N D Lang

List of Publications by Year
in descending order

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75 papers	15,028 citations	47006 47 h-index	95266 68 g-index
78 all docs	78 docs citations	78 times ranked	5944 citing authors

#	Article	IF	Citations
1	Electronic Transport in Molecular Devices from First Principles. ACS Symposium Series, 2003, , 219-229.	0.5	1
2	Comment on â€œFirst-principles treatments of electron transport properties for nanoscale junctionsâ€• Physical Review B, 2003, 68, .	3.2	8
3	Current-Induced Forces in Molecular Wires. Physical Review Letters, 2002, 88, 046801.	7.8	110
4	Measurement of the conductance of a hydrogen molecule. Nature, 2002, 419, 906-909.	27.8	861
5	Electrical conductance of individual molecules. Physical Review B, 2001, 64, .	3.2	87
6	Temperature Effects on the Transport Properties of Molecules. Physical Review Letters, 2001, 86, 288-291.	7.8	182
7	Use of an alkali halide molecule as a field-effect transistor. Physical Review B, 2001, 64, .	3.2	6
8	Carbon-Atom Wires: Charge-Transfer Doping, Voltage Drop, and the Effect of Distortions. Physical Review Letters, 2000, 84, 358-361.	7.8	271
9	Electrical conductance of parallel atomic wires. Physical Review B, 2000, 62, 7325-7329.	3.2	94
10	First-Principles Calculation of Transport Properties of a Molecular Device. Physical Review Letters, 2000, 84, 979-982.	7.8	831
11	The benzene molecule as a molecular resonant-tunneling transistor. Applied Physics Letters, 2000, 76, 3448-3450.	3.3	199
12	Oscillatory Conductance of Carbon-Atom Wires. Physical Review Letters, 1998, 81, 3515-3518.	7.8	312
13	Negative differential resistance at atomic contacts. Physical Review B, 1997, 55, 9364-9366.	3.2	54
14	Anomalous Dependence of Resistance on Length in Atomic Wires. Physical Review Letters, 1997, 79, 1357-1360.	7.8	130
15	Conduction through single Mg and Na atoms linking two macroscopic electrodes. Physical Review B, 1997, 55, 4113-4116.	3.2	29
16	Electrical Resistance of One or Two Atoms. , 1997, , 159-168.		1
17	Off-Resonance Conduction Through Atomic Wires. Science, 1996, 272, 1921-1924.	12.6	212
18	STM Imaging of Single-Atom Adsorbates on Metals. Springer Series in Surface Sciences, 1996, , 7-21.	0.3	0

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19	Resistance of atomic wires. Physical Review B, 1995, 52, 5335-5342.	3.2	412
20	Bias-induced transfer of an aluminum atom in the scanning tunneling microscope. Physical Review B, 1994, 49, 2067-2071.	3.2	49
21	STM Imaging of Single-Atom Adsorbates on Metals. Springer Series in Surface Sciences, 1993, , 7-21.	0.3	7
22	Field-Induced Transfer of an Atom Between Two Closely Spaced Electrodes. , 1993, , 87-96.		0
23	Field-Induced Transfer of an Electropositive Atom between Two Closely Spaced Electrodes. , 1993, , 177-183.		0
24	Self-consistent calculation of atomic adsorption on metals in high electric fields. Physical Review B, 1992, 45, 12050-12055.	3.2	86
25	Field-induced transfer of an atom between two closely spaced electrodes. Physical Review B, 1992, 45, 13599-13606.	3.2	83
26	Energy shifts and broadening of atomic electron levels near impurity-covered metal surfaces. Physical Review B, 1991, 44, 13681-13688.	3.2	64
27	Imaging Xe with a low-temperature scanning tunneling microscope. Physical Review Letters, 1991, 66, 1189-1192.	7.8	264
28	Tip-dependent corrugation of graphite in scanning tunneling microscopy. Physical Review Letters, 1990, 65, 1132-1135.	7.8	50
29	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
30	Ion-surface interactions and electronically stimulated desorption of physisorbed atoms. Physical Review Letters, 1989, 63, 1972-1975.	7.8	40
31	Theory of a single-atom point source for electrons. Physical Review Letters, 1989, 63, 1499-1502.	7.8	131
32	On the mechanism of desorption from surfaces induced by electronic transitions. Journal of Chemical Physics, 1988, 89, 2388-2396.	3.0	29
33	Apparent barrier height in scanning tunneling microscopy. Physical Review B, 1988, 37, 10395-10398.	3.2	200
34	Tip electronic structure in scanning tunneling microscopy. Physical Review B, 1988, 37, 9042-9045.	3.2	45
35	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
36	Apparent Size of an Atom in the Scanning Tunneling Microscope as a Function of Bias. Physical Review Letters, 1987, 58, 45-48.	7.8	168

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37	Resistance of a one-atom contact in the scanning tunneling microscope. Physical Review B, 1987, 36, 8173-8176.	3.2	185
38	Mechanism of ion desorption by electronic transitions: A density-functional study. Physical Review Letters, 1987, 59, 2215-2218.	7.8	15
39	Spectroscopy of single atoms in the scanning tunneling microscope. Physical Review B, 1986, 34, 5947-5950.	3.2	413
40	Calculated Diabatic Atom-Surface Potential-Energy Curves. Physica Scripta, 1986, 34, 77-83.	2.5	17
41	Theory of Single-Atom Imaging in the Scanning Tunneling Microscope. Physical Review Letters, 1986, 56, 1164-1167.	7.8	275
42	Electric field gradient at the nucleus of alkali-metal atoms adsorbed on jellium. Physical Review B, 1986, 33, 6567-6571.	3.2	6
43	Vacuum Tunneling Current from an Adsorbed Atom. Physical Review Letters, 1985, 55, 2925-2925.	7.8	17
44	Vacuum tunneling current from an adsorbed atom. Physical Review Letters, 1985, 55, 230-233.	7.8	192
45	Studies of the Atom-Surface Interaction and Charge Exchange in Sputtering. Springer Series in Surface Sciences, 1985, , 2-9.	0.3	0
46	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
47	Long-Range Electron-Phonon Coupling at Metal Surfaces. Physical Review Letters, 1984, 52, 2073-2076.	7.8	43
48	Ionization probability of sputtered atoms. Physical Review B, 1983, 27, 2019-2029.	3.2	214
49	Interaction of helium with a metal surface. Physical Review B, 1983, 27, 4612-4616.	3.2	129
50	Direct Evidence of Electron Tunneling in the Ionization of Sputtered Atoms. Physical Review Letters, 1983, 50, 127-130.	7.8	222
51	The Theory of Ionization Probability in Sputtering. Physica Scripta, 1983, T6, 15-18.	2.5	72
52	Density Functional Approach to the Electronic Structure of Metal Surfaces and Metal-Adsorbate Systems. , 1983, , 309-389.		25
53	Absence of a charge-transfer instability for rare-gas atoms adsorbed on metals. Physical Review B, 1982, 26, 1728-1737.	3.2	60
54	Green's-function methods for electronic-structure calculations. Physical Review B, 1982, 26, 5433-5444.	3.2	223

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55	Electron-hole-pair quenching of excited states near a metal. Physical Review B, 1982, 26, 5409-5415.	3.2	313
56	Interaction between Closed-Shell Systems and Metal Surfaces. Physical Review Letters, 1981, 46, 842-845.	7.8	281
57	Effective-medium theory of chemical binding: Application to chemisorption. Physical Review B, 1980, 21, 2131-2136.	3.2	455
58	Theory of Auger relaxation energies in metals. Physical Review B, 1979, 20, 1369-1376.	3.2	121
59	Core-Level Binding-Energy Shifts in Metals. Physical Review Letters, 1978, 40, 954-957.	7.8	305
60	Theory of atomic chemisorption on simple metals. Physical Review B, 1978, 18, 616-636.	3.2	547
61	Core holes in chemisorbed atoms. Physical Review B, 1977, 16, 2408-2419.	3.2	254
62	Study of sorption of oxygen on Al. Physical Review B, 1976, 14, 1446-1449.	3.2	100
63	Chemical Trends in Atomic Adsorption on Simple Metals. Physical Review Letters, 1976, 37, 212-215.	7.8	155
64	Density-Functional Approach to the Electronic Structure of Metal Surfaces and Metal-Adatom Systems. , 1976, , 81-111.		2
65	Self-Consistent Theory of the Chemisorption of H, Li, and O on a Metal Surface. Physical Review Letters, 1975, 34, 531-534.	7.8	218
66	Theory of Metal Surfaces: Induced Surface Charge and Image Potential. Physical Review B, 1973, 7, 3541-3550.	3.2	839
67	Surface-Dipole Barriers in Simple Metals. Physical Review B, 1973, 8, 6010-6012.	3.2	35
68	Theory of Work-Function Changes Induced by Alkali Adsorption. Physical Review B, 1971, 4, 4234-4244.	3.2	400
69	Theory of Metal Surfaces: Work Function. Physical Review B, 1971, 3, 1215-1223.	3.2	1,280
70	Theory of Metal Surfaces: Charge Density and Surface Energy. Physical Review B, 1970, 1, 4555-4568.	3.2	1,818
71	Minimum Polarity Models in the Theory of Magnetic Properties of NiCu Alloys. Journal of Applied Physics, 1969, 40, 1283-1284.	2.5	28
72	Itinerant-Electron Theory of Pressure Effects on Ferromagnetic Transition Temperatures: Ni and Ni-Cu Alloys. Physical Review, 1968, 168, 605-622.	2.7	214

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73	Pressure Dependence of Curie Temperature in Ni. Journal of Applied Physics, 1967, 38, 1316-1318.	2.5	6
74	Interpolation Scheme for Band Structure of Noble and Transition Metals: Ferromagnetism and Neutron Diffraction in Ni. Physical Review, 1966, 152, 505-526.	2.7	515
75	Magnetic Form Factor of Nickel. Journal of Applied Physics, 1966, 37, 1449-1450.	2.5	12