Ruben Perez

List of Publications by Year
in descending order

160 papers	9,884 citations	47006 47 h-index	37204 96 g-index
165 all docs	165 docs citations	165 times ranked	9125 citing authors

#	Article	IF	Citations
1	QUAM-AFM: A Free Database for Molecular Identification by Atomic Force Microscopy. Journal of Chemical Information and Modeling, 2022, 62, 1214-1223.	5.4	8
2	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
3	Flexible Superlubricity Unveiled in Sidewinding Motion of Individual Polymeric Chains. Physical Review Letters, 2022, 128, .	7.8	5
4	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
5	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
6	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
7	A molecular view of DNA flexibility. Quarterly Reviews of Biophysics, 2021, 54, e8.	5.7	35
8	Graphene on Rh(111): A template for growing ordered arrays of metal nanoparticles with different periodicities. Carbon, 2021, 173, 1073-1081.	10.3	10
9	The Role of Metal Ions in the Electron Transport through Azurin-Based Junctions. Applied Sciences (Switzerland), 2021, 11, 3732.	2.5	6
10	Fine defect engineering of graphene friction. Carbon, 2021, 182, 735-741.	10.3	14
11	A Deep Learning Approach for Molecular Classification Based on AFM Images. Nanomaterials, 2021, 11, 1658.	4.1	15
12	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
13	Induced magnetism in oxygen-decorated N-doped graphene. Carbon, 2020, 159, 102-109.	10.3	7
14	Sequential Bending and Twisting around Câ€“C Single Bonds by Mechanical Lifting of a Pre-Adsorbed Polymer. Nano Letters, 2020, 20, 652-657.	9.1	12
15	Effect of Moleculeâ€“Substrate Interactions on the Adsorption of meso-Dibenzoporphycene Tautomers Studied by Scanning Probe Microscopy and First-Principles Calculations. Journal of Physical Chemistry C, 2020, 124, 26759-26768.	3.1	6
16	Double-stranded RNA bending by AU-tract sequences. Nucleic Acids Research, 2020, 48, 12917-12928.	14.5	12
17	Surface-controlled reversal of the selectivity of halogen bonds. Nature Communications, 2020, 11, 5630.	12.8	24
18	Understanding the paradoxical mechanical response of in-phase A-tracts at different force regimes. Nucleic Acids Research, 2020, 48, 5024-5036.	14.5	27

#	Article	IF	Citations
19	Tuning Structure and Dynamics of Blue Copper Azurin Junctions via Single Amino-Acid Mutations. Biomolecules, 2019, 9, 611.	4.0	16
20	Mechanical Deformation and Electronic Structure of a Blue Copper Azurin in a Solid-State Junction. Biomolecules, 2019, 9, 506.	4.0	16
21	DNA Crookedness Regulates DNA Mechanical Properties at Short Length Scales. Physical Review Letters, 2019, 122, 048102.	7.8	44
22	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
23	Assessing the Accuracy of Different Solvation Models To Describe Protein Adsorption. Journal of Chemical Theory and Computation, 2019, 15, 2548-2560.	5.3	6
24	Conformations and cryo-force spectroscopy of spray-deposited single-strand DNA on gold. Nature Communications, 2019, 10, 685.	12.8	30
25	Temperature Activates Contact Aging in Silica Nanocontacts. Physical Review X, 2019, 9, .	8.9	7
26	Sequence-dependent mechanical properties of double-stranded RNA. Nanoscale, 2019, 11, 21471-21478.	5.6	17
27	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
28	Unveiling the atomistic mechanisms for oxygen intercalation in a strongly interacting grapheneâ€“metal interface. Physical Chemistry Chemical Physics, 2018, 20, 13370-13378.	2.8	12
29	Combining nitrogen substitutional defects and oxygen intercalation to control the graphene corrugation and doping level. Carbon, 2018, 130, 362-368.	10.3	8
30	The Electrostatic Field of CO Functionalized Metal Tips. Springer Series in Surface Sciences, 2018, , 465-497.	0.3	0
31	Stickâ€“Slip Motion of ssDNA over Graphene. Journal of Physical Chemistry B, 2018, 122, 840-846.	2.6	9
32	Ab initio electronic structure calculations of entire blue copper azurins. Physical Chemistry Chemical Physics, 2018, 20, 30392-30402.	2.8	19
33	High-accuracy large-scale DFT calculations using localized orbitals in complex electronic systems: the case of grapheneâ€“metal interfaces. Journal of Physics Condensed Matter, 2018, 30, 505901.	1.8	9
34	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
35	Slippery in every direction. Nature Materials, 2018, 17, 852-854.	27.5	5
36	Pentacene/TiO₂ Anatase Hybrid Interface Study by Scanning Probe Microscopy and First Principles Calculations. ACS Applied Materials & Interfaces, 2018, 10, 34718-34726.	8.0	3

#	Article	IF	Citations
37	Substrate-induced enhancement of the chemical reactivity in metal-supported graphene. Physical Chemistry Chemical Physics, 2018, 20, 19492-19499.	2.8	10
38	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
39	The local electronic properties of individual Pt atoms adsorbed on TiO₂(110) studied by Kelvin probe force microscopy and first-principles simulations. Nanoscale, 2017, 9, 5812-5821.	5.6	16
40	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
41	Tailoring the thermal expansion of graphene via controlled defect creation. Carbon, 2017, 116, 670-677.	10.3	41
42	Platinum atomic contacts: From tunneling to contact. Physical Review B, 2017, 95, .	3.2	8
43	Bioengineering a Single-Protein Junction. Journal of the American Chemical Society, 2017, 139, 15337-15346.	13.7	84
44	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
45	Albumin (BSA) adsorption onto graphite stepped surfaces. Journal of Chemical Physics, 2017, 146, 214704.	3.0	12
46	Graphene monovacancies: Electronic and mechanical properties from large scale ab initio simulations. Carbon, 2016, 103, 200-208.	10.3	33
47	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
48	Graphene Tunable Transparency to Tunneling Electrons: A Direct Tool To Measure the Local Coupling. ACS Nano, 2016, 10, 5131-5144.	14.6	23
49	Purely substitutional nitrogen on graphene/Pt(111) unveiled by STM and first principles calculations. Nanoscale, 2016, 8, 17686-17693.	5.6	14
50	Diffusion Barriers Block Defect Occupation on Reduced<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CeO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m stretchy="false">(</mml:mo><mml:mn>111</mml:mn><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 207 Td (stretchy="false">)</mm	7.8	25
51	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
52	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
53	Adsorption orientations and immunological recognition of antibodies on graphene. Nanoscale, 2016, 8, 13463-13475.	5.6	50
54	Do Au Atoms Titrate Ce³⁺ Ions at the CeO_{2â€“x}(111) Surface?. Journal of Physical Chemistry C, 2016, 120, 927-933.	3.1	14

#	Article	IF	Citations
55	Atomic-Scale Sliding Friction on Graphene in Water. ACS Nano, 2016, 10, 4288-4293.	14.6	85
56	Albumin (BSA) Adsorption over Graphene in Aqueous Environment: Influence of Orientation, Adsorption Protocol, and Solvent Treatment. Langmuir, 2016, 32, 1742-1755.	3.5	52
57	The Electric Field of CO Tips and Its Relevance for Atomic Force Microscopy. Nano Letters, 2016, 16, 1974-1980.	9.1	79
58	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
59	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:mn>2</mml:mn></m with noncontact atomic force microscopy and first-principles simulations. Physical Review B, 2015, 91, .	3.2	11
60	Tug-of-war between corrugation and binding energy: revealing the formation of multiple moirÃ© patterns on a strongly interacting grapheneâ€“metal system. Nanoscale, 2015, 7, 11300-11309.	5.6	33
61	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
62	Atomic species identification at the (101) anatase surface by simultaneous scanning tunnelling and atomic force microscopy. Nature Communications, 2015, 6, 7265.	12.8	49
63	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
64	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
65	Hydrogen activation, diffusion, and clustering on CeO2(111): A DFT+U study. Journal of Chemical Physics, 2014, 141, 014703.	3.0	109
66	Sublattice Localized Electronic States in Atomically Resolved Graphene-Pt(111) Edge-Boundaries. ACS Nano, 2014, 8, 3590-3596.	14.6	19
67	Distorted by the tip. Nature Materials, 2014, 13, 118-119.	27.5	5
68	Vacancy formation on C60/Pt (111): unraveling the complex atomistic mechanism. Nanotechnology, 2014, 25, 385602.	2.6	25
69	Molecular-Level Understanding of CeO₂ as a Catalyst for Partial Alkyne Hydrogenation. Journal of Physical Chemistry C, 2014, 118, 5352-5360.	3.1	112
70	Role of Tip Chemical Reactivity on Atom Manipulation Process in Dynamic Force Microscopy. ACS Nano, 2013, 7, 7370-7376.	14.6	35
71	Chemistry and temperature-assisted dehydrogenation of C60H30 molecules on TiO2(110) surfaces. Nanoscale, 2013, 5, 11058.	5.6	17
72	Quantum Degeneracy in Atomic Point Contacts Revealed by Chemical Force and Conductance. Physical Review Letters, 2013, 111, 106803.	7.8	23

#	Article	IF	Citations
73	Understanding Scanning Tunneling Microscopy Contrast Mechanisms on Metal Oxides: A Case Study. ACS Nano, 2013, 7, 10233-10244.	14.6	53
74	Size-Dependent Dissociation of Carbon Monoxide on Cobalt Nanoparticles. Journal of the American Chemical Society, 2013, 135, 2273-2278.	13.7	195
75	CO and O overlayers on Pd nanocrystals supported on TiO2(110). Faraday Discussions, 2013, 162, 191.	3.2	6
76	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
77	Force mapping on a partially H-covered Si(111)-(7<mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 592 Td (xmlns:mml="http:/ Physical Review B, 2013, 87, .	3.2	38
78	Understanding image contrast formation in TiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>with force spectroscopy. Physical Review B, 2012, 85, .	3.2	52
79	Insight into the Adsorption of Water on the Clean CeO₂(111) Surface with van der Waals and Hybrid Density Functionals. Journal of Physical Chemistry C, 2012, 116, 13584-13593.	3.1	116
80	Discriminating Chemical Bonds. Science, 2012, 337, 1305-1306.	12.6	7
81	Understanding Dissipative Tipâ€“Molecule Interactions with Submolecular Resolution on an Organic Adsorbate. Small, 2012, 8, 602-611.	10.0	12
82	Point Defects on Graphene on Metals. Physical Review Letters, 2011, 107, 116803.	7.8	202
83	Forces and Currents in Carbon Nanostructures: Are We Imaging Atoms?. Physical Review Letters, 2011, 106, 176101.	7.8	81
84	â€˜Sub-atomicâ€™ 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
85	Mechanical Response and Energy-Dissipation Processes in Oligothiophene Monolayers Studied with First-Principles Simulations. Tribology Letters, 2010, 39, 295-309.	2.6	7
86	Spontaneous Discrimination of Polycyclic Aromatic Hydrocarbon (PAH) Enantiomers on a Metal Surface. Chemistry - A European Journal, 2010, 16, 13920-13924.	3.3	8
87	Upper Bound for the Magnetic Force Gradient in Graphite. Physical Review Letters, 2010, 105, 257203.	7.8	29
88	Not that slippery. Nature Materials, 2009, 8, 857-858.	27.5	1
89	Molecular scale energy dissipation in oligothiophene monolayers measured by dynamic force microscopy. Nanotechnology, 2009, 20, 434021.	2.6	29
90	â€˜All-inclusiveâ€™ imaging of the rutile TiO₂(110) surface using NC-AFM. Nanotechnology, 2009, 20, 505703.	2.6	80

#	Article	IF	Citations
91	Atomic force microscopy as a tool for atom manipulation. Nature Nanotechnology, 2009, 4, 803-810.	31.5	234
92	Structure and stability of semiconductor tip apexes for atomic force microscopy. Nanotechnology, 2009, 20, 264015.	2.6	59
93	High-resolution noncontact atomic force microscopy. Nanotechnology, 2009, 20, 260201-260201.	2.6	2
94	Basic Mechanisms for Single Atom Manipulation in Semiconductor Systems with the FM-AFM. Nanoscience and Technology, 2009, , 227-249.	1.5	1
95	Imaging Beyond Topography. Imaging & Microscopy, 2008, 10, 25-28.	0.1	1
96	Complex Patterning by Vertical Interchange Atom Manipulation Using Atomic Force Microscopy. Science, 2008, 322, 413-417.	12.6	236
97	Fullerenes from aromatic precursors by surface-catalysed cyclodehydrogenation. Nature, 2008, 454, 865-868.	27.8	291
98	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
99	Mechanical and electrical properties of stretched clean and H-contaminated Pd-nanowires. Nanotechnology, 2008, 19, 335711.	2.6	8
100	Describing bond-breaking processes by reactive potentials: Importance of an environment-dependent interaction range. Physical Review B, 2008, 78, .	3.2	149
101	Tip-Induced Reduction of the Resonant Tunneling Current on Semiconductor Surfaces. Physical Review Letters, 2008, 101, 176101.	7.8	47
102	Nanoscale compositional mapping with gentle forces. Nature Materials, 2007, 6, 405-411.	27.5	299
103	Chemical identification of individual surface atoms by atomic force microscopy. Nature, 2007, 446, 64-67.	27.8	649
104	Mechanism for Room-Temperature Single-Atom Lateral Manipulations on Semiconductors using Dynamic Force Microscopy. Physical Review Letters, 2007, 98, 106104.	7.8	113
105	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
106	Hydrogen Dissociation over Au Nanowires and the Fractional Conductance Quantum. Physical Review Letters, 2006, 96, 046803.	7.8	56
107	STM-theory: Image potential, chemistry and surface relaxation. Progress in Surface Science, 2006, 81, 403-443.	8.3	130
108	Single Atomic Contact Adhesion and Dissipation in Dynamic Force Microscopy. Physical Review Letters, 2006, 96, 106101.	7.8	129

#	Article	IF	Citations
109	Real topography, atomic relaxations, and short-range chemical interactions in atomic force microscopy: The case of theÎ±â^'Snâ^•Si(111)â^'(3Ã—3)R30Â°surface. Physical Review B, 2006, 73, .	3.2	72
110	Local-orbital occupancy formulation of density functional theory: Application to Si, C, and graphene. Physical Review B, 2006, 73, .	3.2	26
111	Universal behaviour in the final stage of the breaking process for metal nanowires. Nanotechnology, 2005, 16, 1023-1028.	2.6	15
112	Nanomanipulation Using Only Mechanical Energy. Physical Review Letters, 2005, 95, 126103.	7.8	27
113	Ga-induced atom wire formation and passivation of stepped Si(112). Physical Review B, 2005, 72, .	3.2	17
114	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
115	Intrinsic Character of the(3Ã—3)to(3Ã—3)Phase Transition inPb/Si(111). Physical Review Letters, 2005, 94, 046101.	7.8	46
116	Selenium passivation of GaAs(001): a combined experimental and theoretical study. Journal of Physics Condensed Matter, 2004, 16, 2187-2206.	1.8	20
117	Reversible short-range electrostatic imaging in frequency modulation atomic force microscopy on metallic surfaces. Nanotechnology, 2004, 15, S55-S59.	2.6	6
118	First-principles simulations of STM images:â€,From tunneling to the contact regime. Physical Review B, 2004, 70, .	3.2	87
119	Formation of Atom Wires on Vicinal Silicon. Physical Review Letters, 2004, 93, 126106.	7.8	37
120	Dipole formation at metal/PTCDA interfaces: Role of the Charge Neutrality Level. Europhysics Letters, 2004, 65, 802-808.	2.0	216
121	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
122	Schottky contacts on passivated GaAs(100) surfaces: barrier height and reactivity. Applied Surface Science, 2004, 234, 341-348.	6.1	77
123	Si-substitutional defects on the Î±-Sn/Si(111)-() surface. Applied Surface Science, 2004, 234, 286-291.	6.1	9
124	Barrier formation at metalâ€“organic interfaces: dipole formation and the charge neutrality level. Applied Surface Science, 2004, 234, 107-112.	6.1	172
125	Phonon dynamics of the Sn/Ge(1 1 1)-(3 Ã— 3) surface. Applied Surface Science, 2004, 237, 86-92.	6.1	4
126	Chalcogen passivation of GaAs(1 0 0) surfaces: theoretical study. Applied Surface Science, 2003, 212-213, 861-865.	6.1	23

#	Article	IF	Citations
127	Surface properties of chalcogen passivated GaAs(1 0 0). Applied Surface Science, 2003, 212-213, 850-855.	6.1	13
128	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
129	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
130	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
131	Covalent and Reversible Short-Range Electrostatic Imaging in Noncontact Atomic Force Microscopy. Physical Review Letters, 2003, 91, 216401.	7.8	25
132	Interplay between Nonlinearity, Scan Speed, Damping, and Electronics in Frequency Modulation Atomic-Force Microscopy. Physical Review Letters, 2002, 89, 146104.	7.8	54
133	Electron correlation effects and ferromagnetism in iron. Journal of Physics Condensed Matter, 2002, 14, L421-L427.	1.8	14
134	Dynamical fluctuations and the $surd$3 $times$ $surd$3 $leftrightarrow$ 3 $times$ 3 transition in $alpha$-Sn/Ge(111) and Sn/Si(111). Journal of Physics Condensed Matter, 2002, 14, 5979-6004.	1.8	36
135	Metallization and Schottky-barrier formation for Se-passivated GaAs(1 0 0) interfaces. Applied Surface Science, 2002, 190, 475-479.	6.1	1
136	Dynamic atomic force microscopy methods. Surface Science Reports, 2002, 47, 197-301.	7.2	1,812
137	Chemical Interaction in NC-AFM on Semiconductor Surfaces. Nanoscience and Technology, 2002, , 279-304.	1.5	0
138	Electron correlation effects at Sn/Si(111)Ã¢Â€Â“? and Sn/Ge(111)Ã¢Â€Â“? reconstructions. Progress in Surface Science, 2001, 67, 299-307.	8.3	19
139	Surface Soft Phonon and theâˆšÃ—âˆš3â†”3Ã—3Phase Transition inSn/Ge(111)andSn/Si(111). Physical Review Letters, 2001, 86, 4891-4894.	7.8	75
140	Can Atomic Force Microscopy Achieve Atomic Resolution in Contact Mode?. Physical Review Letters, 2001, 86, 1287-1290.	7.8	26
141	Mechanical Response of Diamond at Nanometer Scaes: Diamond Polishing and Atomic Force Microscopy. Materials Research Society Symposia Proceedings, 2000, 649, 861.	0.1	0
142	Tipâ€“surface interactions in noncontact atomic force microscopy on reactive surfaces. Progress in Surface Science, 2000, 64, 179-191.	8.3	15
143	An ab initio study of the cleavage anisotropy in silicon. Acta Materialia, 2000, 48, 4517-4530.	7.9	229
144	A theoretical case study: the Sn/Ge(111)-(3 Ã— 3) surface. Journal of Physics Condensed Matter, 2000, 12, L21-L27.	1.8	42

#	Article	IF	Citations
145	Directional Anisotropy in the Cleavage Fracture of Silicon. Physical Review Letters, 2000, 84, 5347-5350.	7.8	269
146	Local-density approach and quasiparticle levels for generalized Hubbard Hamiltonians. Physical Review B, 2000, 62, 4309-4331.	3.2	57
147	Dynamical Fluctuations as the Origin of a Surface Phase Transition inSn/Ge(111). Physical Review Letters, 1999, 82, 442-445.	7.8	173
148	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
149	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
150	MANY-BODY EFFECTS AND THE METALâ€“INSULATOR TRANSITION AT SEMICONDUCTOR SURFACES AND INTERFACES. Surface Review and Letters, 1999, 06, 411-433.	1.1	33
151	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
152	Systematic theoretical studies of the Schottky barrier control by passivating atomic intralayers. Surface Science, 1999, 426, 26-37.	1.9	14
153	Contrast mechanism in non-contact AFM on reactive surfaces. Applied Surface Science, 1998, 123-124, 249-254.	6.1	34
154	Surface-tip interactions in noncontact atomic-force microscopy on reactive surfaces: Si(111). Physical Review B, 1998, 58, 10835-10849.	3.2	194
155	Microscopic Mechanism for Mechanical Polishing of Diamond (110) Surfaces. Physical Review Letters, 1998, 80, 3428-3431.	7.8	43
156	Role of Covalent Tip-Surface Interactions in Noncontact Atomic Force Microscopy on Reactive Surfaces. Physical Review Letters, 1997, 78, 678-681.	7.8	240
157	First Principles Simulations of Silicon Nanoindentation. Physical Review Letters, 1995, 75, 4748-4751.	7.8	53
158	Density-functional approach to LCAO methods. Physical Review B, 1994, 50, 10537-10547.	3.2	56
159	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
160	Molecular-orbital theory for chemisorption: The case of H on normal metals. Physical Review B, 1991, 44, 11412-11431.	3.2	52