# Shengjun Yuan

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 71 papers | 4,150 citations | 201674 27 h-index | 114465 63 g-index |
| 71 all docs | 71 docs citations | 71 times ranked | 6361 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Fluorographene: A Twoâ€Dimensional Counterpart of Teflon. Small, 2010, 6, 2877-2884. | 10.0 | 1,146 |
| 2 | Production of Highly Monolayer Enriched Dispersions of Liquid-Exfoliated Nanosheets by Liquid Cascade Centrifugation. ACS Nano, 2016, 10, 1589-1601. | 14.6 | 365 |
| 3 | Limits on gas impermeability of graphene. Nature, 2020, 579, 229-232. | 27.8 | 220 |
| 4 | Modeling electronic structure and transport properties of graphene with resonant scattering centers. Physical Review B, 2010, 82, . | 3.2 | 218 |
| 5 | Spectroscopic metrics allow in situ measurement of mean size and thickness of liquid-exfoliated few-layer graphene nanosheets. Nanoscale, 2016, 8, 4311-4323. | 5.6 | 194 |
| 6 | Strain-tunable magnetic and electronic properties of monolayer CrI<sub>3</sub>. Physical Chemistry Chemical Physics, 2019, 21, 7750-7755. | 2.8 | 143 |
| 7 | Optical transmittance of multilayer graphene. Europhysics Letters, 2014, 108, 17007. | 2.0 | 142 |
| 8 | Excitation spectrum and high-energy plasmons in single-layer and multilayer graphene. Physical Review B, 2011, 84, . | 3.2 | 105 |
| 9 | Effect of Structural Relaxation on the Electronic Structure of Graphene on Hexagonal Boron Nitride. Physical Review Letters, 2015, 115, 186801. | 7.8 | 93 |
| 10 | How Substitutional Point Defects in Two-Dimensional WS<sub>2</sub> Induce Charge Localization, Spinâ€“Orbit Splitting, and Strain. ACS Nano, 2019, 13, 10520-10534. | 14.6 | 86 |
| 11 | Electronic correlations in nodal-line semimetals. Nature Physics, 2020, 16, 636-641. | 16.7 | 86 |
| 12 | Electronic and mechanical properties of few-layer borophene. Physical Review B, 2018, 98, . | 3.2 | 83 |
| 13 | Strain-induced semiconductor to metal transition in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>M</mml:mi><mml:msub><mml:mi>A</mml:mi><mml:mn | | |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Electronic Structures and Optical Properties of Partially and Fully Fluorinated Graphene. Physical Review Letters, 2015, 114, 047403. | 7.8 | 58 |
| 20 | The mechanical, electronic and optical properties of two-dimensional transition metal chalcogenides MX<sub>2</sub> and M<sub>2</sub>X<sub>3</sub> (M = Ni, Pd; X = S, Se, Te) with hexagonal and orthorhombic structures. Journal of Materials Chemistry C, 2019, 7, 13518-13525. | 5.5 | 58 |
| 21 | Dodecagonal bilayer graphene quasicrystal and its approximants. Npj Computational Materials, 2019, 5, . | 8.7 | 53 |
| 22 | Screening and plasmons in pure and disordered single- and bilayer black phosphorus. Physical Review B, 2015, 92, . | 3.2 | 41 |
| 23 | Hall conductivity of a SierpiÅ„ski carpet. Physical Review B, 2020, 101, . | 3.2 | 36 |
| 24 | Electronic properties of disordered graphene antidot lattices. Physical Review B, 2013, 87, . | 3.2 | 34 |
| 25 | Effects of out-of-plane strains and electric fields on the electronic structures of graphene/MTe (M =) Tj ETQq1 1 0.784314 rgBT /Overl | 5.6 | 34 |
| 26 | Plasmon confinement in fractal quantum systems. Physical Review B, 2018, 97, . | 3.2 | 33 |
| 27 | Tunability of multiple ultraflat bands and effect of spin-orbit coupling in twisted bilayer transition metal dichalcogenides. Physical Review B, 2020, 102, . | 3.2 | 31 |
| 28 | Optical conductivity of a quantum electron gas in a Sierpinski carpet. Physical Review B, 2017, 96, . | 3.2 | 29 |
| 29 | Collective excitations and flat-band plasmon in twisted bilayer graphene near the magic angle. Physical Review B, 2021, 103, . | 3.2 | 23 |
| 30 | Lattice relaxation, mirror symmetry and magnetic field effects on ultraflat bands in twisted trilayer graphene. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1. | 5.1 | 23 |
| 31 | 2D GaN for Highly Reproducible Surface Enhanced Raman Scattering. Small, 2021, 17, e2103442. | 10.0 | 23 |
| 32 | Tuning band gaps in twisted bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 102, . | 3.2 | 22 |
| 33 | An atomistic approach for the structural and electronic properties of twisted bilayer graphene-boron nitride heterostructures. Npj Computational Materials, 2022, 8, . | 8.7 | 22 |
| 34 | Growth and Raman Scattering Investigation of a New 2D MOX Material: YbOCl. Advanced Functional Materials, 2019, 29, 1903017. | 14.9 | 21 |
| 35 | Type-II Lateral Heterostructures of Monolayer Halide Double Perovskites for Optoelectronic Applications. ACS Energy Letters, 2020, 5, 2275-2282. | 17.4 | 20 |
| 36 | Strain-Induced Bandgap Enhancement of InSe Ultrathin Films with Self-Formed Two-Dimensional Electron Gas. ACS Nano, 2021, 15, 10700-10709. | 14.6 | 19 |

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|---|---|---|---|
| 37 | Anisotropic ultraviolet-plasmon dispersion in black phosphorus. Nanoscale, 2018, 10, 21918-21927. | 5.6 | 18 |
| 38 | Power-law energy level spacing distributions in fractals. Physical Review B, 2019, 99, . | 3.2 | 18 |
| 39 | Electronic properties and quasiparticle model of monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>MoSi</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub><mml:mrow><mml:mi mathvariant="normal">N</mml:mi></mml:mrow><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review B, 2021, 104, . | 3.2 | 17 |
| 40 | Electronic and optical properties of monolayer tin diselenide: The effect of doping, magnetic field, and defects. Physical Review B, 2020, 101, . | 3.2 | 15 |
| 41 | Pressure and electric field dependence of quasicrystalline electronic states in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mn>30</mml:mn><mml:mo>â˜˜</mml:mo></mml:msup> twisted bilayer graphene. Physical Review B, 2020, 102, . | 3.2 | 14 |
| 42 | Structureâ€“Compositionâ€“Property Relationships in Antiperovskite Nitrides: Guiding a Rational Alloy Design. ACS Applied Materials & Interfaces, 2021, 13, 48516-48524. | 8.0 | 14 |
| 43 | Effect of Mechanical Strain on the Optical Properties of Nodalâ€Line Semimetal ZrSiS. Advanced Electronic Materials, 2020, 6, 1900860. | 5.1 | 12 |
| 44 | Lattice dynamics and topological surface phonon states in cuprous oxide <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cu</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mrow><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:math>. Physical Review B, 2021, 103, . | 3.2 | 12 |
| 45 | Interplay between in-plane and flexural phonons in electronic transport of two-dimensional semiconductors. Physical Review B, 2019, 100, . | 3.2 | 11 |
| 46 | General synthesis of 2D rare-earth oxide single crystals with tailorable facets. National Science Review, 2022, 9, nwab153. | 9.5 | 11 |
| 47 | Tunable half-metallicity and edge magnetism of H-saturated InSe nanoribbons. Physical Review Materials, 2018, 2, . | 2.4 | 11 |
| 48 | Effect of vertical strain and in-plane biaxial strain on type-II MoSi2N4/Cs3Bi2I9 van der Waals heterostructure. Journal of Applied Physics, 2022, 131, . | 2.5 | 11 |
| 49 | Electronic structure of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mn>30</mml:mn><mml:mo>â˜˜</mml:mo></mml:msup> twisted double bilayer graphene. Physical Review B, 2020, 102, . | 3.2 | 10 |
| 50 | Plasmon spectrum of single-layer antimonene. Physical Review B, 2018, 98, . | 3.2 | 9 |
| 51 | Tunable electronic and magneto-optical properties of monolayer arsenene: From <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">G</mml:mi><mml:msub><mml:mi mathvariant="normal">W</mml:mi><mml:mn>0</mml:mn></mml:msub></mml:mrow></mml:math> approximation to large-scale tight-binding propagation simulations. Physical Review B, 2018, 98, . | 3.2 | 9 |
| 52 | Identification of twist-angle-dependent excitons in WS2/WSe2 heterobilayers. National Science Review, 2022, 9, . | 9.5 | 9 |
| 53 | Magic angle and plasmon mode engineering in twisted trilayer graphene with pressure. Physical Review B, 2021, 104, . | 3.2 | 9 |
| 54 | Electron-phonon interaction and zero-field charge carrier transport in the nodal-line semimetal ZrSiS. Physical Review B, 2020, 101, . | 3.2 | 8 |

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|---|---|---|---|
| 55 | Revealing the Competition between Defectâ€Trapped Exciton and Bandâ€Edge Exciton Photoluminescence in Monolayer Hexagonal WS<sub>2</sub>. Advanced Optical Materials, 2022, 10, . | 7.3 | 8 |
| 56 | Polarization-Dependent Selection Rules and Optical Spectrum Atlas of Twisted Bilayer Graphene Quantum Dots. Physical Review X, 2022, 12, . | 8.9 | 8 |
| 57 | Time-dependent quantum Monte Carlo simulation of electron devices with two-dimensional Dirac materials: A genuine terahertz signature for graphene. Physical Review B, 2019, 99, . | 3.2 | 7 |
| 58 | Flat-band plasmons in twisted bilayer transition metal dichalcogenides. Physical Review B, 2022, 105, . | 3.2 | 6 |
| 59 | Spatially resolved electronic structure of twisted graphene. Physical Review B, 2017, 95, . | 3.2 | 5 |
| 60 | Thermally-driven gold@poly(N-isopropylacrylamide) core-shell nanotransporters for molecular extraction. Journal of Colloid and Interface Science, 2021, 584, 789-794. | 9.4 | 5 |
| 61 | Confined electrons in effective plane fractals. Physical Review B, 2020, 102, . | 3.2 | 5 |
| 62 | Interlayer hybridization in graphene quasicrystal and other bilayer graphene systems. Physical Review B, 2022, 105, . | 3.2 | 4 |
| 63 | Linearized spectral decimation in fractals. Physical Review B, 2020, 102, . | 3.2 | 3 |
| 64 | Hyperhoneycomb boron nitride with anisotropic mechanical, electronic, and optical properties. Physical Review Materials, 2017, 1, . | 2.4 | 3 |
| 65 | Electronic structure of monolayer antimonene nanoribbons under out-of-plane and transverse bias. Physical Review Materials, 2018, 2, . | 2.4 | 3 |
| 66 | <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>2</mml:mn><mml:mi>p</mml:mi></mml:mrow></mml:m -insulator heterointerfaces: Creation of half-metallicity and anionogenic ferromagnetism via double exchange. Physical Review B, 2018, 97, . | 3.2 | 2 |
| 67 | Native Atomic Defects Manipulation for Enhancing the Electronic Transport Properties of Epitaxial SnTe Films. ACS Applied Materials & Interfaces, 2021, 13, 56446-56455. | 8.0 | 2 |
| 68 | Electronic properties of germanene on pristine and defective <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mn>2</mml:m : A first-principles study. Physical Review B, 2022, 105, . | 3.2 | 1 |
| 69 | Understanding of Layer-Dependent Stability and Rashba Spin Splitting of Two-Dimensional Organicâ€“Inorganic Halide Perovskites Î±-FABX<sub>3</sub> (B = Ge, Sn, and Pb; X = Cl, Br, and I). Journal of Physical Chemistry C, 2022, 126, 6448-6455. | 3.1 | 1 |
| 70 | Electronic properties and quantum transport in functionalized graphene Sierpinski-carpet fractals. Physical Review B, 2022, 105, . | 3.2 | 0 |
| 71 | Lattice relaxation and substrate effects on the electronic properties of graphene superlattice. Wuli Xuebao/Acta Physica Sinica, 2022, . | 0.5 | 0 |