# Hua-Hua Fu

List of Publications by Year
in descending order



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|---|---|---|---|
| 56 papers | 1,557 citations | 331538 21 h-index | 315616 38 g-index |
| 56 all docs | 56 docs citations | 56 times ranked | 1392 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Nine New Phosphorene Polymorphs with Non-Honeycomb Structures: A Much Extended Family. Nano Letters, 2015, 15, 3557-3562. | 4.5 | 275 |
| 2 | FRACTAL ANALYSIS OF FLOW RESISTANCE IN TREE-LIKE BRANCHING NETWORKS WITH ROUGHENED MICROCHANNELS. Fractals, 2017, 25, 1750008. | 1.8 | 88 |
| 3 | The transport properties and new device design: the case of 6,6,12-graphyne nanoribbons. Nanoscale, 2013, 5, 4468. | 2.8 | 76 |
| 4 | Symmetry-enforced Weyl phonons. Npj Computational Materials, 2020, 6, . | 3.5 | 69 |
| 5 | Design for a spin-Seebeck diode based on two-dimensional materials. Physical Review B, 2015, 92, . | 1.1 | 59 |
| 6 | Charge-four Weyl phonons. Physical Review B, 2021, 103, . | 1.1 | 59 |
| 7 | Vibration-enhanced spin-selective transport of electrons in the DNA double helix. Physical Review B, 2020, 102, . | 1.1 | 49 |
| 8 | Perfect spin-filter and highly spin-polarized current in a quantum network device. Applied Physics Letters, 2012, 100, . | 1.5 | 48 |
| 9 | Spin-dependent Seebeck Effect, Thermal Colossal Magnetoresistance and Negative Differential Thermoelectric Resistance in Zigzag Silicene Nanoribbon Heterojunciton. Scientific Reports, 2015, 5, 10547. | 1.6 | 46 |
| 10 | How to realize a spin-dependent Seebeck diode effect in metallic zigzag Î³-graphyne nanoribbons?. Nanoscale, 2017, 9, 18334-18342. | 2.8 | 42 |
| 11 | Conetronics in 2D metal-organic frameworks: double/half Dirac cones and quantum anomalous Hall effect. 2D Materials, 2017, 4, 015015. | 2.0 | 41 |
| 12 | Ideal topological nodal-surface phonons in RbTeAu-family materials. Physical Review B, 2021, 104, . | 1.1 | 40 |
| 13 | Topological phononic nodal hexahedron net and nodal links in the high-pressure phase of the semiconductor CuCl. Physical Review B, 2021, 104, . | 1.1 | 38 |
| 14 | Categories of Phononic Topological Weyl Open Nodal Lines and a Potential Material Candidate: Rb<sub>2</sub>Sn<sub>2</sub>O<sub>3</sub>. Journal of Physical Chemistry Letters, 2019, 10, 4045-4050. | 2.1 | 37 |
| 15 | Nearly Perfect Spin Filter, Spin Valve and Negative Differential Resistance Effects in a Fe4-based Single-molecule Junction. Scientific Reports, 2014, 4, 4838. | 1.6 | 31 |
| 16 | Spin caloritronics in two-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CrI</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml: van der Waals heterostructures. Physical Review B, 2021, 103, . | 1.1 | 31 |
| 17 | Edge-defect induced spin-dependent Seebeck effect and spin figure of merit in graphene nanoribbons. Physical Chemistry Chemical Physics, 2017, 19, 27132-27139. | 1.3 | 29 |
| 18 | How to realize the spin-Seebeck effect with a high spin figure of merit in magnetic boronâ€“nitrogen nanoribbon and nanotube structures?. Journal of Materials Chemistry C, 2018, 6, 10603-10610. | 2.7 | 27 |

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|---|---|---|---|
| 19 | Spin-filter and Fano antiresonant effect in conductance through a zigzaglike polymer device: Nonequilibrium Green's function approach. Journal of Chemical Physics, 2011, 134, 054903. | 1.2 | 25 |
| 20 | Perfect spin-filter, spin-valve, switching and negative differential resistance in an organic molecular device with graphene leads. RSC Advances, 2014, 4, 18522-18528. | 1.7 | 24 |
| 21 | Thermal spin filtering, thermal spin switching and negative-differential-resistance in thermal spin currents in zigzag SiC nanoribbons. Physical Chemistry Chemical Physics, 2014, 16, 17493-17498. | 1.3 | 21 |
| 22 | A spin-Seebeck diode with a negative differential spin-Seebeck effect in a hydrogen-terminated zigzag silicene nanoribbon heterojunction. Physical Chemistry Chemical Physics, 2016, 18, 12742-12747. | 1.3 | 21 |
| 23 | How to control spin-Seebeck current in a metal-quantum dot-magnetic insulator junction. Physical Review B, 2016, 94, . | 1.1 | 21 |
| 24 | Magnetic nanotubes: A new material platform to realize a robust spin-Seebeck effect and a perfect thermal spin-filtering effect. Physical Review B, 2018, 98, . | 1.1 | 21 |
| 25 | Sodium bismuth dichalcogenides: candidates for ferroelectric high-mobility semiconductors for multifunctional applications. Physical Chemistry Chemical Physics, 2019, 21, 8553-8558. | 1.3 | 21 |
| 26 | Nature of the Ferromagnetic Behavior and Possible Occurrence of the Ferrimagnetic Phase Transition in Genuinely Organic Molecule-Based Assemblages with an S = 1 and S = <sup>1</sup>/<sub>2</sub> Antiferromagnetic Alternating Spin Chain: A Greenâ€™s Function Approach. Journal of Physical Chemistry A, 2008, 112, 6205-6210. | 1.1 | 19 |
| 27 | Spin-dependent Seebeck effect in zigzag black phosphorene nanoribbons. RSC Advances, 2016, 6, 44019-44023. | 1.7 | 19 |
| 28 | Design of spin-Seebeck diode with spin semiconductors. Nanotechnology, 2016, 27, 505201. | 1.3 | 19 |
| 29 | Magnetic properties of very-high-spin organic Ï€-conjugated polymers based on Greenâ€™s function theory. Journal of Chemical Physics, 2008, 129, 134706. | 1.2 | 18 |
| 30 | Magnetic properties and quantum phase transitions of purely organic molecule-based ferrimagnets based on Greenâ€™s function theory. Journal of Chemical Physics, 2008, 128, 114705. | 1.2 | 18 |
| 31 | Enhancement of the thermoelectric figure of merit in DNA-like systems induced by Fano and Dicke effects. Physical Chemistry Chemical Physics, 2015, 17, 11077-11087. | 1.3 | 16 |
| 32 | Spin-orbit coupling induced robust spin-Seebeck effect and pure thermal spin currents in achiral molecule systems. Physical Review B, 2019, 100, . | 1.1 | 16 |
| 33 | Enhanced thermoelectric performance by lone-pair electrons and bond anharmonicity in the two-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Ge</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Y</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> family of materials with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Y</mml:mi><mml:mo>=</mml:mo><mml:mi | 1.1 | 15 |
| 34 | Topological phonons in allotropes of carbon. Materials Today Physics, 2022, 24, 100694. | 2.9 | 15 |
| 35 | Spin-polarized transport through a parallel triple-quantum-dot device: Blockade effects of Rashba spin-orbit interaction and Coulomb interaction. Journal of Applied Physics, 2011, 110, 094502. | 1.1 | 14 |
| 36 | Proton transfer ferroelectricity/multiferroicity in rutile oxyhydroxides. Nanoscale, 2018, 10, 9509-9515. | 2.8 | 13 |

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|---|---|---|---|
| 37 | Perfect spin-filter and quantum-signal generator in a parallel coupled multiple triple-quantum-dots device. Journal of Applied Physics, 2012, 111, 124510. | 1.1 | 12 |
| 38 | Topological field-effect quantum transistors in HgTe nanoribbons. Nanotechnology, 2014, 25, 225201. | 1.3 | 12 |
| 39 | Spin caloritronics in armchair silicene nanoribbons with sp <sup>3</sup> and sp <sup>2</sup>-type alternating hybridizations. Journal of Physics Condensed Matter, 2018, 30, 355303. | 0.7 | 11 |
| 40 | Influence of interdot hopping and intradot many-body interaction on conductance through parallel triple-quantum-dot device: Nonequilibrium Greenâ€™s function approach. Journal of Applied Physics, 2010, 108, 084510. | 1.1 | 10 |
| 41 | One-dimensional transition metal dihalide nanowires as robust bipolar magnetic semiconductors. Nanoscale, 2020, 12, 8942-8948. | 2.8 | 10 |
| 42 | Spin-dependent Seebeck effect, and spin-filtering and diode effects in magnetic boronâ€“nitrogen nanotube heterojunctions. Journal of Materials Chemistry C, 2020, 8, 4486-4492. | 2.7 | 10 |
| 43 | Finite-size effects in the quantum anomalous Hall system. Physical Review B, 2014, 89, . | 1.1 | 9 |
| 44 | Fano antiresonance and perfect spin-filtering in a diamondlike quantum network device: Nonequilibrium Greenâ€™s function approach. Journal of Applied Physics, 2012, 111, 094512. | 1.1 | 8 |
| 45 | Multiple thermal spin transport performances of graphene nanoribbon heterojuction co-doped with Nitrogen and Boron. Scientific Reports, 2017, 7, 3955. | 1.6 | 8 |
| 46 | First-Principles Study on the Thermoelectric Properties of FeAsS. ACS Omega, 2018, 3, 13630-13635. | 1.6 | 8 |
| 47 | Concepts of Spin Seebeck Effect in Ferromagnetic Metals. Advanced Functional Materials, 2020, 30, 2004024. | 7.8 | 7 |
| 48 | Spin-Seebeck effect and thermal colossal magnetoresistance in the narrowest zigzag graphene nanoribbons. Nanotechnology, 2021, 32, 245703. | 1.3 | 7 |
| 49 | A theoretical model for anisotropic multiferroics. Applied Physics Letters, 2013, 103, 132911. | 1.5 | 5 |
| 50 | Thermal transport and spin-dependent Seebeck effect in parallel step-like zigzag graphene nanoribbon junctions. Physical Chemistry Chemical Physics, 2020, 22, 19100-19107. | 1.3 | 5 |
| 51 | Low energy dissipation readout of single-molecule ferroelectronic states by a spin-Seebeck signal. Physical Review Research, 2020, 2, . | 1.3 | 5 |
| 52 | Spin-gapless semiconducting Cl-intercalated phosphorene bilayer: a perfect candidate material to identify its ferroelectric states by spin-Seebeck currents. Journal of Materials Chemistry C, 2022, 10, 3188-3195. | 2.7 | 5 |
| 53 | Ab initioinvestigation of the noncollinear magnetic structure of CeFeAsO. Physical Review B, 2011, 84, . | 1.1 | 2 |
| 54 | New topological states in HgTe quantum wells from defect patterning. Nanoscale, 2018, 10, 15462-15467. | 2.8 | 1 |

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|---|---|---|---|
| 55 | Thermal spin transport properties in a hybrid structure of single-walled carbon nanotubes and zigzag-edge boron nitride nanoribbons. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 057301. | 0.2 | 1 |
| 56 | Perfect spin filtering and conditions for Fano antiresonance and Dicke resonance in a parallel coupled triple quantum-dot array. European Physical Journal B, 2013, 86, 1. | 0.6 | 0 |