

# Gustav Bihlmayer

## List of Publications by Year in descending order

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242  
papers

17,922  
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22099

59  
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250  
docs citations

250  
times ranked

14989  
citing authors

#	ARTICLE	IF	CITATIONS
1	Switching the electrical resistance of individual dislocations in single-crystalline SrTiO <sub>3</sub> . Nature Materials, 2006, 5, 312-320.	13.3	1,581
2	Spontaneous atomic-scale magnetic skyrmion lattice in two dimensions. Nature Physics, 2011, 7, 713-718.	6.5	1,521
3	Reproducibility in density functional theory calculations of solids. Science, 2016, 351, aad3000.	6.0	1,113
4	Observation of Unconventional Quantum Spin Textures in Topological Insulators. Science, 2009, 323, 919-922.	6.0	1,084
5	Chiral magnetic order at surfaces driven by inversion asymmetry. Nature, 2007, 447, 190-193.	13.7	823
6	Strong Spin-Orbit Splitting on Bi Surfaces. Physical Review Letters, 2004, 93, 046403.	2.9	595
7	Dzyaloshinskii-Moriya interaction accounting for the orientation of magnetic domains in ultrathin films: Fe/W(110). Physical Review B, 2008, 78, .	1.1	434
8	Giant Rashba splitting in graphene due to hybridization with gold. Nature Communications, 2012, 3, 1232.	5.8	330
9	Localized edge states in two-dimensional topological insulators: Ultrathin Bi films. Physical Review B, 2011, 83, .	1.1	305
10	Role of Spin-Orbit Coupling and Hybridization Effects in the Electronic Structure of Ultrathin Bi Films. Physical Review Letters, 2006, 97, 146803.	2.9	289
11	Interfacing 2D and 3D Topological Insulators: Bi(111) Bilayer on $\text{Te}$ . Physical Review Letters, 2011, 107, 166801.	2.9	249
12	Atomic-Scale Spin Spiral with a Unique Rotational Sense: Mn Monolayer on W(001). Physical Review Letters, 2008, 101, 027201.	2.9	238
13	Resolving Complex Atomic-Scale Spin Structures by Spin-Polarized Scanning Tunneling Microscopy. Physical Review Letters, 2001, 86, 4132-4135.	2.9	204
14	Highly-ordered wide bandgap materials for quantized anomalous Hall and magnetoelectric effects. 2D Materials, 2017, 4, 025082.	2.0	195
15	Ab initio treatment of noncollinear magnets with the full-potential linearized augmented plane wave method. Physical Review B, 2004, 69, .	1.1	194
16	First-principles investigation of structural and electronic properties of ultrathin Bi films. Physical Review B, 2008, 77, .	1.1	193
17	Focus on the Rashba effect. New Journal of Physics, 2015, 17, 050202.	1.2	190
18	Rashba effect at magnetic metal surfaces. Physical Review B, 2005, 71, .	1.1	177

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19	The Rashba-effect at metallic surfaces. <i>Surface Science</i> , 2006, 600, 3888-3891.	0.8	171
20	Direct observation of spin splitting in bismuth surface states. <i>Physical Review B</i> , 2007, 76, .	1.1	163
21	Hund's Rule-Driven Dzyaloshinskii-Moriya Interaction at $d$ <i>Physical Review Letters</i> , 2016, 117, 247202.	2.9	163
22	Role of Spin in Quasiparticle Interference. <i>Physical Review Letters</i> , 2004, 93, 196802.	2.9	158
23	Ir(111) Surface State with Giant Rashba Splitting Persists under Graphene in Air. <i>Physical Review Letters</i> , 2012, 108, 066804.	2.9	157
24	Enhanced Rashba spin-orbit splitting in $\text{BiAg}$ and $\text{PbAg}$ surface alloys from first principles. <i>Physical Review B</i> , 2007, 75, .	1.1	156
25	Revealing Antiferromagnetic Order of the Fe Monolayer on W(001): Spin-Polarized Scanning Tunneling Microscopy and First-Principles Calculations. <i>Physical Review Letters</i> , 2005, 94, 087204.	2.9	133
26	Describing Dzyaloshinskii-Moriya spirals from first principles. <i>Physica B: Condensed Matter</i> , 2009, 404, 2678-2683.	1.3	133
27	Elemental Topological Insulator with Tunable Fermi Level: Strained $\text{Sn}$ on $\text{InSb}$ (001). <i>Physical Review Letters</i> , 2013, 111, 157205.	2.9	130
28	Magnetism and electronic structure of hcp Gd and the Gd(0001) surface. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 6353-6371.	0.7	129
29	Three-Dimensional Spin Structure on a Two-Dimensional Lattice: $\text{Mn/Cu}$ (111). <i>Physical Review Letters</i> , 2001, 86, 1106-1109.	2.9	128
30	Rashba-Type Spin-Orbit Splitting of Quantum Well States in Ultrathin Pb Films. <i>Physical Review Letters</i> , 2008, 101, 266802.	2.9	124
31	Thermal Collapse of Spin Polarization in Half-Metallic Ferromagnets. <i>Physical Review Letters</i> , 2006, 97, 026404.	2.9	121
32	Coulomb correlations and orbital polarization in the metal-insulator transition of $\text{VO}_2$ . <i>Physical Review B</i> , 2005, 71, .	1.1	117
33	Magnetization-Direction-Dependent Local Electronic Structure Probed by Scanning Tunneling Spectroscopy. <i>Physical Review Letters</i> , 2002, 89, 237205.	2.9	116
34	Engineering skyrmions in transition-metal multilayers for spintronics. <i>Nature Communications</i> , 2016, 7, 11779.	5.8	109
35	Topological chiral magnetic interactions driven by emergent orbital magnetism. <i>Nature Communications</i> , 2020, 11, 511.	5.8	104
36	Quantum well states in ultrathin Bi films: Angle-resolved photoemission spectroscopy and first-principles calculations study. <i>Physical Review B</i> , 2007, 75, .	1.1	103

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37	Broken-bond rule for the surface energies of noble metals. Europhysics Letters, 2002, 58, 751-757.	0.7	101
38	Observation of a Complex Nanoscale Magnetic Structure in a Hexagonal Fe Monolayer. Physical Review Letters, 2006, 96, 167203.	2.9	100
39	Giant Magnetocrystalline Anisotropies of 4d Transition-Metal Monowires. Physical Review Letters, 2006, 96, 147201.	2.9	99
40	Quantum-Well-Induced Giant Spin-Orbit Splitting. Physical Review Letters, 2010, 104, 066802.	2.9	92
41	Strong Rashba-Type Spin Polarization of the Photocurrent from Bulk Continuum States: Experiment and Theory for Bi(111). Physical Review Letters, 2010, 105, 076804.	2.9	92
42	Study of topological insulators Bi <sub>2</sub> Se <sub>3</sub> and Sb <sub>2</sub> Te <sub>3</sub> by spin-polarized photoemission spectroscopy. Physical Review B, 2012, 86, 041404.	1.1	85
43	Realization of a vertical topological p-n junction in epitaxial Sb <sub>2</sub> Te <sub>3</sub> /Bi <sub>2</sub> Te <sub>3</sub> heterostructures. Nature Communications, 2015, 6, 8816.	5.8	85
44	Structure of the (111) surface of bismuth: LEED analysis and first-principles calculations. Physical Review B, 2005, 72, .	1.1	79
45	Formation of topological surface bands of Sb <sub>2</sub> Te <sub>3</sub> by spin-polarized photoemission spectroscopy. Physical Review B, 2012, 86, 041404.	1.1	78
46	Ab initio theory of exchange interactions and the Curie temperature of bulk Gd. Journal of Physics Condensed Matter, 2003, 15, 2771-2782.	0.7	76
47	Phase separation and dilution in implanted Mn <sub>x</sub> Ge <sub>1-x</sub> alloys. Applied Physics Letters, 2006, 88, 061907.	1.5	74
48	Oxygen-enabled control of Dzyaloshinskii-Moriya Interaction in ultra-thin magnetic films. Scientific Reports, 2016, 6, 24634.	1.6	74
49	Electronic Structure of Ultrathin Bismuth Films with A7 and Black-Phosphorus-like Structures. Journal of the Physical Society of Japan, 2008, 77, 014701.	0.7	73
50	Functionalized bismuth films: Giant gap quantum spin Hall and valley-polarized quantum anomalous Hall states. Physical Review B, 2015, 91, .	1.1	73
51	Identification of Te alloys with suitable phase change characteristics. Applied Physics Letters, 2003, 83, 2572-2574.	1.5	71
52	Mn <sub>2</sub> Te <sub>4</sub> : A Topological Insulator with Magnetic Gap Closing at High Curie Temperatures of 45-50 K. Advanced Materials, 2021, 33, e2102935.	11.1	70
53	Femtosecond electron dynamics of image-potential states on clean and oxygen-covered Pt(111). Physical Review B, 2001, 63, .	1.1	67
54	Origin and manipulation of the Rashba splitting in surface alloys. Europhysics Letters, 2009, 87, 37003.	0.7	67

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55	Toward surface orbitronics: giant orbital magnetism from the orbital Rashba effect at the surface of sp-metals. <i>Scientific Reports</i> , 2017, 7, 46742.	1.6	67
56	BiTe1 is a dual topological insulator. <i>Nature Communications</i> , 2017, 8, 14976.	5.8	66
57	Direct Observation of the Band Gap Transition in Atomically Thin ReS <sub>2</sub> . <i>Nano Letters</i> , 2017, 17, 5187-5192.	4.5	65
58	Origin of the surface-state band-splitting in ultrathin Bi films: from a Rashba effect to a parity effect. <i>New Journal of Physics</i> , 2008, 10, 083038.	1.2	62
59	Interface properties of NiMnSb <sup>+</sup> /InPd/NiMnSb <sup>-</sup> /GaAs contacts. <i>Physical Review B</i> , 2005, 71, .	1.1	61
60	Magnetic order and exchange interactions in monoatomic 3d transition-metal chains. <i>Physical Review B</i> , 2007, 75, .	1.1	61
61	Complex magnetism of iron monolayers on hexagonal transition metal surfaces from first principles. <i>Physical Review B</i> , 2009, 79, .	1.1	59
62	<i>Ab initio</i> electronic structure of thallium-based topological insulators. <i>Physical Review B</i> , 2011, 83, .	1.1	59
63	Electronic structure of buried $\hat{1}\pm$ -FeSi <sub>2</sub> and $\hat{1}^2$ -FeSi <sub>2</sub> layers: Soft-x-ray-emission and -absorption studies compared to band-structure calculations. <i>Physical Review B</i> , 1994, 50, 18330-18340.	1.1	58
64	Electronic and magnetic structure of the (001) surfaces of V, Cr, and V/Cr. <i>Physical Review B</i> , 2000, 62, R11937-R11940.	1.1	58
65	First-principles stabilization of an unconventional collinear magnetic ordering in distorted manganites. <i>Physical Review B</i> , 2006, 74, .	1.1	58
66	Nature of the Resistive Switching Phenomena in TiO <sub>2</sub> and SrTiO <sub>3</sub> . <i>Solid State Physics</i> , 2014, , 353-559.	1.3	58
67	Full-potential linearized augmented plane-wave method for one-dimensional systems: Gold nanowire and iron monowires in a gold tube. <i>Physical Review B</i> , 2005, 72, .	1.1	57
68	Electronic structure of the Nowotny chimney-ladder silicide Ru <sub>2</sub> Si <sub>3</sub> s. <i>Physical Review B</i> , 1997, 55, 6918-6926.	1.1	56
69	Electronic structure and Fermi surface of Bi(100). <i>Physical Review B</i> , 2005, 71, .	1.1	55
70	First-principles analysis of a homochiral cycloidal magnetic structure in a monolayer Cr on W(110). <i>Physical Review B</i> , 2014, 90, .	1.1	54
71	Influence of Dislocations in Transition Metal Oxides on Selected Physical and Chemical Properties. <i>Crystals</i> , 2018, 8, 241.	1.0	54
72	The characterization of SrTiO <sub>3</sub> ( $\lambda$ ) with MIES, UPS(HeI) and first-principles calculations. <i>Surface Science</i> , 2002, 515, 499-506.	0.8	53

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73	Spin orientation and sign of the Rashba splitting in Bi/Cu(111). <i>Physical Review B</i> , 2011, 84, .	1.1	53
74	Role of Dzyaloshinskii-Moriya interaction for magnetism in transition-metal chains at Pt step edges. <i>Physical Review B</i> , 2016, 94, .	1.1	52
75	A-Site and B-Site Charge Orderings in an $d$ Level Controlled Perovskite Oxide $\text{PbCoO}_3$ . <i>Journal of the American Chemical Society</i> , 2017, 139, 4574-4581.	6.6	52
76	Unoccupied surface state on Pt(111) revealed by scanning tunneling spectroscopy. <i>Physical Review B</i> , 2005, 72, .	1.1	51
77	Unexpected trend of magnetic order of 3d transition-metal monolayers on W(001). <i>Physical Review B</i> , 2005, 72, .	1.1	50
78	The interplay of structure and spin-orbit strength in the magnetism of metal-benzene sandwiches: from single molecules to infinite wires. <i>Nanotechnology</i> , 2007, 18, 495402.	1.3	49
79	Band dispersion in the deep 1s core level of Graphene. <i>Nature Physics</i> , 2010, 6, 345-349.	6.5	48
80	Self-Assembled Nanometer-Scale Magnetic Networks on Surfaces: Fundamental Interactions and Functional Properties. <i>Advanced Functional Materials</i> , 2011, 21, 1212-1228.	7.8	48
81	First-principles study of the electronic structure and exchange interactions in bcc europium. <i>Physical Review B</i> , 2003, 68, .	1.1	46
82	Structural, electronic, and magnetic properties of a Mn monolayer on W(110). <i>Physical Review B</i> , 2002, 66, .	1.1	45
83	Electronic structure, surface morphology, and topologically protected surface states of $\text{Sb}_2\text{Te}_3$ thin films grown on Si(111). <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	45
84	Exchange interactions and local-moment fluctuation corrections in ferromagnets at finite temperatures based on noncollinear density-functional calculations. <i>Physical Review B</i> , 2013, 88, .	1.1	44
85	Two-Dimensional Topological Crystalline Insulator and Topological Phase Transition in TlSe and TlS Monolayers. <i>Nano Letters</i> , 2015, 15, 6071-6075.	4.5	44
86	Cluster-like resistive switching of $\text{SrTiO}_3$ :Nb surface layers. <i>New Journal of Physics</i> , 2013, 15, 103017.	1.2	43
87	Mixed topological semimetals driven by orbital complexity in two-dimensional ferromagnets. <i>Nature Communications</i> , 2019, 10, 3179.	5.8	43
88	Controlling the Magnetization Direction in Molecules via Their Oxidation State. <i>Physical Review Letters</i> , 2008, 100, 117207.	2.9	42
89	Elastic properties of $\text{B}_2\text{-NiTi}$ and $\text{B}_2\text{-PdTi}$ . <i>Physical Review B</i> , 1994, 50, 13113-13117.	1.1	41
90	Highly spin-polarized Dirac fermions at the graphene/Co interface. <i>Physical Review B</i> , 2015, 91, .	1.1	41

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91	Quasi 2D electronic states with high spin-polarization in centrosymmetric MoS2 bulk crystals. Scientific Reports, 2016, 6, 26197.	1.6	41
92	Comparative study of ab initio and tight-binding electronic structure calculations applied to platinum surfaces. Physical Review B, 2004, 70, .	1.1	40
93	Structure, growth, and magnetism of Mn on Cu(110). Physical Review B, 1998, 57, 2607-2620.	1.1	39
94	Topological phases of Bi(111) bilayer in an external exchange field. Physical Review B, 2012, 86, .	1.1	39
95	Comparison of first-principles methods to extract magnetic parameters in ultrathin films: Co/Pt(111). Physical Review B, 2019, 99, .	1.1	39
96	Extrinsic screening of ferroelectric domains in Pb(Zr <sub>0.48</sub> Ti <sub>0.52</sub> )O <sub>3</sub> . Applied Physics Letters, 2010, 97, .	1.5	38
97	Magnetic Ground State Stabilized by Three-Site Interactions: $\langle \mathbf{m}_i \cdot \mathbf{m}_j \rangle = J_{ij} \langle \mathbf{S}_i \cdot \mathbf{S}_j \rangle$ (stretchy="false")	2.9	38
98	Topological crystalline insulator and quantum anomalous Hall states in IV-VI-based monolayers and their quantum wells. Physical Review B, 2015, 91, .	1.1	37
99	Two-dimensional topological nodal line semimetal in layered X <sub>2</sub> Y (X=Ca, Sr, and Ba; Y=As, Sb, and Bi). Physical Review B, 2017, 95, .	1.1	37
100	Rashba effect at the surfaces of rare-earth metals and their monoxides. New Journal of Physics, 2009, 11, 013035.	1.2	36
101	Structural and magnetic properties of the (001) and (111) surfaces of the half-metal NiMnSb. Journal of Physics Condensed Matter, 2005, 17, 3121-3136.	0.7	35
102	Magnetic Phase Control in Monolayer Films by Substrate Tuning. Physical Review Letters, 2007, 99, 187203.	2.9	35
103	Spin-polarization limit in Bi <sub>2</sub> Te <sub>3</sub> Dirac cone studied by angle- and spin-resolved photoemission experiments and ab initio calculations. Physical Review B, 2013, 87, .	1.1	35
104	Spin-resolved two-photon photoemission study of the surface resonance state on Co <sup>2+</sup> Cu(001). Physical Review B, 2006, 74, .	1.1	34
105	Robust dual topological character with spin-valley polarization in a monolayer of the Dirac semimetal Na <sub>3</sub> Bi. Physical Review B, 2017, 95, .	1.1	34
106	Overlayers, interlayers, and surface alloys of Mn on the Cu(111) surface. Physical Review B, 2000, 62, 4726-4732.	1.1	33
107	Complex magnetism of the Fe monolayer on Ir(111). New Journal of Physics, 2007, 9, 396-396.	1.2	33
108	Direct observation of spin-polarized surface states in the parent compound of a topological insulator using spin- and angle-resolved photoemission spectroscopy in a Mott-polarimetry mode. New Journal of Physics, 2010, 12, 125001.	1.2	31

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109	Ab initio calculations of interface effects in tunnelling through MgO barriers on Fe(100). Journal of Physics Condensed Matter, 2004, 16, S5819-S5822.	0.7	29
110	Strong coupling between the spin polarization of Mn and Tb in multiferroic TbMnO <sub>3</sub> determined by x-ray resonance exchange scattering. Physical Review B, 2007, 76, .	1.1	29
111	Dynamics of the Self-Energy of the Gd(0001) Surface State Probed by Femtosecond Photoemission Spectroscopy. Physical Review Letters, 2007, 98, 097401.	2.9	29
112	Electronic structure of the martensitic phases B19'-NiTi and B19-PdTi. Journal of Physics Condensed Matter, 1993, 5, 5083-5098.	0.7	28
113	First-principles theory of ultrathin magnetic films. Journal of Physics Condensed Matter, 1999, 11, 9347-9363.	0.7	28
114	Relaxation effects on the magnetism of decorated step edges: Co/Pt(664). Physical Review B, 2006, 73, .	1.1	28
115	Evidence for topological band inversion of the phase change material Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> . Applied Physics Letters, 2013, 103, .	1.5	28
116	Constrained spin-density functional theory for excited magnetic configurations in an adiabatic approximation. Physical Review B, 2005, 71, .	1.1	27
117	Complex magnetism in ultra-thin films: atomic-scale spin structures and resolution by the spin-polarized scanning tunneling microscope. Applied Physics A: Materials Science and Processing, 2002, 75, 25-36.	1.1	26
118	Magnetic anisotropy energies of metal-benzene sandwiches. International Journal of Quantum Chemistry, 2006, 106, 3208-3213.	1.0	26
119	Intra- and interband electron scattering in a hybrid topological insulator: Bismuth bilayer on Bi <sub>2</sub> Se <sub>3</sub> . Physical Review B, 2014, 90, .	1.1	26
120	Plumbene on a Magnetic Substrate: A Combined Scanning Tunneling Microscopy and Density Functional Theory Study. Physical Review Letters, 2020, 124, 126401.	2.9	26
121	Scanning tunneling spectroscopy on Co(0001): Spectroscopic signature of stacking faults and dislocation lines. Physical Review B, 2004, 70, .	1.1	25
122	Magnetic order in RMn <sub>2</sub> Ge <sub>2</sub> (R=Y,Ca) compounds and their solid solutions with LaMn <sub>2</sub> Ge <sub>2</sub> . Physical Review B, 2007, 75, .	1.1	25
123	Interplay between Forward and Backward Scattering of Spin-Orbit Split Surface States of Bi(111). Nano Letters, 2013, 13, 2717-2722.	4.5	25
124	Influence of the substrate bands on the spin-levels topology of Ag films on Ge(111). Physical Review B, 2009, 80, .	1.1	24
125	Anisotropic scattering of surface state electrons at a point defect on Bi(111). Applied Physics Letters, 2011, 98, .	1.5	24
126	A combined experimental and theoretical study of Rashba-split surface states on the $\sqrt{3}\times\sqrt{3}$ Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.2	24



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127	One-Dimensional Spin-Polarized Quantum-Wire States in Au on Ni(110). Physical Review Letters, 2000, 85, 2561-2564.	2.9	23
128	Electronic band structure and Fermi surface of ferromagnetic Tb: Experiment and theory. Physical Review B, 2007, 76, .	1.1	23
129	Magnetization-dependent Rashba splitting of quantum well states at the Co/W interface. Physical Review B, 2015, 91, .	1.1	23
130	Spin-Flip and Element-Sensitive Electron Scattering in the $\text{BiAg}$ Alloy. Physical Review Letters, 2015, 114, 166801.	2.9	23
131	Chemical effects in rare gas adsorption: FLAPW calculations for $\text{Ag}(001)c(2\sqrt{2})\times\sqrt{2}$ . Physical Review B, 2001, 63, .	1.1	22
132	First-principles studies of $\text{FeS}$ using many-body perturbation theory in the $G_0W_0$ approximation. Physical Review B, 2013, 88, .	1.1	22
133	Engineering quantum anomalous Hall phases with orbital and spin degrees of freedom. Physical Review B, 2013, 87, .	1.1	22
134	Resistive Switching of a Quasi-Homogeneous Distribution of Filaments Generated at Heat-Treated $\text{TiO}_2$ (110) Surfaces. Advanced Functional Materials, 2015, 25, 6382-6389.	7.8	22
135	Magnetism in a graphene-4f $\sim$ 3d hybrid system. Physical Review B, 2017, 95, .	1.1	22
136	Indirect chiral magnetic exchange through Dzyaloshinskii-Moriya-enhanced RKKY interactions in manganese oxide chains on Ir(100). Nature Communications, 2019, 10, 2610.	5.8	22
137	Tailoring the topological surface state in ultrathin $\text{Bi}_{1-x}\text{Sb}_x$ -Sn(111) films. Physical Review B, 2019, 100, .	1.1	22
138	Electric dipole moment as descriptor for interfacial Dzyaloshinskii-Moriya interaction. Physical Review Materials, 2020, 4, .	0.9	22
139	Noncollinear magnetism of Cr and Mn monolayers on Cu(111). Journal of Applied Physics, 2000, 87, 6101-6103.	1.1	21
140	Surface electronic structures of La(0001) and Lu(0001). Physical Review B, 2006, 73, .	1.1	21
141	Three- and two-dimensional topological insulators in $\text{Pb}_2\text{Sb}_2\text{Te}_5$ , $\text{Pb}_2\text{Bi}_2\text{Te}_5$ , and $\text{Pb}_2\text{Bi}_2\text{Se}_5$ layered compounds. JETP Letters, 2011, 94, 217-221.	0.4	21
142	Magnetism of $3d$ transition-metal monolayers on Rh(100). Physical Review B, 2011, 83, .	1.1	21
143	Nanostructural origin of giant Rashba effect in intercalated graphene. 2D Materials, 2017, 4, 035010.	2.0	21
144	Local surface conductivity of transition metal oxides mapped with true atomic resolution. Nanoscale, 2018, 10, 11498-11505.	2.8	21

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145	Modeling magnetism of hexagonal Fe monolayers on 4d substrates. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 2242-2247.	0.7	20
146	Tuning of the Rashba effect in Pb quantum well states via a variable Schottky barrier. <i>Scientific Reports</i> , 2013, 3, 1963.	1.6	20
147	Self-reduction of the native TiO <sub>2</sub> (110) surface during cooling after thermal annealing – in-operando investigations. <i>Scientific Reports</i> , 2019, 9, 12563.	1.6	20
148	Interpreting STM images of the MnCu/Cu(100) surface alloy. <i>Physical Review B</i> , 2000, 62, 2862-2868.	1.1	19
149	Magnetic structure and transport properties of noncollinear LaMn <sub>2</sub> X <sub>2</sub> (X=Ge,Si) systems. <i>Physical Review B</i> , 2004, 70, .	1.1	19
150	Manipulating the Rashba-type spin splitting and spin texture of Pb quantum well states. <i>Physical Review B</i> , 2011, 84, .	1.1	19
151	Tuning the Curie temperature of FeCo compounds by tetragonal distortion. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	19
152	Fermi Surface Manipulation by External Magnetic Field Demonstrated for a Prototypical Ferromagnet. <i>Physical Review X</i> , 2016, 6, .	2.8	19
153	Asymmetric band gaps in a Rashba film system. <i>Physical Review B</i> , 2016, 93, .	1.1	19
154	Tilted Dirac cone on W(110) protected by mirror symmetry. <i>Physical Review B</i> , 2017, 95, .	1.1	19
155	Co atoms on Bi <sub>2</sub> Se <sub>3</sub> revealing a coverage dependent spin reorientation transition. <i>New Journal of Physics</i> , 2013, 15, 113026.	1.2	18
156	Charge and orbital order at head-to-head domain walls in $\text{PbTiO}_3$ . <i>Physical Review B</i> , 2014, 90, .	1.1	18
157	Towards microscopic control of the magnetic exchange coupling at the surface of a topological insulator. <i>JPhys Materials</i> , 2018, 1, 015002.	1.8	18
158	Ab initio analysis of magnetic properties of the prototype B20 chiral magnet FeGe. <i>Physical Review B</i> , 2019, 100, .	1.1	18
159	Martensitic phase transformation and electronic structure of NiTi and PdTi. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1996, 73, 511-524.	0.6	16
160	Mapping the band structure of GeSbTe phase change alloys around the Fermi level. <i>Communications Physics</i> , 2018, 1, .	2.0	16
161	Anomalous behavior of the electronic structure of $\text{Tj ETQq1}$ across the quantum phase transition from topological to triv. <i>Physical Review B</i> , 2018, 98, .	1.1	16
162	Electronic Structure of Oxygen-Deficient SrTiO <sub>3</sub> and Sr <sub>2</sub> TiO <sub>4</sub> . <i>Crystals</i> , 2019, 9, 580.	1.0	16

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163	Kink far below the Fermi level reveals new electron-magnon scattering channel in Fe. Nature Communications, 2019, 10, 505.	5.8	16
164	Manipulating quantum-well states by surface alloying: Pb on ultrathin Ag films. Physical Review B, 2008, 78, .	1.1	15
165	Conservation of the Lateral Electron Momentum at a Metal-Semiconductor Interface Studied by Ballistic Electron Emission Microscopy. Physical Review Letters, 2009, 102, 136807.	2.9	15
166	Interlayer exchange coupling between FeCo and Co ultrathin films through Rh(001) spacers. Physical Review B, 2015, 91, .	1.1	15
167	Electronic Structure of $B_2NiTi$ and $\epsilon PdTi$ . Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1992, 96, 1626-1635.	0.9	14
168	Spin-Orbit induced local band structure variations revealed by scanning tunnelling spectroscopy. Journal of Physics Condensed Matter, 2003, 15, S679-S692.	0.7	14
169	Structural determination of the Bi(110) semimetal surface by LEED analysis and ab initio calculations. Physical Review B, 2006, 74, .	1.1	14
170	Intrinsic spin-Hall accumulation in honeycomb lattices: Band structure effects. Physical Review B, 2007, 76, .	1.1	14
171	Exchange parameters in Fe-based molecular magnets. Computational Materials Science, 2006, 36, 91-95.	1.4	13
172	Structure and magnetic properties of $MnPt(110)$ ( $1\bar{1}2$ ): A joint x-ray diffraction and theoretical study. Physical Review B, 2007, 75, .	1.1	13
173	Discovery of Real-Space Topological Ferroelectricity in Metallic Transition Metal Phosphides. Advanced Materials, 2020, 32, e2003479.	11.1	13
174	Material systems for FM-/AFM-coupled skyrmions in Co/Pt-based multilayers. Physical Review Materials, 2020, 4, .	0.9	13
175	Comment on "Ultrathin Mn films on Cu(111) substrates: Frustrated antiferromagnetic order". Physical Review B, 2001, 63, .	1.1	12
176	Surface- and edge-states in ultrathin $BiSb$ films. New Journal of Physics, 2010, 12, 065006.	1.2	12
177	Non-Planar Dzyaloshinskii Spirals and Magnetic Domain Walls in Non-Centrosymmetric Systems with Orthorhombic Anisotropy. Journal of Nanoscience and Nanotechnology, 2011, 11, 3005-3015.	0.9	12
178	Influence of the GeSb sublattice atomic composition on the topological electronic properties of $Ge_2Sb_2Te_5$ . Applied Surface Science, 2013, 267, 169-172.	3.1	12
179	Chalcogenide-based van der Waals epitaxy: Interface conductivity of tellurium on Si(111). Physical Review B, 2017, 96, .	1.1	12
180	Electrically controlled transformation of memristive titanates into mesoporous titanium oxides via incongruent sublimation. Scientific Reports, 2018, 8, 3774.	1.6	12

#	ARTICLE	IF	CITATIONS
181	Probing the electronic transmission across a buried metal/metal interface. Physical Review B, 2010, 82, .	1.1	11
182	Spin-resolved photoemission and <i>ab initio</i> theory of graphene/SiC. Physical Review B, 2013, 88, .	1.1	11
183	Effect of structural modulation and thickness of a graphene overlayer on the binding energy of the Rashba-type surface state of Ir(111). New Journal of Physics, 2013, 15, 115009.	1.2	11
184	$Z_2$ topology of bismuth. Physical Review Materials, 2021, 5, .	0.9	11
185	First-principles investigation of the stability of 3d monolayer/Fe(001) against bilayer formation. Journal of Applied Physics, 2000, 87, 5935-5937.	1.1	10
186	Resolving noncollinear magnetism by spin-polarized scanning tunneling microscopy. Journal of Magnetism and Magnetic Materials, 2002, 240, 57-63.	1.0	10
187	Exchange Interactions at Surfaces of Fe, Co, and Gd. European Physical Journal D, 2003, 53, 81-88.	0.4	10
188	Exploring the subsurface atomic structure of the epitaxially grown phase-change material $\text{Ge}_2\text{Sb}_2\text{Te}_5$ . Physical Review B, 2017, 96, .	1.1	10
189	Hybrid quantum anomalous Hall effect at graphene-oxide interfaces. Physical Review B, 2018, 98, .	1.1	10
190	Tunneling voltage dependent heights of faulted and unfaulted Ir islands on Ir(111). Physical Review B, 2003, 68, .	1.1	9
191	First-principles investigation of Co wires at Pt(111) step-edges. Surface Science, 2006, 600, 4301-4304.	0.8	9
192	Quantum electron confinement in closely matched metals: Au films on Ag(111). Physical Review B, 2012, 86, .	1.1	9
193	<i>Ab initio</i> investigations of magnetic properties of FeCo monolayer alloy films on Rh(001). Physical Review B, 2012, 86, .	1.1	9
194	Scattering properties of the three-dimensional topological insulator $\text{Sb}_2\text{Te}_3$ . Coexistence of topologically trivial and nontrivial surface states with opposite spin-momentum helicity. Physical Review B, 2016, 93, .	1.1	9
195	Scattering properties of the three-dimensional topological insulator $\text{Sb}_2\text{Te}_3$ . Coexistence of topologically trivial and nontrivial surface states with opposite spin-momentum helicity. Physical Review B, 2016, 93, .	1.1	9
196	Mapping the conducting channels formed along extended defects in SrTiO <sub>3</sub> by means of scanning near-field optical microscopy. Scientific Reports, 2020, 10, 17763.	1.6	9
197	Unconventional Co-Existence of Insulating Nano-Regions and Conducting Filaments in Reduced SrTiO <sub>3</sub> : Mode Softening, Local Piezoelectricity, and Metallicity. Crystals, 2020, 10, 437.	1.0	9
198	<i>Ab initio</i> study of the CO adsorption on NiAl(110) and Pt(100). Surface Science, 1998, 402-404, 794-797.	0.8	8

#	ARTICLE	IF	CITATIONS
199	Activated non-dissociative adsorption on a compound surface: CO on NiAl(110). Surface Science, 2000, 446, 187-192.	0.8	8
200	Polymorphous GdScO <sub>3</sub> as high permittivity dielectric. Journal of Alloys and Compounds, 2015, 651, 514-520.	2.8	8
201	Designing the Rashba spin texture by adsorption of inorganic molecules. New Journal of Physics, 2017, 19, 043017.	1.2	8
202	High spin polarization at the interface between a Fe monolayer and InAs(110). Physical Review B, 2004, 69, .	1.1	7
203	First-principles study of intermixing and polarization at the DyScO <sub>3</sub> /SrTiO <sub>3</sub> interface. Physical Review B, 2012, 85, .	1.1	7
204	Structural and electronic properties of $\text{FeSi}_2$ . The role of stacking fault domains. Physical Review B, 2014, 89, .		
205	Orbital-enhanced warping effect in px,py-derived Rashba spin splitting of monatomic bismuth surface alloy. Npj Quantum Materials, 2020, 5, .	1.8	7
206	Quantum spin mixing in Dirac materials. Communications Physics, 2021, 4, .	2.0	7
207	Scanning tunnelling microscopy of surfaces of half-metals: an ab-initio study on NiMnSb(001). Journal Physics D: Applied Physics, 2006, 39, 797-802.	1.3	6
208	One-Dimensional $3d$ Electronic Bands of Monatomic Cu Chains. Physical Review Letters, 2008, 101, 036807.	2.9	6
209	Electronic states of moiré modulated Cu films. Journal of Physics Condensed Matter, 2012, 24, 335502.	0.7	6
210	Combined large spin splitting and one-dimensional confinement in surface alloys. New Journal of Physics, 2013, 15, 105013.	1.2	6
211	Creating anisotropic spin-split surface states in momentum space by molecular adsorption. Physical Review B, 2017, 96, .	1.1	6
212	Itinerant Magnets on a Triangular Cu(111) Lattice. Phase Transitions, 2002, 75, 101-112.	0.6	5
213	Structure and oscillatory multilayer relaxation of the bismuth (100) surface. New Journal of Physics, 2010, 12, 063016.	1.2	5
214	Two-dimensional topological crystalline insulator phase in quantum wells of trivial insulators. 2D Materials, 2016, 3, 025037.	2.0	5
215	Competing edge structures of Sb and Bi bilayers generated by trivial and nontrivial band topologies. Physical Review B, 2018, 98, .	1.1	5
216	Bulk and surface electronic structure of $\text{Bi}_4\text{Te}_3$ from $\text{GW}$ calculations and photoemission experiments. Physical Review Materials, 2022, 6, .	0.9	5

#	ARTICLE	IF	CITATIONS
217	Resonant magnetic x-ray scattering from terbium. Journal of Physics Condensed Matter, 2008, 20, 445208.	0.7	4
218	Hard X-ray photoemission study of the covalent chain antiferromagnets $\text{TlFeS}_2$ and $\text{TlFeSe}_2$ . Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 989-992.	0.8	4
219	First-Principles Interpretation of Scanning Tunneling Microscopy Applied to Transition-Metal Surfaces: Buried Cu/Cu(001) Surface Alloys. Physica Status Solidi A, 2001, 187, 215-226.	1.7	3
220	Island-assisted interface alloying and magnetic polarization at submonolayer V/Cr(001) interfaces. Physical Review B, 2010, 82, .	1.1	3
221	Weak antiferromagnetic superexchange interaction in fcc $\text{Cu}_6\text{H}$ . Physical Review B, 2012, 86, .	1.1	3
222	Spin-orbit and exchange effects in the 2DEG of $\text{BiAlO}_3$ -based oxide heterostructures. Europhysics Letters, 2016, 115, 17006.	0.7	3
223	Orbital contributions in the element-resolved valence electronic structure of $\text{Bi}_2\text{Te}_3$ . Physical Review B, 2021, 104, .		
224	Band contribution to the electronic transport in noncollinear magnetic materials: application to $\text{LaMnGe}$ . Physica B: Condensed Matter, 2004, 354, 154-157.	1.3	2
225	Magnetism in Molecular Vanadium-Benzene Sandwiches. AIP Conference Proceedings, 2005, , .	0.3	2
226	Publisher's Note: Elemental Topological Insulator with Tunable Fermi Level: Strained $\text{Sn}_2\text{Te}$ or $\text{InSb}(001)$ [Phys. Rev. Lett. 111, 157205 (2013)]. Physical Review Letters, 2014, 112, .	2.9	2
227	Magnetic properties of ultra-thin (Fe, Co) films coupled by Ir(001) spacers. Physica B: Condensed Matter, 2020, 596, 412395.	1.3	2
228	Strong and Weak 3D Topological Insulators Probed by Surface Science Methods. Physica Status Solidi (B): Basic Research, 2021, 258, 2000060.	0.7	2
229	A Chiral Magnet Induces Vortex Currents in Superconductors. Physics Magazine, 0, 14, .	0.1	2
230	One-dimensional Rashba states with unconventional spin texture in Bi chains. Physical Review B, 2022, 106, .	1.1	2
231	Noncollinear magnetism in $\text{LaMn}_2\text{Ge}_2$ and $\text{LaMn}_2\text{Si}_2$ compounds. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E265-E266.	1.0	1
232	Publisher's Note: Intrinsic spin-Hall accumulation in honeycomb lattices: Band structure effects [Phys. Rev. B76, 121301 (2007)]. Physical Review B, 2007, 76, .	1.1	1
233	Gitter aus magnetischen Wirbeln. Physik in Unserer Zeit, 2012, 43, 6-7.	0.0	1
234	Hubbard $U$ calculations for gap states in dilute magnetic semiconductors. Journal of Physics Condensed Matter, 2014, 26, 274202.	0.7	1

#	ARTICLE	IF	CITATIONS
235	Spin-polarized confined states in Ag films on Fe(111). Journal of Physics Condensed Matter, 2017, 29, 495806.	0.7	1
236	Effective mass enhancement and ultrafast electron dynamics of Au(111) surface state coupled to a quantum well. Physical Review Research, 2020, 2, .	1.3	1
237	Back Cover: Modeling magnetism of hexagonal Fe monolayers on 4d substrates (Phys. Status Solidi B) Tj ETQq1 1 0.784314 rgBT /Ov	0.7	0
238	Density Functional Theory for Magnetism and Magnetic Anisotropy. , 2018, , 1-23.		0
239	Topological Insulators: Materials “ Fundamental Properties “ Devices. Physica Status Solidi (B): Basic Research, 2021, 258, 2000594.	0.7	0
240	Density Functional Theory for Magnetism and Magnetic Anisotropy. , 2020, , 895-917.		0
241	Topological properties and self-energy effects in elemental Yb. Physical Review B, 2021, 104, .	1.1	0
242	Deriving spin models from density functional theory: challenges and limitations. , 2020, , .		0