Wolfgang Schattke

List of Publications by Year
in descending order

124	2,005	236612	344852
papers	citations	25 h-index	36 g-index

128	128	128	1495
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electronic structure ofWSe2: A combined photoemission and inverse photoemission study. Physical Review B, 1997, 55, 10392-10399.	1.1	74
2	Augmented Fourier components method for constructing the crystal potential in self-consistent band-structure calculations. Physical Review B, 1999, 59, 10504-10511.	1.1	70
3	DIFFRACTION AND HOLOGRAPHY WITH PHOTOELECTRONS AND FLUORESCENT X-RAYS. Progress in Surface Science, 1997, 54, 341-386.	3.8	68
4	A subroutine package for computing Green's functions of relaxed surfaces by the renormalization method. Computer Physics Communications, 1993, 77, 69-83.	3.0	64
5	Impact ionization rate in GaAs. Physical Review B, 1994, 49, 4494-4500.	1.1	62
6	Combined photoemission and inverse photoemission study ofHfS2. Physical Review B, 2001, 63, .	1.1	48
7	Quasi-collective motion of nanoscale metal strings in metal surfaces. Nature Materials, 2003, 2, 783-787.	13.3	44
8	Three-dimensional band structure of layeredTiTe2: Photoemission final-state effects. Physical Review B, 2006, 74, .	1.1	43
9	Surface electronic structure with the linear methods of band theory. Physical Review B, 1997, 56, 12874-12883.	1.1	41
10	Theoretical and experimental studies of the photoemission current from GaAs(110). Physical Review B, 1989, 39, 13286-13292.	1.1	38
11	Energetic and Spatial Bonding Properties from Angular Distributions of Ultraviolet Photoelectrons: Application to the GaAs(110) Surface. Physical Review Letters, 1997, 79, 4681-4684.	2.9	37
12	Unoccupied band structure ofNbSe2by very low-energy electron diffraction: Experiment and theory. Physical Review B, 2002, 66, .	1.1	36
13	How to Determine Fermi Vectors by Angle-Resolved Photoemission. Physical Review Letters, 1999, 83, 5551-5554.	2.9	35
14	Electronic structure of GaAs(001). Physical Review B, 1990, 41, 9958-9965.	1.1	34
15	Three-dimensional Fermi surface determination by angle-resolved photoelectron spectroscopy. Physical Review B, 2001, 63, .	1.1	34
16	Valence-band photoemission from the GaN(0001) surface. Physical Review B, 1999, 60, 11577-11585.	1.1	33
17	Surface-barrier and polarization effects in the photoemission from GaAs(110). Physical Review B, 1993, 47, 2251-2264.	1.1	32
18	Photoemission from Al(100) and (111): Experiment andab initiotheory. Physical Review B, 2008, 78, .	1.1	32

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19	PHOTOEMISSION WITHIN AND BEYOND THE ONE-STEP MODEL. Progress in Surface Science, 1997, 54, 211-227.	3.8	30
20	Photoemission from the (001) surface of 1T-TiSe2: Comparison of calculation with experiment. Physical Review B, 1990, 41, 2982-2990.	1.1	29
21	The extended-LAPW-based k Â· p method for complex band structure calculations. Solid State Communications, 1995, 93, 775-779.	0.9	29
22	Semirelativistic technique forkâ‹…pcalculations: Optical properties of Pd and Pt. Physical Review B, 2001, 63, .	1.1	29
23	Local field effects in optical excitations of semicore electrons. Physical Review B, 1999, 60, R16251-R16254.	1.1	28
24	Determination of the Hole Lifetime from Photoemission: Ti3dStates inTiTe2. Physical Review Letters, 2007, 98, 217604.	2.9	28
25	PHOTOELECTRON DIFFRACTION: SPACE, TIME, AND SPIN DEPENDENCE OF SURFACE STRUCTURES. Surface Review and Letters, 1997, 04, 421-440.	0.5	27
26	Valence and conduction band states ofHfS2:From bulk to a single layer. Physical Review B, 2003, 68, .	1.1	27
27	Calculation of the wave functions for semi-infinite crystals with linear methods of band theory. Physical Review B, 1999, 59, R15609-R15612.	1.1	25
28	Angle-Resolved Photoemission from Surface States. Physical Review Letters, 2004, 93, 027601.	2.9	25
29	Electronic Structure of a Novel Class of Nanoporous Materials. Physical Review Letters, 1998, 80, 3316-3319.	2.9	24
30	Full-band Monte Carlo simulations of high-field electron transport in GaAs and ZnS. Physical Review B, 2003, 67, .	1.1	24
31	Observation of surface-induced photon fields in the photoemission of 1T-TiS2. Physical Review Letters, 1992, 68, 522-525.	2.9	23
32	Analysis of target-current-spectroscopy data of GaAs(110) with very-low-energy electron-diffraction calculations. Physical Review B, 1992, 46, 10127-10133.	1.1	22
33	Impact ionization rate and highâ€field transport in ZnS with nonlocal band structure. Journal of Applied Physics, 1996, 80, 5054-5060.	1.1	22
34	Band-structure parameters by genetic algorithm. Physical Review B, 1996, 53, 12549-12552.	1.1	22
35	Hole initiated impact ionization in wide band gap semiconductors. Journal of Applied Physics, 1999, 86, 4458-4463.	1.1	22
36	Bridging fromThCr2Si2-type materials to hexagonal dichalcogenides: Anab initioand experimental study ofKCu2Se2. Physical Review B, 2003, 67, .	1.1	22

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37	Band mapping in the one-step photoemission theory: Multi-Bloch-wave structure of final states and interference effects. Physical Review B, 2007, 75, .	1.1	21
38	Field effect on the impact ionization rate in semiconductors. Journal of Applied Physics, 2000, 87, 781-788.	1.1	20
39	Diffusion and intercalation of alkali atoms in transition metal dichalcogenides. Surface Science, 2001, 482-485, 424-429.	0.8	20
40	Tuning Dimensionality by Nanowire Adsorption on Layered Materials. Physical Review Letters, 2001, 86, 1303-1306.	2.9	20
41	The final-states effect in the photo-emission spectra of TiSe2. Journal of Physics C: Solid State Physics, 1987, 20, 4437-4447.	1.5	19
42	Ab initio calculation of the optical and photoelectron spectra of KNbO3 and KTaO3. Journal of Electron Spectroscopy and Related Phenomena, 1997, 83, 121-127.	0.8	18
43	Calculation of photoemission spectra for the layered crystal 1T-titanium diselenide. Solid State Communications, 1989, 69, 419-423.	0.9	17
44	Interband transition rate in GaAs. Physical Review B, 1991, 44, 11105-11110.	1.1	17
45	Interface electronic structure by the renormalization method: theory and application to Sb/GaAs. Journal of Physics Condensed Matter, 1994, 6, 1927-1940.	0.7	17
46	Impact ionization rate in ZnS. Physical Review B, 1995, 52, 1456-1458.	1.1	17
47	Charge transfer in misfit layered compounds. Surface Science, 2003, 532-535, 705-710.	0.8	17
48	Lithium adsorption byTiSe2of varying concentration via density functional theory. Physical Review B, 2005, 71, .	1.1	17
49	Variational quantum Monte Carlo ground state of GaAs. Physical Review B, 1996, 54, 5512-5515.	1.1	16
50	Multiple scattering theory for non-spherical potentials: application to photoelectron angular distributions from oriented diatomic molecules and the study of shape resonances. Journal of Electron Spectroscopy and Related Phenomena, 2001, 114-116, 99-105.	0.8	16
51	The effect of frenkel defects on the electronic structure of 1T?TiSe2. European Physical Journal B, 1987, 66, 31-37.	0.6	15
52	Application of photoelectron diffraction theory to circular dichroism and spin-polarized photoelectron emission. Journal of Electron Spectroscopy and Related Phenomena, 1996, 80, 137-142.	0.8	15
53	Valence-band photoemission from GaN(001) and GaAs: GaN surfaces. Physical Review B, 1997, 56, 13326-13334.	1.1	15
54	Calculation of the dielectric function in a local representation. Physical Review B, 2002, 66, .	1.1	15

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55	Direct resolution of unoccupied states in solids via two-photon photoemission. Physical Review B, 2008, 78, .	1.1	15
56	Electronic structure of the GaSb(001) surface. Physical Review B, 1991, 44, 6312-6328.	1.1	14
57	Dielectric function and local-field effects ofTiSe2. Physical Review B, 1995, 51, 17965-17971.	1.1	14
58	Nonlocal pseudopotentials in complex band-structure and photoemission calculations. Physical Review B, 1997, 55, 5045-5050.	1.1	14
59	Valence-band photoemission fromGaAs(100)â"c(4Ã—4). Physical Review B, 2001, 63, .	1.1	14
60	Inelastic tunneling assisted by molecular impurities. Zeitschrift FÃ¼r Physik A, 1972, 256, 185-198.	0.9	13
61	One-step photoemission calculations for ideal GaAs(001) and AlAs(001) surfaces and(GaAs)m(AlAs)nsuperlattices. Physical Review B, 2001, 63, .	1.1	13
62	Electronic band structure of gallium nitride: a comparative angle-resolved photoemission study of single crystals and thin films. Surface Science, 2002, 507-510, 223-228.	0.8	13
63	Variational quantum Monte Carlo ground state of lithium on a Slater orbital basis. Physica A: Statistical Mechanics and Its Applications, 1995, 216, 151-157.	1.2	12
64	Electromagnetic surface response for a solid with one-dimensional crystallinity. Physical Review B, 1995, 51, 2537-2549.	1.1	12
65	Photoemission by screened photon fields from layered solids. Surface Science, 1995, 327, 379-386.	0.8	11
66	Electronic and optical properties of cetineites nanoporous semiconductors with zeolite-like channel structure. Scripta Materialia, 1999, 12, 447-450.	0.5	11
67	Development of the scattering theory of X-ray absorption and core level photoemission. Journal of Electron Spectroscopy and Related Phenomena, 2002, 126, 67-76.	0.8	11
68	LEED intensities of TiSe2 including off-normal electron incidence. Surface Science, 1989, 214, 436-447.	0.8	10
69	Photoemission and photon screening in layered crystals. Journal of Electron Spectroscopy and Related Phenomena, 1996, 78, 481-484.	0.8	10
70	Electron-scattering states at solid surfaces calculated with realistic potentials. Physical Review B, 1997, 55, R13432-R13435.	1.1	10
71	Spin resolved photoemission spectroscopy on WSe2. Journal of Electron Spectroscopy and Related Phenomena, 1999, 101-103, 449-454.	0.8	10
72	Angle Resolved Photoemission Spectroscopy of GaN (101-0): Experiment and Theory. Physica Status Solidi (B): Basic Research, 1999, 215, 751-755.	0.7	10

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73	Cetineites: Electronic, optical, and conduction properties of nanoporous chalcogenoantimonates. Physical Review B, 2000, 61, 15697-15706.	1.1	10
74	Band structure of the misfit compound (PbS)NbS2 compared to NbSe2: experiment and theory. Journal of Electron Spectroscopy and Related Phenomena, 2001, 114-116, 555-561.	0.8	10
75	Computation of TiSe2 LEED spectra. Surface Science, 1986, 173, 20-29.	0.8	9
76	Optical potential and escape depth for electron scattering at very low energies. Journal of Electron Spectroscopy and Related Phenomena, 1999, 101-103, 473-478.	0.8	9
77	Electron scattering states for low-energy spectroscopies. Progress in Surface Science, 2000, 64, 89-138.	3.8	9
78	Surface band structure calculation for GaAs(1 1 1)2 Ã— 2. Solid State Communications, 1989, 70, 683-686.	0.9	8
79	High-Field Transport and Impact Ionization in Wide Bandgap Semiconductors. Physica Status Solidi (B): Basic Research, 1997, 204, 528-530.	0.7	8
80	Impact ionization and high-field effects in wide-band-gap semiconductors. Physica B: Condensed Matter, 2002, 314, 52-54.	1.3	7
81	Detection of the longitudinal photon field in surface screening by photoemission spectra. Surface Science, 1993, 287-288, 676-680.	0.8	6
82	Full-hemisphere valence band photoemission spectra calculated for the ideal Si(001) surface. Surface Science, 1996, 357-358, 245-250.	0.8	6
83	Accurate band mapping via photoemission from thin films. Physical Review B, 2004, 69, .	1.1	6
84	Rapid propagation of a Bloch wave packet excited by a femtosecond ultraviolet pulse. Physical Review B, 2016, 94, .	1.1	6
85	Calculation of photoemission spectra for 1TTiSe2 and 1TTiS2. Vacuum, 1990, 41, 550-552.	1.6	5
86	Scattering states for very low energy electron spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 1998, 88-91, 563-569.	0.8	5
87	Tagungsberichte: The interstellar medium in M31 and M33/High Field and Quantum Transport in Semiconductors/Interacting Electrons in Nanostructures/DPG-Lehrerfortbildungskurs 2000: Physik und Musik. Physik Journal, 2000, 56, 80-81.	0.1	5
88	Full band Monte Carlo simulations of high-field electron transport in wide band-gap semiconductors. Semiconductor Science and Technology, 2004, 19, S206-S208.	1.0	5
89	Adsorption and diffusion of an alkali-metal adatom on transition-metal dichalcogenides. Physical Review B, 2006, 73, .	1.1	5
90	Non-muffin-tin atomic scattering-matrices for semiconductor LEED-calculations. Journal of Electron Spectroscopy and Related Phenomena, 1994, 68, 167-173.	0.8	4

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91	Estimation of photoemission intensities and the surface photoelectric effect. Journal of Electron Spectroscopy and Related Phenomena, 1994, 68, 313-320.	0.8	4
92	Observation of circular dichroism in angular distribution of the valence band photoelectron from Si(001) in UPS region. Journal of Electron Spectroscopy and Related Phenomena, 1998, 88-91, 213-218.	0.8	4
93	SURFACE SENSITIVITY OF VERY LOW ENERGY ELECTRONS. Surface Review and Letters, 1999, 06, 631-633.	0.5	4
94	Variational quantum Monte Carlo calculations for solid surfaces. Physical Review B, 2001, 63, .	1.1	4
95	Calculation of the dielectric function for a semi-infinite crystal. Physical Review B, 2002, 66, .	1.1	4
96	Electronic structure and photoemission spectra of thin (GaAs)n(AlAs)n superlattices. Surface Science, 2002, 507-510, 160-164.	0.8	4
97	Effect of off-diagonal dielectric response on optical properties of LaTiO3. Physica Status Solidi (B): Basic Research, 2006, 243, 1885-1892.	0.7	4
98	Theoretical photoemission line shapes and many body correlations. Journal of Electron Spectroscopy and Related Phenomena, 1995, 76, 265-270.	0.8	3
99	Surfaces and interfaces in short-period GaAs/AlAs superlattices. Progress in Surface Science, 2003, 74, 293-303.	3.8	3
100	Valence band photoemission from in-situ grown GaAs(100)-c(4 Ã— 4). European Physical Journal D, 2006, 56, 21-26.	0.4	3
101	CESR spectroscopy in the presence of magnetic impurities. Physics Letters, Section A: General, Atomic and Solid State Physics, 1981, 85, 181-184.	0.9	2
102	Bloch equations for the Kondo system. Zeitschrift FÃ¼r Physik B Condensed Matter and Quanta, 1982, 45, 315-329.	1.9	2
103	Many-body calculations for the relaxed (110) surface of GaAs. European Physical Journal D, 1999, 49, 1519-1524.	0.4	2
104	Calculation of VLEED spectra with the extended linear augmented plane wave kp method. European Physical Journal D, 1999, 49, 1575-1581.	0.4	2
105	Electronic structure and UPS of the misfit chalcogenide (SnS)NbS2 and related compounds. Journal of Electron Spectroscopy and Related Phenomena, 2001, 114-116, 1133-1138.	0.8	2
106	Relation Between Surface Crystallography and Surface Electron Structure of the Superlattice. Surface Review and Letters, 2003, 10, 195-199.	0.5	2
107	Contributions of the escape depth to the photoelectron intensity of a well-defined initial state. Physical Review B, 2004, 70, .	1.1	2
108	Role of final states in photoemission from Al(111). Surface Science, 2007, 601, 4105-4108.	0.8	2

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109	Zur Theorie des nichtlokalen Supraleiters im Magnetfeld. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1968, 23, 1822-1833.	0.7	1
110	On structure/property-relations in nanoporous semiconductors of the cetineite-type. Studies in Surface Science and Catalysis, 2000, 129, 683-690.	1.5	1
111	A theoretical investigation of photoemission spectra from (GaAs)2(AlAs)2 superlattices. Journal of Electron Spectroscopy and Related Phenomena, 2001, 114-116, 1127-1132.	0.8	1
112	Electron surface states in short-period superlattices: (GaAs)2/(AlAs)2(100)-c(4Ã—4). Surface Science, 2006, 600, 3646-3649.	0.8	1
113	Photoemission from Al(100): experiment and one-step theory. Journal of Physics: Conference Series, 2008, 100, 072035.	0.3	1
114	Nanomechanics of a hydrogen molecule suspended between two equally charged tips. Physical Review B, 2020, 101, .	1.1	1
115	Photoemission and Photon Screening in Layered Crystals. , 1996, , 481-484.		1
116	Surface Dependent Geometrical Resonance of Superconductors. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1970, 25, 189-195.	0.7	0
117	Band Structure in the Excitation Spectrum of Type II Superconductors. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1971, 26, 228-232.	0.7	0
118	A Model for Spin-lattice Relaxation in Metals. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1976, 31, 1422-1423.	0.7	0
119	Stochastic Properties of a One-Dimensional Discrete Ginzburg-Landau Field. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1981, 36, 1-9.	0.7	0
120	Special solution of the mode-coupling equations for a two-component magnetic system. Journal of Statistical Physics, 1983, 30, 607-615.	0.5	0
121	Bonding of Guest Molecules in the Tubes of Nanoporous Cetineite Crystals. Materials Research Society Symposia Proceedings, 2000, 658, 491.	0.1	0
122	Variational quantum Monte-Carlo method in surface physics. Progress in Surface Science, 2003, 72, 87-116.	3.8	0
123	Photoemission study of S adsorption on GaAs (0â€‰0â€‰1). New Journal of Physics, 2005, 7, 115-115.	1.2	0
124	Nonadiabatic localization of H2 in the field of two external positive tip charges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 053206.	0.9	0