

# Igor I Mazin

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2134493/publications.pdf>

Version: 2024-02-01

270  
papers

23,109  
citations

9786

73  
h-index

8630

146  
g-index

279  
all docs

279  
docs citations

279  
times ranked

12271  
citing authors

#	ARTICLE	IF	CITATIONS
1	Unconventional Superconductivity with a Sign Reversal in the Order Parameter of $\text{LaFeAsO}_{1-x}\text{F}_x$ . Physical Review Letters, 2008, 101, 057003.	7.8	1,271
2	Superconductivity of Metallic Boron in $\text{MgB}_2$ . Physical Review Letters, 2001, 86, 4656-4659.	7.8	1,153
3	Gap symmetry and structure of Fe-based superconductors. Reports on Progress in Physics, 2011, 74, 124508.	20.1	1,001
4	Beyond Eliashberg Superconductivity in $\text{MgB}_2$ : Anharmonicity, Two-Phonon Scattering, and Multiple Gaps. Physical Review Letters, 2001, 87, 087005.	7.8	957
5	Spin Waves and Revised Crystal Structure of Honeycomb Iridate $\text{LiFeO}_2$ . Physical Review Letters, 2012, 108, 127204.	7.8	502
6	Fermi surface nesting and the origin of charge density waves in metals. Physical Review B, 2008, 77, .	3.2	478
7	Superconductivity gets an iron boost. Nature, 2010, 464, 183-186.	27.8	398
8	How to Define and Calculate the Degree of Spin Polarization in Ferromagnets. Physical Review Letters, 1999, 83, 1427-1430.	7.8	389
9	Monoclinic crystal structure of $\text{LiFeO}_2$ and the zigzag antiferromagnetic ground state. Physical Review B, 2015, 92, .	3.2	316
10	Electronic structure and magnetism in Ru-based perovskites. Physical Review B, 1997, 56, 2556-2571.	3.2	377
11	Correlated metals and the LDA+U method. Physical Review B, 2003, 67, .	3.2	363
12	Pairing symmetry and pairing state in ferropnictides: Theoretical overview. Physica C: Superconductivity and Its Applications, 2009, 469, 614-627.	1.2	360
13	Problems with reconciling density functional theory calculations with experiment in ferropnictides. Physical Review B, 2008, 78, .	3.2	352
14	Superconductivity in $\text{MgB}_2$ : Clean or Dirty?. Physical Review Letters, 2002, 89, 107002.	7.8	350
15	Ferromagnetic Spin Fluctuation Induced Superconductivity in $\text{Sr}_2\text{RuO}_4$ . Physical Review Letters, 1997, 79, 733-736.	7.8	311
16	Magnetic Collapse in Transition Metal Oxides at High Pressure: Implications for the Earth. Science, 1997, 275, 654-657.	12.6	305
17	Calculated thermoelectric properties of La-filled skutterudites. Physical Review B, 1997, 56, R1650-R1653.	3.2	283
18	Uniaxial-strain mechanical detwinning of $\text{CaFe}_2\text{As}_2$ . Physical Review B, 2010, 81, .	3.2	255

#	ARTICLE	IF	CITATIONS
19	Effect of magnetic frustration on nematicity and superconductivity in iron chalcogenides. Nature Physics, 2015, 11, 953-958.	16.7	255
20	Electronic structure, electron-phonon coupling, and multiband effects in MgB <sub>2</sub> . Physica C: Superconductivity and Its Applications, 2003, 385, 49-65.	1.2	254
21	A key role for unusual spin dynamics in ferropnictides. Nature Physics, 2009, 5, 141-145.	16.7	250
22	Charge Ordering as Alternative to Jahn-Teller Distortion. Physical Review Letters, 2007, 98, .	7.8	241
23	Effect of magnetic and nonmagnetic impurities on highly anisotropic superconductivity. Physical Review B, 1997, 55, 15146-15152.	3.2	237
24	Fermi-surface nesting and the origin of the charge-density wave in NbSe <sub>2</sub> . Physical Review B, 2006, 73, .	3.2	237
25	Competitions in Layered Ruthenates: Ferromagnetism versus Antiferromagnetism and Triplet versus Singlet Pairing. Physical Review Letters, 1999, 82, 4324-4327.	7.8	229
26	What superconducts in sulfur hydrides under pressure and why. Physical Review B, 2015, 91, .	3.2	220
27	Plane dimpling and saddle-point bifurcation in the band structures of optimally doped high-temperature superconductors: A tight-binding model. Physical Review B, 1994, 49, 4145-4157.	3.2	215
28	Origin of high transport spin polarization in La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> : Direct evidence for minority spin states. Physical Review B, 2001, 63, .	3.2	204
29	Probing spin polarization with Andreev reflection: A theoretical basis. Journal of Applied Physics, 2001, 89, 7576-7578.	2.5	197
30	Effect of dimensionality on the charge-density wave in few-layer $2\text{-H-NbSe}_2$ . Physical Review B, 2009, 80, .	3.2	184
31	Roles of multiband effects and electron-hole asymmetry in the superconductivity and normal-state properties of $2\text{-H-NbSe}_2$ . Physical Review B, 2009, 80, .		

#	ARTICLE	IF	CITATIONS
37	Quantitative Model for the Superconductivity Suppression in $R_{1-x}Pr_xBa_2Cu_3O_7$ with Different Rare Earths. Physical Review Letters, 1995, 74, 1000-1003.	7.8	160
38	Double Indirect Interlayer Exciton in a $MoSe_2/WSe_2$ van der Waals Heterostructure. ACS Nano, 2018, 12, 4719-4726.	14.6	160
39	Common Fermi liquid origin of $T^2$ resistivity and superconductivity in $n$ -type $SrTiO_3$ . Physical Review B, 2011, 84, .	3.2	158
40	Microscopic origin of magnetism and magnetic interactions in ferropnictides. Physical Review B, 2009, 79, .	3.2	155
41	$Na_2IrO_5$ a Molecular Orbital Crystal. Physical Review Letters, 2012, 109, 197201.	3.2	155
42	Electronic structure, local moments, and transport in $Fe_2VAl$ . Physical Review B, 1998, 57, 14352-14356.	3.2	153
43	Unconventional electronic reconstruction in undoped $BaFe_2As_2$ the spin density wave transition. Physical Review B, 2009, 80, .	3.2	134
44	Phonon self-energies and the gap of high-temperature superconductors. Solid State Communications, 1990, 75, 219-223.	1.9	130
45	Resonant Raman scattering in $YBa_2Cu_3O_7$ : Band theory and experiment. Physical Review Letters, 1990, 65, 3048-3051.	7.8	129
46	Intercalant-Driven Superconductivity in $YbC_6$ and $CaC_6$ . Physical Review Letters, 2005, 95, 227001.	7.8	118
47	Quantum and Classical Orientational Ordering in Solid Hydrogen. Physical Review Letters, 1997, 78, 1066-1069.	7.8	117
48	Lattice dynamics and reduced thermal conductivity of filled skutterudites. Physical Review B, 2000, 61, R9209-R9212.	3.2	116
49	Effects of magnetism and doping on the electron-phonon coupling in $BaFe_2As_2$ . Physical Review B, 2010, 82, .	3.2	112
50	Transport, optical, and electronic properties of the half-metal $CrO_2$ . Physical Review B, 1999, 59, 411-418.	3.2	109
51	Robust half metallicity in $FeCoS_2$ . Applied Physics Letters, 2000, 77, 3000-3002.	3.3	105
52	Symmetry analysis of possible superconducting states in $K_xFe_2-ySe_2$ . Physical Review B, 2010, 82, .	3.2	105
53	Competing magnetic phases and fluctuation-driven scalar spin chirality in the kagome metal $YMn_6Sn_6$ . Science Advances, 2020, 6, .	10.3	103
54	Superconductivity and electronic structure of perovskite $MgCNi_3$ . Physical Review B, 2001, 64, .	3.2	100

#	ARTICLE	IF	CITATIONS
55	Electronic structure and magnetism of Sr <sub>3</sub> Ru <sub>2</sub> O <sub>7</sub> . Physical Review B, 2001, 63, .	3.2	100
56	Sign-reversal of the in-plane resistivity anisotropy in hole-doped iron pnictides. Nature Communications, 2013, 4, 1914.	12.8	100
57	Neutron Scattering and Superconducting Order Parameter in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physical Review Letters, 1995, 75, 4134-4137.	7.8	99
58	Structural phase diagram and electron-phonon interaction in Ba <sub>1-x</sub> K <sub>x</sub> BiO <sub>3</sub> . Physical Review B, 1991, 44, 5388-5391.	3.2	96
59	Transport spin polarization of Ni <sub>x</sub> Fe <sub>1-x</sub> : Electronic kinematics and band structure. Physical Review B, 2000, 61, R3788-R3791.	3.2	95
60	Insulating gap in FeO: Correlations and covalency. Physical Review B, 1997, 55, 12822-12825.	3.2	92
61	London penetration depth in single crystals of Ba <sub>1-x</sub> K <sub>x</sub> BiO <sub>3</sub> . Physical Review B, 2009, 79, .	3.2	92
62	Valence bond liquid phase in the honeycomb lattice material Li <sub>2</sub> RuO <sub>3</sub> . Physical Review B, 2014, 89, .	3.2	92
63	Toward one-band superconductivity in MgB <sub>2</sub> . Physical Review B, 2003, 68, .	3.2	83
64	Anisotropic structure of the order parameter in FeSe <sub>0.45</sub> Te <sub>0.55</sub> revealed by angle-resolved specific heat. Nature Communications, 2010, 1, 112.	12.8	83
65	Why Ni <sub>3</sub> Al is an Itinerant Ferromagnet but Ni <sub>3</sub> Ga is Not. Physical Review Letters, 2004, 92, 147201.	7.8	82
66	Coupling of magnetic order to planar Bi electrons in the anisotropic Dirac metals MnBi <sub>2</sub> Te <sub>2</sub> . Physical Review B, 2012, 86, .	3.2	81
67	Quantitative theory of superconductivity in doped C <sub>60</sub> . Physical Review B, 1992, 45, 5114-5117.	3.2	79
68	Interband superconductivity: Contrasts between Bardeen-Cooper-Schrieffer and Eliashberg theories. Physical Review B, 2009, 79, .	3.2	78
69	Calculation of magnetic anisotropy energy in SmCo <sub>5</sub> . Physical Review B, 2003, 67, .	3.2	77
70	Nesting, Spin Fluctuations, and Odd-Gap Superconductivity in Na <sub>x</sub> CoO <sub>2</sub> ·yH <sub>2</sub> O. Physical Review Letters, 2004, 93, 097005.	7.8	76
71	First-principles calculations of the optical properties of metals. Journal of Physics F: Metal Physics, 1988, 18, 833-849.	1.6	75
72	First-principles study of Zn-Sb thermoelectrics. Physical Review B, 1998, 57, 6199-6203.	3.2	75

#	ARTICLE	IF	CITATIONS
73	Andreev Spectra and Subgap Bound States in Multiband Superconductors. Physical Review Letters, 2009, 103, 077003.	7.8	75
74	s-Wave Superconductivity from an Antiferromagnetic Spin-Fluctuation Model for Bilayer Materials. Physical Review Letters, 1995, 74, 2303-2306.	7.8	73
75	Structural, electronic, and magnetic properties of MnO. Physical Review B, 2001, 64, .	3.2	73
76	Paramagnetism in the kagome compounds $\langle \mathbf{m}_i \cdot \mathbf{m}_j \rangle = \langle \mathbf{m}_i \cdot \mathbf{m}_j \rangle$ Physical Review B, 2015, 92, .	3.2	73
77	Topology and correlations on the kagome lattice. Nature Materials, 2020, 19, 137-138.	27.5	68
78	A critical assessment of the superconducting pairing symmetry in $\text{Na}_x\text{CoO}_2 \cdot y\text{H}_2\text{O}$ . Nature Physics, 2005, 1, 91-93.	16.7	67
79	Phase-Sensitive Tests of the Pairing State Symmetry in $\text{Sr}_2\text{RuO}_4$ . Physical Review Letters, 2005, 95, 217004.	7.8	65
80	Robust determination of the superconducting gap sign structure via quasiparticle interference. Physical Review B, 2015, 92, .	3.2	64
81	Extended Stoner factor calculations for the half-metallic ferromagnets $\text{NiMnSb}$ and $\text{CrO}_2$ . Journal of Physics Condensed Matter, 1990, 2, 343-350.	1.8	62
82	Possible polytypism in $\text{FeO}$ at high pressures. American Mineralogist, 1998, 83, 451-457.	1.9	61
83	de Haas-van Alphen Study of the Fermi Surfaces of Superconducting $\text{LiFeP}$ and $\text{LiFeAs}$ . Physical Review Letters, 2012, 108, 047002.	7.8	61
84	Competition between spin-orbit coupling, magnetism, and dimerization in the honeycomb iridates: $\langle \mathbf{m}_i \cdot \mathbf{m}_j \rangle = \langle \mathbf{m}_i \cdot \mathbf{m}_j \rangle$ under pressure. Physical Review B, 2018, 97, .	3.2	61
85	Dominance of the spin-dipolar NMR relaxation mechanism in fullerene superconductors. Physical Review B, 1993, 47, 12373-12376.	3.2	60
86	Coexistence of superconductivity and a spin-density wave in pnictide superconductors: Gap symmetry and nodal lines. Physical Review B, 2009, 80, .	3.2	59
87	Orbital Degeneracy Removed by Charge Order in Triangular Antiferromagnet $\langle \mathbf{m}_i \cdot \mathbf{m}_j \rangle = \langle \mathbf{m}_i \cdot \mathbf{m}_j \rangle$ Physical Review Letters, 2007, 99, 157204.	7.8	58
88	Possible Phase-Sensitive Tests of Pairing Symmetry in Pnictide Superconductors. Physical Review Letters, 2009, 102, 227007.	7.8	58
89	Sign reversal of the order parameter in $(\text{Li}_{1-x}\text{Fex})\text{OHFe}_{1-y}\text{ZnySe}$ . Nature Physics, 2018, 14, 134-139.	16.7	58
90	Origin of the insulating state in honeycomb iridates and rhodates. Physical Review B, 2013, 88, .	3.2	57

#	ARTICLE	IF	CITATIONS
91	Comment on "First-principles calculation of the superconducting transition in MgB <sub>2</sub> within the anisotropic Eliashberg formalism". Physical Review B, 2004, 69, .	3.2	56
92	Electronic structure and superconductivity of CaAlSi and SrAlSi. Physical Review B, 2004, 69, .	3.2	54
93	Iron Superconductivity Weathers Another Storm. Physics Magazine, 0, 4, .	0.1	54
94	Theory of Mn-doped II-II-V semiconductors. Physical Review B, 2014, 90, .	3.2	54
95	Invariant Points and Phase Transitions in Deuterium at Megabar Pressures. Physical Review Letters, 1995, 75, 2514-2517.	7.8	53
96	Surface electronic structure of Sr <sub>2</sub> RuO <sub>4</sub> . Physical Review B, 2001, 64, .	3.2	53
97	Pinpointing gap minima in $Ba_{1-x}Bi_xFe_2As_2$ . Physical Review B, 2010, 82, .	3.2	53
98	Manifestation of multiband optical properties of MgB <sub>2</sub> . Solid State Communications, 2002, 121, 479-484.	1.9	52
99	Evidence of upper-critical-field enhancement in K <sub>3</sub> C <sub>60</sub> powders. Physical Review B, 1992, 46, 5876-5879.	3.2	51
100	Strong-coupling effects in alkali-metal-doped C <sub>60</sub> . Physical Review B, 1993, 47, 538-541.	3.2	51
101	Competition of Spin Fluctuations and Phonons in Superconductivity of ZrZn <sub>2</sub> . Physical Review Letters, 2002, 88, 187004.	7.8	51
102	Point contact spin spectroscopy of ferromagnetic MnAs epitaxial films. Physical Review B, 2003, 68, .	3.2	51
103	Interpretation of the de Haas-van Alphen experiments in MgB <sub>2</sub> . Physical Review B, 2002, 65, .	3.2	50
104	Structural and electronic properties of the two-dimensional superconductor CuS with 1/3-valent copper. Physical Review B, 2012, 85, .	3.2	49
105	Calculations of the optical properties of metals by LMTO method. European Physical Journal B, 1983, 53, 263-270.	1.5	48
106	Raman excitations and orientational ordering in deuterium at high pressure. Physical Review B, 1996, 54, R15590-R15593.	3.2	48
107	Phenomenological interpretations of the ac Hall effect in the normal state of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physical Review B, 1998, 57, 3089-3098.	3.2	47
108	Superconductivity in compressed iron: Role of spin fluctuations. Physical Review B, 2002, 65, .	3.2	47

#	ARTICLE	IF	CITATIONS
109	Spin Fluctuations in $\text{Sr}_2\text{FeMoO}_6$ from Polarized Neutron Scattering: Implications for Superconductivity. Physical Review Letters, 2019, 122, 047004.	7.8	46
110	Sign reversal of the order parameter in s wave superconductors. Physica C: Superconductivity and Its Applications, 1995, 243, 153-159.	1.2	45
111	Effects of doping on the magnetic anisotropy energy in $\text{SmCo}_5$ and $\text{YCo}_5$ . Physical Review B, 2004, 69, .	3.2	43
112	Accounting for spin fluctuations beyond local spin density approximation in the density functional theory. Physical Review B, 2012, 86, .	3.2	43
113	Electronic structure and heavy-fermion behavior in $\text{LiV}_2\text{O}_4$ . Physical Review B, 1999, 60, 16359-16363.	3.2	42
114	First-principles study of spin-orbit effects and NMR in $\text{Sr}_2\text{RuO}_4$ . Physical Review B, 2006, 74, .	3.2	42
115	Dual character of magnetism in $\text{EuFe}_2\text{As}_2$ : Optical spectroscopic and density-functional calculation study. Physical Review B, 2010, 81, .	3.2	42
116	$\text{Sr}_2\text{VO}_3\text{FeAs}$ compared to other iron-based superconductors. Physical Review B, 2010, 81, .	3.2	42
117	Effect of isoelectronic doping on the honeycomb-lattice iridate $\text{IrO}_3$ . Physical Review B, 2014, 89, .	3.2	42
118	Reduction of the Spin Susceptibility in the Superconducting State of $\text{Sr}_2\text{FeMoO}_6$ Observed by Polarized Neutron Scattering. Physical Review Letters, 2020, 125, 217004.	7.8	42
119	Theoretical search for Chevrel-phase-based thermoelectric materials. Physical Review B, 1999, 59, 7969-7972.	3.2	41
120	Orientalional order in $\text{A}_3\text{C}_6\text{O}$ : Antiferromagnetic Ising model for the fcc lattice. Physical Review Letters, 1993, 70, 4142-4145.	7.8	40
121	Three-dimensional magnetic interactions in $\text{Na}_x\text{CoO}_2$ : First-principles calculations and analysis of exchange mechanisms. Physical Review B, 2005, 71, .	3.2	40
122	Indications of weak electronic correlations in $\text{SrRuO}_3$ from first-principles calculations. Physical Review B, 2012, 86, .	3.2	40
123	Prediction of unconventional magnetism in doped $\text{FeSb}_2$ . Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	39
124	Displacive excitation of coherent phonons in $\text{YBa}_2\text{Cu}_3\text{O}_7$ . Physical Review B, 1994, 49, 9210-9213.	3.2	38
125	Magnetism, critical fluctuations, and susceptibility renormalization in Pd. Physical Review B, 2004, 69, .	3.2	37
126	Electronic structure and magnetism in the frustrated antiferromagnet $\text{LiCrO}_2$ : First-principles calculations. Physical Review B, 2007, 75, .	3.2	37

#	ARTICLE	IF	CITATIONS
127	Effect of doping and pressure on magnetism and lattice structure of iron-based superconductors. Physical Review B, 2010, 82, .	3.2	37
128	Fermi-surface and low-energy excitation spectrum of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> : Role of the Ba-O plane. Physical Review B, 1992, 45, 5103-5106.	3.2	36
129	Spin fluctuations and the magnetic phase diagram of ZrZn <sub>2</sub> . Physical Review B, 2004, 69, .	3.2	36
130	Magnetic order multilayering in FeRh thin films by He-Ion irradiation. Materials Research Letters, 2018, 6, 106-112.	8.7	36
131	Role of correlations in determining the Van Hove strain in $Sr_{2-x}RuO_4$ . Physical Review B, 2019, 100, .	3.2	36
132	Ising Superconductivity and Magnetism in $NbSe_2$ . Physical Review X, 2020, 10, .	8.9	36
133	Designing phase-sensitive tests for Fe-based superconductors. Applied Physics Letters, 2013, 102, .	3.3	35
134	Localized itinerant electrons and unique magnetic properties of $SrRu_2O_6$ . Physical Review B, 2015, 92, .	3.2	35
135	Tight-binding Hamiltonians for Sr-filled ruthenates: Application to the gap anisotropy and Hall coefficient in Sr <sub>2</sub> RuO <sub>4</sub> . Physical Review B, 2000, 61, 5223-5228.	3.2	34
136	Magnetic properties of SmCo <sub>5</sub> and YCo <sub>5</sub> . Journal of Applied Physics, 2003, 93, 6888-6890.	2.5	34
137	Insulator-metal transition in solid hydrogen: Implication of electronic-structure calculations for recent experiments. Physical Review B, 1995, 52, R8597-R8600.	3.2	33
138	NMR relaxation rates and Knight shifts in MgB <sub>2</sub> . Physical Review B, 2001, 64, .	3.2	33
139	Critical Temperature and Enhanced Isotope Effect in the Presence of Paramagnons in Phonon-Mediated Superconductors. Physical Review Letters, 2005, 95, 257003.	7.8	32
140	<i>Ab initio</i> investigation of magnetic interactions in the frustrated triangular magnet $NiGa_2S_4$ . Physical Review B, 2007, 76, .	3.2	32
141	<i>Ab initio</i> investigation of magnetic interactions in the frustrated triangular magnet $NiGa_2S_4$ and $VO_2$ . Physical Review B, 2007, 76, .	3.2	32
142	Electronic structure and electron-phonon coupling in the 18K superconductor Y <sub>2</sub> C <sub>3</sub> . Physical Review B, 2004, 70, .	3.2	31
143	Superconductivity in Ca-intercalated bilayer graphene. Philosophical Magazine Letters, 2010, 90, 731-738.	1.2	31
144	Electron-phonon effects in 4d metals: calculation of coupling constant and resistivity. Journal of Physics F: Metal Physics, 1984, 14, 167-174.	1.6	30

#	ARTICLE	IF	CITATIONS
145	Tuning magnetism and band topology through antisite defects in Sb-doped $\text{MnBi}$ . Physical Review B, 2021, 104, .	3.2	4
146	Ferromagnetism and spin-orbital compensation in Sm intermetallics. Physical Review B, 2003, 68, .	3.2	29
147	First-principles study of the minimal model of magnetic interactions in Fe-based superconductors. Physical Review B, 2014, 89, .	3.2	29
148	Extraordinarily conventional. Nature, 2015, 525, 40-41.	27.8	29
149	Structural Origin of the Anomalous Temperature Dependence of the Local Magnetic Moments in the $\text{CaFe}_2\text{As}_2$ of Materials. Physical Review Letters, 2015, 114, 047001.	7.8	28
150	Nonspherical rigid-muffin-tin calculations of electron-phonon coupling in high-Tc perovskites. Physical Review B, 1990, 42, 366-370.	3.2	27
151	Chain Scenario for Josephson Tunneling with $\pi$ Shift in $\text{YBa}_2\text{Cu}_3\text{O}_7$ . Physical Review Letters, 1995, 75, 2574-2577.	7.8	27
152	Vibron effective charges in dense hydrogen. Europhysics Letters, 1997, 37, 403-408.	2.0	27
153	Comment on "Low-Lying States and Hidden Kinematic Collective Charge Instabilities in Parent Cobaltate Superconductors". Physical Review Letters, 2008, 101, 089703; author reply 089704.	7.8	26
154	Optical properties and correlation effects in $\text{Na}_x\text{CoO}_2$ . Physical Review B, 2005, 71, .	3.2	24
155	Anisotropy of magnetic interactions and symmetry of the order parameter in unconventional superconductor $\text{Sr}_2\text{RuO}_4$ . Npj Quantum Materials, 2017, 2, .	5.2	24
156	Chiral properties of the zero-field spiral state and field-induced magnetic phases of the itinerant kagome metal $\text{YMn}_6\text{S}_6$ . Physical Review B, 2021, 103, .	3.2	24
157	Tunneling of Bloch electrons through vacuum barrier. Europhysics Letters, 2001, 55, 404-410.	2.0	23
158	Effect of disorder on the electronic structure of palladium. Physical Review B, 1990, 41, 7988-7998.	3.2	22
159	Electrons and phonons in $\text{YbC}_6$ : Density functional calculations and angle-resolved photoemission measurements. Physical Review B, 2005, 72, .	3.2	22
160	Estimation of the electron-phonon coupling in $\text{YBa}_2\text{Cu}_3\text{O}_7$ from the resistivity. Physical Review B, 1992, 45, 2509-2511.	3.2	21
161	Low-energy interband transitions in $\text{YBa}_2\text{Cu}_3\text{O}_7$ . Physical Review B, 1992, 46, 11232-11235.	3.2	21
162	Ginzburg-Landau analysis of superconducting $\text{K}_3\text{C}_6\text{O}$ . Solid State Communications, 1992, 81, 935-938.	1.9	21

#	ARTICLE	IF	CITATIONS
163	Growth and magnetic properties of single crystal $\text{Fe}_{1-x}\text{Co}_x\text{S}_2$ ( $x=0.35\text{--}1$ ). Journal of Applied Physics, 2003, 93, 6847-6849.	2.5	21
164	Combining the advantages of superconducting $\text{MgB}_2$ and $\text{CaC}_6$ in one material: Suggestions from first-principles calculations. Physical Review B, 2007, 75, . Uncovering the Mechanism of the Impurity-Selective Mott Transition in Paramagnetic $\text{MgB}_2$ . Physical Review Letters, 2018, 121, 106401.	3.2	21
165	Direct-Write of Nanoscale Domains with Tunable Metamagnetic Order in $\text{FeRh}$ Thin Films. ACS Applied Materials & Interfaces, 2021, 13, 836-847.	7.8	21
166	Superconducting and transport electron-phonon coupling constants in $\text{YBa}_2\text{Cu}_3\text{O}_7$ : effect of the interband anisotropy. Physica C: Superconductivity and Its Applications, 1993, 209, 125-128.	8.0	21
167	Location of holes in $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_7$ . Physical Review B, 1998, 57, 150-152.	1.2	20
168	Calculation of magnetic anisotropy energy in $\text{YCo}_5$ . Journal of Magnetism and Magnetic Materials, 2003, 264, 7-13.	3.2	20
169	The FeSe riddle. Nature Materials, 2015, 14, 755-756.	2.3	20
170	Double-stage nematic bond ordering above double stripe magnetism: Application to $\text{BaTi}_2\text{As}_2$ . Physical Review B, 2017, 95, .	27.5	20
171	Nonlocal density functionals and the linear response of the homogeneous electron gas. Physical Review B, 1998, 57, 6879-6883.	3.2	19
172	Electronic structure calculations of Al-Cu alloys: Comparison with experimental results on Hume-Rothery phases. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 205-221.	0.6	19
173	Magnetic states and structural transformations in $\text{Sm}(\text{Co},\text{Cu})_5$ and $\text{Sm}(\text{Co},\text{Fe},\text{Cu})_5$ permanent magnets. Journal Physics D: Applied Physics, 2005, 38, 1337-1341.	2.8	18
174	Formation of an unconventional Ag valence state in $\text{Ag}_2\text{NiO}_2$ . Physical Review B, 2007, 75, .	3.2	18
175	Notes on the static dielectric response function in the density functional theory. Ferroelectrics, 1997, 194, 263-270.	0.6	17
176	Direct Observation of Charge Order in Triangular Metallic $\text{AgNiO}_2$ by Single-Crystal Resonant X-Ray Scattering. Physical Review Letters, 2011, 106, 157206.	7.8	17
177	Phase diagram of a distorted kagome antiferromagnet and application to Y-kapellasite. Npj Computational Materials, 2022, 8, .	8.7	17
178	Normal-state electronic Raman-scattering efficiencies of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ , $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$ , and $\text{Tl}_2\text{Ba}_2\text{Ca}_2\text{Cu}_3\text{O}_{10}$ : Effects of local-density-approximation Fermi-surface mass fluctuations. Physical Review B, 1995, 51, 5949-5954.	3.2	16
179	Theoretical possibilities for superconductivity in $\text{PrBa}_2\text{Cu}_3\text{O}_7$ . Physical Review B, 1999, 60, 92-95.	3.2	16

#	ARTICLE	IF	CITATIONS
---	---------	----	-----------

181	Field-induced magnetic transitions in $\text{MnO}_2$		
-----	--	--	--

#	ARTICLE	IF	CITATIONS
199	First-principles evidence of Mn moment canting in hole-doped $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ . Physical Review B, 2014, 89, .	3.2	13
200	Spectroscopic signatures of molecular orbitals in transition metal oxides with a honeycomb lattice. Physical Review B, 2016, 94, .	3.2	13
201	Nontrivial Role of Interlayer Cation States in Iron-Based Superconductors. Physical Review Letters, 2017, 118, 017204.	7.8	13
202	Frustration-driven C4 symmetric order in a naturally-heterostructured superconductor $\text{Sr}_2\text{VO}_3\text{FeAs}$ . Nature Communications, 2017, 8, 2167.	12.8	13
203	Field-tunable toroidal moment in a chiral-lattice magnet. Nature Communications, 2021, 12, 5339.	12.8	13
204	Highly unconventional surface reconstruction of $\text{Na}_{1-x}\text{Co}_x\text{Bi}_2$ persistent energy gap. Physical Review B, 2015, 91, .	3.2	11
205	Transport, optical and electronic properties of the half metal $\text{CrO}_2$ . Journal of Applied Physics, 1999, 85, 6220-6222.	2.5	11
206	Electronic Structure of the $\text{Na}_x\text{Co}_{1-x}\text{Bi}_2$ . Physical Review Letters, 2008, 101, 246808.	3.2	11
207	Superconductivity and magnetism in $\text{CuBiSO}$ from first principles. Physical Review B, 2010, 81, .	3.2	11
208	Quasiparticle interference in antiferromagnetic parent compounds of iron-based superconductors. Physical Review B, 2011, 83, .	3.2	11
209	Magnetic spiral induced by strong correlations in $\text{MnAu}_2$ . Physical Review B, 2014, 90, .	3.2	11
210	Microscopic Theory of Magnetic Detwinning in Iron-Based Superconductors with Large-Spin Rare Earths. Physical Review X, 2018, 8, .	8.9	11
211	Density functional theory-based electric field gradient database. Scientific Data, 2020, 7, 362.	5.3	11
212	Structural phase diagram of $\text{BaBiO}_3$ in the potential induced breathing model. Solid State Communications, 1990, 76, 1267-1272.	1.9	10
213	Applications of the NRL tight-binding method to magnetic systems. Journal of Applied Physics, 2001, 89, 6880-6882.	2.5	10
214	Detecting sign-changing superconducting gap in $\text{LiFeAs}$ using quasiparticle interference. Physical Review B, 2018, 97, .	3.2	10
215	Magnetic and electronic ordering phenomena in the $\text{Ru}_{1-x}\text{Ag}_x\text{RuO}_6$ -layer honeycomb lattice compound. Physical Review B, 2021, 103, .	3.2	10
216	Ultrafast dynamics in the high-symmetry and in the charge density wave phase of $\text{HfTeO}_5$ . Physical Review B, 2020, 102, .	3.2	10

#	ARTICLE	IF	CITATIONS
217	Magnetization-driven Lifshitz transition and charge-spin coupling in the kagome metal YMn <sub>6</sub> Sn <sub>6</sub> . Communications Physics, 2022, 5, .	5.3	10
218	Electron-phonon coupling strength from <i>ab initio</i> frozen-phonon approach. Physical Review Materials, 2022, 6, .	2.4	10
219	Electron-phonon coupling and specific heat in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physica C: Superconductivity and Its Applications, 1992, 192, 41-46.	1.2	9
220	Effect of impurities on magnetic properties of Y(Co <sub>5-x</sub> Cu <sub>x</sub> ) and Y <sub>2</sub> (Co <sub>7-x</sub> Ni <sub>x</sub> ). Journal of Magnetism and Magnetic Materials, 2004, 269, 176-183.	2.3	9
221	Nontrivial Doping Evolution of Electronic Properties in Ising Superconducting Alloys. Advanced Materials, 2022, , 2200492.	21.0	9
222	Unconventional Pressure-Driven Metamagnetic Transitions in Topological van der Waals Magnets. Nano Letters, 2022, 22, 5523-5529.	9.1	9
223	Breathing instability and disproportionation of Bi <sup>4+</sup> ions in BaBiO <sub>3</sub> . Ferroelectrics, 1995, 164, 169-175.	0.6	8
224	Properties of Novel Thermoelectrics from First Principles Calculations. Materials Research Society Symposia Proceedings, 1998, 545, 3.	0.1	8
225	Reflectance Measurements and Superconductivity in MgB <sub>2</sub> . Physical Review Letters, 2002, 89, 129703.	7.8	8
226	Why MgFeGe is not a superconductor. Physical Review B, 2013, 87, .	3.2	8
227	Weak doping dependence of the antiferromagnetic coupling between nearest-neighbor Mn <sup>2+</sup> spins in (Ba <sub>1-x</sub> K <sub>x</sub> )(Zn <sub>1-y</sub> Mn <sub>y</sub> ) <sub>2</sub> As <sub>2</sub> . Physical Review B, 2018, 97, .	3.2	8
228	Impact of biaxial and uniaxial strain on $V_2O_3$ . Physical Review B, 2019, 100, .	3.2	8
229	Momentum dependence of the linewidth of Raman-active phonons in the normal state of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physical Review B, 1995, 51, 3961-3964.	3.2	7
230	MAGNETISM AND SPIN-FLUCTUATION INDUCED SUPERCONDUCTIVITY IN RUTHENATES TALK PRESENTED AT THE SNS'97 CONFERENCE, CAPE COD, 1997.. Journal of Physics and Chemistry of Solids, 1998, 59, 2185-2189.	4.0	7
231	Self-consistent theory of phonon renormalization and electron-phonon coupling near a two-dimensional Kohn singularity. Physical Review B, 2008, 77, .	3.2	7
232	<i>Ab initio</i> prediction of a two-dimensional variant of the iridate IrO <sub>2</sub> . Physical Review B, 2019, 100, .	3.2	7
233	Anomalous gap ratio in anisotropic superconductors: Aluminum under pressure. Physical Review B, 2021, 103, .	3.2	7
234	Interpretation of the Femtosecond Optical Response of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> . Physical Review Letters, 1998, 80, 3664-3664.	7.8	6



#	ARTICLE	IF	CITATIONS
253	Theoretical search for bistability of apical oxygen in $\text{YBa}_2\text{Cu}_3\text{O}_7$ . The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 70, 643-646.	0.6	3
254	Comment on "Unified Formalism of Andreev Reflection at a Ferromagnet/Superconductor Interface". Physical Review Letters, 2013, 111, 139703.	7.8	3
255	Unusual electronic state of Sn in $\text{AgSnSe}_2$ . Physical Review B, 2020, 101, .		
256	Spectral reflectivity crossover at the metamagnetic transition in FeRh thin films. Optical Materials Express, 2019, 9, 2870.	3.0	3
257	Localization in $\text{YBa}_2\text{Cu}_3\text{O}_7$ induced by the self-interaction correction to the density functional theory. Physica C: Superconductivity and Its Applications, 1988, 156, 717-719.	1.2	2
258	Electronic structure of high-temperature superconductors in the normal state. Uspekhi Fizicheskikh Nauk, 1989, 32, 469-472.	0.3	2
259	Microscopic analysis of the transmittance of $\text{YBa}_2\text{Cu}_3\text{O}_7$ thin films. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 150, 43-46.	2.1	2
260	Why have band theorists been so successful in explaining and predicting novel superconductors?. Journal of Physics Condensed Matter, 2019, 31, 174001.	1.8	2
261	Weighted density functionals for ferroelectric materials. , 1998, , .		1
262	Where Should We Look For High Zt Materials: Suggestions From Theory.. Materials Research Society Symposia Proceedings, 2000, 626, 631.	0.1	1
263	Direct-Write of Nanoscale Domains with Tunable Metamagnetic Order in FeRh Thin Films. , 0, .		1
264	Electronic susceptibility of $\text{YBa}_2\text{Cu}_3\text{O}_7$ and its relation to phonon anomalies. Journal of Physics Condensed Matter, 1993, 5, A377-A380.	1.8	0
265	On the interpretation of neutron scattering in superconducting $\text{YBa}_2\text{Cu}_3\text{O}_7$ . Journal of Physics and Chemistry of Solids, 1995, 56, 1777-1778.	4.0	0
266	Impurity scattering in anisotropic superconductors and interband sign reversal of the order parameter. , 1996, 2696, 440.		0
267	Neutron Scattering and Superconducting Order Parameter in $\text{YBa}_2\text{Cu}_3\text{O}_7$ . Physical Review Letters, 1996, 76, 1984-1984.	7.8	0
268	Magnetism and magnetoelastic coupling in layered ruthenates. IEEE Transactions on Magnetics, 2001, 37, 2721-2723.	2.1	0
269	Magnetism, Spin Fluctuations and Superconductivity in Perovskite Ruthenates. Lecture Notes in Physics, 2002, , 256-270.	0.7	0
270	Publisher's Note: Robust determination of the superconducting gap sign structure via quasiparticle interference [Phys. Rev. B <b>92</b> , 184513 (2015)]. Physical Review B, 2016, 94, .	3.2	0