-106.	7.9	24
24	Phase-Change Superlattice Materials toward Low Power Consumption and High Density Data Storage: Microscopic Picture, Working Principles, and Optimization. <i>Advanced Functional Materials</i> , 2018, 28, 1803380.	14.9	119
25	Clarification of the Molecular Doping Mechanism in Organic Single-Crystalline Semiconductors and their Application in Color-Tunable Light-Emitting Devices. <i>Advanced Materials</i> , 2018, 30, e1801078.	21.0	53
26	Erratum to "Metal-Insulator Transition of GeSbTe Superlattice: An Electron Counting Model Study" [Jan 18 140-146]. <i>IEEE Nanotechnology Magazine</i> , 2018, 17, 614-614.	2.0	0
27	Non-phase-separated 2D Bâ€Câ€N alloys via molecule-like carbon doping in 2D BN: atomic structures and optoelectronic properties. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 23106-23111.	2.8	6
28	Highly Efficient Three Primary Color Organic Single-Crystal Light-Emitting Devices with Balanced Carrier Injection and Transport. <i>Advanced Functional Materials</i> , 2017, 27, 1604659.	14.9	69
29	Giant lattice expansion by quantum stress and universal atomic forces in semiconductors under instant ultrafast laser excitation. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 24735-24741.	2.8	7
30	Element-specific amorphization of vacancy-ordered GeSbTe for ternary-state phase change memory. <i>Acta Materialia</i> , 2017, 136, 242-248.	7.9	30
31	Vacancy Structures and Melting Behavior in Rock-Salt GeSbTe. <i>Scientific Reports</i> , 2016, 6, 25453.	3.3	42
32	memory device. <i>Chemical Research in Chinese Universities</i> , 2016, 32, 76-81.	2.6	4
33	Origin of high data retention for Ge ₁ Cu ₂ Te ₃ phase-change memory. , 2015, , .		0
34	Origin of high thermal stability of amorphous Ge ₁ Cu ₂ Te ₃ alloy: A significant Cu-bonding reconfiguration modulated by Te lone-pair electrons for crystallization. <i>Acta Materialia</i> , 2015, 90, 88-93.	7.9	42
35	Role of the nano amorphous interface in the crystallization of Sb ₂ Te ₃ towards non-volatile phase change memory: insights from first principles. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10810.	2.8	24