# Jiang Li

List of Publications by Year
in descending order



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|---|---|---|---|
| 104 papers | 5,635 citations | 66234 42 h-index | 82410 72 g-index |
| 107 all docs | 107 docs citations | 107 times ranked | 5196 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | CMOSâ€Compatible Electronicâ€"Plasmonic Transducers Based on Plasmonic Tunnel Junctions and Schottky Diodes. Small, 2022, 18, e2105684. | 5.2 | 9 |
| 2 | The Unusual Dielectric Response of Large Area Molecular Tunnel Junctions Probed with Impedance Spectroscopy. Advanced Electronic Materials, 2022, 8, 2100495. | 2.6 | 10 |
| 3 | Preventing the Capillary-Induced Collapse of Vertical Nanostructures. ACS Applied Materials & Interfaces, 2022, 14, 5537-5544. | 4.0 | 7 |
| 4 | Spatial Control over Stable Lightâ€Emission from ACâ€Driven CMOSâ€Compatible Quantum Mechanical Tunnel Junctions. Laser and Photonics Reviews, 2022, 16, . | 4.4 | 7 |
| 5 | Improving Orientation, Packing Density, and Molecular Arrangement in Self-Assembled Monolayers of Bianchoring Ferroceneâ€"Triazole Derivatives by â€œClickâ€•Chemistry. Langmuir, 2022, 38, 3585-3596. | 1.6 | 6 |
| 6 | Biomolecular control over local gating in bilayer graphene induced by ferritin. IScience, 2022, 25, 104128. | 1.9 | 1 |
| 7 | Coherence Between Different Propagating Surface Plasmon Polariton Modes Excited by Quantum Mechanical Tunnel Junctions. Advanced Optical Materials, 2022, 10, . | 3.6 | 3 |
| 8 | Stable Universal 1â€•and 2â€Input Singleâ€Molecule Logic Gates. Advanced Materials, 2022, 34, e2202135. | 11.1 | 10 |
| 9 | Phase Matching via Plasmonic Modal Dispersion for Third Harmonic Generation. Advanced Science, 2022, 9, . | 5.6 | 2 |
| 10 | Interplay between Interfacial Energy, Contact Mechanics, and Capillary Forces in EGaIn Droplets. ACS Applied Materials & Interfaces, 2022, 14, 28074-28084. | 4.0 | 6 |
| 11 | The energy level alignment of the ferroceneâ€"EGaIn interface studied with photoelectron spectroscopy. Physical Chemistry Chemical Physics, 2021, 23, 13458-13467. | 1.3 | 5 |
| 12 | Switching of the mechanism of charge transport induced by phase transitions in tunnel junctions with large biomolecular cages. Journal of Materials Chemistry C, 2021, 9, 10768-10776. | 2.7 | 6 |
| 13 | Room-temperature tunnel magnetoresistance across biomolecular tunnel junctions based on ferritin. JPhys Materials, 2021, 4, 035003. | 1.8 | 5 |
| 14 | Silicon-Based Quantum Mechanical Tunnel Junction for Plasmon Excitation from Low-Energy Electron Tunneling. ACS Photonics, 2021, 8, 1951-1960. | 3.2 | 11 |
| 15 | Biasâ€Polarityâ€Dependent Direct and Inverted Marcus Charge Transport Affecting Rectification in a Redoxâ€Active Molecular Junction. Advanced Science, 2021, 8, e2100055. | 5.6 | 14 |
| 16 | A single atom change turns insulating saturated wires into molecular conductors. Nature Communications, 2021, 12, 3432. | 5.8 | 16 |
| 17 | Energy-Level Alignment and Orbital-Selective Femtosecond Charge Transfer Dynamics of Redox-Active Molecules on Au, Ag, and Pt Metal Surfaces. Journal of Physical Chemistry C, 2021, 125, 18474-18482. | 1.5 | 2 |
| 18 | Optical Anisotropy in van der Waals materials: Impact on Direct Excitation of Plasmons and Photons by Quantum Tunneling. Light: Science and Applications, 2021, 10, 230. | 7.7 | 7 |

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|---|---|---|---|
| 19 | Role of Order in the Mechanism of Charge Transport across Single-Stranded and Double-Stranded DNA Monolayers in Tunnel Junctions. Journal of the American Chemical Society, 2021, 143, 20309-20319. | 6.6 | 19 |
| 20 | Geometric Control Over the Edge Diffraction of Electrically Excited Surface Plasmon Polaritons by Tunnel Junctions. ACS Photonics, 2021, 8, 3591-3598. | 3.2 | 2 |
| 21 | Cavity Plasmonics in Tunnel Junctions: Outcoupling and the Role of Surface Roughness. Physical Review Applied, 2020, 14, . | 1.5 | 12 |
| 22 | Functional Redoxâ€Active Molecular Tunnel Junctions. Chemistry - an Asian Journal, 2020, 15, 3752-3770. | 1.7 | 28 |
| 23 | Design principles of dual-functional molecular switches in solid-state tunnel junctions. Applied Physics Letters, 2020, 117, . | 1.5 | 20 |
| 24 | Reversal of the Direction of Rectification Induced by Fermi Level Pinning at Moleculeâ€"Electrode Interfaces in Redox-Active Tunneling Junctions. ACS Applied Materials & Interfaces, 2020, 12, 55044-55055. | 4.0 | 21 |
| 25 | Large Increase in the Dielectric Constant and Partial Loss of Coherence Increases Tunneling Rates across Molecular Wires. ACS Applied Materials & Interfaces, 2020, 12, 45111-45121. | 4.0 | 18 |
| 26 | Solid-State Protein Junctions: Cross-Laboratory Study Shows Preservation of Mechanism at Varying Electronic Coupling. IScience, 2020, 23, 101099. | 1.9 | 30 |
| 27 | Electric-field-driven dual-functional molecular switches in tunnel junctions. Nature Materials, 2020, 19, 843-848. | 13.3 | 124 |
| 28 | Protective Layers Based on Carbon Paint To Yield High-Quality Large-Area Molecular Junctions with Low Contact Resistance. Journal of the American Chemical Society, 2020, 142, 3513-3524. | 6.6 | 29 |
| 29 | Self-Assembly and Electrochemical Characterization of Ferrocene-based Molecular Diodes for Solar Rectenna Device. MRS Advances, 2020, 5, 3185-3194. | 0.5 | 3 |
| 30 | Unraveling the Failure Modes of Molecular Diodes: The Importance of the Monolayer Formation Protocol and Anchoring Group to Minimize Leakage Currents. Journal of Physical Chemistry C, 2019, 123, 19759-19767. | 1.5 | 11 |
| 31 | Ultrasmooth and Photoresistâ€Free Microporeâ€Based EGaIn Molecular Junctions: Fabrication and How Roughness Determines Voltage Response. Advanced Functional Materials, 2019, 29, 1904452. | 7.8 | 34 |
| 32 | Interplay of Collective Electrostatic Effects and Level Alignment Dictates the Tunneling Rates across Halogenated Aromatic Monolayer Junctions. Journal of Physical Chemistry Letters, 2019, 10, 4142-4147. | 2.1 | 25 |
| 33 | Rectification Ratio and Tunneling Decay Coefficient Depend on the Contact Geometry Revealed by in Situ Imaging of the Formation of EGaIn Junctions. ACS Applied Materials & Interfaces, 2019, 11, 21018-21029. | 4.0 | 37 |
| 34 | Directional Excitation of Surface Plasmon Polaritons via Molecular Through-Bond Tunneling across Double-Barrier Tunnel Junctions. Nano Letters, 2019, 19, 4634-4640. | 4.5 | 21 |
| 35 | The supramolecular structure and van der Waals interactions affect the electronic structure of ferrocenyl-alkanethiolate SAMs on gold and silver electrodes. Nanoscale Advances, 2019, 1, 1991-2002. | 2.2 | 10 |
| 36 | Molecular Electronic Plasmonics: In Operando Characterization and Control over Intermittent Light Emission from Molecular Tunnel Junctions via Molecular Backbone Rigidity (Adv. Sci. 20/2019). Advanced Science, 2019, 6, 1970122. | 5.6 | 2 |

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|---|---|---|---|
| 37 | Control over Near-Ballistic Electron Transport through Formation of Parallel Pathways in a Single-Molecule Wire. Journal of the American Chemical Society, 2019, 141, 240-250. | 6.6 | 39 |
| 38 | Molecular Diodes: Stable Molecular Diodes Based on Ï€â€“Ï€ Interactions of the Molecular Frontier Orbitals with Graphene Electrodes (Adv. Mater. 10/2018). Advanced Materials, 2018, 30, 1870069. | 11.1 | 0 |
| 39 | Stable Molecular Diodes Based on Ï€â€“Ï€ Interactions of the Molecular Frontier Orbitals with Graphene Electrodes. Advanced Materials, 2018, 30, 1706322. | 11.1 | 35 |
| 40 | A Black Phosphorus Carbide Infrared Phototransistor. Advanced Materials, 2018, 30, 1705039. | 11.1 | 95 |
| 41 | Transition from direct to inverted charge transport Marcus regions in molecular junctions via molecular orbital gating. Nature Nanotechnology, 2018, 13, 322-329. | 15.6 | 98 |
| 42 | Bottom-electrode induced defects in self-assembled monolayer (SAM)-based tunnel junctions affect only the SAM resistance, not the contact resistance or SAM capacitance. RSC Advances, 2018, 8, 19939-19949. | 1.7 | 9 |
| 43 | Enhancing Reproducibility and Nonlocal Effects in Filmâ€Coupled Nanoantennas. Advanced Optical Materials, 2018, 6, 1801177. | 3.6 | 5 |
| 44 | The Drive Force of Electrical Breakdown of Largeâ€Area Molecular Tunnel Junctions. Advanced Functional Materials, 2018, 28, 1801710. | 7.8 | 28 |
| 45 | Molecular Electronics: The Drive Force of Electrical Breakdown of Large-Area Molecular Tunnel Junctions (Adv. Funct. Mater. 28/2018). Advanced Functional Materials, 2018, 28, 1870192. | 7.8 | 1 |
| 46 | Molecular Coatings for Stabilizing Silver and Gold Nanocubes under Electron Beam Irradiation. Langmuir, 2017, 33, 1189-1196. | 1.6 | 14 |
| 47 | Tuning the Rectification Ratio by Changing the Electronic Nature (Open-Shell and Closed-Shell) in Donorâ€“Acceptor Self-Assembled Monolayers. Journal of the American Chemical Society, 2017, 139, 4262-4265. | 6.6 | 51 |
| 48 | Supramolecular Structure of the Monolayer Triggers Oddâ€“Even Effects in the Tunneling Rates across Noncovalent Junctions on Graphene. Journal of Physical Chemistry C, 2017, 121, 4172-4180. | 1.5 | 15 |
| 49 | Fabrication of ultra-smooth and oxide-free molecule-ferromagnetic metal interfaces for applications in molecular electronics under ordinary laboratory conditions. RSC Advances, 2017, 7, 14544-14551. | 1.7 | 9 |
| 50 | Highly efficient on-chip direct electronicâ€“plasmonic transducers. Nature Photonics, 2017, 11, 623-627. | 15.6 | 124 |
| 51 | Robust resistive memory devices using solution-processable metal-coordinated azoÂaromatics. Nature Materials, 2017, 16, 1216-1224. | 13.3 | 244 |
| 52 | Surface and buried interface layer studies on challenging structures as studied by ARXPS. Surface and Interface Analysis, 2017, 49, 1309-1315. | 0.8 | 40 |
| 53 | Molecular diodes with rectification ratios exceeding 105 driven by electrostatic interactions. Nature Nanotechnology, 2017, 12, 797-803. | 15.6 | 224 |
| 54 | Multistep nucleation of nanocrystals in aqueous solution. Nature Chemistry, 2017, 9, 77-82. | 6.6 | 312 |

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| 55 | Real-Time Dynamics of Galvanic Replacement Reactions of Silver Nanocubes and Au Studied by Liquid-Cell Transmission Electron Microscopy. ACS Nano, 2016, 10, 7689-7695. | 7.3 | 67 |
| 56 | Functionalized 1â€²-Substituted Iodoferrocenes and Their Pd-Catalyzed Heck Cross-Coupling Reactions. European Journal of Inorganic Chemistry, 2016, 2016, 1314-1318. | 1.0 | 9 |
| 57 | Electrostatic control over temperature-dependent tunnelling across a single-molecule junction. Nature Communications, 2016, 7, 11595. | 5.8 | 35 |
| 58 | Separation of superparamagnetic particles through ratcheted Brownian motion and periodically switching magnetic fields. Biomicrofluidics, 2016, 10, 064105. | 1.2 | 4 |
| 59 | Charge Transport: Longâ€Range Tunneling Processes across Ferritinâ€Based Junctions (Adv. Mater. 9/2016). Advanced Materials, 2016, 28, 1900-1900. | 11.1 | 1 |
| 60 | Comparison of DC and AC Transport in 1.5â€“7.5 nm Oligophenylene Imine Molecular Wires across Two Junction Platforms: Eutectic Gaâ€“In versus Conducting Probe Atomic Force Microscope Junctions. Journal of the American Chemical Society, 2016, 138, 7305-7314. | 6.6 | 64 |
| 61 | Molecular Electronics: Noncovalent Selfâ€Assembled Monolayers on Graphene as a Highly Stable Platform for Molecular Tunnel Junctions (Adv. Mater. 4/2016). Advanced Materials, 2016, 28, 784-784. | 11.1 | 3 |
| 62 | Real-Time Imaging of the Formation of Auâ€“Ag Coreâ€“Shell Nanoparticles. Journal of the American Chemical Society, 2016, 138, 5190-5193. | 6.6 | 55 |
| 63 | Supramolecular vs Electronic Structure: The Effect of the Tilt Angle of the Active Group in the Performance of a Molecular Diode. Journal of the American Chemical Society, 2016, 138, 5769-5772. | 6.6 | 49 |
| 64 | Even the Odd Numbers Help: Failure Modes of SAM-Based Tunnel Junctions Probed via Odd-Even Effects Revealed in Synchrotrons and Supercomputers. Accounts of Chemical Research, 2016, 49, 2061-2069. | 7.6 | 68 |
| 65 | Temperature dependent charge transport across tunnel junctions of single-molecules and self-assembled monolayers: a comparative study. Dalton Transactions, 2016, 45, 17153-17159. | 1.6 | 22 |
| 66 | Charge transfer plasmon resonances across silverâ€“moleculeâ€“silver junctions: estimating the terahertz conductance of molecules at near-infrared frequencies. RSC Advances, 2016, 6, 70884-70894. | 1.7 | 17 |
| 67 | A Single-Level Tunnel Model to Account for Electrical Transport through Single Molecule- and Self-Assembled Monolayer-based Junctions. Scientific Reports, 2016, 6, 26517. | 1.6 | 70 |
| 68 | Chemical control over the energy-level alignment in a two-terminal junction. Nature Communications, 2016, 7, 12066. | 5.8 | 50 |
| 69 | Noncovalent Selfâ€Assembled Monolayers on Graphene as a Highly Stable Platform for Molecular Tunnel Junctions. Advanced Materials, 2016, 28, 631-639. | 11.1 | 48 |
| 70 | Longâ€Range Tunneling Processes across Ferritinâ€Based Junctions. Advanced Materials, 2016, 28, 1824-1830. | 11.1 | 79 |
| 71 | On-chip molecular electronic plasmon sources based on self-assembled monolayer tunnel junctions. Nature Photonics, 2016, 10, 274-280. | 15.6 | 110 |
| 72 | Tuning the Tunneling Rate and Dielectric Response of SAMâ€Based Junctions via a Single Polarizable Atom. Advanced Materials, 2015, 27, 6689-6695. | 11.1 | 34 |

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| 73 | Defect Scaling with Contact Area in EGaIn-Based Junctions: Impact on Quality, Joule Heating, and Apparent Injection Current. Journal of Physical Chemistry C, 2015, 119, 960-969. | 1.5 | 56 |
| 74 | Controlling the direction of rectification in a molecular diode. Nature Communications, 2015, 6, 6324. | 5.8 | 197 |
| 75 | Probing the nature and resistance of the moleculeâ€“electrode contact in SAM-based junctions. Nanoscale, 2015, 7, 12061-12067. | 2.8 | 28 |
| 76 | A Molecular Diode with a Statistically Robust Rectification Ratio of Three Orders of Magnitude. Nano Letters, 2015, 15, 5506-5512. | 4.5 | 118 |
| 77 | The Origin of the Oddâ€“Even Effect in the Tunneling Rates across EGaIn Junctions with Self-Assembled Monolayers (SAMs) of <i>n</i>-Alkanethiolates. Journal of the American Chemical Society, 2015, 137, 10659-10667. | 6.6 | 63 |
| 78 | Oddâ€“Even Effects in Charge Transport through Self-Assembled Monolayer of Alkanethiolates. Journal of Physical Chemistry C, 2015, 119, 5657-5662. | 1.5 | 29 |
| 79 | Electrically-Excited Surface Plasmon Polaritons with Directionality Control. ACS Photonics, 2015, 2, 385-391. | 3.2 | 34 |
| 80 | Fabrication of ultra-flat silver surfaces with sub-micro-meter scale grains. Thin Solid Films, 2015, 593, 26-39. | 0.8 | 18 |
| 81 | Arrays of high quality SAM-based junctions and their application in molecular diode based logic. Nanoscale, 2015, 7, 19547-19556. | 2.8 | 38 |
| 82 | One-Nanometer Thin Monolayers Remove the Deleterious Effect of Substrate Defects in Molecular Tunnel Junctions. Nano Letters, 2015, 15, 6643-6649. | 4.5 | 50 |
| 83 | Reversible Soft Topâ€Contacts to Yield Molecular Junctions with Precise and Reproducible Electrical Characteristics. Advanced Functional Materials, 2014, 24, 4442-4456. | 7.8 | 84 |
| 84 | Giant enhancement in vertical conductivity of stacked CVD graphene sheets by self-assembled molecular layers. Nature Communications, 2014, 5, 5461. | 5.8 | 83 |
| 85 | Bias induced transition from an ohmic to a non-ohmic interface in supramolecular tunneling junctions with Ga<sub>2</sub>O<sub>3</sub>/EGaIn top electrodes. Nanoscale, 2014, 6, 11246-11258. | 2.8 | 41 |
| 86 | Controlling Leakage Currents: The Role of the Binding Group and Purity of the Precursors for Self-Assembled Monolayers in the Performance of Molecular Diodes. Journal of the American Chemical Society, 2014, 136, 1982-1991. | 6.6 | 83 |
| 87 | On the Remarkable Role of Surface Topography of the Bottom Electrodes in Blocking Leakage Currents in Molecular Diodes. Journal of the American Chemical Society, 2014, 136, 6554-6557. | 6.6 | 98 |
| 88 | Equivalent Circuits of a Self-Assembled Monolayer-Based Tunnel Junction Determined by Impedance Spectroscopy. Journal of the American Chemical Society, 2014, 136, 11134-11144. | 6.6 | 94 |
| 89 | Dependency of the Tunneling Decay Coefficient in Molecular Tunneling Junctions on the Topography of the Bottom Electrodes. Angewandte Chemie - International Edition, 2014, 53, 3377-3381. | 7.2 | 78 |
| 90 | Encapsulated Annealing: Enhancing the Plasmon Quality Factor in Lithographicallyâ€“Defined Nanostructures. Scientific Reports, 2014, 4, 5537. | 1.6 | 96 |

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|---|---|---|---|
| 91 | Electrical Resistance of Ag<sup>TS</sup>â€“S(CH<sub>2</sub>)<sub><i>n</i>â^'1</sub>CH<sub>3</sub>//Ga<sub>2</sub>O<sub>3</sub>/EGaIn Tunneling Junctions. Journal of Physical Chemistry C, 2012, 116, 10848-10860. | 1.5 | 197 |
| 92 | Statistical Tools for Analyzing Measurements of Charge Transport. Journal of Physical Chemistry C, 2012, 116, 6714-6733. | 1.5 | 109 |
| 93 | The SAM, Not the Electrodes, Dominates Charge Transport in Metal-Monolayer//Ga<sub>2</sub>O<sub>3</sub>/Galliumâ€“Indium Eutectic Junctions. ACS Nano, 2012, 6, 4806-4822. | 7.3 | 130 |
| 94 | A Molecular Half-Wave Rectifier. Journal of the American Chemical Society, 2011, 133, 15397-15411. | 6.6 | 102 |
| 95 | Luminescent acetylthiol derivative tripodal osmium(II) and iridium(III) complexes: Spectroscopy in solution and on surfaces. Pure and Applied Chemistry, 2011, 83, 779-799. | 0.9 | 11 |
| 96 | Mechanism of Rectification in Tunneling Junctions Based on Molecules with Asymmetric Potential Drops. Journal of the American Chemical Society, 2010, 132, 18386-18401. | 6.6 | 205 |
| 97 | Charge Transport and Rectification in Arrays of SAM-Based Tunneling Junctions. Nano Letters, 2010, 10, 3611-3619. | 4.5 | 213 |
| 98 | Molecular Rectification in Metalâ^'SAMâ^'Metal Oxideâ^'Metal Junctions. Journal of the American Chemical Society, 2009, 131, 17814-17827. | 6.6 | 257 |
| 99 | Preparation of metalâ€“SAMâ€“dendrimerâ€“SAMâ€“metal junctions by supramolecular metal transfer printing. New Journal of Chemistry, 2008, 32, 652. | 1.4 | 11 |
| 100 | Redox-Controlled Interaction of Biferrocenyl-Terminated Dendrimers with Î²-Cyclodextrin Molecular Printboards. Chemistry - A European Journal, 2007, 13, 69-80. | 1.7 | 47 |
| 101 | Controlling the Supramolecular Assembly of Redox-Active Dendrimers at Molecular Printboards by Scanning Electrochemical Microscopy. Langmuir, 2006, 22, 9770-9775. | 1.6 | 60 |
| 102 | Room-Temperature Single-Electron Tunneling in Dendrimer-Stabilized Gold Nanoparticles Anchored at a Molecular Printboard. Small, 2006, 2, 1422-1426. | 5.2 | 24 |
| 103 | Multivalent Dendrimers at Molecular Printboards:â€‰ Influence of Dendrimer Structure on Binding Strength and Stoichiometry and Their Electrochemically Induced Desorption. Langmuir, 2005, 21, 7866-7876. | 1.6 | 85 |
| 104 | Binding Control and Stoichiometry of Ferrocenyl Dendrimers at a Molecular Printboard. Journal of the American Chemical Society, 2004, 126, 12266-12267. | 6.6 | 119 |