

Mikhail I Katsnelson

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/79283/publications.pdf>

Version: 2024-02-01

411
papers

83,483
citations

3159

92
h-index

357

283
g-index

422
all docs

422
docs citations

422
times ranked

53509
citing authors

#	ARTICLE	IF	CITATIONS
1	Two-dimensional gas of massless Dirac fermions in graphene. <i>Nature</i> , 2005, 438, 197-200.	27.8	18,948
2	Detection of individual gas molecules adsorbed on graphene. <i>Nature Materials</i> , 2007, 6, 652-655.	27.5	7,114
3	The structure of suspended graphene sheets. <i>Nature</i> , 2007, 446, 60-63.	27.8	4,511
4	Control of Graphene's Properties by Reversible Hydrogenation: Evidence for Graphane. <i>Science</i> , 2009, 323, 610-613.	12.6	3,748
5	Chiral tunnelling and the Klein paradox in graphene. <i>Nature Physics</i> , 2006, 2, 620-625.	16.7	3,383
6	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. <i>Nanoscale</i> , 2015, 7, 4598-4810.	5.6	2,452
7	Field-Effect Tunneling Transistor Based on Vertical Graphene Heterostructures. <i>Science</i> , 2012, 335, 947-950.	12.6	2,268
8	Chaotic Dirac Billiard in Graphene Quantum Dots. <i>Science</i> , 2008, 320, 356-358.	12.6	2,098
9	Unconventional quantum Hall effect and Berry's phase of 2π in bilayer graphene. <i>Nature Physics</i> , 2006, 2, 177-180.	16.7	1,785
10	Energy gaps and a zero-field quantum Hall effect in graphene by strain engineering. <i>Nature Physics</i> , 2010, 6, 30-33.	16.7	1,554
11	Intrinsic ripples in graphene. <i>Nature Materials</i> , 2007, 6, 858-861.	27.5	1,514
12	Graphene: carbon in two dimensions. <i>Materials Today</i> , 2007, 10, 20-27.	14.2	1,393
13	Fluorographene: A Two-Dimensional Counterpart of Teflon. <i>Small</i> , 2010, 6, 2877-2884.	10.0	1,146
14	Molecular Doping of Graphene. <i>Nano Letters</i> , 2008, 8, 173-177.	9.1	1,025
15	Half-metallic ferromagnets: From band structure to many-body effects. <i>Reviews of Modern Physics</i> , 2008, 80, 315-378.	45.6	860
16	Commensurate-incommensurate transition in graphene on hexagonal boron nitride. <i>Nature Physics</i> , 2014, 10, 451-456.	16.7	737
17	Modeling of Graphite Oxide. <i>Journal of the American Chemical Society</i> , 2008, 130, 10697-10701.	13.7	736
18	Electron Tunneling through Ultrathin Boron Nitride Crystalline Barriers. <i>Nano Letters</i> , 2012, 12, 1707-1710.	9.1	724

#	ARTICLE	IF	CITATIONS
19	Proton transport through one-atom-thick crystals. <i>Nature</i> , 2014, 516, 227-230.	27.8	668
20	Macroscopic Graphene Membranes and Their Extraordinary Stiffness. <i>Nano Letters</i> , 2008, 8, 2442-2446.	9.1	607
21	Chemical Functionalization of Graphene with Defects. <i>Nano Letters</i> , 2008, 8, 4373-4379.	9.1	607
22	Ab initio calculations of quasiparticle band structure in correlated systems: LDA++ approach. <i>Physical Review B</i> , 1998, 57, 6884-6895.	3.2	589
23	Zitterbewegung, chirality, and minimal conductivity in graphene. <i>European Physical Journal B</i> , 2006, 51, 157-160.	1.5	583
24	Room-temperature ferromagnetism in graphite driven by two-dimensional networks of point defects. <i>Nature Physics</i> , 2009, 5, 840-844.	16.7	559
25	Strength of Effective Coulomb Interactions in Graphene and Graphite. <i>Physical Review Letters</i> , 2011, 106, 236805.	7.8	453
26	Finite Temperature Lattice Properties of Graphene beyond the Quasiharmonic Approximation. <i>Physical Review Letters</i> , 2009, 102, 046808.	7.8	433
27	Finite-Temperature Magnetism of Transition Metals: An ab initio Dynamical Mean-Field Theory. <i>Physical Review Letters</i> , 2001, 87, 067205.	7.8	369
28	Strong Coulomb drag and broken symmetry in double-layer graphene. <i>Nature Physics</i> , 2012, 8, 896-901.	16.7	365
29	Production of Highly Monolayer Enriched Dispersions of Liquid-Exfoliated Nanosheets by Liquid Cascade Centrifugation. <i>ACS Nano</i> , 2016, 10, 1589-1601.	14.6	365
30	Effect of a High- $\hat{\rho}$ Environment on Charge Carrier Mobility in Graphene. <i>Physical Review Letters</i> , 2009, 102, 206603.	7.8	347
31	Limits on Charge Carrier Mobility in Suspended Graphene due to Flexural Phonons. <i>Physical Review Letters</i> , 2010, 105, 266601.	7.8	347
32	Chemical functionalization of graphene. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 344205.	1.8	331
33	Structural and Electronic Properties of Germanene on MoS_2 . <i>Physical Review Letters</i> , 2016, 116, 256804.	7.8	329
34	Antiferromagnetism and d-wave superconductivity in cuprates: A cluster dynamical mean-field theory. <i>Physical Review B</i> , 2000, 62, R9283-R9286.	3.2	316
35	Phonon related properties of transition metals, their carbides, and nitrides: A first-principles study. <i>Journal of Applied Physics</i> , 2007, 101, 123519.	2.5	312
36	Germanene: the germanium analogue of graphene. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 443002.	1.8	304

#	ARTICLE	IF	CITATIONS
37	Resonant Scattering by Realistic Impurities in Graphene. <i>Physical Review Letters</i> , 2010, 105, 056802.	7.8	300
38	Increasing the elastic modulus of graphene by controlled defect creation. <i>Nature Physics</i> , 2015, 11, 26-31.	16.7	298
39	First-principles studies of water adsorption on graphene: The role of the substrate. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	294
40	Dual fermion approach to nonlocal correlations in the Hubbard model. <i>Physical Review B</i> , 2008, 77, .	3.2	290
41	Spin dynamics in magnets: Equation of motion and finite temperature effects. <i>Physical Review B</i> , 1996, 54, 1019-1035.	3.2	287
42	Exchange interactions and spin-wave stiffness in ferromagnetic metals. <i>Journal of Physics F: Metal Physics</i> , 1984, 14, L125-L128.	1.6	278
43	Interaction-Driven Spectrum Reconstruction in Bilayer Graphene. <i>Science</i> , 2011, 333, 860-863.	12.6	262
44	Giant Nonlocality Near the Dirac Point in Graphene. <i>Science</i> , 2011, 332, 328-330.	12.6	255
45	Vacuum Polarization and Screening of Supercritical Impurities in Graphene. <i>Physical Review Letters</i> , 2007, 99, 236801.	7.8	241
46	Interaction phenomena in graphene seen through quantum capacitance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 3282-3286.	7.1	239
47	Magnon-assisted tunnelling in van der Waals heterostructures based on CrBr ₃ . <i>Nature Electronics</i> , 2018, 1, 344-349.	26.0	239
48	Origin of Anomalous Water Permeation through Graphene Oxide Membrane. <i>Nano Letters</i> , 2013, 13, 3930-3935.	9.1	233
49	Dual origin of defect magnetism in graphene and its reversible switching by molecular doping. <i>Nature Communications</i> , 2013, 4, 2010.	12.8	230
50	Atomic Collapse and Quasi-“Rydberg States in Graphene. <i>Physical Review Letters</i> , 2007, 99, 246802.	7.8	220
51	Limits on gas impermeability of graphene. <i>Nature</i> , 2020, 579, 229-232.	27.8	220
52	AbInitioSpin Dynamics in Magnets. <i>Physical Review Letters</i> , 1995, 75, 729-732.	7.8	219
53	Modeling electronic structure and transport properties of graphene with resonant scattering centers. <i>Physical Review B</i> , 2010, 82, .	3.2	218
54	Enhancement of Chemical Activity in Corrugated Graphene. <i>Journal of Physical Chemistry C</i> , 2009, 113, 14176-14178.	3.1	216

#	ARTICLE	IF	CITATIONS
55	Mn+1AX _n phases in the Ti [~] Si [~] C system studied by thin-film synthesis and ab initio calculations. Physical Review B, 2004, 70, .	3.2	212
56	Optimal Hubbard Models for Materials with Nonlocal Coulomb Interactions: Graphene, Silicene, and Benzene. Physical Review Letters, 2013, 111, 036601.	7.8	209
57	First-principles calculations of magnetic interactions in correlated systems. Physical Review B, 2000, 61, 8906-8912.	3.2	204
58	Density of States and Zero Landau Level Probed through Capacitance of Graphene. Physical Review Letters, 2010, 105, 136801.	7.8	202
59	Spectroscopic metrics allow in situ measurement of mean size and thickness of liquid-exfoliated few-layer graphene nanosheets. Nanoscale, 2016, 8, 4311-4323.	5.6	194
60	Two-Dimensional Mott-Hubbard Electrons in an Artificial Honeycomb Lattice. Science, 2011, 332, 1176-1179.	12.6	187
61	Toward a realistic description of multilayer black phosphorus: From $G \times W$ to large-scale tight-binding simulations. Physical Review B, 2015, 92, .	12.8	187
62	Relaxation of moiré patterns for slightly misaligned identical lattices: graphene on graphite. 2D Materials, 2015, 2, 034010.	4.4	164
63	Ultrafast optical modification of exchange interactions in iron oxides. Nature Communications, 2015, 6, 8190.	12.8	164
64	The most incompressible metal osmium at static pressures above 750 gigapascals. Nature, 2015, 525, 226-229.	27.8	159
65	Monte Carlo Study of the Semimetal-Insulator Phase Transition in Monolayer Graphene with a Realistic Interelectron Interaction Potential. Physical Review Letters, 2013, 111, 056801.	7.8	155
66	Pseudomagnetic Fields and Ballistic Transport in a Suspended Graphene Sheet. Physical Review Letters, 2008, 101, 226804.	7.8	152
67	Transition-metal adatoms on graphene: Influence of local Coulomb interactions on chemical bonding and magnetic moments. Physical Review B, 2011, 84, .	3.2	149
68	Measuring the Dzyaloshinskii-Moriya interaction in a weak ferromagnet. Nature Physics, 2014, 10, 202-206.	16.7	149
69	Theory of bulk and surface quasiparticle spectra for Fe, Co, and Ni. Physical Review B, 2007, 76, .	3.2	147
70	Nonlinear screening of charge impurities in graphene. Physical Review B, 2006, 74, .	3.2	146
71	Scaling properties of flexible membranes from atomistic simulations: Application to graphene. Physical Review B, 2009, 80, .	3.2	146
72	High-temperature ferromagnetism of sp electrons in narrow impurity bands: application to CaB ₆ . Journal of Physics Condensed Matter, 2006, 18, 7209-7225.	1.8	133

#	ARTICLE	IF	CITATIONS
73	Intrinsic Charge Carrier Mobility in Single-Layer Black Phosphorus. <i>Physical Review Letters</i> , 2016, 116, 246401.	7.8	132
74	Moiré Patterns as a Probe of Interplanar Interactions for Graphene on h-BN. <i>Physical Review Letters</i> , 2014, 113, 135504.	7.8	130
75	Unconventional mass enhancement around the Dirac nodal loop in ZrSiS. <i>Nature Physics</i> , 2018, 14, 178-183.	16.7	129
76	Quantum-Hall Activation Gaps in Graphene. <i>Physical Review Letters</i> , 2007, 99, 206803.	7.8	127
77	Atomistic simulations of structural and thermodynamic properties of bilayer graphene. <i>Physical Review B</i> , 2010, 81, .	3.2	122
78	Fermi Condensation Near van Hove Singularities Within the Hubbard Model on the Triangular Lattice. <i>Physical Review Letters</i> , 2014, 112, 070403.	7.8	116
79	Midgap states in corrugated graphene: Ab initio calculations and effective field theory. <i>Europhysics Letters</i> , 2008, 84, 17003.	2.0	113
80	Dual fermion approach to the two-dimensional Hubbard model: Antiferromagnetic fluctuations and Fermi arcs. <i>Physical Review B</i> , 2009, 79, .	3.2	110
81	Probing Single Vacancies in Black Phosphorus at the Atomic Level. <i>Nano Letters</i> , 2017, 17, 3607-3612.	9.1	109
82	Macroscopic self-reorientation of interacting two-dimensional crystals. <i>Nature Communications</i> , 2016, 7, 10800.	12.8	108
83	Strength of Correlation Effects in the Electronic Structure of Iron. <i>Physical Review Letters</i> , 2009, 103, 267203.	7.8	107
84	Doping mechanisms in graphene-MoS2 hybrids. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	107
85	Scaling Behavior and Strain Dependence of In-Plane Elastic Properties of Graphene. <i>Physical Review Letters</i> , 2016, 116, 015901.	7.8	107
86	Efficient Perturbation Theory for Quantum Lattice Models. <i>Physical Review Letters</i> , 2009, 102, 206401.	7.8	105
87	Melting of graphene: from two to one dimension. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 202202.	1.8	105
88	Magnetic Two-Dimensional Chromium Trihalides: A Theoretical Perspective. <i>Nano Letters</i> , 2020, 20, 6225-6234.	9.1	103
89	Graphene as a Prototype Crystalline Membrane. <i>Accounts of Chemical Research</i> , 2013, 46, 97-105.	15.6	101
90	Self-consistent spin-wave theory of layered Heisenberg magnets. <i>Physical Review B</i> , 1999, 60, 1082-1099.	3.2	99

#	ARTICLE	IF	CITATIONS
91	Bending modes, anharmonic effects, and thermal expansion coefficient in single-layer and multilayer graphene. <i>Physical Review B</i> , 2012, 86, .	3.2	99
92	Atomic collapse, Lorentz boosts, Klein scattering, and other quantum-relativistic phenomena in graphene. <i>Solid State Communications</i> , 2009, 149, 1087-1093.	1.9	98
93	Exchange parameters of strongly correlated materials: Extraction from spin-polarized density functional theory plus dynamical mean-field theory. <i>Physical Review B</i> , 2015, 91, .	3.2	98
94	Extended Tersoff potential for boron nitride: Energetics and elastic properties of pristine and defective h -BN. <i>Physical Review B</i> , 2017, 96, .	3.2	97
95	Robustness of the Van Hove Scenario for High-Tc Superconductors. <i>Physical Review Letters</i> , 2002, 89, 076401.	7.8	94
96	Effect of Structural Relaxation on the Electronic Structure of Graphene on Hexagonal Boron Nitride. <i>Physical Review Letters</i> , 2015, 115, 186801.	7.8	93
97	LDA++ approach to the electronic structure of magnets: correlation effects in iron. <i>Journal of Physics Condensed Matter</i> , 1999, 11, 1037-1048.	1.8	90
98	High-Pressure Synthesis of Dirac Materials: Layered van der Waals Bonded BeN_4 Polymorph. <i>Physical Review Letters</i> , 2021, 126, 175501.	7.8	90
99	Stable and fast semi-implicit integration of the stochastic Landau-Lifshitz equation. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 176001.	1.8	87
100	Singularities of the electronic structure and pre-martensitic anomalies of lattice properties in \hat{I}^2 -phases of metals and alloys. <i>Phase Transitions</i> , 1994, 49, 143-191.	1.3	86
101	Temperature-dependent resistivity in bilayer graphene due to flexural phonons. <i>Physical Review B</i> , 2011, 83, .	3.2	86
102	Electronic correlations in nodal-line semimetals. <i>Nature Physics</i> , 2020, 16, 636-641.	16.7	86
103	Effects of van Hove singularities on magnetism and superconductivity in the t^2 -Hubbard model: A parquet approach. <i>Physical Review B</i> , 2001, 64, .	3.2	85
104	Ferromagnetic two-dimensional crystals: Single layers of K_2CuF_4 . <i>Physical Review B</i> , 2013, 88, .	3.2	85
105	Spectral Function of Ferromagnetic 3d Metals: A Self-Consistent LSDA+DMFT Approach Combined with the One-Step Model of Photoemission. <i>Physical Review Letters</i> , 2006, 97, 227601.	7.8	80
106	Correlation effects in the total energy, the bulk modulus, and the lattice constant of a transition metal: Combined local-density approximation and dynamical mean-field theory applied to Ni and Mn. <i>Physical Review B</i> , 2009, 79, .	3.2	80
107	sp-Electron Magnetic Clusters with a Large Spin in Graphene. <i>ACS Nano</i> , 2011, 5, 2440-2446.	14.6	80
108	Effective Hamiltonians for Rapidly Driven Many-Body Lattice Systems: Induced Exchange Interactions and Density-Dependent Hoppings. <i>Physical Review Letters</i> , 2015, 115, 075301.	7.8	78

#	ARTICLE	IF	CITATIONS
109	Chemical modifications and stability of phosphorene with impurities: a first principles study. Physical Chemistry Chemical Physics, 2015, 17, 15209-15217.	2.8	78
110	Phonon-Assisted Resonant Tunneling of Electrons in Grapheneâ€“Boron Nitride Transistors. Physical Review Letters, 2016, 116, 186603.	7.8	78
111	Controlling the Kondo Effect in CoCu_n Clusters Atom by Atom. Physical Review Letters, 2008, 101, 266803.	7.8	77
112	Electron Pumping in Graphene Mechanical Resonators. Nano Letters, 2012, 12, 850-854.	9.1	77
113	Exchange interactions and frustrated magnetism in single-side hydrogenated and fluorinated graphene. Physical Review B, 2013, 88, .	3.2	77
114	Physical foundations of biological complexity. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8678-E8687.	7.1	77
115	Spin waves in narrow band ferromagnet. Journal of Physics C: Solid State Physics, 1985, 18, 4173-4188.	1.5	76
116	Magnetism and Local Distortions near Carbon Impurity in Fe_3 -Iron. Physical Review Letters, 2007, 99, 247205.	7.8	76
117	Beyond extended dynamical mean-field theory: Dual boson approach to the two-dimensional extended Hubbard model. Physical Review B, 2014, 90, .	3.2	76
118	Generalization properties of neural network approximations to frustrated magnet ground states. Nature Communications, 2020, 11, 1593.	12.8	73
119	Adsorption of cobalt on graphene: Electron correlation effects from a quantum chemical perspective. Physical Review B, 2012, 86, .	3.2	71
120	Ground state and electron-magnon interaction in an itinerant ferromagnet: half-metallic ferromagnets. Journal of Physics Condensed Matter, 1990, 2, 7151-7171.	1.8	70
121	Giant Magnetodrag in Graphene at Charge Neutrality. Physical Review Letters, 2013, 111, 166601.	7.8	69
122	Microscopic Origin of Heisenberg and Non-Heisenberg Exchange Interactions in Ferromagnetic bcc Fe. Physical Review Letters, 2016, 116, 217202.	7.8	69
123	Real-space imaging of an orbital Kondo resonance on the Cr(001) surface. Nature, 2002, 415, 507-509.	27.8	68
124	Quantum transport in Sierpinski carpets. Physical Review B, 2016, 93, .	3.2	68
125	Orbitally-resolved ferromagnetism of monolayer CrI_3 . 2D Materials, 2020, 7, 025036.	4.4	68
126	Large-area, periodic, and tunable intrinsic pseudo-magnetic fields in low-angle twisted bilayer graphene. Nature Communications, 2020, 11, 371.	12.8	66

#	ARTICLE	IF	CITATIONS
127	Many-spin interactions and spin excitations in Mn ₁₂ . Physical Review B, 1999, 59, 6919-6926.	3.2	65
128	Dirac points with giant spin-orbit splitting in the electronic structure of two-dimensional transition-metal carbides. Physical Review B, 2015, 92, .	3.2	65
129	Standard model of the rare earths analyzed from the Hubbard I approximation. Physical Review B, 2016, 94, .	3.2	65
130	Mild sonochemical exfoliation of bromine-intercalated graphite: a new route towards graphene. Journal Physics D: Applied Physics, 2009, 42, 112003.	2.8	64
131	Correlated band theory of spin and orbital contributions to Dzyaloshinskii-Moriya interactions. Physical Review B, 2010, 82, .	3.2	62
132	Electron Correlations and the Minority-Spin Band Gap in Half-Metallic Heusler Alloys. Physical Review Letters, 2006, 96, 137203.	7.8	61
133	Laser-induced topological transitions in phosphorene with inversion symmetry. Physical Review B, 2016, 93, .	3.2	61
134	Magnetic susceptibility, exchange interactions and spin-wave spectra in the local spin density approximation. Journal of Physics Condensed Matter, 2004, 16, 7439-7446.	1.8	60
135	Effects of spin-dependent quasiparticle renormalization in Fe, Co, and Ni photoemission spectra: An experimental and theoretical study. Physical Review B, 2012, 85, .	3.2	60
136	Parity effects in spin decoherence. Physical Review B, 2004, 70, .	3.2	59
137	Inevitability of the emergence and persistence of genetic parasites caused by evolutionary instability of parasite-free states. Biology Direct, 2017, 12, 31.	4.6	59
138	Optical properties of graphene: The Fermi-liquid approach. Europhysics Letters, 2008, 84, 37001.	2.0	58
139	Dynamical stability of body center cubic iron at the Earth's core conditions. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9962-9964.	7.1	58
140	Two-Site Kondo Effect in Atomic Chains. Physical Review Letters, 2011, 107, 106804.	7.8	58
141	Importance of Correlation Effects in hcp Iron Revealed by a Pressure-Induced Electronic Topological Transition. Physical Review Letters, 2013, 110, 117206.	7.8	58
142	Relativistic exchange interactions in Cr ₃ X ₃ (X = Mn, Fe, Co, Ni). Physical Review B, 2014, 89, 040401.	3.2	58
143	Orbital magnetism in transition metal systems: The role of local correlation effects. Europhysics Letters, 2008, 82, 37001.	2.0	57
144	Many-Body Orbital Paramagnetism in Doped Graphene Sheets. Physical Review Letters, 2010, 104, 225503.	7.8	57

#	ARTICLE	IF	CITATIONS
145	Dangling bonds and magnetism of grain boundaries in graphene. <i>Physical Review B</i> , 2012, 85, .	3.2	57
146	Some types of instabilities in the electron energy spectrum of the polar model of the crystal. I. The maximum-polarity state. <i>Journal of Physics C: Solid State Physics</i> , 1979, 12, 2043-2053.	1.5	56
147	derivatives: C^2 and F and n	3.2	56
148	Dual fermion approach to susceptibility of correlated lattice fermions. <i>Physical Review B</i> , 2008, 77, .	3.2	55
149	Quantum Oscillations without Quantum Coherence. <i>Physical Review Letters</i> , 2003, 90, 210401.	7.8	54
150	Magnetism and Interaction-Induced Gap Opening in Graphene with Vacancies or Hydrogen Adatoms: Quantum Monte Carlo Study. <i>Physical Review Letters</i> , 2015, 114, 246801.	7.8	53
151	Dodecagonal bilayer graphene quasicrystal and its approximants. <i>Npj Computational Materials</i> , 2019, 5, .	8.7	53
152	Observing Imperfection in Atomic Interfaces for van der Waals Heterostructures. <i>Nano Letters</i> , 2017, 17, 5222-5228.	9.1	53
153	Anisotropy of thermal expansion and electronic topological transitions in Zn and Cd under pressure. <i>Physical Review B</i> , 1999, 59, 4557-4560.	3.2	52
154	Mechanisms of Decoherence in Weakly Anisotropic Molecular Magnets. <i>Physical Review Letters</i> , 2000, 84, 3458-3461.	7.8	51
155	Ab Initio Theory of Dynamical Core-Hole Screening in Graphite from X-Ray Absorption Spectra. <i>Physical Review Letters</i> , 2005, 94, 167401.	7.8	51
156	Peculiarities of defect structure and mechanical properties of iridium: Results of ab initio electronic structure calculations. <i>Physical Review B</i> , 2000, 62, 7802-7808.	3.2	50
157	Nature of non-magnetic strongly-correlated state in \hat{I} -plutonium. <i>Europhysics Letters</i> , 2006, 74, 479-485.	2.0	50
158	Quantum elasticity of graphene: Thermal expansion coefficient and specific heat. <i>Physical Review B</i> , 2016, 94, .	3.2	50
159	Density functional based simulations of proton permeation of graphene and hexagonal boron nitride. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 5813-5817.	2.8	50
160	Plasmons in Strongly Correlated Systems: Spectral Weight Transfer and Renormalized Dispersion. <i>Physical Review Letters</i> , 2014, 113, 246407.	7.8	49
161	Theory of plasmonic effects in nonlinear optics: The case of graphene. <i>Physical Review B</i> , 2017, 95, .	3.2	49
162	Large out-of-plane piezoelectricity of oxygen functionalized MXenes for ultrathin piezoelectric cantilevers and diaphragms. <i>Nano Energy</i> , 2019, 65, 104058.	16.0	49

#	ARTICLE	IF	CITATIONS
163	Measuring the Berry phase of graphene from wavefront dislocations in Friedel oscillations. Nature, 2019, 574, 219-222.	27.8	49
164	Conductance quantization in graphene nanoribbons: adiabatic approximation. European Physical Journal B, 2007, 57, 225-228.	1.5	47
165	Self-consistent dual boson approach to single-particle and collective excitations in correlated systems. Physical Review B, 2016, 93, .	3.2	47
166	Superperturbation solver for quantum impurity models. Europhysics Letters, 2009, 85, 27007.	2.0	46
167	A new 2D monolayer BiXene, $M_{2}C$ ($M = Mo, Tc, Os$). Nanoscale, 2016, 8, 15753-15762.	5.6	46
168	Dynamical and Reversible Control of Topological Spin Textures. Physical Review Letters, 2017, 118, 157201.	7.8	45
169	Disentangling the effects of selection and loss bias on gene dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5616-E5624.	7.1	44
170	On the description of the antiferromagnetism without anomalous averages. European Physical Journal B, 1986, 62, 201-205.	1.5	43
171	Scaling picture of magnetism formation in the anomalousf-electron systems: Interplay of the Kondo effect and spin dynamics. Physical Review B, 1997, 56, 8109-8128.	3.2	43
172	Chirality-Dependent Transmission of Spin Waves through Domain Walls. Physical Review Letters, 2016, 116, 147204.	7.8	42
173	Band Filling Control of the Dzyaloshinskii-Moriya Interaction in Weakly Ferromagnetic Insulators. Physical Review Letters, 2017, 119, 167201.	7.8	42
174	Electron correlation effects on exchange interactions and spin excitations in 2D van der Waals materials. Npj Computational Materials, 2021, 7, .	8.7	42
175	Structure, elastic moduli, and thermodynamics of sodium and potassium at ultrahigh pressures. Physical Review B, 2000, 61, 14420-14424.	3.2	41
176	Electronic structure of aMn ₁₂ molecular magnet: Theory and experiment. Physical Review B, 2007, 75, .	3.2	41
177	Probing of valley polarization in graphene via optical second-harmonic generation. Physical Review B, 2015, 91, .	3.2	41
178	Mechanics of thermally fluctuating membranes. Npj 2D Materials and Applications, 2017, 1, .	7.9	41
179	Competing Coulomb and electron-phonon interactions in NbS ₂ . Npj Quantum Materials, 2018, 3, .	5.2	41
180	Phonons and electron-phonon coupling in graphene-hBN heterostructures. Annalen Der Physik, 2014, 526, 381-386.	2.4	40

#	ARTICLE	IF	CITATIONS
181	Excitonic Instability and Pseudogap Formation in Nodal Line Semimetal ZrSiS. Physical Review Letters, 2018, 120, 216401.	7.8	40
182	Thermodynamics of quantum crystalline membranes. Physical Review B, 2014, 89, .	3.2	39
183	Defect-induced ferromagnetism in fullerenes. European Physical Journal B, 2009, 68, 529-535.	1.5	38
184	Half-Metallic Ferromagnetism Induced by Dynamic Electron Correlations in VAs. Physical Review Letters, 2006, 96, 197203.	7.8	37
185	Non-spherical shapes of capsules within a fourth-order curvature model. European Physical Journal E, 2010, 32, 223-228.	1.6	37
186	Flexuron: A self-trapped state of electron in crystalline membranes. Physical Review B, 2010, 82, .	3.2	37
187	Quantum theory as the most robust description of reproducible experiments. Annals of Physics, 2014, 347, 45-73.	2.8	37
188	Strong Electron-Phonon Coupling and its Influence on the Transport and Optical Properties of Hole-Doped Single-Layer InSe. Physical Review Letters, 2019, 123, 176401.	7.8	37
189	Resonant optical second harmonic generation in graphene-based heterostructures. Physical Review B, 2019, 99, .	3.2	36
190	Hall conductivity of a Sierpiński carpet. Physical Review B, 2020, 101, .	3.2	36
191	On the microscopic model of Fe and Ni: the possible breakdown of the ferromagnetic fermi-liquid picture. Journal of Physics Condensed Matter, 1993, 5, 8763-8772.	1.8	35
192	Cluster dual fermion approach to nonlocal correlations. JETP Letters, 2008, 86, 677-682.	1.4	35
193	Field-effect control of tunneling barrier height by exploiting graphene's low density of states. Journal of Applied Physics, 2013, 113, .	2.5	35
194	First-principles modeling of magnetic excitations in Mn_{12} . Physical Review B, 2014, 89, .	3.2	35
195	The Bethe-Slater curve revisited; new insights from electronic structure theory. Scientific Reports, 2017, 7, 4058.	3.3	35
196	Magnetic polaron and antiferromagnetic-ferromagnetic transition in doped bilayer Cr_3 . Physical Review B, 2020, 101, .	3.2	35
197	1/N expansion for critical exponents of magnetic phase transitions in the CPN^d-1 model for $2 < d < 4$. Physical Review B, 1996, 54, 11953-11956.	3.2	34
198	From local to nonlocal correlations: The Dual Boson perspective. Physical Review B, 2016, 94, .	3.2	34

#	ARTICLE	IF	CITATIONS
199	An orbitally derived single-atom magnetic memory. Nature Communications, 2018, 9, 3904.	12.8	34
200	Temperature-Induced Lifshitz Transition and Possible Excitonic Instability in ZrSiSe. Physical Review Letters, 2020, 124, 236601.	7.8	34
201	Many-Body Renormalization of the Minimal Conductivity in Graphene. Physical Review Letters, 2014, 112, 116604.	7.8	33
202	Plasmon confinement in fractal quantum systems. Physical Review B, 2018, 97, .	3.2	33
203	An experimental and theoretical study of martensitic phase transitions in Li and Na under pressure. Journal of Physics Condensed Matter, 1989, 1, 5319-5335.	1.8	32
204	Lattice Expansion in Seamless Bilayer Graphene Constrictions at High Bias. Nano Letters, 2012, 12, 4455-4459.	9.1	32
205	Effective Heisenberg Model and Exchange Interaction for Strongly Correlated Systems. Physical Review Letters, 2018, 121, 037204.	7.8	32
206	Toward a theory of evolution as multilevel learning. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	32
207	Anharmonic Magnetic Deformation of Self-Assembled Molecular Nanocapsules. Physical Review Letters, 2007, 98, 146101.	7.8	31
208	Exchange interactions in transition metal oxides: the role of oxygen spin polarization. Journal of Physics Condensed Matter, 2017, 29, 335801.	1.8	30
209	Phonon-Pump Extreme-Ultraviolet-Photoemission Probe in Graphene: Anomalous Heating of Dirac Carriers by Lattice Deformation. Physical Review Letters, 2015, 114, 125503.	7.8	29
210	Optical conductivity of a quantum electron gas in a Sierpinski carpet. Physical Review B, 2017, 96, .	3.2	29
211	Holographic local quench and effective complexity. Journal of High Energy Physics, 2018, 2018, 1.	4.7	29
212	Metal-insulator transition and antiferromagnetism in the ground state of the Hubbard model. Journal of Physics C: Solid State Physics, 1984, 17, 4291-4308.	1.5	28
213	Origin of the Canonical Ensemble: Thermalization with Decoherence. Journal of the Physical Society of Japan, 2009, 78, 094003.	1.6	28
214	Ligand-Controlled Magnetic Interactions in Mn ⁴ Clusters. Inorganic Chemistry, 2009, 48, 11903-11908.	4.0	28
215	Coulomb interactions and screening effects in few-layer black phosphorus: a tight-binding consideration beyond the long-wavelength limit. 2D Materials, 2017, 4, 025064.	4.4	28
216	Quantum Monte Carlo study of electrostatic potential in graphene. Physical Review B, 2018, 97, .	3.2	28

#	ARTICLE	IF	CITATIONS
217	On the self-consistent spin-wave theory of frustrated Heisenberg antiferromagnets. <i>Journal of Physics Condensed Matter</i> , 1992, 4, 5227-5237.	1.8	27
218	Metal-insulator transition by suppression of spin fluctuations. <i>Europhysics Letters</i> , 2009, 85, 37006.	2.0	27
219	Effect of Ligand Substitution on the Exchange Interactions in $\{Mn_{12}\}$ -Type Single-Molecule Magnets. <i>Inorganic Chemistry</i> , 2010, 49, 10902-10906.	4.0	27
220	Temperature-driven \hat{I}_z -to- \hat{I}^2 phase transformation in Ti, Zr and Hf from first-principles theory combined with lattice dynamics. <i>Europhysics Letters</i> , 2011, 96, 66006.	2.0	27
221	Large positive in-plane magnetoresistance induced by localized states at nanodomain boundaries in graphene. <i>Nature Communications</i> , 2017, 8, 14453.	12.8	27
222	Towards the ab initio based theory of phase transformations in iron and steel. <i>Physics of Metals and Metallography</i> , 2017, 118, 362-388.	1.0	27
223	Electron-phonon properties, structural stability, and superconductivity of doped antimonene. <i>Physical Review B</i> , 2019, 99, .	3.2	27
224	Double occupancy in dynamical mean-field theory and the dual boson approach. <i>Physical Review B</i> , 2016, 93, .	3.2	26
225	Towards physical principles of biological evolution. <i>Physica Scripta</i> , 2018, 93, 043001.	2.5	26
226	Multiscale structural complexity of natural patterns. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 30241-30251.	7.1	26
227	Thermodynamics of evolution and the origin of life. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	26
228	Itinerant electron ferromagnetism in narrow energy bands. <i>Journal of Physics C: Solid State Physics</i> , 1988, 21, 5521-5537.	1.5	25
229	Scaling theory of magnetic ordering in the Kondo lattices with anisotropic exchange interactions. <i>Physical Review B</i> , 1999, 59, 9348-9356.	3.2	25
230	Approach to Equilibrium in Nano-scale Systems at Finite Temperature. <i>Journal of the Physical Society of Japan</i> , 2010, 79, 124005.	1.6	25
231	A new route towards uniformly functionalized single-layer graphene. <i>Journal Physics D: Applied Physics</i> , 2010, 43, 175302.	2.8	25
232	Enhanced Screening in Chemically Functionalized Graphene. <i>Physical Review Letters</i> , 2012, 109, 156601.	7.8	25
233	Edge Plasmons in Two-Component Electron Liquids in the Presence of Pseudomagnetic Fields. <i>Physical Review Letters</i> , 2016, 117, 196803.	7.8	25
234	Quantifying the interplay between fine structure and geometry of an individual molecule on a surface. <i>Physical Review B</i> , 2021, 103, .	3.2	25

#	ARTICLE	IF	CITATIONS
235	Self-induced spin glass state in elemental and crystalline neodymium. <i>Science</i> , 2020, 368, .	12.6	24
236	Stochastic approach to simulation of lattice vibrations in strongly anharmonic crystals: Anomalous frequency dependence of the dynamic structure factor. <i>Physical Review B</i> , 1996, 54, 3286-3294.	3.2	23
237	Non-quasiparticle effects in half-metallic ferromagnets. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 315201.	1.8	23
238	Capturing nonlocal interaction effects in the Hubbard model: Optimal mappings and limits of applicability. <i>Physical Review B</i> , 2016, 94, .	3.2	23
239	Precursors of the insulating state in the square-lattice Hubbard model. <i>Physical Review B</i> , 2018, 97, .	3.2	23
240	Correlation-induced single-flux-quantum penetration in quantum rings. <i>Nature Physics</i> , 2010, 6, 173-177.	16.7	22
241	Correlated Electrons Step by Step: Itinerant-to-Localized Transition of Fe Impurities in Free-Electron Metal Hosts. <i>Physical Review Letters</i> , 2010, 104, 117601.	7.8	22
242	Giant Magnetic Susceptibility of Gold Nanorods Detected by Magnetic Alignment. <i>Physical Review Letters</i> , 2013, 111, 127202.	7.8	22
243	Racah materials: role of atomic multiplets in intermediate valence systems. <i>Scientific Reports</i> , 2015, 5, 15429.	3.3	22
244	On the mean-field theory of magnetically ordered Kondo lattices. <i>Journal of Physics Condensed Matter</i> , 1990, 2, 8715-8719.	1.8	21
245	Pressure-induced phonon softening and electronic topological transition in HgBa ₂ CuO ₄ . <i>Physical Review B</i> , 1996, 54, 1313-1319.	3.2	21
246	Quantum fluctuations in many-spin magnetic molecules. <i>Physical Review B</i> , 1998, 58, R14733-R14736.	3.2	21
247	Initial and final state effects in the x-ray absorption process of La _{1-x} Sr _x MnO ₃ . <i>Physical Review B</i> , 2003, 68, .	3.2	21
248	Experimental Observation and Theoretical Description of the Pure Fano Effect in the Valence-Band Photoemission of Ferromagnets. <i>Physical Review Letters</i> , 2005, 95, 166401.	7.8	21
249	Motion of Domain Walls and the Dynamics of Kinks in the Magnetic Peierls Potential. <i>Physical Review Letters</i> , 2014, 113, 217202.	7.8	21
250	Ultralong-range order in the Fermi-Hubbard model with long-range interactions. <i>Physical Review B</i> , 2015, 92, .	3.2	21
251	Spin-orbit coupling and magnetic interactions in Si(111):{C,Si,Sn,Pb}. <i>Physical Review B</i> , 2016, 94, .	3.2	21
252	Anisotropic Two-Dimensional Screening at the Surface of Black Phosphorus. <i>Physical Review Letters</i> , 2019, 123, 216403.	7.8	21

#	ARTICLE	IF	CITATIONS
253	Electron states in the s-f exchange model of a ferromagnetic semiconductor in the spin wave region. <i>Journal of Physics C: Solid State Physics</i> , 1984, 17, 669-681.	1.5	20
254	Phonon spectra, interatomic interaction potentials and simulation of lattice defects in iridium and rhodium. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1994, 69, 1183-1195.	0.6	20
255	Electronic structure and exchange interactions in V15 magnetic molecules: LDA+U results. <i>Journal of Applied Physics</i> , 2003, 93, 7080-7082.	2.5	20
256	Plaquette valence bond theory of high-temperature superconductivity. <i>Physical Review B</i> , 2016, 94, .	3.2	20
257	Two-particle Fermi liquid parameters at the Mott transition: Vertex divergences, Landau parameters, and incoherent response in dynamical mean-field theory. <i>Physical Review B</i> , 2019, 99, .	3.2	20
258	On the Nature of the Rhenium Effect. Peculiarities of the Band Structure and Elastic Moduli of Wâ€•and Moâ€•Based Alloys. <i>Physica Status Solidi (B): Basic Research</i> , 1991, 164, 185-193.	1.5	19
259	Symmetry Assumptions, Kramers?Kronig Transformation and Analytical Continuation in Ab Initio Calculations of Optical Conductivities. <i>Physica Scripta</i> , 2004, T109, 170.	2.5	19
260	Equilibration and thermalization of classical systems. <i>New Journal of Physics</i> , 2013, 15, 033009.	2.9	19
261	Effective Ising model for correlated systems with charge ordering. <i>Physical Review B</i> , 2019, 99, .	3.2	19
262	Probing the topology of the quantum analog of a classical skyrmion. <i>Physical Review B</i> , 2021, 103, .	3.2	19
263	Environmental screening and ligand-field effects to magnetism in CrI3 monolayer. <i>Npj Computational Materials</i> , 2021, 7, .	8.7	19
264	Fluctuation-induced nucleation and dynamics of kinks on dislocation: Soliton and oscillation regimes in the two-dimensional Frenkel-Kontorova model. <i>Physical Review B</i> , 1999, 60, 1013-1018.	3.2	18
265	Kondo Resonance for Orbitally Degenerate Systems. <i>Physical Review Letters</i> , 2004, 93, 236403.	7.8	18
266	Thermodynamics of a two-dimensional Heisenberg ferromagnet with dipolar interaction. <i>Physical Review B</i> , 2005, 71, .	3.2	18
267	Multiplet effects in the electronic structure of heavy rare-earth metals. <i>Journal of Physics Condensed Matter</i> , 2006, 18, 6329-6335.	1.8	18
268	\hat{I}^3 -Mn at the border between weak and strong correlations. <i>European Physical Journal B</i> , 2009, 72, 473-478.	1.5	18
269	Anomalous Magnetothermopower in a Metallic Frustrated Antiferromagnet. <i>Physical Review Letters</i> , 2016, 116, 087202.	7.8	18
270	Impact of Many-Body Effects on Landau Levels in Graphene. <i>Physical Review Letters</i> , 2018, 120, 187701.	7.8	18

#	ARTICLE	IF	CITATIONS
271	On the feasibility of saltational evolution. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21068-21075.	7.1	18
272	Power-law energy level spacing distributions in fractals. Physical Review B, 2019, 99, .	3.2	18
273	Electronic structure of chromium trihalides beyond density functional theory. Physical Review B, 2021, 104, .	3.2	18
274	Coexisting charge density wave and ferromagnetic instabilities in monolayer InSe. Npj Computational Materials, 2022, 8, .	8.7	18
275	Peculiarities of phonon spectra and lattice heat capacity in Ir and Rh. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 75, 389-406.	0.6	17
276	Non-Fermi-liquid behavior in Kondo lattices induced by peculiarities of magnetic ordering and spin dynamics. Physical Review B, 2000, 61, 14640-14646.	3.2	17
277	Quantum theory as a description of robust experiments: Derivation of the Pauli equation. Annals of Physics, 2015, 359, 166-186.	2.8	17
278	Some types of instabilities in the electron energy spectrum of the polar model of the crystal. II. The criterion of stability of a metallic state. Journal of Physics C: Solid State Physics, 1979, 12, 2055-2056.	1.5	16
279	On the theory of the Mott transition in the paramagnetic phase. Journal of Physics Condensed Matter, 1991, 3, 1475-1491.	1.8	16
280	Current carriers in a quantum two-dimensional antiferromagnet. Journal of Physics Condensed Matter, 1991, 3, 6439-6453.	1.8	16
281	Dual boson approach with instantaneous interaction. Physical Review B, 2019, 100, .	3.2	16
282	Gauge invariance and Ward identities in nonlinear response theory. Annals of Physics, 2021, 431, 168523.	2.8	16
283	Electronic phase transitions in a one-dimensional spinless fermion model with competing interactions. Physical Review B, 1997, 56, 12939-12946.	3.2	15
284	Random phase approximation for gapped systems: Role of vertex corrections and applicability of the constrained random phase approximation. Physical Review B, 2021, 104, .	3.2	15
285	Abinitioinstanton molecular dynamics for the description of tunneling phenomena. Physical Review A, 1996, 54, 4802-4809.	2.5	14
286	Misfit stabilized embedded nanoparticles in metallic alloys. Physical Chemistry Chemical Physics, 2015, 17, 27249-27257.	2.8	14
287	Pressure and electric field dependence of quasicrystalline electronic states in 30Å^2 twisted bilayer graphene. Physical Review B, 2020, 102, .	3.2	14
288	Emergent Quantumness in Neural Networks. Foundations of Physics, 2021, 51, 1.	1.3	14

#	ARTICLE	IF	CITATIONS
289	Pre-transition softening and anomalous pressure dependence of shear constants in alkali and alkaline-earth metals due to band-structure effects. <i>Journal of Physics Condensed Matter</i> , 1991, 3, 1409-1428.	1.8	13
290	Breakdown of Luttinger liquid state in a one-dimensional frustrated spinless fermion model. <i>Physical Review B</i> , 2000, 61, 15534-15537.	3.2	13
291	Electronic, magnetic and transport properties of graphene ribbons terminated by nanotubes. <i>New Journal of Physics</i> , 2012, 14, 123012.	2.9	13
292	Quantum capacitance and Landau parameters of massless Dirac fermions in graphene. <i>Annalen Der Physik</i> , 2014, 526, 359-365.	2.4	13
293	Dynamical control of electron-phonon interactions with high-frequency light. <i>Physical Review B</i> , 2017, 95, .	3.2	13
294	Scaling behavior of crystalline membranes: An $\hat{\mu}$ -expansion approach. <i>Nuclear Physics B</i> , 2020, 956, 115040.	2.5	13
295	Importance of charge self-consistency in first-principles description of strongly correlated systems. <i>Npj Computational Materials</i> , 2021, 7, .	8.7	13
296	Real-space first-principles electronic structure of edge dislocations: NiAl. <i>Philosophical Magazine Letters</i> , 1998, 78, 427-433.	1.2	12
297	Fermi-liquid theory of electronic topological transitions and screening anomalies in metals. <i>Physical Review B</i> , 2000, 61, 1643-1645.	3.2	12
298	Dynamical stabilization of the body centered cubic phase in lanthanum and thorium by phonon-phonon interaction. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 175402.	1.8	12
299	Energetics, barriers and vibrational spectra of partially and fully hydrogenated hexagonal boron nitride. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 19359-19367.	2.8	12
300	Simultaneous loss of interlayer coherence and long-range magnetism in quasi-two-dimensional PdCrO ₂ . <i>Nature Communications</i> , 2017, 8, 15001.	12.8	12
301	Real- and momentum-space description of the excitons in bulk and monolayer chromium tri-halides. <i>Npj 2D Materials and Applications</i> , 2022, 6, .	7.9	12
302	Pseudo-marginal-Fermi-liquid behavior in antiferromagnetic metals. <i>Physical Review B</i> , 1995, 52, 6181-6184.	3.2	11
303	Electron spectrum, thermodynamics, and transport in antiferromagnetic metals at low temperatures. <i>Physical Review B</i> , 2000, 62, 5647-5656.	3.2	11
304	Self-Induced Glassiness and Pattern Formation in Spin Systems Subject to Long-Range Interactions. <i>Physical Review Letters</i> , 2016, 117, 137201.	7.8	11
305	Degenerate plaquette physics as key ingredient of high-temperature superconductivity in cuprates. <i>Npj Quantum Materials</i> , 2022, 7, .	5.2	11
306	High-resistivity alloys as highly correlated disordered systems. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1982, 46, 357-364.	0.6	10

#	ARTICLE	IF	CITATIONS
307	Non-quasiparticle states in the core level spectra of ferromagnetic semiconductors and half-metallic ferromagnets. <i>European Physical Journal B</i> , 2005, 43, 479-487.	1.5	10
308	Stripe glasses in ferromagnetic thin films. <i>Physical Review B</i> , 2016, 93, .	3.2	10
309	Decoherence wave in magnetic systems and creation of Néel antiferromagnetic state by measurement. <i>Physical Review B</i> , 2016, 93, .	3.2	10
310	First-order metal-insulator transitions in the extended Hubbard model due to self-consistent screening of the effective interaction. <i>Physical Review B</i> , 2018, 97, .	3.2	10
311	Electronic structure of 30×30 twisted double bilayer graphene. <i>Physical Review B</i> , 2020, 102, .	3.2	10
312	Direct Observation of Incommensurate-Commensurate Transition in Graphene-hBN Heterostructures via Optical Second Harmonic Generation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 27758-27764.	8.0	10
313	Spin dynamics of itinerant electrons: Local magnetic moment formation and Berry phase. <i>Physical Review B</i> , 2022, 105, .	3.2	10
314	Dynamical correlations in single-layer CrI_3 . <i>Physical Review B</i> , 2022, 105, .	3.2	10
315	On the Possibility of Describing Lattice Properties of Iridium in Terms of Pseudopotential Theory. <i>Physica Status Solidi (B): Basic Research</i> , 1990, 158, 441-455.	1.5	9
316	Solvent-Driven Formation of Bolaamphiphilic Vesicles. <i>Journal of Physical Chemistry B</i> , 2006, 110, 30-32.	2.6	9
317	Analytical approximation for single-impurity Anderson model. <i>JETP Letters</i> , 2010, 91, 319-325.	1.4	9
318	Polarization of graphene in a strong magnetic field beyond the Dirac cone approximation. <i>Solid State Communications</i> , 2012, 152, 1446-1455.	1.9	9
319	Logical inference derivation of the quantum theoretical description of Stern-Gerlach and Einstein-Podolsky-Rosen-Bohm experiments. <i>Annals of Physics</i> , 2018, 396, 96-118.	2.8	9
320	Bandwidth renormalization due to the intersite Coulomb interaction. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 465603.	1.8	9
321	Heisenberg-exchange-free nanoskyrmion mosaic. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 17LT01.	1.8	9
322	Dual fermion method as a prototype of generic reference-system approach for correlated fermions. <i>Annals of Physics</i> , 2020, 422, 168310.	2.8	9
323	Detecting quantum critical points in the t - J Fermi-Hubbard model via complex network theory. <i>Scientific Reports</i> , 2020, 10, 20470.	3.3	9
324	A DMI Guide to Magnets Micro-World. <i>Journal of Experimental and Theoretical Physics</i> , 2021, 132, 506-516.	0.9	9

#	ARTICLE	IF	CITATIONS
325	Pseudo-Kondo Lattice State in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Owing to Strong Anharmonicity of Oxygen Potentials. Europhysics Letters, 1991, 15, 649-654.	2.0	8
326	Correlation effects at the surface of an itinerant electron ferromagnet. Journal of Physics Condensed Matter, 1992, 4, 3289-3294.	1.8	8
327	Self-consistent spin-wave theory of two-dimensional magnets with impurities. Physical Review B, 1999, 60, 14779-14786.	3.2	8
328	Spectroscopic observation of polaron-lattice band structure in the conducting polymer polyaniline. Journal of Physics Condensed Matter, 2001, 13, 3907-3912.	1.8	8
329	Just Add Water. Science, 2010, 329, 1157-1158.	12.6	8
330	Nonequilibrium itinerant-electron magnetism: A time-dependent mean-field theory. Physical Review B, 2016, 94, .	3.2	8
331	Gate-tunable infrared plasmons in electron-doped single-layer antimony. Physical Review B, 2018, 98, .	3.2	8
332	Origin of the vortex displacement field in twisted bilayer graphene. Physical Review B, 2020, 102, .	3.2	8
333	Unconventional magnetism and electronic state in the frustrated layered system $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{PdCrO} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle$ Physical Review B, 2020, 102, .	3.2	8
334	Exchange constants for local spin Hamiltonians from tight-binding models. Physical Review B, 2021, 103, .	3.2	8
335	Thermodynamics of the metal-insulator transition in the extended Hubbard model. SciPost Physics, 2019, 6, .	4.9	8
336	Certification of quantum states with hidden structure of their bitstrings. Npj Quantum Information, 2022, 8, .	6.7	8
337	Polarization-Dependent Selection Rules and Optical Spectrum Atlas of Twisted Bilayer Graphene Quantum Dots. Physical Review X, 2022, 12, .	8.9	8
338	Energy gap in intermediate valence compounds. Journal of Physics C: Solid State Physics, 1984, 17, L699-L703.	1.5	7
339	Pseudogap formation and coexistence of localised and extended states in disordered transition metal alloys. Journal of Physics C: Solid State Physics, 1986, 19, 5173-5185.	1.5	7
340	Thermal expansion and the equation of state of Ir and Rh. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 75, 407-418.	0.6	7
341	Many-spin effects and tunneling properties of magnetic molecules. Journal of Applied Physics, 2000, 87, 6268-6270.	2.5	7
342	Theory of optically forbidden $d-d$ transitions in strongly correlated crystals. Journal of Physics Condensed Matter, 2010, 22, 382201.	1.8	7

#	ARTICLE	IF	CITATIONS
343	Effect of magnetism on kinetics of $\hat{1}^3\hat{a}^{\hat{1}}\hat{z}$ transformation and pattern formation in iron. Journal of Physics Condensed Matter, 2013, 25, 135401.	1.8	7
344	Effects of structural and chemical disorders on the vis/UV spectra of carbonaceous interstellar grains. Monthly Notices of the Royal Astronomical Society, 2013, 432, 2962-2974.	4.4	7
345	Nanoskyrmion engineering with sp -electron materials: Sn monolayer on a SiC(0001) surface. Physical Review B, 2018, 98, .	3.2	7
346	Atom-by-atom construction of attractors in a tunable finite size spin array. New Journal of Physics, 2020, 22, 023038.	2.9	7
347	Exactly solvable model of strongly correlated $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \rangle \text{d} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -wave superconductivity. Physical Review B, 2020, 101, .	3.2	7
348	Evolution in the weak-mutation limit: Stasis periods punctuated by fast transitions between saddle points on the fitness landscape. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	7
349	Quantum dot-like plasmonic modes in twisted bilayer graphene supercells. 2D Materials, 2022, 9, 014004.	4.4	7
350	Thermally induced magnetic order from glassiness in elemental neodymium. Nature Physics, 2022, 18, 905-911.	16.7	7
351	A scaling approach to the theory of magnetic Kondo lattices. Journal of Physics Condensed Matter, 1992, 4, 9661-9672.	1.8	6
352	The effect of electronic localized states at dislocations on the $\hat{a}^{\hat{c}}$ chemical $\hat{a}^{\hat{t}}$ impurity-dislocation interaction. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1996, 73, 845-860.	0.6	6
353	Many-spin model and the spin Hamiltonian of Mn ₁₂ clusters. Journal of Applied Physics, 1999, 85, 4533-4535.	2.5	6
354	Intrinsic nanoscale inhomogeneity in ordering systems due to elastic-mediated interactions. Europhysics Letters, 2007, 80, 66001.	2.0	6
355	Topological Matter: Graphene and Superfluid $\hat{\$}^{\hat{3}}\hat{\$}$ 3 He. Journal of Low Temperature Physics, 2014, 175, 655-666.	1.4	6
356	Scale without conformal invariance in membrane theory. Nuclear Physics B, 2021, 969, 115482.	2.5	6
357	Dislocation structure and mobility in the layered semiconductor InSe: a first-principles study. 2D Materials, 2021, 8, 045028.	4.4	6
358	Non-Heisenberg covalent magnetism in iron oxide clusters. Physical Review Materials, 2018, 2, .	2.4	6
359	Comment on $\hat{a}^{\hat{c}}$ Proper and improper chiral magnetic interactions $\hat{a}^{\hat{c}}$: Physical Review B, 2022, 105, .	3.2	6
360	Close packing of atoms, geometric frustrations and the formation of heterogeneous states in crystals. Journal of Physics Condensed Matter, 1997, 9, 7837-7844.	1.8	5

#	ARTICLE	IF	CITATIONS
361	Separation of conditions as a prerequisite for quantum theory. <i>Annals of Physics</i> , 2019, 403, 112-135.	2.8	5
362	Electronic contributions to spin-wave characteristics in antiferromagnetic metals. <i>Physical Review B</i> , 1996, 53, 14008-14011.	3.2	4
363	Polar magneto-optical Kerr effect for low-symmetric ferromagnets. <i>Physical Review B</i> , 2005, 72, .	3.2	4
364	Quantum Transport via Evanescent Waves in Undoped Graphene. <i>Journal of Computational and Theoretical Nanoscience</i> , 2011, 8, 912-918.	0.4	4
365	In-plane magnetic textures at the surface of topological insulators. <i>Europhysics Letters</i> , 2013, 104, 17001.	2.0	4
366	Diamagnetism of metallic nanoparticles as a result of strong spin-orbit interaction. <i>Physical Review B</i> , 2019, 100, .	3.2	4
367	Dynamically induced doublon repulsion in the Fermi-Hubbard model probed by a single-particle density of states. <i>Physical Review B</i> , 2020, 102, .	3.2	4
368	Control of magnetic interactions between surface adatoms via orbital repopulation. <i>2D Materials</i> , 2020, 7, 045007.	4.4	4
369	Interlayer hybridization in graphene quasicrystal and other bilayer graphene systems. <i>Physical Review B</i> , 2022, 105, .	3.2	4
370	On the Effect of Three-Body Interactions and Proximity of the Fermi Level to the Brillouin Zone Faces on Elastic Modules of Simple Metals. <i>Physica Status Solidi (B): Basic Research</i> , 1990, 161, 153-164.	1.5	3
371	Role of the d-f Coulomb interaction in intermediate valence and Kondo systems: a numerical renormalization group study. <i>European Physical Journal B</i> , 2007, 55, 377-382.	1.5	3
372	Antiferromagnetic order without recourse to staggered fields. <i>Physical Review B</i> , 2018, 98, .	3.2	3
373	Thermal fluctuations in crystalline membranes with long-range dipole interactions. <i>Annals of Physics</i> , 2020, 412, 168016.	2.8	3
374	Linearized spectral decimation in fractals. <i>Physical Review B</i> , 2020, 102, .	3.2	3
375	Thermal ripples in bilayer graphene. <i>Physical Review B</i> , 2020, 102, .	3.2	3
376	Nonequilibrium dual-boson approach. <i>Physical Review B</i> , 2020, 101, .	3.2	3
377	Phonon-mediated superconductivity in strongly correlated electron systems: A Luttingerâ€™Ward functional approach. <i>Annals of Physics</i> , 2020, 417, 168100.	2.8	3
378	Electronic and optical properties of crystalline nitrogen versus black phosphorus: A comparative first-principles study. <i>Physical Review B</i> , 2022, 105, .	3.2	3

#	ARTICLE	IF	CITATIONS
379	Quantum fluctuations in the vicinity of the spin flop transition in large-spin clusters. <i>Journal of Applied Physics</i> , 1999, 85, 4530-4532.	2.5	2
380	Nonperturbative anharmonic phenomena in crystal lattice dynamics. <i>AIP Conference Proceedings</i> , 2004, , .	0.4	2
381	Gating Orbital Memory with an Atomic Donor. <i>Physical Review Letters</i> , 2022, 128, 106801.	7.8	2
382	Role of correlated hopping in the many-body physics of flat-band systems: Nagaoka ferromagnetism. <i>Physical Review B</i> , 2022, 106, .	3.2	2
383	Spectrum of Oscillations of the Inhomogeneous Electronic Plasma. <i>Physica Status Solidi (B): Basic Research</i> , 1981, 104, K75.	1.5	1
384	Many-spin calculation of tunneling splittings in Mn ₁₂ magnetic molecules. <i>Journal of Applied Physics</i> , 2002, 91, 7152.	2.5	1
385	Effect of impurities on the growth and morphology of cementite nanowires. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 395001.	1.8	1
386	Racah Materials: Role of Atomic Multiplets and Intermediate Valence in f-Electron Systems. <i>MRS Advances</i> , 2016, 1, 2967-2974.	0.9	1
387	Two-dimensional dispersion of magnetostatic volume spin waves. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 255803.	1.8	1
388	No waves of intelligent design. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 19639-19640.	7.1	1
389	Electron states in a magnetic field. , 2020, , 24-62.		1
390	Perturbative renormalization and thermodynamics of quantum crystalline membranes. <i>Physical Review B</i> , 2022, 105, .	3.2	1
391	Temperature Dependences of Conductivity at Small Electron Mean Free Path. <i>Physica Status Solidi (B): Basic Research</i> , 1985, 129, 813-822.	1.5	0
392	Phase locking in a thermostat: Fermi resonance in metals. <i>Physical Review B</i> , 1995, 51, 12817-12820.	3.2	0
393	Spin-wave contributions to nuclear magnetic relaxation in magnetic metals. <i>Physical Review B</i> , 1999, 60, 14569-14572.	3.2	0
394	Reply to the Comment by O. Eriksson and J. M. Wills on "Nature of non-magnetic strongly-correlated state in δ -plutonium". <i>Europhysics Letters</i> , 2006, 76, 172-173.	2.0	0
395	Topological Defects and Shape of Aromatic Self-Assembled Vesicles. <i>Journal of Physical Chemistry B</i> , 2009, 113, 10549-10551.	2.6	0
396	Structure and magnetism of disordered carbon. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 255301.	1.8	0

#	ARTICLE	IF	CITATIONS
397	Hidden spin-orbital hexagonal ordering induced by strong correlations in LiV_2O_2 Physical Review B, 2020, 102, .		
398	The electronic structure of ideal graphene. , 2020, , 1-23.		0
399	Quantum transport via evanescent waves. , 2020, , 63-76.		0
400	The Klein paradox and chiral tunneling. , 2020, , 77-107.		0
401	Edges, nanoribbons, and quantum dots. , 2020, , 108-140.		0
402	Point defects. , 2020, , 141-167.		0
403	Optics and response functions. , 2020, , 168-192.		0
404	The Coulomb problem. , 2020, , 193-212.		0
405	Crystal lattice dynamics, structure, and thermodynamics. , 2020, , 213-256.		0
406	Gauge fields and strain engineering. , 2020, , 257-278.		0
407	Scattering mechanisms and transport properties. , 2020, , 279-325.		0
408	Spin effects and magnetism. , 2020, , 326-350.		0
409	Graphene on hexagonal boron nitride. , 2020, , 351-378.		0
410	Twisted bilayer graphene. , 2020, , 379-388.		0
411	Many-body effects in graphene. , 2020, , 389-400.		0