

Shuyun Zhou

List of Publications by Year in descending order

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81
papers

9,358
citations

109321

35
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60623

81
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81
all docs

81
docs citations

81
times ranked

11949
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Substrate-induced bandgap opening in epitaxial graphene. Nature Materials, 2007, 6, 770-775. | 27.5 | 2,115 |
| 2 | Experimental observation of topological Fermi arcs in type-II Weyl semimetal MoTe ₂ . Nature Physics, 2016, 12, 1105-1110. | 16.7 | 663 |
| 3 | Monolayer PtSe ₂ , a New Semiconducting Transition-Metal-Dichalcogenide, Epitaxially Grown by Direct Selenization of Pt. Nano Letters, 2015, 15, 4013-4018. | 9.1 | 560 |
| 4 | Electric-field control of tri-state phase transformation with a selective dual-ion switch. Nature, 2017, 546, 124-128. | 27.8 | 551 |
| 5 | First direct observation of Dirac fermions in graphite. Nature Physics, 2006, 2, 595-599. | 16.7 | 466 |
| 6 | Synthesis and characterization of atomically thin graphite films on a silicon carbide substrate. Journal of Physics and Chemistry of Solids, 2006, 67, 2172-2177. | 4.0 | 423 |
| 7 | Wafer-Scale Growth and Transfer of Highly-Oriented Monolayer MoS ₂ Continuous Films. ACS Nano, 2017, 11, 12001-12007. | 14.6 | 397 |
| 8 | Lorentz-violating type-II Dirac fermions in transition metal dichalcogenide PtTe ₂ . Nature Communications, 2017, 8, 257. | 12.8 | 337 |
| 9 | An unusual isotope effect in a high-transition-temperature superconductor. Nature, 2004, 430, 187-190. | 27.8 | 277 |
| 10 | Type-II Dirac fermions in the PtSe_2 class of transition metal dichalcogenides. Physical Review B, 2016, 94, . | 3.2 | 236 |
| 11 | Broadband electromagnetic response and ultrafast dynamics of few-layer epitaxial graphene. Applied Physics Letters, 2009, 94, . | 3.3 | 199 |
| 12 | Gaps induced by inversion symmetry breaking and second-generation Dirac cones in graphene/hexagonal boron nitride. Nature Physics, 2016, 12, 1111-1115. | 16.7 | 179 |
| 13 | Experimental evidence for type-II Dirac semimetal in PtSe_2 . Physical Review B, 2017, 96, . | 11.9 | 179 |
| 14 | Origin of the energy bandgap in epitaxial graphene. Nature Materials, 2008, 7, 259-260. | 27.5 | 175 |
| 15 | Quasicrystalline 30° twisted bilayer graphene as an incommensurate superlattice with strong interlayer coupling. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6928-6933. | 7.1 | 169 |
| 16 | Direct observation of spin-layer locking by local Rashba effect in monolayer semiconducting PtSe ₂ film. Nature Communications, 2017, 8, 14216. | 12.8 | 151 |
| 17 | Fully gapped topological surface states in Bi ₂ Se ₃ films induced by a d-wave high-temperature superconductor. Nature Physics, 2013, 9, 621-625. | 16.7 | 149 |
| 18 | High quality atomically thin PtSe ₂ films grown by molecular beam epitaxy. 2D Materials, 2017, 4, 045015. | 4.4 | 142 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Anisotropic Broadband Photoresponse of Layered Type-II Weyl Semimetal MoTe ₂ . Advanced Materials, 2018, 30, e1707152. | 21.0 | 139 |
| 20 | Raman signatures of inversion symmetry breaking and structural phase transition in type-II Weyl semimetal MoTe ₂ . Nature Communications, 2016, 7, 13552. | 12.8 | 118 |
| 21 | Light-induced emergent phenomena in 2D materials and topological materials. Nature Reviews Physics, 2022, 4, 33-48. | 26.6 | 94 |
| 22 | Disorder-induced multifractal superconductivity in monolayer niobium dichalcogenides. Nature Physics, 2019, 15, 904-910. | 16.7 | 86 |
| 23 | Phase fluctuations and the absence of topological defects in a photo-excited charge-ordered nickelate. Nature Communications, 2012, 3, 838. | 12.8 | 85 |
| 24 | Topological Surface State Enhanced Photothermoelectric Effect in Bi ₂ Se ₃ Nanoribbons. Nano Letters, 2014, 14, 4389-4394. | 9.1 | 79 |
| 25 | Low energy excitations in graphite: The role of dimensionality and lattice defects. Annals of Physics, 2006, 321, 1730-1746. | 2.8 | 75 |
| 26 | Experimental Evidence of Chiral Symmetry Breaking in Kekulé-Ordered Graphene. Physical Review Letters, 2021, 126, 206804. | 7.8 | 72 |
| 27 | Elastic Properties and Fracture Behaviors of Biaxially Deformed, Polymorphic MoTe ₂ . Nano Letters, 2019, 19, 761-769. | 9.1 | 67 |
| 28 | Manipulate the Electronic and Magnetic States in NiCo ₂ O ₄ Films through Electric-Field-Induced Protonation at Elevated Temperature. Advanced Materials, 2019, 31, e1900458. | 21.0 | 64 |
| 29 | Stacking-Dependent Electronic Structure of Trilayer Graphene Resolved by Nanoscale Angle-Resolved Photoemission Spectroscopy. Nano Letters, 2017, 17, 1564-1568. | 9.1 | 63 |
| 30 | Type-III Weyl semimetals: I . Physical Review B, 2021, 103, . | 3.2 | 52 |
| 31 | Real-Time Manifestation of Strongly Coupled Spin and Charge Order Parameters in Stripe-Ordered Crystals Using Time-Resolved Resonant X-Ray Diffraction. Physical Review Letters, 2013, 110, 127404. | 7.8 | 48 |
| 32 | Instability of two-dimensional graphene: Breaking with soft x rays. Physical Review B, 2009, 80, . | 3.2 | 44 |
| 33 | Crossover from 2D metal to 3D Dirac semimetal in metallic PtTe ₂ films with local Rashba effect. Science Bulletin, 2019, 64, 1044-1048. | 9.0 | 44 |
| 34 | Evidence of charge density wave with anisotropic gap in a monolayer VTe ₂ film. Physical Review B, 2019, 100, . | 3.2 | 43 |
| 35 | Enhancement of superconductivity in organic-inorganic hybrid topological materials. Science Bulletin, 2020, 65, 188-193. | 9.0 | 39 |
| 36 | Robust charge-density wave strengthened by electron correlations in monolayer 1T-TaSe ₂ and 1T-NbSe ₂ . Nature Communications, 2021, 12, 5873. | 12.8 | 39 |

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|----|---|------|-----------|
| 37 | Self-doping effects in epitaxially grown graphene. Applied Physics Letters, 2008, 93, . | 3.3 | 33 |
| 38 | Robust Gapless Surface State and Rashba-Splitting Bands upon Surface Deposition of Magnetic Cr on Bi ₂ Se ₃ . Nano Letters, 2015, 15, 2031-2036. | 9.1 | 33 |
| 39 | Evidence for a Quasi-One-Dimensional Charge Density Wave in CuTe by Angle-Resolved Photoemission Spectroscopy. Physical Review Letters, 2018, 121, 206402. | 7.8 | 33 |
| 40 | Conversion of Multi-layered MoTe ₂ Transistor Between P-Type and N-Type and Their Use in Inverter. Nanoscale Research Letters, 2018, 13, 291. | 5.7 | 30 |
| 41 | Ultrafast photothermoelectric effect in Dirac semimetallic Cd ₃ As ₂ revealed by terahertz emission. Nature Communications, 2022, 13, 1623. | 12.8 | 29 |
| 42 | Angle-resolved photoemission spectroscopy. Nature Reviews Methods Primers, 2022, 2, . | 21.2 | 29 |
| 43 | Emergence of Tertiary Dirac Points in Graphene Moiré Superlattices. Nano Letters, 2017, 17, 3576-3581. | 9.1 | 28 |
| 44 | Light-Tunable Surface State and Hybridization Gap in Magnetic Topological Insulator MnBi ₈ Te ₁₃ . Nano Letters, 2021, 21, 6080-6086. | 9.1 | 27 |
| 45 | Revealing Charge Density Wave Formation in the LaTe ₂ System by Angle Resolved Photoemission Spectroscopy. Physical Review Letters, 2007, 98, 166403. | 7.8 | 26 |
| 46 | Ferromagnetic Enhancement of CE-Type Spin Ordering in $TjETeO_000gBT/Overlo$ Physical Review Letters, 2011, 106, 186404. | 2.4 | 26 |
| 47 | Experimental progress on layered topological semimetals. 2D Materials, 2019, 6, 032001. | 4.4 | 26 |
| 48 | Growth of large scale PtTe, PtTe ₂ and PtSe ₂ films on a wide range of substrates. Nano Research, 2021, 14, 1663-1667. | 10.4 | 26 |
| 49 | Photocurrent response of type-II Dirac semimetal PtTe ₂ . 2D Materials, 2020, 7, 034003. | 4.4 | 24 |
| 50 | Extremely large magnetoresistance and electronic structure of TmSb. Physical Review B, 2018, 97, . | 3.2 | 23 |
| 51 | Revealing Fermi arcs and Weyl nodes in MoTe ₂ by quasiparticle interference mapping. Physical Review B, 2017, 95, . | 3.2 | 21 |
| 52 | Coexistence of extended flat band and Kekulé order in Li-intercalated graphene. Physical Review B, 2022, 105, . | 3.2 | 18 |
| 53 | Strong and Complex Electron-Lattice Correlation in Optimally Doped Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Physical Review Letters, 2006, 97, 227001. | 7.8 | 17 |
| 54 | Widely tunable band gap in a multivalley semiconductor SnSe by potassium doping. Physical Review Materials, 2018, 2, . | 2.4 | 17 |

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|----|--|------|-----------|
| 55 | Ultrafast time- and angle-resolved photoemission spectroscopy with widely tunable probe photon energy of 5.3–7.0 eV for investigating dynamics of three-dimensional materials. Review of Scientific Instruments, 2022, 93, 013902. | 1.3 | 16 |
| 56 | Three-fold diffraction symmetry in epitaxial graphene and the SiC substrate. Physical Review B, 2009, 80, . | 3.2 | 15 |
| 57 | Glass-like recovery of antiferromagnetic spin ordering in a photo-excited manganite Pr _{0.7} Ca _{0.3} MnO ₃ . Scientific Reports, 2015, 4, 4050. | 3.3 | 15 |
| 58 | Self-energy dynamics and the mode-specific phonon threshold effect in Kekulé-ordered graphene. National Science Review, 2022, 9, . | 9.5 | 15 |
| 59 | Strong influence of phonons on the electron dynamics of Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ . Journal of Physics and Chemistry of Solids, 2004, 65, 1397-1401. | 4.0 | 14 |
| 60 | Electronic structure of transferred graphene/h-BN van der Waals heterostructures with nonzero stacking angles by nano-ARPES. Journal of Physics Condensed Matter, 2016, 28, 444002. | 1.8 | 14 |
| 61 | Resolving Deep Quantum-Well States in Atomically Thin 2H-MoTe ₂ Flakes by Nanospot Angle-Resolved Photoemission Spectroscopy. Nano Letters, 2018, 18, 4664-4668. | 9.1 | 13 |
| 62 | Pressure-induced Lifshitz transition in the type II Dirac semimetal PtTe ₂ . Science China: Physics, Mechanics and Astronomy, 2019, 62, 1. | 5.1 | 13 |
| 63 | Black phosphorous for pseudospintronics. Nature Materials, 2020, 19, 263-264. | 27.5 | 13 |
| 64 | Field-Effect Chiral Anomaly Devices with Dirac Semimetal. Advanced Functional Materials, 2021, 31, 2104192. | 14.9 | 13 |
| 65 | Phonon dispersion and low-energy anomaly in CaC_6 inelastic neutron and x-ray scattering experiments. Physical Review B, 2010, 81, . | 3.2 | 12 |
| 66 | Monolayer charge-neutral graphene on platinum with extremely weak electron-phonon coupling. Physical Review B, 2015, 92, . | 3.2 | 12 |
| 67 | Barkhausen effect in the first order structural phase transition in type-II Weyl semimetal MoTe ₂ . 2D Materials, 2018, 5, 044003. | 4.4 | 12 |
| 68 | Ultrafast x-ray and optical signatures of phase competition and separation underlying the photoinduced metallic phase in Pr _{1-x} CaxMnO ₃ . Physical Review B, 2015, 92, . | 3.2 | 10 |
| 69 | Full diagnostics and optimization of time resolution for time- and angle-resolved photoemission spectroscopy. Review of Scientific Instruments, 2021, 92, 033904. | 1.3 | 10 |
| 70 | Population Inversion and Dirac Fermion Cooling in 3D Dirac Semimetal Cd ₃ As ₂ . Nano Letters, 2022, 22, 1138-1144. | 9.1 | 9 |
| 71 | Interlayer quantum transport in Dirac semimetal BaGa ₂ . Nature Communications, 2020, 11, 2370. | 12.8 | 8 |
| 72 | Circular photogalvanic effect from third-order nonlinear effect in 1T TM -MoTe ₂ . 2D Materials, 2021, 8, 025016. | 4.4 | 8 |

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|----|--|-----|-----------|
| 73 | Progress on band structure engineering of twisted bilayer and two-dimensional moiré heterostructures*. Chinese Physics B, 2020, 29, 127304. | 1.4 | 8 |
| 74 | Bilayer splitting and c-axis coupling in bilayer manganites showing colossal magnetoresistance. Physical Review B, 2009, 80, . | 3.2 | 7 |
| 75 | Pronounced Photovoltaic Response from Multi-layered MoTe ₂ Phototransistor with Asymmetric Contact Form. Nanoscale Research Letters, 2017, 12, 603. | 5.7 | 7 |
| 76 | Electronic structure of molecular beam epitaxy grown 1 T Å^2 -MoTe ₂ film and strain effect*. Chinese Physics B, 2019, 28, 107307. | 1.4 | 7 |
| 77 | Induced anisotropic superconductivity in ionic liquid cation intercalated 1T-SnSe ₂ . 2D Materials, 2021, 8, 015024. | 4.4 | 6 |
| 78 | Seeded growth of high-quality transition metal dichalcogenide single crystals <i>via</i> chemical vapor transport. CrystEngComm, 2020, 22, 8017-8022. | 2.6 | 5 |
| 79 | Preface to the Special Issue on 2D-Materials-Related Physical Properties and Optoelectronic Devices. Journal of Semiconductors, 2019, 40, 060101. | 3.7 | 4 |
| 80 | Spatially-resolved electronic structure of stripe domains in IrTe ₂ through electronic structure microscopy. Communications Physics, 2021, 4, . | 5.3 | 4 |
| 81 | Experimental evidence of plasmarons and effective fine structure constant in electron-doped graphene/h-BN heterostructure. Npj Quantum Materials, 2021, 6, . | 5.2 | 3 |