## Ruben Perez

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/429084/publications.pdf

Version: 2024-02-01

160 9,884 47 96 papers citations h-index g-index

times ranked

citing authors

docs citations

all docs

#	Article	IF	CITATIONS
1	Dynamic atomic force microscopy methods. Surface Science Reports, 2002, 47, 197-301.	7.2	1,812
2	Chemical identification of individual surface atoms by atomic force microscopy. Nature, 2007, 446, 64-67.	27.8	649
3	Nanoscale compositional mapping with gentle forces. Nature Materials, 2007, 6, 405-411.	27.5	299
4	Fullerenes from aromatic precursors by surface-catalysed cyclodehydrogenation. Nature, 2008, 454, 865-868.	27.8	291
5	Directional Anisotropy in the Cleavage Fracture of Silicon. Physical Review Letters, 2000, 84, 5347-5350.	7.8	269
6	Role of Covalent Tip-Surface Interactions in Noncontact Atomic Force Microscopy on Reactive Surfaces. Physical Review Letters, 1997, 78, 678-681.	7.8	240
7	Complex Patterning by Vertical Interchange Atom Manipulation Using Atomic Force Microscopy. Science, 2008, 322, 413-417.	12.6	236
8	Atomic force microscopy as a tool for atom manipulation. Nature Nanotechnology, 2009, 4, 803-810.	31.5	234
9	An ab initio study of the cleavage anisotropy in silicon. Acta Materialia, 2000, 48, 4517-4530.	7.9	229
10	Dipole formation at metal/PTCDA interfaces: Role of the Charge Neutrality Level. Europhysics Letters, 2004, 65, 802-808.	2.0	216
11	Point Defects on Graphene on Metals. Physical Review Letters, 2011, 107, 116803.	7.8	202
12	Size-Dependent Dissociation of Carbon Monoxide on Cobalt Nanoparticles. Journal of the American Chemical Society, 2013, 135, 2273-2278.	13.7	195
13	Surface-tip interactions in noncontact atomic-force microscopy on reactive surfaces: Si(111). Physical Review B, 1998, 58, 10835-10849.	3.2	194
14	Dynamical Fluctuations as the Origin of a Surface Phase Transition in Sn/Ge (111). Physical Review Letters, 1999, 82, 442-445.	7.8	173
15	Barrier formation at metal–organic interfaces: dipole formation and the charge neutrality level. Applied Surface Science, 2004, 234, 107-112.	6.1	172
16	Describing bond-breaking processes by reactive potentials: Importance of an environment-dependent interaction range. Physical Review B, 2008, 78, .	3.2	149
17	STM-theory: Image potential, chemistry and surface relaxation. Progress in Surface Science, 2006, 81, 403-443.	8.3	130
18	Single Atomic Contact Adhesion and Dissipation in Dynamic Force Microscopy. Physical Review Letters, 2006, 96, 106101.	7.8	129

#	Article	IF	Citations
19	Insight into the Adsorption of Water on the Clean CeO <sub>2</sub> (111) Surface with van der Waals and Hybrid Density Functionals. Journal of Physical Chemistry C, 2012, 116, 13584-13593.	3.1	116
20	Mechanism for Room-Temperature Single-Atom Lateral Manipulations on Semiconductors using Dynamic Force Microscopy. Physical Review Letters, 2007, 98, 106104.	7.8	113
21	Molecular-Level Understanding of CeO <sub>2</sub> as a Catalyst for Partial Alkyne Hydrogenation. Journal of Physical Chemistry C, 2014, 118, 5352-5360.	3.1	112
22	Hydrogen activation, diffusion, and clustering on CeO2(111): A DFT+ <i>U</i> study. Journal of Chemical Physics, 2014, 141, 014703.	3.0	109
23	First-principles simulations of STM images:â€,From tunneling to the contact regime. Physical Review B, 2004, 70, .	3.2	87
24	Atomic-Scale Sliding Friction on Graphene in Water. ACS Nano, 2016, 10, 4288-4293.	14.6	85
25	Bioengineering a Single-Protein Junction. Journal of the American Chemical Society, 2017, 139, 15337-15346.	13.7	84
26	Forces and Currents in Carbon Nanostructures: Are We Imaging Atoms?. Physical Review Letters, 2011, 106, 176101.	7.8	81
27	All-inclusive' imaging of the rutile TiO <sub>2</sub> (110) surface using NC-AFM. Nanotechnology, 2009, 20, 505703.	2.6	80
28	The Electric Field of CO Tips and Its Relevance for Atomic Force Microscopy. Nano Letters, 2016, 16, 1974-1980.	9.1	79
29	Schottky contacts on passivated GaAs(100) surfaces: barrier height and reactivity. Applied Surface Science, 2004, 234, 341-348.	6.1	77
30	Surface Soft Phonon and the $\hat{a} \times 3\tilde{A} - \hat{a} \times 3\tilde{A} - 3\tilde{A} = 3\tilde{A} - 3\tilde{A} = 3\tilde{A} - 3\tilde{A} = 3\tilde{A} - 3\tilde{A} = 3\tilde$	7.8	75
31	Real topography, atomic relaxations, and short-range chemical interactions in atomic force microscopy: The case of thel±â^'Snâ^•Si(111)â^'(3×3)R30° surface. Physical Review B, 2006, 73, .	3.2	72
32	Understanding the mechanical response of double-stranded DNA and RNA under constant stretching forces using all-atom molecular dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2017, $114$ , $7049$ - $7054$ .	7.1	71
33	First-principles simulations of the stretching and final breaking of Al nanowires: Mechanical properties and electrical conductance. Physical Review B, 2003, 68, .	3.2	69
34	Submolecular Imaging by Noncontact Atomic Force Microscopy with an Oxygen Atom Rigidly Connected to a Metallic Probe. ACS Nano, 2016, 10, 1201-1209.	14.6	69
35	First-principles investigation of tip-surface interaction on a GaAs(110) surface: Implications for atomic force and scanning tunneling microscopies. Physical Review B, 1999, 60, 11631-11638.	3.2	66
36	Structure and stability of semiconductor tip apexes for atomic force microscopy. Nanotechnology, 2009, 20, 264015.	2.6	59

#	Article	IF	CITATIONS
37	Local-density approach and quasiparticle levels for generalized Hubbard Hamiltonians. Physical Review B, 2000, 62, 4309-4331.	3.2	57
38	Density-functional approach to LCAO methods. Physical Review B, 1994, 50, 10537-10547.	3.2	56
39	Hydrogen Dissociation over Au Nanowires and the Fractional Conductance Quantum. Physical Review Letters, 2006, 96, 046803.	7.8	56
40	Interplay between Nonlinearity, Scan Speed, Damping, and Electronics in Frequency Modulation Atomic-Force Microscopy. Physical Review Letters, 2002, 89, 146104.	7.8	54
41	First Principles Simulations of Silicon Nanoindentation. Physical Review Letters, 1995, 75, 4748-4751.	7.8	53
42	Understanding Scanning Tunneling Microscopy Contrast Mechanisms on Metal Oxides: A Case Study. ACS Nano, 2013, 7, 10233-10244.	14.6	53
43	Molecular-orbital theory for chemisorption: The case of H on normal metals. Physical Review B, 1991, 44, 11412-11431.	3.2	52
44	Understanding image contrast formation in TiO <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math> with force spectroscopy. Physical Review B, 2012, 85, .	3.2	52
45	Albumin (BSA) Adsorption over Graphene in Aqueous Environment: Influence of Orientation, Adsorption Protocol, and Solvent Treatment. Langmuir, 2016, 32, 1742-1755.	3.5	52
46	Adsorption orientations and immunological recognition of antibodies on graphene. Nanoscale, 2016, 8, 13463-13475.	5.6	50
47	Atomic species identification at the (101) anatase surface by simultaneous scanning tunnelling and atomic force microscopy. Nature Communications, 2015, 6, 7265.	12.8	49
48	Tip-Induced Reduction of the Resonant Tunneling Current on Semiconductor Surfaces. Physical Review Letters, 2008, 101, 176101.	7.8	47
49	Simulation of tip-surface interactions in atomic force microscopy of an $InP(110)$ surface with a Si tip. Physical Review B, 1999, 60, 11639-11644.	3.2	46
50	Intrinsic Character of the $(3\tilde{A}-3)$ to $(3\tilde{A}-3)$ Phase Transition in Pb/Si(111). Physical Review Letters, 2005, 94, 046101.	7.8	46
51	Ab initiostudy of evolution of mechanical and transport properties of clean and contaminated Au nanowires along the deformation path. Physical Review B, 2008, 77, .	3.2	44
52	DNA Crookedness Regulates DNA Mechanical Properties at Short Length Scales. Physical Review Letters, 2019, 122, 048102.	7.8	44
53	Microscopic Mechanism for Mechanical Polishing of Diamond (110) Surfaces. Physical Review Letters, 1998, 80, 3428-3431.	7.8	43
54	A theoretical case study: the Sn/Ge(111)-(3 $\tilde{A}$ — 3) surface. Journal of Physics Condensed Matter, 2000, 12, L21-L27.	1.8	42

#	Article	IF	CITATIONS
55	Tailoring the thermal expansion of graphene via controlled defect creation. Carbon, 2017, 116, 670-677.	10.3	41
56	Molecular Identification, Bond Order Discrimination, and Apparent Intermolecular Features in Atomic Force Microscopy Studied with a Charge Density Based Method. ACS Nano, 2019, 13, 786-795.	14.6	41
	Force mapping on a partially H-covered Si(111)-(7 <mml:math) 0.784314="" 1="" 10="" 50="" 67<="" etqq1="" overlock="" rgbt="" td="" tf="" tj=""><td></td><td></td></mml:math)>		
57	Physical Review B, 2013, 87, .	3.2	38
58	Formation of Atom Wires on Vicinal Silicon. Physical Review Letters, 2004, 93, 126106.	7.8	37
59	Dynamical fluctuations and the $\frac{3 \pm 0}{3 \pm 0}$ Stimes $\frac{3 \pm 0}{3 \pm 0}$ Stimes $\frac{3 \pm 0}{11}$ And $\frac{11}{3 \pm 0}$ Journal of Physics Condensed Matter, 2002, 14, 5979-6004.	1.8	36
60	Atom-specific forces and defect identification on surface-oxidized $Cu(100)$ with combined 3D-AFM and STM measurements. Physical Review B, 2013, 87, .	3.2	36
61	Role of Tip Chemical Reactivity on Atom Manipulation Process in Dynamic Force Microscopy. ACS Nano, 2013, 7, 7370-7376.	14.6	35
62	A molecular view of DNA flexibility. Quarterly Reviews of Biophysics, 2021, 54, e8.	5.7	35
63	Contrast mechanism in non-contact AFM on reactive surfaces. Applied Surface Science, 1998, 123-124, 249-254.	6.1	34
64	MANY-BODY EFFECTS AND THE METAL–INSULATOR TRANSITION AT SEMICONDUCTOR SURFACES AND INTERFACES. Surface Review and Letters, 1999, 06, 411-433.	1.1	33
65	Tug-of-war between corrugation and binding energy: revealing the formation of multiple moirĀ© patterns on a strongly interacting graphene–metal system. Nanoscale, 2015, 7, 11300-11309.	5.6	33
66	Graphene monovacancies: Electronic and mechanical properties from large scale ab initio simulations. Carbon, 2016, 103, 200-208.	10.3	33
67	Origin of contrast in STM images of oxygen on $Pd(111)$ and its dependence on tip structure and tunneling parameters. Physical Review B, 2005, 71, .	3.2	30
68	Conformations and cryo-force spectroscopy of spray-deposited single-strand DNA on gold. Nature Communications, 2019, 10, 685.	12.8	30
69	Molecular scale energy dissipation in oligothiophene monolayers measured by dynamic force microscopy. Nanotechnology, 2009, 20, 434021.	2.6	29
70	Upper Bound for the Magnetic Force Gradient in Graphite. Physical Review Letters, 2010, 105, 257203.	7.8	29
71	Transport of physisorbed Xe atoms on Ni(110) using a scanning tunneling microscope: A theoretical approach. Physical Review B, 1992, 45, 8721-8729.	3.2	28
72	Nanomanipulation Using Only Mechanical Energy. Physical Review Letters, 2005, 95, 126103.	7.8	27

#	Article	IF	Citations
73	Understanding the paradoxical mechanical response of in-phase A-tracts at different force regimes. Nucleic Acids Research, 2020, 48, 5024-5036.	14.5	27
74	Can Atomic Force Microscopy Achieve Atomic Resolution in Contact Mode?. Physical Review Letters, 2001, 86, 1287-1290.	7.8	26
75	Local-orbital occupancy formulation of density functional theory: Application to Si, C, and graphene. Physical Review B, 2006, 73, .	3.2	26
76	â€~Sub-atomic' resolution of non-contact atomic force microscope images induced by a heterogeneous tip structure: a density functional theory study. Nanotechnology, 2011, 22, 295710.	2.6	26
77	Covalent and Reversible Short-Range Electrostatic Imaging in Noncontact Atomic Force Microscopy. Physical Review Letters, 2003, 91, 216401.	7.8	25
78	Vacancy formation on C60/Pt (111): unraveling the complex atomistic mechanism. Nanotechnology, 2014, 25, 385602.	2.6	25
79	Diffusion Barriers Block Defect Occupation on Reduced <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mi>CeO</mml:mi></mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow><mml:mrow< td=""><td>n<b>l708</b>n&gt;2&lt; 487 Td (s</td><td>/m²ភl:mn&gt; <!--<br-->tretchy="fal</td></mml:mrow<></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:mrow></mml:math>	n <b>l708</b> n>2< 487 Td (s	/m²ភl:mn> <br tretchy="fal
80	First-Principles Study of the Water Adsorption on Anatase (101) as a Function of the Coverage. Journal of Physical Chemistry C, 2018, 122, 20736-20744.	3.1	25
81	Can Electron Transport through a Blue-Copper Azurin Be Coherent? An Ab Initio Study. Journal of Physical Chemistry C, 2021, 125, 1693-1702.	3.1	25
82	Surface-controlled reversal of the selectivity of halogen bonds. Nature Communications, 2020, 11, 5630.	12.8	24
83	Chalcogen passivation of GaAs(1 0 0) surfaces: theoretical study. Applied Surface Science, 2003, 212-213, 861-865.	6.1	23
84	Quantum Degeneracy in Atomic Point Contacts Revealed by Chemical Force and Conductance. Physical Review Letters, 2013, 111, 106803.	7.8	23
85	Graphene Tunable Transparency to Tunneling Electrons: A Direct Tool To Measure the Local Coupling. ACS Nano, 2016, 10, 5131-5144.	14.6	23
86	Exchangeâ€"correlation energy in the orbital occupancy method: electronic structure of organic molecules. Journal of Physics Condensed Matter, 2003, 15, S2665-S2678.	1.8	20
87	Selenium passivation of GaAs(001): a combined experimental and theoretical study. Journal of Physics Condensed Matter, 2004, 16, 2187-2206.	1.8	20
88	Electron correlation effects at Sn/Si(111)–? and Sn/Ge(111)–? reconstructions. Progress in Surface Science, 2001, 67, 299-307.	8.3	19
89	Sublattice Localized Electronic States in Atomically Resolved Graphene-Pt(111) Edge-Boundaries. ACS Nano, 2014, 8, 3590-3596.	14.6	19
90	Atomic-Scale Variations of the Mechanical Response of 2D Materials Detected by Noncontact Atomic Force Microscopy. Physical Review Letters, 2016, 116, 245502.	7.8	19

#	Article	IF	Citations
91	<i>Ab initio</i> electronic structure calculations of entire blue copper azurins. Physical Chemistry Chemical Physics, 2018, 20, 30392-30402.	2.8	19
92	Strong dependence of flattening and decoupling of graphene on metals on the local distribution of intercalated oxygen atoms. Carbon, 2016, 101, 129-134.	10.3	18
93	Mechanical properties and electrical conductance of different Al nanowires submitted to an homogeneous deformation: a first-principles simulation. Surface Science, 2004, 566-568, 13-23.	1.9	17
94	Ga-induced atom wire formation and passivation of stepped Si(112). Physical Review B, 2005, 72, .	3.2	17
95	Chemistry and temperature-assisted dehydrogenation of C60H30 molecules on TiO2(110) surfaces. Nanoscale, $2013, 5, 11058$ .	5.6	17
96	Interplay between Switching Driven by the Tunneling Current and Atomic Force of a Bistable Four-Atom Si Quantum Dot. Nano Letters, 2015, 15, 4356-4363.	9.1	17
97	Sequence-dependent mechanical properties of double-stranded RNA. Nanoscale, 2019, 11, 21471-21478.	5.6	17
98	The local electronic properties of individual Pt atoms adsorbed on TiO <sub>2</sub> (110) studied by Kelvin probe force microscopy and first-principles simulations. Nanoscale, 2017, 9, 5812-5821.	5.6	16
99	Tuning Structure and Dynamics of Blue Copper Azurin Junctions via Single Amino-Acid Mutations. Biomolecules, 2019, 9, 611.	4.0	16
100	Mechanical Deformation and Electronic Structure of a Blue Copper Azurin in a Solid-State Junction. Biomolecules, 2019, 9, 506.	4.0	16
101	Chemical interactions in noncontact AFM on semiconductor surfaces: $Si(111)$ , $Si(100)$ and $GaAs(110)$ . Applied Surface Science, 1999, 140, 320-326.	6.1	15
102	Tip–surface interactions in noncontact atomic force microscopy on reactive surfaces. Progress in Surface Science, 2000, 64, 179-191.	8.3	15
103	Universal behaviour in the final stage of the breaking process for metal nanowires. Nanotechnology, 2005, 16, 1023-1028.	2.6	15
104	Influence of support morphology on the bonding of molecules to nanoparticles. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7903-7908.	7.1	15
105	A Deep Learning Approach for Molecular Classification Based on AFM Images. Nanomaterials, 2021, 11, 1658.	4.1	15
106	Systematic theoretical studies of the Schottky barrier control by passivating atomic intralayers. Surface Science, 1999, 426, 26-37.	1.9	14
107	Electron correlation effects and ferromagnetism in iron. Journal of Physics Condensed Matter, 2002, 14, L421-L427.	1.8	14
108	Purely substitutional nitrogen on graphene/Pt(111) unveiled by STM and first principles calculations. Nanoscale, 2016, 8, 17686-17693.	5.6	14

#	Article	IF	Citations
109	Do Au Atoms Titrate Ce <sup>3+</sup> lons at the CeO <sub>2–<i>x</i></sub> (111) Surface?. Journal of Physical Chemistry C, 2016, 120, 927-933.	3.1	14
110	Atomic force microscopy contrast with CO functionalized tips in hydrogen-bonded molecular layers: Does the real tip charge distribution play a role?. Physical Review B, 2017, 96, .	3.2	14
111	Fine defect engineering of graphene friction. Carbon, 2021, 182, 735-741.	10.3	14
112	Surface properties of chalcogen passivated GaAs(1 0 0). Applied Surface Science, 2003, 212-213, 850-855.	6.1	13
113	Accurate Sequence-Dependent Coarse-Grained Model for Conformational and Elastic Properties of Double-Stranded DNA. Journal of Chemical Theory and Computation, 2022, 18, 3239-3256.	5.3	13
114	Understanding Dissipative Tip–Molecule Interactions with Submolecular Resolution on an Organic Adsorbate. Small, 2012, 8, 602-611.	10.0	12
115	Albumin (BSA) adsorption onto graphite stepped surfaces. Journal of Chemical Physics, 2017, 146, 214704.	3.0	12
116	Unveiling the atomistic mechanisms for oxygen intercalation in a strongly interacting graphene–metal interface. Physical Chemistry Chemical Physics, 2018, 20, 13370-13378.	2.8	12
117	Sequential Bending and Twisting around C–C Single Bonds by Mechanical Lifting of a Pre-Adsorbed Polymer. Nano Letters, 2020, 20, 652-657.	9.1	12
118	Double-stranded RNA bending by AU-tract sequences. Nucleic Acids Research, 2020, 48, 12917-12928.	14.5	12
119	Pt atoms adsorbed on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>TiO</mml:mi><mml: 2015,="" 91,<="" and="" atomic="" b,="" first-principles="" force="" microscopy="" noncontact="" physical="" review="" simulations.="" th="" with=""><th>mŋ&gt;2<th>ml:mn&gt;</th></th></mml:></mml:msub></mml:mrow></mml:math>	mŋ>2 <th>ml:mn&gt;</th>	ml:mn>
120	Substrate-induced enhancement of the chemical reactivity in metal-supported graphene. Physical Chemistry Chemical Physics, 2018, 20, 19492-19499.	2.8	10
121	Graphene on Rh(111): A template for growing ordered arrays of metal nanoparticles with different periodicities. Carbon, 2021, 173, 1073-1081.	10.3	10
122	Si-substitutional defects on the α-Sn/Si(111)-() surface. Applied Surface Science, 2004, 234, 286-291.	6.1	9
123	Stick–Slip Motion of ssDNA over Graphene. Journal of Physical Chemistry B, 2018, 122, 840-846.	2.6	9
124	High-accuracy large-scale DFT calculations using localized orbitals in complex electronic systems: the case of graphene–metal interfaces. Journal of Physics Condensed Matter, 2018, 30, 505901.	1.8	9
125	Mechanical and electrical properties of stretched clean and H-contaminated Pd-nanowires. Nanotechnology, 2008, 19, 335711.	2.6	8
126	Spontaneous Discrimination of Polycyclic Aromatic Hydrocarbon (PAH) Enantiomers on a Metal Surface. Chemistry - A European Journal, 2010, 16, 13920-13924.	3.3	8

#	Article	IF	CITATIONS
127	Simultaneous Measurement of Multiple Independent Atomic-Scale Interactions Using Scanning Probe Microscopy: Data Interpretation and the Effect of Cross-Talk. Journal of Physical Chemistry C, 2015, 119, 6670-6677.	3.1	8
128	Platinum atomic contacts: From tunneling to contact. Physical Review B, 2017, 95, .	3.2	8
129	Combining nitrogen substitutional defects and oxygen intercalation to control the graphene corrugation and doping level. Carbon, 2018, 130, 362-368.	10.3	8
130	QUAM-AFM: A Free Database for Molecular Identification by Atomic Force Microscopy. Journal of Chemical Information and Modeling, 2022, 62, 1214-1223.	5 <b>.</b> 4	8
131	Mechanical Response and Energy-Dissipation Processes in Oligothiophene Monolayers Studied with First-Principles Simulations. Tribology Letters, 2010, 39, 295-309.	2.6	7
132	Discriminating Chemical Bonds. Science, 2012, 337, 1305-1306.	12.6	7
133	Temperature Activates Contact Aging in Silica Nanocontacts. Physical Review X, 2019, 9, .	8.9	7
134	Induced magnetism in oxygen-decorated N-doped graphene. Carbon, 2020, 159, 102-109.	10.3	7
135	Exchange correlation energy as a function of the orbital occupancies: Implementation on first principles local orbital methods. International Journal of Quantum Chemistry, 2003, 91, 151-156.	2.0	6
136	Reversible short-range electrostatic imaging in frequency modulation atomic force microscopy on metallic surfaces. Nanotechnology, 2004, 15, S55-S59.	2.6	6
137	CO and O overlayers on Pd nanocrystals supported on TiO2(110). Faraday Discussions, 2013, 162, 191.	3.2	6
138	First Principles Calculations on the Stoichiometric and Defective (101) Anatase Surface and Upon Hydrogen and H2Pc Adsorption: The Influence of Electronic Exchange and Correlation and of Basis Set Approximations. Frontiers in Chemistry, 2019, 7, 220.	3.6	6
139	Assessing the Accuracy of Different Solvation Models To Describe Protein Adsorption. Journal of Chemical Theory and Computation, 2019, 15, 2548-2560.	<b>5.</b> 3	6
140	Effect of Molecule–Substrate Interactions on the Adsorption of ⟨i>meso⟨/i>-Dibenzoporphycene Tautomers Studied by Scanning Probe Microscopy and First-Principles Calculations. Journal of Physical Chemistry C, 2020, 124, 26759-26768.	3.1	6
141	Hydrogen bonded trimesic acid networks on Cu(111) reveal how basic chemical properties are imprinted in HR-AFM images. Nanoscale, 2021, 13, 18473-18482.	5.6	6
142	The Role of Metal Ions in the Electron Transport through Azurin-Based Junctions. Applied Sciences (Switzerland), 2021, 11, 3732.	2.5	6
143	Distorted by the tip. Nature Materials, 2014, 13, 118-119.	27.5	5
144	Slippery in every direction. Nature Materials, 2018, 17, 852-854.	27.5	5

#	Article	IF	Citations
145	Flexible Superlubricity Unveiled in Sidewinding Motion of Individual Polymeric Chains. Physical Review Letters, 2022, 128, .	7.8	5
146	Phonon dynamics of the Sn/Ge(1 $1$ 1)-(3 $\tilde{A}$ — 3) surface. Applied Surface Science, 2004, 237, 86-92.	6.1	4
147	Covalent Functionalization of GaP(110) Surfaces via a Staudinger-Type Reaction with Perfluorophenyl Azide. Journal of Physical Chemistry C, 2016, 120, 26448-26452.	3.1	4
148	Pentacene/TiO <sub>2</sub> Anatase Hybrid Interface Study by Scanning Probe Microscopy and First Principles Calculations. ACS Applied Materials & Samp; Interfaces, 2018, 10, 34718-34726.	8.0	3
149	Practical Guide to Single-Protein AFM Nanomechanical Spectroscopy Mapping: Insights and Pitfalls As Unraveled by All-Atom MD Simulations on Immunoglobulin G. ACS Sensors, 2021, 6, 553-564.	7.8	3
150	High-resolution noncontact atomic force microscopy. Nanotechnology, 2009, 20, 260201-260201.	2.6	2
151	Characterizing self-assembled molecular layers on weakly interacting substrates: the role of van der Waals and the chemical interactions. Nano Futures, 2018, 2, 045002.	2.2	2
152	Metallization and Schottky-barrier formation for Se-passivated GaAs (1 $00$ ) interfaces. Applied Surface Science, 2002, 190, 475-479.	6.1	1
153	Imaging Beyond Topography. Imaging & Microscopy, 2008, 10, 25-28.	0.1	1
154	Not that slippery. Nature Materials, 2009, 8, 857-858.	27.5	1
155	Basic Mechanisms for Single Atom Manipulation in Semiconductor Systems with the FM-AFM. Nanoscience and Technology, 2009, , 227-249.	1.5	1
156	Sequence-Specific Features of Short Double-Strand, Blunt-End RNAs Have RIG-I- and Type 1 Interferon-Dependent or -Independent Anti-Viral Effects. Viruses, 2022, 14, 1407.	3.3	1
157	Mechanical Response of Diamond at Nanometer Scaes: Diamond Polishing and Atomic Force Microscopy. Materials Research Society Symposia Proceedings, 2000, 649, 861.	0.1	0
158	The Electrostatic Field of CO Functionalized Metal Tips. Springer Series in Surface Sciences, 2018, , 465-497.	0.3	0
159	Chemical Interaction in NC-AFM on Semiconductor Surfaces. Nanoscience and Technology, 2002, , 279-304.	1.5	0
160	Assembly of Complex Nano-Structure from Single Atoms-Chemical Identification, Manipulation and Assembly by AFM Shinku/Journal of the Vacuum Society of Japan, 2007, 50, 181-183.	0.2	0