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List of Publications by Year
in descending order

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98 papers	9,142 citations	53794 45 h-index	39675 94 g-index
98 all docs	98 docs citations	98 times ranked	6575 citing authors

#	Article	IF	Citations
1	The Chemical Structure of a Molecule Resolved by Atomic Force Microscopy. Science, 2009, 325, 1110-1114.	12.6	1,489
2	Unraveling the Molecular Structures of Asphaltenes by Atomic Force Microscopy. Journal of the American Chemical Society, 2015, 137, 9870-9876.	13.7	545
3	Bond-Order Discrimination by Atomic Force Microscopy. Science, 2012, 337, 1326-1329.	12.6	457
4	An sp-hybridized molecular carbon allotrope, cyclo[18]carbon. Science, 2019, 365, 1299-1301.	12.6	412
5	Synthesis and characterization of triangulene. Nature Nanotechnology, 2017, 12, 308-311.	31.5	351
6	Measuring the Charge State of an Adatom with Noncontact Atomic Force Microscopy. Science, 2009, 324, 1428-1431.	12.6	317
7	Organic structure determination using atomic-resolution scanning probe microscopy. Nature Chemistry, 2010, 2, 821-825.	13.6	300
8	Imaging the charge distribution within a single molecule. Nature Nanotechnology, 2012, 7, 227-231.	31.5	295
9	High-Resolution Molecular Orbital Imaging Using a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-Wave STM Tip. Physical Review Letters, 2011, 107, 086101.	7.8	225
10	Heavy Oil Based Mixtures of Different Origins and Treatments Studied by Atomic Force Microscopy. Energy & Fuels, 2017, 31, 6856-6861.	5.1	206
11	Oxygen-induced restructuring of the TiO2(110) surface: a comprehensive study. Surface Science, 1999, 437, 173-190.	1.9	184
12	Recent advances in submolecular resolution with scanning probe microscopy. Nature Chemistry, 2011, 3, 273-278.	13.6	179
13	On-surface generation and imaging of arynes by atomic force microscopy. Nature Chemistry, 2015, 7, 623-628.	13.6	176
14	A rack-and-pinion device at the molecular scale. Nature Materials, 2007, 6, 30-33.	27.5	171
15	Reversible Bergman cyclization by atomic manipulation. Nature Chemistry, 2016, 8, 220-224.	13.6	169
16	Adsorption Geometry Determination of Single Molecules by Atomic Force Microscopy. Physical Review Letters, 2013, 111, 106103.	7.8	162
17	Generation, manipulation and characterization of molecules by atomic force microscopy. Nature Reviews Chemistry, 2017, 1, .	30.2	147
18	Reversible Bond Formation in a Gold-Atomâ€“Organic-Molecule Complex as a Molecular Switch. Physical Review Letters, 2010, 105, 266102.	7.8	142

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19	Different tips for high-resolution atomic force microscopy and scanning tunneling microscopy of single molecules. Applied Physics Letters, 2013, 102, .	3.3	141
20	Atomic Force Microscopy for Molecular Structure Elucidation. Angewandte Chemie - International Edition, 2018, 57, 3888-3908.	13.8	135
21	On the early stages of soot formation: Molecular structure elucidation by high-resolution atomic force microscopy. Combustion and Flame, 2019, 205, 154-164.	5.2	134
22	The mechanisms underlying the enhanced resolution of atomic force microscopy with functionalized tips. New Journal of Physics, 2010, 12, 125020.	2.9	131
23	Polyyne formation via skeletal rearrangement induced by atomic manipulation. Nature Chemistry, 2018, 10, 853-858.	13.6	105
24	Characterizing aliphatic moieties in hydrocarbons with atomic force microscopy. Chemical Science, 2017, 8, 2315-2320.	7.4	102
25	Overview of Asphaltene Nanostructures and Thermodynamic Applications. Energy & Fuels, 2020, 34, 15082-15105.	5.1	101
26	From Perylene to a 22â€Ring Aromatic Hydrocarbon in Oneâ€Pot. Angewandte Chemie - International Edition, 2014, 53, 9004-9006.	13.8	94
27	A Combined Atomic Force Microscopy and Computational Approach for the Structural Elucidation of Breitfussin A and B: Highly Modified Halogenated Dipeptides from Thuiaria breitfussi. Angewandte Chemie - International Edition, 2012, 51, 12238-12241.	13.8	92
28	Trapping and moving metal atoms with a six-leg molecule. Nature Materials, 2005, 4, 892-895.	27.5	88
29	Resistless nanofabrication by stencil lithography: A review. Microelectronic Engineering, 2015, 132, 236-254.	2.4	88
30	The Electric Field of CO Tips and Its Relevance for Atomic Force Microscopy. Nano Letters, 2016, 16, 1974-1980.	9.1	79
31	Contrast Formation in Kelvin Probe Force Microscopy of Single Ï€-Conjugated Molecules. Nano Letters, 2014, 14, 3342-3346.	9.1	77
32	Reorganization energy upon charging a single molecule on an insulator measured by atomic force microscopy. Nature Nanotechnology, 2018, 13, 376-380.	31.5	77
33	Structural transitions of perylene and coronene on silver and gold surfaces: A molecular-beam epitaxy LEED study. Physical Review B, 2001, 64, .	3.2	76
34	Image Distortions of a Partially Fluorinated Hydrocarbon Molecule in Atomic Force Microscopy with Carbon Monoxide Terminated Tips. Nano Letters, 2014, 14, 6127-6131.	9.1	73
35	Synthesis of Cyclo[18]carbon via Debromination of C₁₈Br₆. Journal of the American Chemical Society, 2020, 142, 12921-12924.	13.7	71
36	Molecular structure elucidation with charge-state control. Science, 2019, 365, 142-145.	12.6	62

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37	Tetracene Formation by On-Surface Reduction. ACS Nano, 2016, 10, 4538-4542.	14.6	60
38	Investigating atomic contrast in atomic force microscopy and Kelvin probe force microscopy on ionic systems using functionalized tips. Physical Review B, 2014, 90, .	3.2	59
39	Image correction for atomic force microscopy images with functionalized tips. Physical Review B, 2014, 89, .	3.2	57
40	Probe-based measurement of lateral single-electron transfer between individual molecules. Nature Communications, 2015, 6, 8353.	12.8	56
41	Revisiting Kekulene: Synthesis and Single-Molecule Imaging. Journal of the American Chemical Society, 2019, 141, 15488-15493.	13.7	54
42	Exploring a Route to Cyclic Acenes by Onâ€Surface Synthesis. Angewandte Chemie - International Edition, 2019, 58, 9038-9042.	13.8	52
43	Measuring the short-range force field above a single molecule with atomic resolution. Applied Physics Letters, 2011, 99, .	3.3	51
44	Manipulation of the Charge State of Single Au Atoms on Insulating Multilayer Films. Physical Review Letters, 2015, 114, 036801.	7.8	48
45	Single-molecule chemistry and physics explored by low-temperature scanning probe microscopy. Chemical Communications, 2011, 47, 9011.	4.1	46
46	Force and conductance during contact formation to a C₆₀molecule. New Journal of Physics, 2012, 14, 073032.	2.9	46
47	Elucidating the Geometric Substitution of Petroporphyrins by Spectroscopic Analysis and Atomic Force Microscopy Molecular Imaging. Energy & Fuels, 2019, 33, 6088-6097.	5.1	45
48	Lander on Cu(2 1 1) â€“ selective adsorption and surface restructuring by a molecular wire. Chemical Physics Letters, 2003, 371, 750-756.	2.6	44
49	Recording the intramolecular deformation of a 4-legs molecule during its STM manipulation on a Cu(211) surface. Chemical Physics Letters, 2005, 402, 180-185.	2.6	42
50	Studying an antiaromatic polycyclic hydrocarbon adsorbed on different surfaces. Nature Communications, 2018, 9, 1198.	12.8	42
51	A simple model of molecular imaging with noncontact atomic force microscopy. New Journal of Physics, 2012, 14, 083023.	2.9	41
52	Ï€-Diradical Aromatic Soot Precursors in Flames. Journal of the American Chemical Society, 2021, 143, 12212-12219.	13.7	41
53	The Synthesis and STM/AFM Imaging of â€˜Olympiceneâ€™ Benzo[cd]pyrenes. Chemistry - A European Journal, 2015, 21, 2011-2018.	3.3	39
54	Synthesis of a Naphthodiazaborinine and Its Verification by Planarization with Atomic Force Microscopy. ACS Nano, 2016, 10, 5340-5345.	14.6	39

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55	Understanding the Effects of Sample Preparation on the Chemical Structures of Petroleum Imaged with Noncontact Atomic Force Microscopy. Industrial & Engineering Chemistry Research, 2018, 57, 15935-15941.	3.7	38
56	Selectivity in single-molecule reactions by tip-induced redox chemistry. Science, 2022, 377, 298-301.	12.6	36
57	Generation and Characterization of a meta-Aryne on Cu and NaCl Surfaces. ACS Nano, 2017, 11, 10768-10773.	14.6	31
58	Tip-induced passivation of dangling bonds on hydrogenated Si(100)-2 Ã— 1. Applied Physics Letters, 2017, 111, .	3.3	31
59	Magnetologic devices fabricated by nanostencil lithography. Nanotechnology, 2010, 21, 325301.	2.6	30
60	Atomic Force Microscopy Identifying Fuel Pyrolysis Products and Directing the Synthesis of Analytical Standards. Journal of the American Chemical Society, 2018, 140, 8156-8161.	13.7	27
61	A Single-Molecule Chemical Reaction Studied by High-Resolution Atomic Force Microscopy and Scanning Tunneling Microscopy Induced Light Emission. ACS Nano, 2019, 13, 6947-6954.	14.6	27
62	Atomically resolved single-molecule triplet quenching. Science, 2021, 373, 452-456.	12.6	27
63	Direct Visualization of Individual Aromatic Compound Structures in Low Molecular Weight Marine Dissolved Organic Carbon. Geophysical Research Letters, 2018, 45, 5590-5598.	4.0	26
64	Organic monolayers with uniform domain orientation and reduced antiphase boundaries â€“ MBE of perylene on Au(110). Organic Electronics, 2002, 3, 1-7.	2.6	23
65	Identical Binding Energies and Work Functions for Distinct Adsorption Structures: Olympicenes on the Cu(111) Surface. Journal of Physical Chemistry Letters, 2016, 7, 1022-1027.	4.6	22
66	Exploring a Route to Cyclic Acenes by Onâ€Surface Synthesis. Angewandte Chemie, 2019, 131, 9136-9140.	2.0	22
67	Nonbenzenoid High-Spin Polycyclic Hydrocarbons Generated by Atom Manipulation. ACS Nano, 2022, 16, 3264-3271.	14.6	22
68	Charge-State-Dependent Diffusion of Individual Gold Adatoms on Ionic Thin NaCl Films. Physical Review Letters, 2016, 117, 146102.	7.8	21
69	The Role of Methyl Groups in the Early Stage of Thermal Polymerization of Polycyclic Aromatic Hydrocarbons Revealed by Molecular Imaging. Energy & Fuels, 2021, 35, 2224-2233.	5.1	21
70	Local thickness determination of thin insulator films via localized states. Applied Physics Letters, 2014, 104, .	3.3	19
71	Intramolecular Coupling of Terminal Alkynes by Atom Manipulation. Angewandte Chemie - International Edition, 2020, 59, 22989-22993.	13.8	15
72	Effect of electron-phonon interaction on the formation of one-dimensional electronic states in coupled Cl vacancies. Physical Review B, 2015, 91, .	3.2	14

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73	Atomic and electronic structure of Si dangling bonds in quasi-free-standing monolayer graphene. Nano Research, 2018, 11, 864-873.	10.4	14
74	[19]Dendriphene: A 19â€Ring Dendritic Nanographene. Chemistry - A European Journal, 2018, 24, 17697-17700.	3.3	14
75	Contacting a single molecular wire by STM manipulation. Applied Physics A: Materials Science and Processing, 2005, 80, 913-920.	2.3	13
76	Contacting self-ordered molecular wires by nanostencil lithography. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C4D34-C4D39.	1.2	12
77	Rasterkraftmikroskopie fÃ¼r die molekulare StrukturaufklÃ¤rung. Angewandte Chemie, 2018, 130, 3950-3972.	2.0	12
78	Imaging Titanâ€™s Organic Haze at Atomic Scale. Astrophysical Journal Letters, 2021, 908, L13.	8.3	11
79	Interaction of a long molecular wire with a nanostructured surface: Violet Landers on Cu(211). Chemical Physics Letters, 2006, 428, 331-337.	2.6	9
80	Scanning Probe Microscopy of Atoms and Molecules on Insulating Films: From Imaging to Molecular Manipulation. Chimia, 2012, 66, 10-15.	0.6	9
81	Probing Molecular Excited States by Atomic Force Microscopy. Physical Review Letters, 2021, 126, 176801.	7.8	9
82	An onâ€surface Dielsâ€“Alder reaction. Angewandte Chemie - International Edition, 2021, 60, 26346-26350.	13.8	9
83	Local tunneling decay length and Kelvin probe force spectroscopy. Physical Review B, 2015, 92, .	3.2	8
84	Damping by sequentially tunneling electrons. Surface Science, 2018, 678, 112-117.	1.9	8
85	Conformations and controlled manipulation of a long molecular wire on Cu(111). Surface Science, 2005, 585, 38-46.	1.9	7
86	Controlled Fragmentation of Single Molecules with Atomic Force Microscopy by Employing Doubly Charged States. Physical Review Letters, 2018, 121, 226101.	7.8	7
87	A variable-temperature nanostencil compatible with a low-temperature scanning tunneling microscope/atomic force microscope. Review of Scientific Instruments, 2014, 85, 023706.	1.3	6
88	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.	0.4	5
89	Toggling the Local Electric Field with an Embedded Adatom Switch. Nano Letters, 2015, 15, 5564-5568.	9.1	5
90	Molecular Aggregation within Self-Ordered Monolayers. ChemPhysChem, 2007, 8, 245-249.	2.1	4

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91	Interactions between two C₆₀molecules measured by scanning probe microscopies. Nanotechnology, 2015, 26, 445703.	2.6	4
92	Visualization and identification of single meteoritic organic molecules by atomic force microscopy. Meteoritics and Planetary Science, 2022, 57, 644-656.	1.6	4
93	Addressing Long-Standing Chemical Challenges by AFM with Functionalized Tips. Advances in Atom and Single Molecule Machines, 2018, , 209-227.	0.0	2
94	An onâ€surface Dielsâ€Alder reaction. Angewandte Chemie, 2021, 133, 26550.	2.0	2
95	Freestanding single-crystalline magnetic structures fabricated by ion bombardment. Applied Physics Letters, 2015, 106, 032410.	3.3	1
96	Of limited length. Nature Physics, 2019, 15, 1102-1102.	16.7	0
97	Intramolecular Coupling of Terminal Alkynes by Atom Manipulation. Angewandte Chemie, 2020, 132, 23189-23193.	2.0	0
98	3 + 3 makes the ring. , 0, , .		0