

# Wolfgang Schattke

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

125  
papers

1,791  
citations

24  
h-index

33  
g-index

128  
ext. papers

1,860  
ext. citations

3.1  
avg, IF

4.01  
L-index

#	Paper	IF	Citations
125	Nonadiabatic localization of H <sub>2</sub> in the field of two external positive tip charges. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2021</b> , 39, 053206	2.9	
124	Nanomechanics of a hydrogen molecule suspended between two equally charged tips. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	1
123	Rapid propagation of a Bloch wave packet excited by a femtosecond ultraviolet pulse. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	6
122	<b>2013</b> ,		4
121	Electromagnetic Interactions with Solids <b>2012</b> , 181-237		
120	Photoemission from Al(100) and (111): Experiment and ab initio theory. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	29
119	Direct resolution of unoccupied states in solids via two-photon photoemission. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	15
118	Photoemission from Al(100): experiment and one-step theory. <i>Journal of Physics: Conference Series</i> , <b>2008</b> , 100, 072035	0.3	1
117	Role of final states in photoemission from Al(111). <i>Surface Science</i> , <b>2007</b> , 601, 4105-4108	1.8	2
116	Band mapping in the one-step photoemission theory: Multi-Bloch-wave structure of final states and interference effects. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	19
115	Determination of the hole lifetime from photoemission: Ti 3d states in TiTe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2007</b> , 98, 217604	7.4	25
114	Electron surface states in short-period superlattices: (GaAs) <sub>2</sub> /(AlAs) <sub>2</sub> (100)-c(4×4). <i>Surface Science</i> , <b>2006</b> , 600, 3646-3649	1.8	0
113	Three-dimensional band structure of layered TiTe <sub>2</sub> : Photoemission final-state effects. <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	35
112	Adsorption and diffusion of an alkali-metal adatom on transition-metal dichalcogenides. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	4
111	Effect of off-diagonal dielectric response on optical properties of LaTiO <sub>3</sub> . <i>Physica Status Solidi (B): Basic Research</i> , <b>2006</b> , 243, 1885-1892	1.3	3
110	Valence band photoemission from in-situ grown GaAs(100)-c(4×4). <i>European Physical Journal D</i> , <b>2006</b> , 56, 21-26		3
109	Photoemission study of S adsorption on GaAs (0 0 1). <i>New Journal of Physics</i> , <b>2005</b> , 7, 115-115	2.9	

108	Lithium adsorption by TiSe <sub>2</sub> of varying concentration via density functional theory. <i>Physical Review B</i> , <b>2005</b> , 71,	3.3	15
107	Angle-resolved photoemission from surface states. <i>Physical Review Letters</i> , <b>2004</b> , 93, 027601	7.4	24
106	Contributions of the escape depth to the photoelectron intensity of a well-defined initial state. <i>Physical Review B</i> , <b>2004</b> , 70,	3.3	1
105	Accurate band mapping via photoemission from thin films. <i>Physical Review B</i> , <b>2004</b> , 69,	3.3	6
104	Full band Monte Carlo simulations of high-field electron transport in wide band-gap semiconductors. <i>Semiconductor Science and Technology</i> , <b>2004</b> , 19, S206-S208	1.8	4
103	Relation Between Surface Crystallography and Surface Electron Structure of the Superlattice. <i>Surface Review and Letters</i> , <b>2003</b> , 10, 195-199	1.1	2
102	Surfaces and interfaces in short-period GaAs/AlAs superlattices. <i>Progress in Surface Science</i> , <b>2003</b> , 74, 293-303	6.6	3
101	Charge transfer in misfit layered compounds. <i>Surface Science</i> , <b>2003</b> , 532-535, 705-710	1.8	16
100	Quasi-collective motion of nanoscale metal strings in metal surfaces. <i>Nature Materials</i> , <b>2003</b> , 2, 783-7	27	39
99	Full-band Monte Carlo simulations of high-field electron transport in GaAs and ZnS. <i>Physical Review B</i> , <b>2003</b> , 67,	3.3	23
98	Valence and conduction band states of HfS <sub>2</sub> : From bulk to a single layer. <i>Physical Review B</i> , <b>2003</b> , 68,	3.3	24
97	Bridging from ThCr <sub>2</sub> Si <sub>2</sub> -type materials to hexagonal dichalcogenides: An ab initio and experimental study of KCu <sub>2</sub> Se <sub>2</sub> . <i>Physical Review B</i> , <b>2003</b> , 67,	3.3	20
96	Impact ionization and high-field effects in wide-band-gap semiconductors. <i>Physica B: Condensed Matter</i> , <b>2002</b> , 314, 52-54	2.8	7
95	Development of the scattering theory of X-ray absorption and core level photoemission. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>2002</b> , 126, 67-76	1.7	8
94	Calculation of the dielectric function for a semi-infinite crystal. <i>Physical Review B</i> , <b>2002</b> , 66,	3.3	3
93	Unoccupied band structure of NbSe <sub>2</sub> by very low-energy electron diffraction: Experiment and theory. <i>Physical Review B</i> , <b>2002</b> , 66,	3.3	32
92	Calculation of the dielectric function in a local representation. <i>Physical Review B</i> , <b>2002</b> , 66,	3.3	13
91	Electronic structure and photoemission spectra of thin (GaAs) <sub>n</sub> (AlAs) <sub>n</sub> superlattices. <i>Surface Science</i> , <b>2002</b> , 507-510, 160-164	1.8	3

90	Electronic band structure of gallium nitride: a comparative angle-resolved photoemission study of single crystals and thin films. <i>Surface Science</i> , <b>2002</b> , 507-510, 223-228	1.8	13
89	A theoretical investigation of photoemission spectra from (GaAs) <sub>2</sub> (AlAs) <sub>2</sub> superlattices. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>2001</b> , 114-116, 1127-1132	1.7	1
88	Electronic structure and UPS of the misfit chalcogenide (SnS)NbS <sub>2</sub> and related compounds. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>2001</b> , 114-116, 1133-1138	1.7	2
87	Band structure of the misfit compound (PbS)NbS <sub>2</sub> compared to NbSe <sub>2</sub> : experiment and theory. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>2001</b> , 114-116, 555-561	1.7	10
86	Multiple scattering theory for non-spherical potentials: application to photoelectron angular distributions from oriented diatomic molecules and the study of shape resonances. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>2001</b> , 114-116, 99-105	1.7	16
85	Semirelativistic technique for k·p calculations: Optical properties of Pd and Pt. <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	26
84	Valence-band photoemission from GaAs(100)̄(4̄). <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	13
83	Combined photoemission and inverse photoemission study of HfS <sub>2</sub> . <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	41
82	Variational quantum Monte Carlo calculations for solid surfaces. <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	2
81	One-step photoemission calculations for ideal GaAs(001) and AlAs(001) surfaces and (GaAs) <sub>m</sub> (AlAs) <sub>n</sub> superlattices. <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	11
80	Tuning dimensionality by nanowire adsorption on layered materials. <i>Physical Review Letters</i> , <b>2001</b> , 86, 1303-6	7.4	20
79	Three-dimensional Fermi surface determination by angle-resolved photoelectron spectroscopy. <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	27
78	Diffusion and intercalation of alkali atoms in transition metal dichalcogenides. <i>Surface Science</i> , <b>2001</b> , 482-485, 424-429	1.8	18
77	Bonding of Guest Molecules in the Tubes of Nanoporous Cetineite Crystals. <i>Materials Research Society Symposia Proceedings</i> , <b>2000</b> , 658, 491		
76	Electron scattering states for low-energy spectroscopies. <i>Progress in Surface Science</i> , <b>2000</b> , 64, 89-138	6.6	5
75	On structure/property-relations in nanoporous semiconductors of the cetineite-type. <i>Studies in Surface Science and Catalysis</i> , <b>2000</b> , 129, 683-690	1.8	1
74	Cetineites: Electronic, optical, and conduction properties of nanoporous chalcogenoantimonates. <i>Physical Review B</i> , <b>2000</b> , 61, 15697-15706	3.3	8
73	Field effect on the impact ionization rate in semiconductors. <i>Journal of Applied Physics</i> , <b>2000</b> , 87, 781-788.5		15

72	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. <i>Physik Journal</i> , <b>2000</b> , 56, 80-81		5
71	SURFACE SENSITIVITY OF VERY LOW ENERGY ELECTRONS. <i>Surface Review and Letters</i> , <b>1999</b> , 06, 631-633.1		4
70	How to Determine Fermi Vectors by Angle-Resolved Photoemission. <i>Physical Review Letters</i> , <b>1999</b> , 83, 5551-5554	7.4	30
69	Calculation of the wave functions for semi-infinite crystals with linear methods of band theory. <i>Physical Review B</i> , <b>1999</b> , 59, R15609-R15612	3.3	24
68	Augmented Fourier components method for constructing the crystal potential in self-consistent band-structure calculations. <i>Physical Review B</i> , <b>1999</b> , 59, 10504-10511	3.3	64
67	Valence-band photoemission from the GaN(0001) surface. <i>Physical Review B</i> , <b>1999</b> , 60, 11577-11585	3.3	30
66	Local field effects in optical excitations of semicore electrons. <i>Physical Review B</i> , <b>1999</b> , 60, R16251-R16254	3.4	24
65	Optical potential and escape depth for electron scattering at very low energies. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1999</b> , 101-103, 473-478	1.7	7
64	Spin resolved photoemission spectroscopy on WSe <sub>2</sub> . <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1999</b> , 101-103, 449-454	1.7	10
63	Many-body calculations for the relaxed (110) surface of GaAs. <i>European Physical Journal D</i> , <b>1999</b> , 49, 1519-1524		1
62	Calculation of VLEED spectra with the extended linear augmented plane wave kp method. <i>European Physical Journal D</i> , <b>1999</b> , 49, 1575-1581		2
61	Angle Resolved Photoemission Spectroscopy of GaN (101-0): Experiment and Theory. <i>Physica Status Solidi (B): Basic Research</i> , <b>1999</b> , 215, 751-755	1.3	10
60	Electronic and optical properties of cetineites nanoporous semiconductors with zeolite-like channel structure. <i>Scripta Materialia</i> , <b>1999</b> , 12, 447-450		11
59	Hole initiated impact ionization in wide band gap semiconductors. <i>Journal of Applied Physics</i> , <b>1999</b> , 86, 4458-4463	2.5	16
58	Observation of circular dichroism in angular distribution of the valence band photoelectron from Si(001) in UPS region. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1998</b> , 88-91, 213-218	1.7	4
57	Scattering states for very low energy electron spectroscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1998</b> , 88-91, 563-569	1.7	5
56	Electronic Structure of a Novel Class of Nanoporous Materials. <i>Physical Review Letters</i> , <b>1998</b> , 80, 3316-3319	1.9	23
55	PHOTOELECTRON DIFFRACTION: SPACE, TIME, AND SPIN DEPENDENCE OF SURFACE STRUCTURES. <i>Surface Review and Letters</i> , <b>1997</b> , 04, 421-440	1.1	25

54	Nonlocal pseudopotentials in complex band-structure and photoemission calculations. <i>Physical Review B</i> , <b>1997</b> , 55, 5045-5050	3.3	13
53	Electronic structure of WSe <sub>2</sub> : A combined photoemission and inverse photoemission study. <i>Physical Review B</i> , <b>1997</b> , 55, 10392-10399	3.3	62
52	Energetic and Spatial Bonding Properties from Angular Distributions of Ultraviolet Photoelectrons: Application to the GaAs(110) Surface. <i>Physical Review Letters</i> , <b>1997</b> , 79, 4681-4684	7.4	31
51	Electron-scattering states at solid surfaces calculated with realistic potentials. <i>Physical Review B</i> , <b>1997</b> , 55, R13432-R13435	3.3	8
50	Valence-band photoemission from GaN(001) and GaAs: GaN surfaces. <i>Physical Review B</i> , <b>1997</b> , 56, 13326-13334	3.3	15
49	DIFFRACTION AND HOLOGRAPHY WITH PHOTOELECTRONS AND FLUORESCENT X-RAYS. <i>Progress in Surface Science</i> , <b>1997</b> , 54, 341-386	6.6	54
48	Surface electronic structure with the linear methods of band theory. <i>Physical Review B</i> , <b>1997</b> , 56, 12874-12883	3.3	39
47	Ab initio calculation of the optical and photoelectron spectra of KNbO <sub>3</sub> and KTaO <sub>3</sub> . <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1997</b> , 83, 121-127	1.7	17
46	PHOTOEMISSION WITHIN AND BEYOND THE ONE-STEP MODEL. <i>Progress in Surface Science</i> , <b>1997</b> , 54, 211-227	6.6	26
45	High-Field Transport and Impact Ionization in Wide Bandgap Semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , <b>1997</b> , 204, 528-530	1.3	7
44	Full-hemisphere valence band photoemission spectra calculated for the ideal Si(001) surface. <i>Surface Science</i> , <b>1996</b> , 357-358, 245-250	1.8	5
43	Application of photoelectron diffraction theory to circular dichroism and spin-polarized photoelectron emission. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1996</b> , 80, 137-142	1.7	15
42	Photoemission and photon screening in layered crystals. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1996</b> , 78, 481-484	1.7	9
41	Variational quantum Monte Carlo ground state of GaAs. <i>Physical Review B</i> , <b>1996</b> , 54, 5512-5515	3.3	12
40	Impact ionization rate and high-field transport in ZnS with nonlocal band structure. <i>Journal of Applied Physics</i> , <b>1996</b> , 80, 5054-5060	2.5	17
39	Band-structure parameters by genetic algorithm. <i>Physical Review B</i> , <b>1996</b> , 53, 12549-12552	3.3	19
38	Photoemission and Photon Screening in Layered Crystals <b>1996</b> , 481-484		1
37	Theoretical photoemission line shapes and many body correlations. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1995</b> , 76, 265-270	1.7	3

36	Variational quantum Monte Carlo ground state of lithium on a Slater orbital basis. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1995</b> , 216, 151-157	3.3	10
35	The extended-LAPW-based $k \cdot p$ method for complex band structure calculations. <i>Solid State Communications</i> , <b>1995</b> , 93, 775-779	1.6	26
34	Dielectric function and local-field effects of TiSe <sub>2</sub> . <i>Physical Review B</i> , <b>1995</b> , 51, 17965-17971	3.3	12
33	Electromagnetic surface response for a solid with one-dimensional crystallinity. <i>Physical Review B</i> , <b>1995</b> , 51, 2537-2549	3.3	12
32	Impact ionization rate in ZnS. <i>Physical Review B</i> , <b>1995</b> , 52, 1456-1458	3.3	17
31	Photoemission by screened photon fields from layered solids. <i>Surface Science</i> , <b>1995</b> , 327, 379-386	1.8	11
30	Interface electronic structure by the renormalization method: theory and application to Sb/GaAs. <i>Journal of Physics Condensed Matter</i> , <b>1994</b> , 6, 1927-1940	1.8	16
29	Non-muffin-tin atomic scattering-matrices for semiconductor LEED-calculations. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1994</b> , 68, 167-173	1.7	2
28	Estimation of photoemission intensities and the surface photoelectric effect. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1994</b> , 68, 313-320	1.7	2
27	Impact ionization rate in GaAs. <i>Physical Review B</i> , <b>1994</b> , 49, 4494-4500	3.3	51
26	Detection of the longitudinal photon field in surface screening by photoemission spectra. <i>Surface Science</i> , <b>1993</b> , 287-288, 676-680	1.8	6
25	Surface-barrier and polarization effects in the photoemission from GaAs(110). <i>Physical Review B</i> , <b>1993</b> , 47, 2251-2264	3.3	30
24	A subroutine package for computing Green's functions of relaxed surfaces by the renormalization method. <i>Computer Physics Communications</i> , <b>1993</b> , 77, 69-83	4.2	62
23	Analysis of target-current-spectroscopy data of GaAs(110) with very-low-energy electron-diffraction calculations. <i>Physical Review B</i> , <b>1992</b> , 46, 10127-10133	3.3	21
22	Observation of surface-induced photon fields in the photoemission of 1T-TiS <sub>2</sub> . <i>Physical Review Letters</i> , <b>1992</b> , 68, 522-525	7.4	20
21	Interband transition rate in GaAs. <i>Physical Review B</i> , <b>1991</b> , 44, 11105-11110	3.3	15
20	Electronic structure of the GaSb(001) surface. <i>Physical Review B</i> , <b>1991</b> , 44, 6312-6328	3.3	13
19	Calculation of photoemission spectra for 1TTiSe <sub>2</sub> and 1TTiS <sub>2</sub> . <i>Vacuum</i> , <b>1990</b> , 41, 550-552	3.7	5

18	Photoemission from the (001) surface of 1T-TiSe <sub>2</sub> : Comparison of calculation with experiment. <i>Physical Review B</i> , <b>1990</b> , 41, 2982-2990	3.3	28
17	Electronic structure of GaAs(001). <i>Physical Review B</i> , <b>1990</b> , 41, 9958-9965	3.3	33
16	Theoretical and experimental studies of the photoemission current from GaAs(110). <i>Physical Review B</i> , <b>1989</b> , 39, 13286-13292	3.3	36
15	Surface band structure calculation for GaAs(1 1 1) <sub>2</sub> . <i>Solid State Communications</i> , <b>1989</b> , 70, 683-686	1.6	8
14	Calculation of photoemission spectra for the layered crystal 1T-titanium diselenide. <i>Solid State Communications</i> , <b>1989</b> , 69, 419-423	1.6	16
13	LEED intensities of TiSe <sub>2</sub> including off-normal electron incidence. <i>Surface Science</i> , <b>1989</b> , 214, 436-447	1.8	10
12	The final-states effect in the photo-emission spectra of TiSe <sub>2</sub> . <i>Journal of Physics C: Solid State Physics</i> , <b>1987</b> , 20, 4437-4447		19
11	The effect of frenkel defects on the electronic structure of 1T-TiSe <sub>2</sub> . <i>European Physical Journal B</i> , <b>1987</b> , 66, 31-37	1.2	14
10	Computation of TiSe <sub>2</sub> LEED spectra. <i>Surface Science</i> , <b>1986</b> , 173, 20-29	1.8	9
9	Special solution of the mode-coupling equations for a two-component magnetic system. <i>Journal of Statistical Physics</i> , <b>1983</b> , 30, 607-615	1.5	
8	Bloch equations for the Kondo system. <i>Zeitschrift für Physik B Condensed Matter and Quanta</i> , <b>1982</b> , 45, 315-329		1
7	Stochastic Properties of a One-Dimensional Discrete Ginzburg-Landau Field. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>1981</b> , 36, 1-9	1.4	
6	CESR spectroscopy in the presence of magnetic impurities. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1981</b> , 85, 181-184	2.3	1
5	A Model for Spin-lattice Relaxation in Metals. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>1976</b> , 31, 1422-1423	1.4	
4	Inelastic tunneling assisted by molecular impurities. <i>Zeitschrift für Physik A</i> , <b>1972</b> , 256, 185-198		13
3	Band Structure in the Excitation Spectrum of Type II Superconductors. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>1971</b> , 26, 228-232	1.4	
2	Surface Dependent Geometrical Resonance of Superconductors. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>1970</b> , 25, 189-195	1.4	
1	Zur Theorie des nichtlokalen Supraleiters im Magnetfeld. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>1968</b> , 23, 1822-1833	1.4	1



