

N D Lang

List of Publications by Year in descending order

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75
papers

15,028
citations

46984

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68
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78
docs citations

78
times ranked

5944
citing authors

#	ARTICLE	IF	CITATIONS
1	Theory of Metal Surfaces: Charge Density and Surface Energy. <i>Physical Review B</i> , 1970, 1, 4555-4568.	1.1	1,818
2	Theory of Metal Surfaces: Work Function. <i>Physical Review B</i> , 1971, 3, 1215-1223.	1.1	1,280
3	Measurement of the conductance of a hydrogen molecule. <i>Nature</i> , 2002, 419, 906-909.	13.7	861
4	Theory of Metal Surfaces: Induced Surface Charge and Image Potential. <i>Physical Review B</i> , 1973, 7, 3541-3550.	1.1	839
5	First-Principles Calculation of Transport Properties of a Molecular Device. <i>Physical Review Letters</i> , 2000, 84, 979-982.	2.9	831
6	Theory of atomic chemisorption on simple metals. <i>Physical Review B</i> , 1978, 18, 616-636.	1.1	547
7	Interpolation Scheme for Band Structure of Noble and Transition Metals: Ferromagnetism and Neutron Diffraction in Ni. <i>Physical Review</i> , 1966, 152, 505-526.	2.7	515
8	Effective-medium theory of chemical binding: Application to chemisorption. <i>Physical Review B</i> , 1980, 21, 2131-2136.	1.1	455
9	Spectroscopy of single atoms in the scanning tunneling microscope. <i>Physical Review B</i> , 1986, 34, 5947-5950.	1.1	413
10	Resistance of atomic wires. <i>Physical Review B</i> , 1995, 52, 5335-5342.	1.1	412
11	Theory of Work-Function Changes Induced by Alkali Adsorption. <i>Physical Review B</i> , 1971, 4, 4234-4244.	1.1	400
12	Electron-hole-pair quenching of excited states near a metal. <i>Physical Review B</i> , 1982, 26, 5409-5415.	1.1	313
13	Oscillatory Conductance of Carbon-Atom Wires. <i>Physical Review Letters</i> , 1998, 81, 3515-3518.	2.9	312
14	Core-Level Binding-Energy Shifts in Metals. <i>Physical Review Letters</i> , 1978, 40, 954-957.	2.9	305
15	Interaction between Closed-Shell Systems and Metal Surfaces. <i>Physical Review Letters</i> , 1981, 46, 842-845.	2.9	281
16	Theory of Single-Atom Imaging in the Scanning Tunneling Microscope. <i>Physical Review Letters</i> , 1986, 56, 1164-1167.	2.9	275
17	Carbon-Atom Wires: Charge-Transfer Doping, Voltage Drop, and the Effect of Distortions. <i>Physical Review Letters</i> , 2000, 84, 358-361.	2.9	271
18	Imaging Xe with a low-temperature scanning tunneling microscope. <i>Physical Review Letters</i> , 1991, 66, 1189-1192.	2.9	264

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19	Core holes in chemisorbed atoms. <i>Physical Review B</i> , 1977, 16, 2408-2419.	1.1	254
20	Green's-function methods for electronic-structure calculations. <i>Physical Review B</i> , 1982, 26, 5433-5444.	1.1	223
21	Direct Evidence of Electron Tunneling in the Ionization of Sputtered Atoms. <i>Physical Review Letters</i> , 1983, 50, 127-130.	2.9	222
22	Self-Consistent Theory of the Chemisorption of H, Li, and O on a Metal Surface. <i>Physical Review Letters</i> , 1975, 34, 531-534.	2.9	218
23	Itinerant-Electron Theory of Pressure Effects on Ferromagnetic Transition Temperatures: Ni and Ni-Cu Alloys. <i>Physical Review</i> , 1968, 168, 605-622.	2.7	214
24	Ionization probability of sputtered atoms. <i>Physical Review B</i> , 1983, 27, 2019-2029.	1.1	214
25	Off-Resonance Conduction Through Atomic Wires. <i>Science</i> , 1996, 272, 1921-1924.	6.0	212
26	Apparent barrier height in scanning tunneling microscopy. <i>Physical Review B</i> , 1988, 37, 10395-10398.	1.1	200
27	The benzene molecule as a molecular resonant-tunneling transistor. <i>Applied Physics Letters</i> , 2000, 76, 3448-3450.	1.5	199
28	Vacuum tunneling current from an adsorbed atom. <i>Physical Review Letters</i> , 1985, 55, 230-233.	2.9	192
29	Resistance of a one-atom contact in the scanning tunneling microscope. <i>Physical Review B</i> , 1987, 36, 8173-8176.	1.1	185
30	Temperature Effects on the Transport Properties of Molecules. <i>Physical Review Letters</i> , 2001, 86, 288-291.	2.9	182
31	Apparent Size of an Atom in the Scanning Tunneling Microscope as a Function of Bias. <i>Physical Review Letters</i> , 1987, 58, 45-48.	2.9	168
32	Chemical Trends in Atomic Adsorption on Simple Metals. <i>Physical Review Letters</i> , 1976, 37, 212-215.	2.9	155
33	Theory of a single-atom point source for electrons. <i>Physical Review Letters</i> , 1989, 63, 1499-1502.	2.9	131
34	Anomalous Dependence of Resistance on Length in Atomic Wires. <i>Physical Review Letters</i> , 1997, 79, 1357-1360.	2.9	130
35	Interaction of helium with a metal surface. <i>Physical Review B</i> , 1983, 27, 4612-4616.	1.1	129
36	Theory of Auger relaxation energies in metals. <i>Physical Review B</i> , 1979, 20, 1369-1376.	1.1	121

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37	Current-Induced Forces in Molecular Wires. <i>Physical Review Letters</i> , 2002, 88, 046801.	2.9	110
38	Study of sorption of oxygen on Al. <i>Physical Review B</i> , 1976, 14, 1446-1449.	1.1	100
39	Electrical conductance of parallel atomic wires. <i>Physical Review B</i> , 2000, 62, 7325-7329.	1.1	94
40	Electrical conductance of individual molecules. <i>Physical Review B</i> , 2001, 64, .	1.1	87
41	Self-consistent calculation of atomic adsorption on metals in high electric fields. <i>Physical Review B</i> , 1992, 45, 12050-12055.	1.1	86
42	Field-induced transfer of an atom between two closely spaced electrodes. <i>Physical Review B</i> , 1992, 45, 13599-13606.	1.1	83
43	The Theory of Ionization Probability in Sputtering. <i>Physica Scripta</i> , 1983, T6, 15-18.	1.2	72
44	Energy shifts and broadening of atomic electron levels near impurity-covered metal surfaces. <i>Physical Review B</i> , 1991, 44, 13681-13688.	1.1	64
45	Absence of a charge-transfer instability for rare-gas atoms adsorbed on metals. <i>Physical Review B</i> , 1982, 26, 1728-1737.	1.1	60
46	Negative differential resistance at atomic contacts. <i>Physical Review B</i> , 1997, 55, 9364-9366.	1.1	54
47	Tip-dependent corrugation of graphite in scanning tunneling microscopy. <i>Physical Review Letters</i> , 1990, 65, 1132-1135.	2.9	50
48	Bias-induced transfer of an aluminum atom in the scanning tunneling microscope. <i>Physical Review B</i> , 1994, 49, 2067-2071.	1.1	49
49	Tip electronic structure in scanning tunneling microscopy. <i>Physical Review B</i> , 1988, 37, 9042-9045.	1.1	45
50	Long-Range Electron-Phonon Coupling at Metal Surfaces. <i>Physical Review Letters</i> , 1984, 52, 2073-2076.	2.9	43
51	Ion-surface interactions and electronically stimulated desorption of physisorbed atoms. <i>Physical Review Letters</i> , 1989, 63, 1972-1975.	2.9	40
52	Surface-Dipole Barriers in Simple Metals. <i>Physical Review B</i> , 1973, 8, 6010-6012.	1.1	35
53	On the mechanism of desorption from surfaces induced by electronic transitions. <i>Journal of Chemical Physics</i> , 1988, 89, 2388-2396.	1.2	29
54	Conduction through single Mg and Na atoms linking two macroscopic electrodes. <i>Physical Review B</i> , 1997, 55, 4113-4116.	1.1	29

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55	Minimum Polarity Models in the Theory of Magnetic Properties of NiCu Alloys. Journal of Applied Physics, 1969, 40, 1283-1284.	1.1	28
56	Density Functional Approach to the Electronic Structure of Metal Surfaces and Metal-Adsorbate Systems. , 1983, , 309-389.		25
57	Vacuum Tunneling Current from an Adsorbed Atom. Physical Review Letters, 1985, 55, 2925-2925.	2.9	17
58	Calculated Diabatic Atom-Surface Potential-Energy Curves. Physica Scripta, 1986, 34, 77-83.	1.2	17
59	Mechanism of ion desorption by electronic transitions: A density-functional study. Physical Review Letters, 1987, 59, 2215-2218.	2.9	15
60	Magnetic Form Factor of Nickel. Journal of Applied Physics, 1966, 37, 1449-1450.	1.1	12
61	Comment on "First-principles treatments of electron transport properties for nanoscale junctions". Physical Review B, 2003, 68, .	1.1	8
62	STM Imaging of Single-Atom Adsorbates on Metals. Springer Series in Surface Sciences, 1993, , 7-21.	0.3	7
63	Pressure Dependence of Curie Temperature in Ni. Journal of Applied Physics, 1967, 38, 1316-1318.	1.1	6
64	Electric field gradient at the nucleus of alkali-metal atoms adsorbed on jellium. Physical Review B, 1986, 33, 6567-6571.	1.1	6
65	Use of an alkali halide molecule as a field-effect transistor. Physical Review B, 2001, 64, .	1.1	6
66	Density-Functional Approach to the Electronic Structure of Metal Surfaces and Metal-Adatom Systems. , 1976, , 81-111.		2
67	Electronic Transport in Molecular Devices from First Principles. ACS Symposium Series, 2003, , 219-229.	0.5	1
68	The Nature of Repulsive States and the Role of Nuclear Dynamics in Desorption Induced by Electronic Transitions. Springer Series in Surface Sciences, 1988, , 144-159.	0.3	1
69	Image-Screening of Positive Ions at Metal Surfaces, and Electronically Stimulated Desorption of Noble Gas Atoms. Springer Series in Surface Sciences, 1990, , 24-33.	0.3	1
70	Electrical Resistance of One or Two Atoms. , 1997, , 159-168.		1
71	Studies of the Atom-Surface Interaction and Charge Exchange in Sputtering. Springer Series in Surface Sciences, 1985, , 2-9.	0.3	0
72	Density-Functional Studies of the Atom-Surface Interaction and the Ionization Probability of Sputtered Atoms. Springer Series in Solid-state Sciences, 1985, , 87-93.	0.3	0

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73	Field-Induced Transfer of an Atom Between Two Closely Spaced Electrodes. , 1993, , 87-96.		0
74	Field-Induced Transfer of an Electropositive Atom between Two Closely Spaced Electrodes. , 1993, , 177-183.		0
75	STM Imaging of Single-Atom Adsorbates on Metals. Springer Series in Surface Sciences, 1996, , 7-21.	0.3	0