

Jia-Fu Wang

List of Publications by Year in descending order

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Version: 2024-02-01

56
papers

690
citations

516710

16
h-index

580821

25
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56
all docs

56
docs citations

56
times ranked

645
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Resonance-enhanced signal detection and transduction in the Hodgkin-Huxley neuronal systems. <i>Physical Review E</i> , 2001, 63, 021907. | 2.1 | 97 |
| 2 | Frequency sensitivity in weak signal detection. <i>Physical Review E</i> , 1999, 59, 3453-3460. | 2.1 | 56 |
| 3 | KTlO: a metal shrouded 2D semiconductor with high carrier mobility and tunable magnetism. <i>Nanoscale</i> , 2019, 11, 1131-1139. | 5.6 | 50 |
| 4 | Nb ₂ SiTe ₄ and Nb ₂ GeTe ₄ : Unexplored 2D Ternary Layered Tellurides with High Stability, Narrow Band Gap and High Electron Mobility. <i>Journal of Electronic Materials</i> , 2020, 49, 959-968. | 2.2 | 39 |
| 5 | Monolayer Ti ₂ C MXene: manipulating magnetic properties and electronic structures by an electric field. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 11266-11272. | 2.8 | 38 |
| 6 | Gallium Thiophosphate: An Emerging Bidirectional Auxetic Two-Dimensional Crystal with Wide Direct Band Gap. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4455-4462. | 4.6 | 35 |
| 7 | Design lateral heterostructure of monolayer ZrS ₂ and HfS ₂ from first principles calculations. <i>Applied Surface Science</i> , 2018, 436, 919-926. | 6.1 | 33 |
| 8 | TIP ₅ : an unexplored direct band gap 2D semiconductor with ultra-high carrier mobility. <i>Journal of Materials Chemistry C</i> , 2019, 7, 639-644. | 5.5 | 30 |
| 9 | Pt ₅ Se ₄ Monolayer: A Highly Efficient Electrocatalyst toward Hydrogen and Oxygen Electrode Reactions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 13896-13903. | 8.0 | 26 |
| 10 | Giant magnetic entropy change in gadolinium orthoferrite near liquid hydrogen temperature. <i>Journal of Alloys and Compounds</i> , 2018, 739, 897-900. | 5.5 | 21 |
| 11 | A new family of two-dimensional ferroelastic semiconductors with negative Poisson's ratios. <i>Nanoscale</i> , 2020, 12, 14150-14159. | 5.6 | 21 |
| 12 | Giant magnetocaloric effect in the antiferromagnet GdScO ₃ single crystal. <i>Journal of Alloys and Compounds</i> , 2019, 803, 992-997. | 5.5 | 20 |
| 13 | Planar penta-transition metal phosphide and arsenide as narrow-gap semiconductors with ultrahigh carrier mobility. <i>Journal of Materials Science</i> , 2019, 54, 7035-7047. | 3.7 | 20 |
| 14 | Prediction of new group IV-V-VI monolayer semiconductors based on first principle calculation. <i>Computational Materials Science</i> , 2017, 135, 160-164. | 3.0 | 19 |
| 15 | First-principle study on honeycomb fluorated-InTe monolayer with large Rashba spin splitting and direct bandgap. <i>Applied Surface Science</i> , 2019, 471, 18-22. | 6.1 | 19 |
| 16 | Surface regulated arsenenes as Dirac materials: From density functional calculations. <i>Applied Surface Science</i> , 2017, 394, 625-629. | 6.1 | 17 |
| 17 | ELECTRONIC STRUCTURES AND THE STABILITY OF MgO SURFACE: DENSITY FUNCTIONAL STUDY. <i>Surface Review and Letters</i> , 2015, 22, 1550037. | 1.1 | 15 |
| 18 | First-Principles Calculations of the Electronic Structure and Optical Properties of Y-Cu Co-Doped ZnO. <i>Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica</i> , 2015, 31, 1302-1308. | 4.9 | 13 |

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|----|---|------|-----------|
| 19 | A large magnetocaloric effect of GdCoO ₃ epitaxial thin films prepared by a polymer assisted spin-coating method. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14970-14976. | 5.5 | 13 |
| 20 | 18-Electron half-Heusler compound Ti _{0.75} NiSb with intrinsic Ti vacancies as a promising thermoelectric material. <i>Journal of Materials Chemistry A</i> , 2022, 10, 9655-9669. | 10.3 | 12 |
| 21 | Synergic Effect in a New Electrocatalyst Ni ₂ SbTe ₂ for Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3671-3680. | 3.1 | 11 |
| 22 | Two-dimensional V-shaped PdI ₂ : Auxetic semiconductor with ultralow lattice thermal conductivity and ultrafast alkali ion mobility. <i>Applied Surface Science</i> , 2022, 601, 154176. | 6.1 | 10 |
| 23 | Frequency characteristics and intrinsic oscillations in a neuronal network. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1999, 256, 181-187. | 2.1 | 7 |
| 24 | Slot-waveguide-assisted temperature-independent Mach-Zehnder interferometer based optical filter. <i>Journal of Modern Optics</i> , 2010, 57, 545-551. | 1.3 | 7 |
| 25 | Tunable Rashba spin splitting in two-dimensional graphene/As-I heterostructures. <i>Applied Surface Science</i> , 2018, 427, 10-14. | 6.1 | 7 |
| 26 | Designing stable 2D materials solely from VIA elements. <i>Applied Physics Letters</i> , 2021, 119, . | 3.3 | 6 |
| 27 | Synthesis and characterization of hybrid latexes from soybean oil-based polyurethane and poly(2,2,2-trifluoroethyl methacrylate). <i>Fibers and Polymers</i> , 2014, 15, 208-214. | 2.1 | 5 |
| 28 | Prediction of two-dimensional M ₂ As (M = Mn, Fe) with high Curie temperature and large perpendicular magnetic anisotropy. <i>Computational Materials Science</i> , 2021, 200, 110838. | 3.0 | 5 |
| 29 | Realizing high thermoelectric performance in GeTe by defect engineering on cation sites. <i>Journal of Materials Chemistry C</i> , 2022, 10, 9052-9061. | 5.5 | 5 |
| 30 | Thermal impact on spiking properties in Hodgkin-Huxley neuron with synaptic stimulus. <i>Pramana - Journal of Physics</i> , 2008, 70, 183-190. | 1.8 | 4 |
| 31 | Frequency Selectivity Behaviour in the Auditory Midbrain: Implications of Model Study. <i>Chinese Physics Letters</i> , 2006, 23, 3380-3383. | 3.3 | 3 |
| 32 | Directed true self-avoiding Levy flights. <i>Journal of Physics A</i> , 1991, 24, 4843-4851. | 1.6 | 2 |
| 33 | Ti-doped Sn ₂ Se ₃ phase change material for improved thermal stability. <i>Materials Letters</i> , 2019, 254, 186-189. | 2.6 | 2 |
| 34 | Two novel triangular borophenes B ₃ H and B ₆ O: first-principles prediction. <i>Nanotechnology</i> , 2019, 30, 495201. | 2.6 | 2 |
| 35 | The feasibility analysis of growing the modified borophene on substrates: First-principles calculation. <i>Applied Surface Science</i> , 2020, 507, 144154. | 6.1 | 2 |
| 36 | Tellurium vacancy in two-dimensional Si ₂ Te ₃ for resistive random-access memory. <i>Journal of Solid State Chemistry</i> , 2021, 303, 122448. | 2.9 | 2 |

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|----|---|-----|-----------|
| 37 | Intrinsic Rhythmic Fluctuation of Membrane Voltage Evoked by Membrane Noise in the Hodgkin-Huxley System. <i>Acta Physica Polonica A</i> , 2010, 117, 435-438. | 0.5 | 2 |
| 38 | Effects of surface regulation on monolayers SbAs and BiSb. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2016, 65, 217101. | 0.5 | 2 |
| 39 | Effective modes investigation of transmitted and reflective heterocore optical fiber surface plasmon resonance sensors. <i>Applied Optics</i> , 2019, 58, 6975. | 1.8 | 2 |
| 40 | Negative differential resistance and unsaturated magnetoresistance effects based on avalanche breakdown. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 305701. | 1.8 | 2 |
| 41 | The Critical Behavior of Partially Directed SAW on Sierpinski Carpets. <i>Communications in Theoretical Physics</i> , 1991, 16, 355-358. | 2.5 | 1 |
| 42 | SCALING LAWS OF REVERSIBLE AGGREGATION IN COMPACT CLUSTER SYSTEMS. <i>International Journal of Modern Physics B</i> , 2000, 14, 983-991. | 2.0 | 1 |
| 43 | First-Principle Study of the Electronic and Optical Properties of Ti Doped ZnS. <i>Advanced Materials Research</i> , 2012, 430-432, 173-176. | 0.3 | 1 |
| 44 | The tuning effect of the electric field on the physical properties of some typical wurtzite semiconductors. <i>Modern Physics Letters B</i> , 2017, 31, 1750310. | 1.9 | 1 |
| 45 | Electric field manipulation of multiple nonequivalent Dirac cones in the electronic structures of hexagonal CrB ₄ sheet. <i>Chinese Physics B</i> , 2018, 27, 097304. | 1.4 | 1 |
| 46 | Improved phase change properties in layered Sc _x In _{2-2x} Se ₃ for multilevel information storage. <i>Journal of Physics D: Applied Physics</i> , 2020, 53, 285101. | 2.8 | 1 |
| 47 | Synthesis mechanism and magnetoresistance effect of millimeter-sized GeTe faceted crystals. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 165, 110671. | 4.0 | 1 |
| 48 | Structural, Magnetic and Magnetocaloric Properties of DyCoO ₃ Nanoparticles. <i>Journal of Low Temperature Physics</i> , 2022, 208, 289-297. | 1.4 | 1 |
| 49 | Critical Exponents of Fully Directed Flights: A Laplacian Transformation Method. <i>Communications in Theoretical Physics</i> , 1992, 17, 235-238. | 2.5 | 0 |
| 50 | Exact Results for Fully Directed Flights in s -Dimensions. <i>Communications in Theoretical Physics</i> , 1994, 21, 397-402. | 2.5 | 0 |
| 51 | Analytical Results for the Critical Exponents of Fully Directed Levy Flights. <i>Communications in Theoretical Physics</i> , 1998, 29, 357-362. | 2.5 | 0 |
| 52 | Influence of temperature on neuronal excitability in cochlear nucleus. <i>Indian Journal of Physics</i> , 2010, 84, 309-317. | 1.8 | 0 |
| 53 | The I-V Measurement System for Solar Cells Based on MCU. <i>Journal of Physics: Conference Series</i> , 2011, 276, 012161. | 0.4 | 0 |
| 54 | Title is missing!. <i>International Journal of Modern Physics B</i> , 2000, 14, 983. | 2.0 | 0 |

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|----|---|-----|-----------|
| 55 | Study on Non-uniform Transmission Line by Using Matlab Simulation. International Journal of Advancements in Computing Technology, 2012, 4, 567-576. | 0.1 | 0 |
| 56 | Memristive and magnetoresistance effects of SnSe ₂ . Wuli Xuebao/Acta Physica Sinica, 2020, 69, 117301. | 0.5 | 0 |