# Jascha Repp

List of Publications by Year
in descending order



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|---|---|---|---|
| 100 papers | 6,084 citations | 81839 39 h-index | 69214 77 g-index |
| 103 all docs | 103 docs citations | 103 times ranked | 4635 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Molecules on Insulating Films: Scanning-Tunneling Microscopy Imaging of Individual Molecular Orbitals. Physical Review Letters, 2005, 94, 026803. | 2.9 | 749 |
| 2 | Current-Induced Hydrogen Tautomerization and Conductance Switching of Naphthalocyanine Molecules. Science, 2007, 317, 1203-1206. | 6.0 | 621 |
| 3 | Controlling the Charge State of Individual Gold Adatoms. Science, 2004, 305, 493-495. | 6.0 | 393 |
| 4 | Tracking the ultrafast motion of a single molecule by femtosecond orbital imaging. Nature, 2016, 539, 263-267. | 13.7 | 365 |
| 5 | Substrate Mediated Long-Range Oscillatory Interaction between Adatoms: Cu/Cu(111). Physical Review Letters, 2000, 85, 2981-2984. | 2.9 | 363 |
| 6 | Measuring the Charge State of an Adatom with Noncontact Atomic Force Microscopy. Science, 2009, 324, 1428-1431. | 6.0 | 317 |
| 7 | Imaging Bond Formation Between a Gold Atom and Pentacene on an Insulating Surface. Science, 2006, 312, 1196-1199. | 6.0 | 299 |
| 8 | Scanning Tunneling Spectroscopy of Cl Vacancies in NaCl Films: Strong Electron-Phonon Coupling in Double-Barrier Tunneling Junctions. Physical Review Letters, 2005, 95, 225503. | 2.9 | 147 |
| 9 | Reversible Bond Formation in a Gold-Atomâ€“Organic-Molecule Complex as a Molecular Switch. Physical Review Letters, 2010, 105, 266102. | 2.9 | 142 |
| 10 | Snellâ€™s Law for Surface Electrons: Refraction of an Electron Gas Imaged in Real Space. Physical Review Letters, 2004, 92, 036803. | 2.9 | 126 |
| 11 | Atomic Force Microscopy Reveals Bistable Configurations of Dibenzo[a,h]thianthrene and their Interconversion Pathway. Physical Review Letters, 2012, 108, 086101. | 2.9 | 122 |
| 12 | Charge State Control of Molecules Reveals Modification of the Tunneling Barrier with Intramolecular Contrast. Nano Letters, 2011, 11, 1580-1584. | 4.5 | 106 |
| 13 | Site Determination and Thermally Assisted Tunneling in Homogenous Nucleation. Physical Review Letters, 2003, 91, 206102. | 2.9 | 105 |
| 14 | Multiple Charge States of Ag Atoms on Ultrathin NaCl Films. Physical Review Letters, 2007, 98, . | 2.9 | 105 |
| 15 | Coherent electronâ€“nuclear coupling in oligothiophene molecular wires. Nature Physics, 2010, 6, 975-979. | 6.5 | 98 |
| 16 | Sub-cycle atomic-scale forces coherently control a single-molecule switch. Nature, 2020, 585, 58-62. | 13.7 | 78 |
| 17 | Reorganization energy upon charging a single molecule on an insulator measured by atomic force microscopy. Nature Nanotechnology, 2018, 13, 376-380. | 15.6 | 77 |
| 18 | Single-Molecule Synthesis and Characterization of Metalâ^'Ligand Complexes by Low-Temperature STM. Nano Letters, 2010, 10, 2475-2479. | 4.5 | 76 |

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|---|---|---|---|
| 19 | Orientation of Individual<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mn>60</mml:mn></mml:msub></mml:math>molecules adsorbed on Cu(111): Low-temperature scanning tunneling microscopy and density functional calculations. Physical Review B, 2008, 77, . | 1.1 | 73 |
| 20 | Controlling the Orbital Sequence in Individual Cu-Phthalocyanine Molecules. Nano Letters, 2013, 13, 777-780. | 4.5 | 73 |
| 21 | Formation and Characterization of a Moleculeâ€“Metalâ€“Molecule Bridge in Real Space. Journal of the American Chemical Society, 2013, 135, 9200-9203. | 6.6 | 73 |
| 22 | Image Distortions of a Partially Fluorinated Hydrocarbon Molecule in Atomic Force Microscopy with Carbon Monoxide Terminated Tips. Nano Letters, 2014, 14, 6127-6131. | 4.5 | 73 |
| 23 | Controlled Lateral Manipulation of Molecules on Insulating Films by STM. Nano Letters, 2012, 12, 1070-1074. | 4.5 | 68 |
| 24 | Control of Reactivity and Regioselectivity for On-Surface Dehydrogenative Arylâ€“Aryl Bond Formation. Journal of the American Chemical Society, 2016, 138, 5585-5593. | 6.6 | 67 |
| 25 | Characterization of a Surface Reaction by Means of Atomic Force Microscopy. Journal of the American Chemical Society, 2015, 137, 7424-7428. | 6.6 | 64 |
| 26 | Self-Organized Patterning of an Insulator-on-Metal System by Surface Faceting and Selective Growth: NaCl/Cu(211). Physical Review Letters, 2000, 84, 123-126. | 2.9 | 63 |
| 27 | Ionic Films on Vicinal Metal Surfaces: Enhanced Binding due to Charge Modulation. Physical Review Letters, 2001, 86, 252-255. | 2.9 | 60 |
| 28 | Symmetry Dependence of Vibration-Assisted Tunneling. Physical Review Letters, 2013, 110, 136101. | 2.9 | 59 |
| 29 | Mapping orbital changes upon electron transfer with tunnelling microscopy on insulators. Nature, 2019, 566, 245-248. | 13.7 | 59 |
| 30 | Image correction for atomic force microscopy images with functionalized tips. Physical Review B, 2014, 89, . | 1.1 | 57 |
| 31 | Probing Charges on the Atomic Scale by Means of Atomic Force Microscopy. Physical Review Letters, 2015, 115, 076101. | 2.9 | 56 |
| 32 | The Environment-Dependent Behavior of the Blatter Radical at the Metalâ€“Molecule Interface. Nano Letters, 2019, 19, 2543-2548. | 4.5 | 54 |
| 33 | Direct Identification and Determination of Conformational Response in Adsorbed Individual Nonplanar Molecular Species Using Noncontact Atomic Force Microscopy. Nano Letters, 2016, 16, 7703-7709. | 4.5 | 53 |
| 34 | Scanning tunneling microscopy and spectroscopy of NaCl overlayers on the stepped Cu(311) surface:â€ƒExperimental and theoretical study. Physical Review B, 2005, 71, . | 1.1 | 50 |
| 35 | Scanning tunneling microscopy of adsorbates on insulating films. From the imaging of individual molecular orbitals to the manipulation of the charge state. Applied Physics A: Materials Science and Processing, 2006, 85, 399-406. | 1.1 | 48 |
| 36 | Manipulation of the Charge State of Single Au Atoms on Insulating Multilayer Films. Physical Review Letters, 2015, 114, 036801. | 2.9 | 48 |

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|---|---|---|---|
| 37 | Controlled Manipulation of Atoms and Small Molecules with a Low Temperature Scanning Tunneling Microscope. Single Molecules, 2000, 1, 79-86. | 1.6 | 47 |
| 38 | Direct Evidence for the Effect of Quantum Confinement of Surface-State Electrons on Atomic Diffusion. Physical Review Letters, 2008, 101, 226601. | 2.9 | 47 |
| 39 | Quantitative sampling of atomic-scale electromagnetic waveforms. Nature Photonics, 2021, 15, 143-147. | 15.6 | 44 |
| 40 | Periodic Charging of Individual Molecules Coupled to the Motion of an Atomic Force Microscopy Tip. Nano Letters, 2015, 15, 4406-4411. | 4.5 | 38 |
| 41 | Selectivity in single-molecule reactions by tip-induced redox chemistry. Science, 2022, 377, 298-301. | 6.0 | 36 |
| 42 | From atomic kinks to mesoscopic surface patterns: Ionic layers on vicinal metal surfaces. Physical Review B, 2002, 66, . | 1.1 | 27 |
| 43 | Resolving the Unpairedâ€Electron Orbital Distribution in a Stable Organic Radical by Kondo Resonance Mapping. Angewandte Chemie - International Edition, 2019, 58, 11063-11067. | 7.2 | 27 |
| 44 | Atomically resolved single-molecule triplet quenching. Science, 2021, 373, 452-456. | 6.0 | 27 |
| 45 | Determination of binding sites in ordered phases of CO/Cu(211)employing molecular level manipulation. Chemical Physics Letters, 1999, 310, 145-149. | 1.2 | 22 |
| 46 | Molecular Symmetry Governs Surface Diffusion. Physical Review Letters, 2011, 107, 186103. | 2.9 | 21 |
| 47 | Charge-State-Dependent Diffusion of Individual Gold Adatoms on Ionic Thin NaCl Films. Physical Review Letters, 2016, 117, 146102. | 2.9 | 21 |
| 48 | Highâ€resolution scanning tunneling and atomic force microscopy of stereochemically resolved dibenzo[a,h]thianthrene molecules. Physica Status Solidi (B): Basic Research, 2013, 250, 2424-2430. | 0.7 | 18 |
| 49 | Manipulation of Atoms and Molecules with the Low-Temperature Scanning Tunneling Microscope. Japanese Journal of Applied Physics, 2001, 40, 4409-4413. | 0.8 | 17 |
| 50 | Nanoscale surface patterning by adsorbate-induced faceting and selective growth: NaCl on Cu(). Surface Science, 2002, 497, 113-126. | 0.8 | 17 |
| 51 | The scanning tunnelling microscope as an operative tool: doing physics and chemistry with single atoms and molecules. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 1207-1216. | 1.6 | 17 |
| 52 | Apparent Reversal of Molecular Orbitals Reveals Entanglement. Physical Review Letters, 2017, 119, 056801. | 2.9 | 17 |
| 53 | Accessing a Charged Intermediate State Involved in the Excitation of Single Molecules. Physical Review Letters, 2019, 123, 016001. | 2.9 | 17 |
| 54 | Crystallization of a Twoâ€Dimensional Hydrogenâ€Bonded Molecular Assembly: Evolution of the Local Structure Resolved by Atomic Force Microscopy. Angewandte Chemie - International Edition, 2017, 56, 10786-10790. | 7.2 | 16 |

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| 55 | Bonding Motifs in Metalâ€“Organic Compounds on Surfaces. Journal of the American Chemical Society, 2018, 140, 12884-12889. | 6.6 | 16 |
| 56 | Forces from periodic charging of adsorbed molecules. Journal of Chemical Physics, 2017, 146, 092327. | 1.2 | 15 |
| 57 | Spin-dependent vibronic response of a carbon radical ion in two-dimensional WS2. Nature Communications, 2021, 12, 7287. | 5.8 | 15 |
| 58 | Effect of electron-phonon interaction on the formation of one-dimensional electronic states in coupled Cl vacancies. Physical Review B, 2015, 91, . | 1.1 | 14 |
| 59 | Implementing Functionality in Molecular Self-Assembled Monolayers. Nano Letters, 2019, 19, 2750-2757. | 4.5 | 12 |
| 60 | Fixing the Energy Scale in Scanning Tunneling Microscopy on Semiconductor Surfaces. Physical Review Letters, 2013, 111, 216802. | 2.9 | 11 |
| 61 | Imaging on-surface hierarchical assembly of chiral supramolecular networks. Physical Chemistry Chemical Physics, 2017, 19, 24605-24612. | 1.3 | 11 |
| 62 | Charge-Induced Structural Changes in a Single Molecule Investigated by Atomic Force Microscopy. Physical Review Letters, 2019, 123, 066001. | 2.9 | 11 |
| 63 | Manipulating and Probing the Distribution of Excess Electrons in an Electrically Isolated Self-Assembled Molecular Structure. Nano Letters, 2020, 20, 1839-1845. | 4.5 | 10 |
| 64 | Exploiting Cooperative Catalysis for the Onâ€Surface Synthesis of Linear Heteroaromatic Polymers via Selective Câ€“H Activation. Angewandte Chemie - International Edition, 2022, 61, . | 7.2 | 10 |
| 65 | Scanning Probe Microscopy of Atoms and Molecules on Insulating Films: From Imaging to Molecular Manipulation. Chimia, 2012, 66, 10-15. | 0.3 | 9 |
| 66 | Local tunneling decay length and Kelvin probe force spectroscopy. Physical Review B, 2015, 92, . | 1.1 | 8 |
| 67 | Damping by sequentially tunneling electrons. Surface Science, 2018, 678, 112-117. | 0.8 | 8 |
| 68 | Probing individual weakly-coupled Ï€-conjugated molecules on semiconductor surfaces. Journal of Applied Physics, 2012, 112, 034312. | 1.1 | 7 |
| 69 | Imaging Charge Localization in a Conjugated Oligophenylene. Physical Review Letters, 2020, 125, 176803. | 2.9 | 6 |
| 70 | Reorganization energy and polaronic effects of pentacene on NaCl films. Physical Review B, 2020, 102, . | 1.1 | 6 |
| 71 | Force induced and electron stimulated STM manipulations: routes to artificial nanostructures as well as to molecular contacts, engines and switches. Journal of Physics: Conference Series, 2005, 19, 175-181. | 0.3 | 5 |
| 72 | Crystallization of a Twoâ€Dimensional Hydrogenâ€Bonded Molecular Assembly: Evolution of the Local Structure Resolved by Atomic Force Microscopy. Angewandte Chemie, 2017, 129, 10926-10930. | 1.6 | 5 |

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| 73 | Atomic Resolution on Molecules with Functionalized Tips. Nanoscience and Technology, 2015, , 223-246. | 1.5 | 5 |
| 74 | On-Surface Synthesis of Polypyridine: Strain Enforces Extended Linear Chains. Chemistry, 2022, 4, 112-117. | 0.9 | 5 |
| 75 | Interplay of boundary states of graphene nanoribbons with a Kondo impurity. Physical Review B, 2022, 105, . | 1.1 | 5 |
| 76 | Scanning Tunneling Spectroscopy of Molecules on Insulating Films. Chimia, 2010, 64, 370-375. | 0.3 | 4 |
| 77 | Current-Induced One-Dimensional Diffusion of Co Adatoms on Graphene Nanoribbons. Nano Letters, 2021, 21, 8794-8799. | 4.5 | 4 |
| 78 | Interface dipoles of Ir(ppy)<sub>3</sub>on Cu(111). Nanoscale, 2019, 11, 12695-12703. | 2.8 | 3 |
| 79 | Atomare LadungszustÃnde unter dem Rasterkraftmikroskop. Physik in Unserer Zeit, 2009, 40, 225-226. | 0.0 | 2 |
| 80 | STM Manipulation of Single Atoms and Molecules on Insulating Films. Frontiers of Nanoscience, 2011, 2, 17-49. | 0.3 | 2 |
| 81 | Exploiting Cooperative Catalysis for the Onâ€surface Synthesis of Linear Heteroaromatic Polymers via Selective Câ€H Activation. Angewandte Chemie, 0, , . | 1.6 | 2 |
| 82 | Terahertz Microscopy Down to the Atomic Scale. , 2018, , . | | 1 |
| 83 | Abbildung des Orbitals des ungepaarten Elektrons in einem stabilen, organischen Radikal anhand seiner Kondoâ€Resonanz. Angewandte Chemie, 2019, 131, 11179-11183. | 1.6 | 1 |
| 84 | Gold-linked strings of donorâ€“acceptor dyads: on-surface formation and mutual orientation. Chemical Communications, 2020, 56, 7901-7904. | 2.2 | 1 |
| 85 | Controlled Manipulation of Atoms and Small Molecules with a Low Temperature Scanning Tunneling Microscope. , 2000, 1, 79. | | 1 |
| 86 | 3.1 Introduction to manipulation of surfaces with the methods of scanning probe microscopy. , 2015, , 67-68. | | 1 |
| 87 | MANIPULATION OF ATOMS AND MOLECULES FOR CONSTRUCTION OF NANOSYSTEMS: THE SCANNING TUNNELING MICROSCOPE AS AN OPERATIVE TOOL. International Journal of Nanoscience, 2003, 02, 197-218. | 0.4 | 0 |
| 88 | Visualisierung der PolaritÃt chemischer Bindungen. Physik in Unserer Zeit, 2015, 46, 266-267. | 0.0 | 0 |
| 89 | Tracking the ultrafast motion of a single molecular orbital. , 2016, , . | | 0 |
| 90 | Quantitative Waveform Sampling on Atomic Scales. , 2021, , . | | 0 |

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| 91 | Controlling condensed matter with lightwave fields and forces. , 2021, , . | | 0 |
| 92 | Coherent Control of Single-Molecule Switching Reactions with Femtosecond Atomic Forces. , 2021, , . | | 0 |
| 93 | 3.10 Manipulation of surfaces with the methods of scanning probe microscopy: Data. , 2015, , 90-99. | | 0 |
| 94 | 3.2 Lateral manipulation. , 2015, , 69-73. | | 0 |
| 95 | 3.7 Atomic/molecular switches. , 2015, , 84-85. | | 0 |
| 96 | 3.6 Manipulation on insulators. , 2015, , 81-83. | | 0 |
| 97 | 3.8 Tip functionalization by atomic/molecular manipulation. , 2015, , 86-87. | | 0 |
| 98 | Terahertz subcycle control: from high-harmonic generation to molecular snapshots. , 2017, , . | | 0 |
| 99 | Terahertz lightwave electronics and valleytronics. , 2019, , . | | 0 |
| 100 | Coherent Control of a Single-Molecule Switch with Sub-Cycle Atomic Forces. , 2020, , . | | 0 |